SCE Interface Reference

(CRAY T90[™] Series)

HDM-182-C

Cray Research/Silicon Graphics Proprietary



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Description of this Document

This document is a reference for the user interface of the System Configuration Environment (SCE) application that configures CRAY T90[™] series mainframes. This document describes the SCE interface and all available menu button commands. Figure 5 on page 71 shows all available menu button commands and indicates the pages in this document that describe the commands.

This document is one component of the SCE documentation set, which also includes the following document:

SCE User Guide, publication number HDM-069-C.

The *SCE User Guide* describes how to use SCE to configure CRAY T90 series mainframes.

Interface Components

Figure 1 shows the components of the interface contained in the SCE base window. The paragraphs that follow the figure describe the components of the interface.

Base Window Title	umber 🚽 🛛 🖵 Simu	ulator Indicator				
System Configuration Environment	(SCET90 1.5.0) - SIM [illusion]	.] (77) < Copy Number				
(File ▽) (View ▽) (Edit ▽) (Utilities ▽)	(Assume ⊽) (Assert ⊽	🕥 🛛 🕞 🖌 🖌 🗧 🕹 👘 🖌 🗧				
System Type: T94		\ _				
System Serial: 7001, 🛋)	System				
System Memory: 🔽 128M		Information Parameters				
Physical Partitions: 1 2						
Current Physical Partition:						
Sanity Port: 1/0 A		Physical				
Sparechips: Disabled	Enabled					
Logical Partitions: 1 2 3	4	Parameters				
Current Logical Partition: 0						
Memory: 128M						
Owner: OS Maintenance In Use						
Description: PPO, LPO	neprod I Locarda de Creater					
<u></u>						
	Cluster Offset: 1					
02 06 12 16 22 26 32 38	Auto BCD: Off On					
03 07 13 17 23 27 33 37						
LOSPs:	HISPs: VH	IISPs: Parameters				
100/101 120/121 140/141 160/161	400 -110 400 -130 02	20 333				
102/103 122/123 142/143 162/163	401 02	21 031				
		22 032				
	404	25 000 000 000 000 000 000 000 000 000 0				
112/113 132/133 152/153 172/173	405 415 425 435 00					
114/115 134/135 154/155 124/175	406 416 428 436 01					
116/117 136/137 158/157 176/177	407 417 427 437 01					
060/061 062/063 084/085 066/067						
New configuration. <		Status Informati				

Figure 1. Interface Components

NOTE: Parameters are not updated until you choose a command from the (Assume ∇), (Apply ∇), or (Assert ∇) menu button.

Base Window Title

The base window title displays the name of the program: System Configuration Environment.

Version Number

The version number indicates which version of SCE you are using.

Simulator Indicator

When SCE is running with the mainframe simulator (MSIM), the simulator indicator displays SIM and the name of the workstation on which MSIM is running.

Copy Number

The copy number indicates the copy of SCE that you are using. To set the copy number, start SCE with the -copy option. If you start SCE with the default copy number of 0, the SCE base window does not display a copy number. For more information about starting SCE with the -copy option, refer to the *SCE User Guide*, publication number HDM-069-C.

Menu Bar

The menu bar contains seven menu buttons: (File 7), (File 7), (Edit 7), (Utilities 7), (Assume 7), (Assert 7), and (Faster 7). For descriptions of the commands that are accessible from these menu buttons, refer to "Menu Button Commands" on page 11.

NOTE: The <u>Properties.</u> button has been removed from the interface. Choose **Edit** -> **Properties** to access the SCE T90: Properties window.

System Information Parameters

The system information parameters define general system information. Table 1 describes the system parameters.

Parameter	Description
System Type	Mainframe type (This is set by the type you choose with the File -> New command.)
System Serial	Mainframe serial number
System Memory	Total amount of memory in the mainframe
Physical Partitions	Number of physical partitions in the mainframe
	NOTE: CRAY T94 [™] and CRAY T916 [™] mainframes can have only one physical partition.

|--|

Physical Partition Parameters

The physical partition parameters define the physical partition configuration information. Table 2 describes the physical partition parameters.

Parameter	Description
Current Physical Partition	Physical partition that you are currently configuring
Sanity Port	Maintenance port that SCE uses to access the sanity tree This setting is used for CRAY T932 [™] mainframes, which have two maintenance ports.
Sparechips	Specifies whether spare chips will be used for the current physical partition
Logical Partitions	Number of logical partitions that you want to configure in the current physical partition NOTE: Changing the number of logical partitions resets all current
	logical partition parameter settings. Make sure you select

Table 2.	Physical	Partition	Parameter	Descriptions
				1

NOTE: The parameters that you use to configure the CRAY T90 series support multiplexer (TSM) channels have moved from the base window to the SCE T90: Miscellaneous Configuration window. You can access this window with the View -> Miscellaneous command. Refer to "View -> Miscellaneous" on page 56 for more information.

logical partition parameter settings.

the proper number of logical partitions before you enter any

Logical Partition Parameters

The logical partition parameters define the logical partition configuration information. Table 3 describes the logical partition parameters.

Parameter	Description		
Current Logical Partition	Logical partition you are currently configuring		
Memory	Amount of memory allocated to the current logical partition: SCE automatically sets this value based on the total memory, the number of logical partitions, and any memory degrades that have been indicated.		
	This value adjusts immediately when you change the number of physical or logical partitions.		
Owner	Owner of the partition:		
	An operating system (OS) owner indicates that the logical partition is running an OS.		
	A maintenance system (MS) owner indicates that you will perform maintenance activities in the logical partition. No OS-based user activity can use this logical partition.		
	NOTE: Ensure that the Owner setting is set to OS whenever the operating system is running in the mainframe. If you run the operating system in a partition that is owned by the maintenance system, the OS will crash if you start MME. (MME cannot be started in a partition that is owned by the OS.)		
Maintenance	Type of maintenance allowed for an OS-owned partition:		
	Use these settings to enable online and concurrent maintenance for the partition.		
Description	Description of the current logical partition:		
	Use this field to describe the current logical partition.		
CPUs	CPUs configured for the current logical partition:		
	Click on a CPU to select or deselect it. If you select a CPU that is already configured in a different logical partition, SCE removes the CPU from that logical partition and configures it into the current logical partition.		

	Table 3.	Logical	Partition	Parameter	Descriptions
--	----------	---------	-----------	-----------	--------------

Parameter	Description
Cluster Offset	First physical cluster contained in the current logical partition:
	This is logical cluster 1 for the current logical partition. This cluster appears as cluster 1 to the CPU.
Cluster Range	Number of shared clusters in the current logical partition:
	SCE uses this value and the cluster offset value to determine the range of clusters that the current logical partition contains.
	For example, if the cluster offset is 2 and the cluster range is 3, the current logical partition contains physical clusters 2, 3, and 4, which correspond to logical clusters 1, 2, and 3 for the current logical cluster. Numbering starts with logical cluster 1 because all logical partitions contain a logical cluster 0.
	If only one logical partition exists in the current physical partition, SCE sets this parameter to 22_8 and the Cluster Offset parameter to 1.
	If more than one logical partition exists in the current physical partition, SCE automatically sets this value to the number of CPUs in the logical partition plus 1.
	NOTE: Clusters should not overlap logical partitions.
Auto BCD	Enables or disables the automatic broadcast cluster detach (auto BCD) function for CPUs in the current logical partition:
	If auto BCD is enabled (on), a CPU automatically detaches from a cluster when an exchange sequence occurs, which emulates normal CRAY C90 series mainframe operation mode.
	If auto BCD is disabled (off), an explicit function must execute to detach a CPU from its current cluster, which enables a CPU to attach to several clusters simultaneously.
LOSPs	LOSP channel pairs configured for the current logical partition:
	Click on a LOSP channel pair to select or deselect it. If you select a LOSP channel pair that is already configured in a different logical partition, SCE removes the LOSP channel pair from that logical partition and configures it into the current logical partition.
	NOTE: All LOSP settings appear gray if you do not select any IO01 modules in the SCE T90: I/O Configuration window (for example, if you select the GigaRing [™] setting for all IO modules in the system).

Table 3. Logical Partition Parameter Descriptions (continued)

Parameter	Description
HISPs	HISP channels configured for the current logical partition:
	Click on a HISP channel to select or deselect it. If you select a HISP channel that is already configured in a different logical partition, SCE removes the HISP channel from that logical partition and configures it into the current logical partition.
	NOTE: All HISP settings appear gray if you do not select any IO01 modules in the SCE T90: I/O Configuration window (for example, if you select the GigaRing setting for all IO modules in the system).
VHISPs	VHISP channels configured for the current logical partition:
	Click on a VHISP channel to select or deselect it. If you select a VHISP channel that is already configured in a different logical partition, SCE removes the VHISP channel from that logical partition and configures it into the current logical partition.
	NOTE: All VHISP settings appear gray if you do not select any IO01 modules in the SCE T90: I/O Configuration window (for example, if you select the GigaRing setting for all IO modules in the system).

Table 3. Logical Partition Parameter Descriptions (continued)

Status Information

The status information indicates the current status of a configuration.

Menu Button Commands

The menu buttons contain commands that manipulate SCE. This subsection describes the function of each command and how to use it. Figure 5 on page 71 shows all available menu button commands.

File -> Load



The File -> Load command, as shown at the left, enables you to load a previously saved configuration file. This command displays the SCE T90: Load/Save (*directory*) window:

© SCE T90: Load/Save (/cri/cme/t32)	
Load Dir: usr/cfg/*	_
Load Files:	
SCET90.104.LAST SCET90.1111.LAST SCET90.7001.LAST SCET90.7002.LAST SCET90.7003.LAST SCET90.7004.LAST SCET90.7007.LAST	
SCE190.7007.55h	
SCET90.7025.LAST	l
File: () 32/usr/cfg/SCET90.7025.LAST Modified: Wed Apr 2 11:53:01 1997 Load	
Save Dir: usr/cfg Save File:	_
Save	_

Perform the following procedure to manipulate this window:

1. Change the directory in the Load Dir field, if necessary, and press the Return key.

SCE appends the directory in the Load Dir field to the directory shown in parentheses (/cri/cme/t32 in the example window shown) to determine the actual directory that SCE uses to load a file.

2. In the Load Files scroll box, click on the configuration file that you want to load.

The File field displays the complete pathname for the file. The Modified field displays the date on which the configuration file was last modified.

- 3. Click on <u>Load</u>... SCE loads the specified file.
 - **NOTE:** You can also load a file by double-clicking on the file in the Load Files scroll box.

File -> Save



The File -> Save command, as shown at the left, enables you to save the current configuration parameters in a file. This command displays the SCE T90: Load/Save (*directory*) window:

SCE T90: Load/Save (/cri/cme/t32)
Load Dir: usr/cfg/*
Load Files:
SCET90.104.LAST
SCET90.1111.LAST
SCET90.7001.LAST
SCET90.7002.LAST
SCET90.7003.LAST
SCET90.7004.LAST
SCET90.7007.LAST
SCET90.7007.ssh
SCET90.7020.LAST
SCET90.7025.LAST
File: () 32/usr/cfg/SCET90.7025.LAST Modified: Wed Apr 2 11:53:01 1997 Load
Save Dir: usr/cfg Save File: Save

Perform the following procedure to manipulate this window:

 To change the directory on the maintenance workstation (MWS) or system workstation (SWS) where the configuration file is saved, specify a different directory in the Save Dir field, and press the Return key.

SCE appends the directory in the Save Dir field to the directory shown in parentheses (/cri/cme/t32 in the example window shown) to determine the actual directory that SCE uses to save a file.

- 2. In the Save File field, enter the name of the file you want to save, and press the Return key.
- 3. Click on <u>Save...</u> or press the Return key; SCE saves the specified configuration file.

File -> Delete



The File -> Delete command, as shown at the left, enables you to delete files that you no longer need. This command displays the SCE T90: Delete window:

SCE T90: Delete
Directory: usr/cfg/*
Files:
FASTT.101.LAST
FASTT.102.LAST
FASTT.103.LAST
FASTT.7001.LAST
FASTT.7003.LAST
FASTT.7004.LAST
SCET90.102.LAST
SCET90.7001.LAST
SCET90.7004.LAST
t4.7001
t4.7001.honda.memory
t4.7001.local
t4.7001.stco
t4.7004
26 files found

NOTE: On an MWS, you can delete files that are located in the /cri/cme/t32/usr/ directory structure only. On an SWS, you can delete files that are located in the /opt/CYRIdiag/t32/usr/ directory structure only.

Perform the following procedure to manipulate this window:

- 1. Change the directory in the Directory field, if necessary, and press the Return key.
- 2. Click on the file(s) that you want to delete.
- 3. Click on **Colore**; SCE deletes the file(s).

File -> New -> Tester



The File -> New -> Tester command, as shown at the left, creates a default set of parameters to configure a CP module tester.

File -> New -> T94



The File -> New -> T94 command, as shown at the left, creates a default set of parameters to configure a CRAY T94 mainframe.

File -> New -> T916



The File -> New -> T916 command, as shown at the left, creates a default set of parameters to configure a CRAY T916 mainframe.

File --> New --> T932



The File -> New-> T932 command, as shown at the left, creates a default set of parameters to configure a CRAY T932 mainframe.

File -> Print



The File -> Print command, as shown at the left, enables you to print the current configuration data to the printer or to a file. This command displays the SCE T90: Print window:

Ø s	CE T90: Print
Destination:	File Printer
Command:	<u>In</u>
Directory: File:	<u>trnp</u>
(Print

How to Print the Configuration Data to a File

- 1. Click on Destination:
- 2. In the Directory field, change the name of the directory to which SCE should print the file, if necessary. Press the Return key.
- 3. In the File field, enter the name of the file to which SCE should print the configuration data. Press the Return key.
- 4. Click on Print).

How to Print the Configuration Data to the Printer

- 1. Click on Destination: Prime.
- 2. In the Command field, change the UNIX® command to print the file, if necessary.
- 3. Click on Print).

View -> Memory



The View -> Memory command, as shown at the left, enables you to configure the parameters for the memory modules. This command displays the SCE T90: Memory Configuration window.

You can configure three different memory characteristics with this window: module types, memory degradations, and memory partitions. The Configure settings specify which characteristic the window will display. The following subsections describe the parameters that you use to configure these three memory characteristics.

Module Type Parameters

Click on Configure: Module to access the module configuration parameters. The window changes as shown in the following snap:

ິຍ s	CE T9	0: Me	emor	y Co	nfigu	ırati	on			
Configure:	Mod	lules	Deg	rade:	s Pa	artiti	ons			
Physical Partition: 0 1										
Memory Type:	СМО:	2 – H	omog	eneo	us					
Memory:	00	01	02	03	04	05	06	07		
	10	11	12	13	14	15	16	17		
	20	21	22	23	24	25	26	27		
	30	31	32	33	34	35	36	37	All	
	.	l.t	1.0		11					
Memory State:	Wor	KING	Bro	ken	Una	allat	Die			
Location:	C2									
Type:	СМ	02	СМОЗ) CI	M04					
Γ									_	

Table 4 describes the memory module type parameters.

Parameter	Description					
Configure	Specifies which memory characteristic you want to configure (module types, memory degradations, or memory partitions)					
Physical Partition	Specifies the physical partition for which you want to modify the memory module type parameters					
Memory Type	Specifies the type of memory modules that are in the mainframe. This parameter can have the following values:					
	Value:	Description:				
	CM02 – Homogeneous	The mainframe contains only CM02 modules.				
	CM03 – Homogeneous	The mainframe contains only CM03 modules.				
	CM04 Homogeneous	The mainframe contains only CM04 modules.				
	CM02/CM03 Mix	The mainframe contains CM02 and CM03 modules. (This value appears when you choose CM02 for some modules and CM03 for other modules.)				
	CM02/CM04 Mix	The mainframe contains CM02 and CM04 modules. (This value appears when you choose CM02 for some modules and CM04 for other modules.)				
	CM03/CM04 Mix	The mainframe contains CM02 and CM03 modules. (This value appears when you choose CM02 for some modules and CM03 for other modules.)				
	Unsupported/Unknown	The configuration that you are trying to create is not supported. (For example, if you try to create a configuration that contains CM02, CM03, and CM04, SCE displays the Unsupported/Unknown message.)				

Table 4.	Memory	Module	Type	Parameters
----------	--------	--------	------	------------

Parameter	Description
Memory	Specifies the memory module for which you want to modify the configuration information (the Memory State and Type parameters).
	Settings 00, 01, 02, and 03 are valid for CRAY T94 mainframes.
	Settings 00, 01, 02, 03, 04, 05, 06, 07, 10, 11, 12, 13,14 15, 16, and 17 are valid for CRAY T916 mainframes.
	Settings 00, 01, 02, 03, 04, 05, 06, 07, 10, 11, 12, 13,14 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 35, 36, and 37 are valid for CRAY T932 mainframes.
	Use the All setting to specify that the modules are all one Type (either CM02, CM03, or CM04).
Memory State	Specifies the current state of the selected memory module:
	Working: Indicates that the module is installed in the mainframe and is operating correctly.
	Broken: Indicates that is installed in the mainframe, but the module is not operating correctly.
	Unavailable: Indicates that the selected module is not installed in the mainframe.
Location	Indicates the slot location of the selected memory module.
Туре	Specifies the type of the selected memory module: CM02, CM03, or CM04.

Table 4. Memory Module Type Parameters (continued)

Memory Degradation Parameters

Click on Configure: to access the memory degradation parameters. The window changes as shown in the following snap:

Q	SCET90 Memory	
	Configure: Modules Degrades Partitions	
Physic	cal Partition: 0	
M	emory Type: CM02 - Homogeneous	
De	grade Mode: Default Custom	
	Sections: All 1/2	
	07	
ę	Subsections: All 1/2 1/4 1/8	
	0	
	2	
	3	
	5	
	6	
	7	
	Banks: All 1/2 1/4 1/8	
	07	

The memory degradation parameters enable you to perform memory degradation; for more information about memory degradation, refer to the *SCE User Guide*, publication number HDM-069-C.

Two versions of this window are available. If you click on Degrade Mode: [Lefault], this window displays the default memory degradation parameters:



The default memory degradation parameters present memory degradations as fractional components of the complete memory system. You can degrade sections to use half of the available sections. You can degrade subsections to use a half, a quarter, or an eighth of the available subsections. You can degrade banks to use a half, a quarter, an eighth, or a sixteenth (CRAY T94 mainframes with CM03 modules and CRAY T932 mainframes with CM03 modules only) of the available banks.

For examples of how to use default mode to perform memory degradation, refer to the *SCE User Guide*, publication number HDM-069-C.

If you click on Degrade Mode: Curtom, this window displays the custom memory degradation parameters:

۲ ۵	မှာ SCET90 Memory							
Configure:	Мо	dules	De	arade	es Pa	artitions		
Physical Partition:	0							
Memory Type:	Memory Type: CM02 - Homogeneous							
Degrade Mode:	Def	ault	Cus	tom] (3	5how Map)		
Sections:	⊽							
		2^3	2^2	2^1	2^0			
			-			010		
Subsections:	▣							
	-	242	242	241	240			
Section 0:	▣	2/13	0	0	0	n		
Section 1:	D		ŏ	ŏ	ŏ	0		
Section 2:	R		0	0	0	0		
Section 3:			0	0	0	0		
Section 4:	◙		0	0	0	0		
Section 5:	⊽		0	0	0	0		
Section 6:	∇		0	0	0	0		
Section 7:	\bigtriangledown		0	0	0	0		
Banks:	⊽							
		2^3	2^2	2^1	2^0			
Section 0:	∇	0	-	-	-	0,1,2,3,4,5,6,7		
Section 1:	$\overline{\nabla}$	0	-	-	-	0,1,2,3,4,5,6,7		
Section 2:	\bigtriangledown	0	-	-	-	0,1,2,3,4,5,6,7		
Section 3:	\bigtriangledown	0	-	-	-	0,1,2,3,4,5,6,7		
Section 4:	\bigtriangledown	0	-	-	-	0,1,2,3,4,5,6,7		
Section 5:	∇	0	-	-	-	0,1,2,3,4,5,6,7		
Section 6:	▽	0	-	-	-	0,1,2,3,4,5,6,7		
Section 7:	\Box	0	-	-	-	0,1,2,3,4,5,6,7		
L								

The custom memory degradation parameters enable you to perform memory degradations at the section level. You can change the parameters by choosing values from the abbreviated menu buttons or by clicking on the bits shown in the window.

For examples of how to use custom mode to perform memory degradation, refer to the *SCE User Guide*, publication number HDM-069-C.

Table 5 describes the memory configuration parameters that are available in both versions of the window. Table 6 describes the parameters that are available only in default mode. Table 7 describes the parameters that are available only in custom mode.

Parameter	Description			
Configure	Specifies which memory characteristic you want to configure (module types, memory degradations, or memory partitions)			
Physical Partition	Specifies the physical partiti degradation parameters	on for which you want to modify the memory		
Memory Type	Indicates the type of memor	y modules that are in the mainframe		
	This read-only parameter di	splays the following messages:		
	Value:	Description:		
	CM02 – Homogeneous	The mainframe contains only CM02 modules.		
	CM03 – Homogeneous	The mainframe contains only CM03 modules.		
	CM04 Homogeneous	The mainframe contains only CM04 modules.		
	CM02/CM03 Mix	The mainframe contains CM02 and CM03 modules. (This value appears when you choose CM02 for some modules and CM03 for other modules.)		
	CM02/CM04 Mix	The mainframe contains CM02 and CM04 modules. (This value appears when you choose CM02 for some modules and CM04 for other modules.)		
	CM03/CM04 Mix	The mainframe contains CM02 and CM03 modules. (This value appears when you choose CM02 for some modules and CM03 for other modules.)		
	Unsupported/Unknown	The configuration that you are trying to create is not supported. (For example, if you try to create a configuration that contains CM02, CM03, and CM04, SCE displays the Unsupported/Unknown message.)		
Degrade Mode	Specifies that you want to perform memory degradation in default mode or custom mode			

Table 5. General Memory Degradation Parameter	ers
---	-----

Parameter	Description				
Sections	Degrades memory by sections:				
	You can select to use All or $1/2$ of the sections. If you use $1/2$ of the sections, you can choose 0, 1, 2, 3 or 4, 5, 6, 7.				
Subsections	Degrades memory by subsections:				
	You can select to use all of the available subsections, one-half of the available subsections, one-quarter of the available subsections, or one-eighth of the available subsections.				
	If you click on All, the memory configuration includes subsections 0 through 7.				
	If you click on 1/2, you can select one of the following combinations:				
	0, 2, 4, 6 0, 1, 4, 5 0, 1, 2, 3 1, 3, 5, 7 2, 3, 6, 7 4, 5, 6, 7				
	If you click on 1/4, you can select one of the following combinations:				
	0, 4 0, 2 0, 1 1, 5 1, 3 2, 3 2, 6 4, 6 4, 5 3, 7 5, 7 6, 7				
	If you click on 1/8, you can select any one subsection: 0, 1, 2, 3, 4, 5, 6, or 7.				
Banks	Degrades memory by banks: You can select to use all of the available banks, one-half of the available banks, one-quarter of the available banks, one-eighth of the available banks, or one-sixteenth of the available banks (for CM03 and CM04 modules only).				
	For CM02 Modules:				
	If you click on All, the memory configuration includes banks 0 through 7.				
	If you click on 1/2, you can select one of the following combinations:				
	0, 1, 2, 3 0, 1, 4, 5 0, 2, 4, 6 4, 5, 6, 7 2, 3, 6, 7 1, 3, 5, 7				
	If you click on 1/4, you can select one of the following combinations:				
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$				
	If you click on 1/8, you can select any one bank: 0, 1, 2, 3, 4, 5, 6, or 7.				

Table 6. Default Mode Memory Degradation Parameters

Parameter		C	Description	
Banks	For CM03 and CM04 modules:			
(continued)	If you click on All, the memory configuration includes banks 0 through 16.			
	If you click on 1/2, y	you can select o	ne of the following combinations:	
	0, 1, 2, 3, 4, 5, 6, 7 10, 11, 12, 13, 14, 15, 16, 17 0, 1, 2, 3, 10, 11, 12, 13 4, 5, 6, 7, 14, 15, 16, 17 0, 1, 4, 5, 10, 11, 14, 15 2, 3, 6, 7, 12, 13, 16, 17 0, 2, 4, 6, 10, 12, 14, 16 1, 3, 5, 7, 11, 13, 15, 17			
	If you click on 1/4, y	you can select or	ne of the following combinations:	
	0, 1, 2, 3 4, 5, 6, 7 10, 11, 12, 13 14, 15, 16, 17 0, 1, 4, 5 2, 3, 6, 7 10, 11, 14, 15 12, 13, 16, 17	0, 2, 4, 6 1, 3, 5, 7 10, 12, 14, 16 11, 13, 15, 17 0, 1,10, 11 2, 3, 12, 13 4, 5, 14, 15 6, 7, 16, 17	0, 2, 10, 12 1, 3, 11, 13 4, 6, 14, 16 5, 7, 15, 17 0, 4, 10, 14 1, 5, 11, 15 2, 6, 12, 16 3, 7, 13, 17	
	If you click on 1/8, you can select one of the following combinations:			
	0, 1 0, 2 2, 3 1, 3 4, 5 4, 6 6, 7 5, 7 10, 11 10, 12 12, 13 11, 13 14, 15 14, 16 16, 17 15, 17	0, 4 1, 5 2, 6 3, 7 10, 14 11, 15 12, 16 13, 17	0, 10 1, 11 2, 12 3, 13 4, 14 5, 15 6, 16 7, 17	
	If you click on 1/16, 12, 13 ,14, 15, 16, 0	, you can select a or 17.	any one bank: 0, 1, 2, 3, 4, 5, 6, 7, 10, 11,	

Table 6.	Default Mode N	Memory D	egradation	Parameters ((continued))
14010 0.	Definant model	ionor j	ograduiton	i urumeters ((commaca)	1

Parameter	Description
Show Map	This button displays a graphical representation of the current memory utilization. Figure 2 on page 27 shows an example.
Sections	Specifies the memory sections to use:
	Choose the memory sections that you want to use from the Sections abbreviated menu button.
	You can also change the selected sections by clicking on the bits that are shown. Figure 3 on page 28 shows how these bit settings correspond to the section bits in the address bits.
	These bits set the section profile and select bits. Each bit in this window can have one of three values [a dash (–), a 0, or a 1]:
	The dash (–) sets the profile bit to 0 and the select bit to 0. The 0 sets the profile bit to 1 and the select bit to 0. The 1 sets the profile bit to 1 and the select bit to 1.
Subsections	Specifies the memory subsections to use:
	Choose the memory subsections that you want to use from the Subsections abbreviated menu button.
	In custom mode, you can set the subsections that you want to use for each section (for example, you could have one section use only subsections 0 through 3 and another section use only subsections 4 through 7. To do this, you choose the appropriate value from the abbreviated menu button next to the section that you want to change.
	You can also change the selected subsections by clicking on the bits that are shown next to the abbreviated menu buttons. Figure 3 on page 28 shows how these bit settings correspond to the subsection bits in the address bits.
	These bits set the subsection profile and select bits. Each bit in this window can have one of three values [a dash (–), a 0, or a 1]:
	The dash (–) sets the profile bit to 0 and the select bit to 0. The 0 sets the profile bit to 1 and the select bit to 0. The 1 sets the profile bit to 1 and the select bit to 1.

Table 7. Custom Mode Memory Degradation Parameters

Parameter	Description
Parameter Banks	Description Specifies the memory banks to use: Choose the memory subsections that you want to use from the Banks abbreviated menu button. In custom mode, you can set the banks that you want to use for each section (for example, you could have one section use only banks 0 through 3 and another section use only banks 4 through 7. To do this, you choose the appropriate value from the abbreviated menu button next to the section that you want to change.
	You can also change the selected banks by clicking on the bits that are shown next to the abbreviated menu buttons. Figure 3 on page 28 shows how these bit settings correspond to the bank bits in the address bits. These bits set the bank profile and select bits. Each bit in this window can have one of three values [a dash (–), a 0, or a 1]: The dash (–) sets the profile bit to 0 and the select bit to 0. The 0 sets the profile bit to 1 and the select bit to 0. The 1 sets the profile bit to 1 and the select bit to 1.

Table 7. Custom Mode Memory Degradation Parameters (continued)

r Q		SCET90 Memory	/ Utilization	2
	Subsection O	Subsection 1	Subsection 2	Subsection 3
Bank	0000000011111111 0123456701234567	0000000011111111 0123456701234567	0000000011111111 0123456701234567	0000000011111111 0123456701234567
Section O Section 1 Section 2 Section 3 Section 4				
Section 5 Section 6 Section 7				
Bank	0000000011111111 0123456701234567	0000000011111111 0123456701234567	0000000011111111 0123456701234567	0000000011111111 0123456701234567
Section 0 Section 1 Section 2				
Section 3				
Section 4				
Section 6 Section 7				
``				r

Figure 2. Memory Utilization Map



Figure 3. Correlation of Bit Settings to Address Bits

Memory Partition Parameters

Click on Configure: Patilions to access the memory partition parameters. The window changes as shown in the following snap:

ິ S S	CE T90: M	emory Con	figu	ratio	n [\]
Configure:	Modules	Degrades	Pa	rtitior	ıs
Physical Partition:	0 1				
Memory Type:	: СМ02 — Н	lomogeneou	IS		
Memory Group	:				
Logical Partit	ion (): 🗔	Nono	2^1	2^0	X:A.V.A
Logical Partit	1011 U. 💟	None			NUNC
Logical Partit	ion 2: 🖓	None			Nano
Logical Partit	ian 3: (히	None			None
	· · · · · · · · · · · · · · · · · · ·				
L					
<u>الر</u>					لم

This window enables you to change the memory groups that SCE assigns to the logical partition in the configuration.

Table 8 describes the memory partition parameters.

Parameter	Description				
Configure	Specifies which memory char memory degradations, or m	Specifies which memory characteristic you want to configure (module types, memory degradations, or memory partitions)			
Physical Partition	Specifies the physical partiti partition parameters	ion for which you want to modify the memory			
Memory Type	Indicates the type of memor	y modules that are in the mainframe			
	This read-only parameter d	isplays the following messages:			
	Value:	Description:			
	CM02 – Homogeneous	The mainframe contains only CM02 modules.			
	CM03 – Homogeneous	The mainframe contains only CM03 modules.			
	CM04 Homogeneous	The mainframe contains only CM04 modules.			
	CM02/CM03 Mix	The mainframe contains CM02 and CM03 modules. (This value appears when you choose CM02 for some modules and CM03 for other modules.)			
	CM02/CM04 Mix	The mainframe contains CM02 and CM04 modules. (This value appears when you choose CM02 for some modules and CM04 for other modules.)			
	CM03/CM04 Mix	The mainframe contains CM02 and CM03 modules. (This value appears when you choose CM02 for some modules and CM03 for other modules.)			
	Unsupported/Unknown	The configuration that you are trying to create is not supported. (For example, if you try to create a configuration that contains CM02, CM03, and CM04, SCE displays the Unsupported/Unknown message.)			

Table 8. Memory Partition Parameters

Parameter	Description				
	Memory Group Parameters:				
Logical Partition 0	Specifies the memory group for logical partition 0 (SCE defaults this to 0)				
	You can set this parameter to None, 0, 1, 2, 3, or Custom.				
	The Custom setting enables you to specify the values of the group profile and select bits. To change the values, click on the bit values under the 2^1 and 2^0 headings. Each bit can have one of three values [a dash (–), a 0, or a 1]:				
	The dash (–) sets the group profile bit to 0 and the group select bit to 0.				
	The 0 sets the group profile bit to 1 and the group select bit to 0.				
	The 1 sets the group profile bit to 1 and the group select bit to 1.				
Logical Partition 1	Specifies the memory group for logical partition 1 (SCE defaults this to 1)				
	You can set this parameter to None, 0, 1, 2, 3, or Custom.				
	The Custom setting enables you to specify the values of the group profile and select bits. To change the values, click on the bit values under the 2^1 and 2^0 headings. Each bit can have one of three values [a dash (–), a 0, or a 1]:				
	The dash (–) sets the group profile bit to 0 and the group select bit to 0.				
	The 0 sets the group profile bit to 1 and the group select bit to 0.				
	The 1 sets the group profile bit to 1 and the group select bit to 1.				

Table 8. Memory Partition Parameters (continued)

Parameter	Description
Logical Partition 2	Specifies the memory group for logical partition 2 (SCE defaults this to 2)
	You can set this parameter to None, 0, 1, 2, 3, or Custom.
	The Custom setting enables you to specify the values of the group profile and select bits. To change the values, click on the bit values under the 2^1 and 2^0 headings. Each bit can have one of three values [a dash (–), a 0, or a 1]:
	The dash (–) sets the group profile bit to 0 and the group select bit to 0.
	The 0 sets the group profile bit to 1 and the group select bit to 0.
	The 1 sets the group profile bit to 1 and the group select bit to 1.
Logical Partition 3	Specifies the memory group for logical partition 3 (SCE defaults this to 3)
	You can set this parameter to None, 0, 1, 2, 3, or Custom.
	The Custom setting enables you to specify the values of the group profile and select bits. To change the values, click on the bit values under the 2^1 and 2^0 headings. Each bit can have one of three values [a dash (–), a 0, or a 1]:
	The dash (–) sets the group profile bit to 0 and the group select bit to 0.
	The 0 sets the group profile bit to 1 and the group select bit to 0.
	The 1 sets the group profile bit to 1 and the group select bit to 1.

Table 8. Memory Partition Parameters (continued)

View -> CPUs

View 🗸	
Memory	
CPUs	
Shareds	
I/Os	
Networks	
Channels	
Miscellaneous	
Spare Chip	
Log	
-	#

The View -> CPUs command, as shown at the left, enables you to configure the parameters for the CP modules. This command displays the SCE T90: CPU Configuration window:

Q	s	CE T	90: C	PU C	onfig	jurat	ion			
	CPU:	00	01	02	03	04	05	06	07	
		10	11	12	13	14	15	16	17	
		20	21	22	23	24	25	26	27	
		30	31	32	33	34	35	36	37	All
	CPU State:	Wor	king	Bro	ken	Unav	/ailat	le		
	Route Code:	00/0	0/00.	/00/2	20/20)/24/	30			
	Location:	BЗ								
]						
	CPU Type:	CRA		EE						
N N	Aajor Revision:	<u>2</u> [
	linor Kevision:	4_(•							
	Assigned:	No								
Phy	sical Partition:	0								
£.0	gical Partition:	0								
Phy	sical Number:	2_(▲▼							
L	ogical Number:	2_[▲▼							
	CPU Inverted:	Off	On	7						
	area CBU 255V:	Off	100	7						
[011		╡						
1	Force 170 256K:	Uff	Un							
	Shared Access:	Off	On	1						
	Originate I/O:	Off	On	1						
Pas	s Through I/O:	Off	On	ī						
		L		-						

Table 9 describes the available CPU parameters.

 Table 9.
 CPU Parameters

Parameter	Description
CPU	Specifies the CPU for which you want to modify parameters
CPU State	Specifies whether the CP module is working, broken, or unavailable: Working: Indicates that the CP module is physically present and in working condition (The CP module can perform processing and can control I/O functions.)

Parameter	Description
CPU State (continued)	Broken: Indicates that the CP module is physically present but not in working condition (This setting specifies that the module cannot be used as a processor because a functional unit is broken, but it can control I/O functions.)
	NOTE: Do not use the Broken setting if the CP module has memory/path problems. Use the Unavailable setting in this situation because the CP module cannot control I/O functions.
	Unavailable: Indicates that the CP module is not logically present (no processing or I/O functions are available.): either the CP module is not physically in the mainframe, or the CP module is so badly broken that it cannot control I/O functions.
Route Code	Displays the route code to access the selected CP module
Location	Displays the physical location of the CP module (stack and slot)
CPU Type	Specifies whether the CP module uses Cray Research, Inc. (CRAY) or IEEE floating-point number format:
	The CRI setting sets Major Revision to 2 and Minor Revision to 4. The IEEE setting sets Major Revision to 1 and Minor Revision to 0.
Major Revision	Specifies the major revision level of the CP module
Minor Revision	Specifies the minor revision level of the CP module
Assigned	Indicates whether or not the CPU is assigned to a physical and logical partition
Physical Number	Displays the physical number in the mainframe of the CP module:
	Do not change this number.
Logical Number	Specifies the logical number of the CP module:
	Do not change this number unless you use caution and have a thorough understanding of CRAY T90 series mainframe configuration.
CPU Inverted	Indicates the orientation of the CP module:
	Off: Indicates that the CP module is not inverted
	On: Indicates that the CP module is inverted
	When this parameter is set to On, SCE complements the section address before the address gets to the CI options.
	Only CRAY T916 and CRAY T932 mainframes can have inverted CP modules (in stacks F and N).
Force CPU 256K	Forces the CPU to access only the upper 256 Kwords of memory (used for concurrent maintenance mode) when set to On

Table 9. CPU Parameters (continued)
Parameter	Description
Force I/O 256K	Forces all I/O activity through this CPU to access only the upper 256 Kwords of memory (used for concurrent maintenance mode) when set to On
	NOTE: This setting also affects direct memory access (DMA) transfers made with the maintenance channel through this CPU.
Shared Access	Enables the CPU to access the shared module, which provides access to the clusters and semaphores
Originate I/O	Enables the CPU to initiate I/O activity
Pass Through I/O	Enables I/O transfers to pass through this CPU when another CPU requests data from this CPU's channels
	NOTE: Not all CPUs have channel access.

Table 9. CPU Parameters (continued)

View -> Shareds



The View -> Shareds command, as shown at the left, enables you to configure the parameters for the shared modules. This command displays the SCE T90: Shared Configuration window:

ø				SCE T	90: SI	hared	l Cor	nfigu	ratio	n			
			:	Shared:	00	01	AI	Ι					
		s	hare	d State:	Wor	king	Brok	ken	Unav	ailab	le		
			Rout	e Code:	00/00	0/00,	/00/0	0/00	/20/3	30			
			Lo	cation:	C1								
		Maj	or Re	vision:	1								
		Min	or Re	vision:	≗≜								
			Р	osition:	Defa	ult		Defa	ult (A	(It)			
					1st	Positi	on	2nd	Posit	ion			
			Sanit	ty Path:	0 (C	PU O)) 1	(CPL	J 01)	(Fr	om R	loot I,	′o
					2 (C	PU 03	2) 3) (CPL	J 03)	to	First	Share	ed)
		Rei	mote	Sanity:	Prim	nary	Seco	ondar	У				
Por	t:												
0	1	2	3				Logi	ical (CPU:	0			
4	5	6	7			С	luste	er Gro	up:	0			
10	11	12	13	Cluster Offset: 1									
14	15	16	17		Cluster Kange: U								
20	21	22	23				A	uto B	CD:	Off	On		
24	20	26	27				N.	0 Gra	up:	0			
34	35	36	37		٦	Гime	out -	- Sou tinat	rce:	0537 01	77	-	
	1-2	1		l			Des	critat	1011.	01			
					1								1
			Clust	ter: 01	02	03	04	05	06	07	10	11	
	12				13	14	15	16	1/	20	21	22	
	Cluster State: Working Broken												

Table 10 describes the available shared module configuration parameters.

Parameter	Description
Shared	Specifies the shared module for which you want to modify parameters
Shared State	Specifies whether the shared module is working, broken, or unavailable:
	Working: Indicates that the shared module is physically present and in working condition
	Broken: Indicates that the shared module is physically present but not in working condition
	Unavailable: Indicates that the shared module is not logically present
Route Code	Displays the route code to access the selected shared module
Location	Displays the physical location of the shared module
Major Revision	Specifies the major revision level of the shared module
Minor Revision	Specifies the minor revision level of the shared module
Position	Specifies the physical location of the shared module in the mainframe (determines with which IO module the shared module communicates)
Sanity Path	Specifies the path (CP module) through which to route the sanity code from the IO module to the first shared module
Remote Sanity	Specifies the sanity path (primary or secondary [CRAY T932 systems only])
Port	Specifies the port for which you want to modify parameters. (Refer to Table 11, Table 12, and Table 13 to find out which shared module ports reference which CPUs.) You can set the following parameters for each port:
	Logical CPU: Specifies the logical CPU number of the CP module. Do not change this unless you use caution and have a thorough understanding of CRAY T90 series mainframe configuration.
	Cluster Group: Specifies which cluster group the CPU is in
	Cluster Offset: Specifies the first physical cluster accessed by this port's associated CPU
	Cluster Range: Specifies the number of clusters accessed by this port's associated CPU (For more information, refer to page 9.)

Table 10. Shared Module Parameters

Parameter	Description
Port (continued)	Auto BCD: Enables or disables the automatic broadcast cluster detach option (For more information, refer to page 9.)
	I/O Group: Specifies which I/O group the CPU is in
	Timeout – Source: Specifies the source timer value for 033 instructions
	Destination: Specifies the destination timer value for 033 instructions
Cluster	Specifies the cluster for which you want to modify parameters
Cluster State	Specifies whether the cluster is working or broken

Table 10. Shared Module Parameters (continued)

Table 11. CRAY T94 Shared Module Ports and CPUs

Port	CPU
2	0
3	1
4	2
5	3

Shared Module	Port	CPU
0	0	0
0	1	1
0	2	2
0	3	3
0	4	4
0	5	5
0	6	6
0	7	7
0	10	10
0	11	11
0	12	12
0	13	13
0	14	14
0	15	15
0	16	16
0	17	17

Table 12. CRAY T916 Shared Module Ports and CPUs

Shared Module	Port	CPU
0	0	0
0	1	1
0	2	2
0	3	3
0	4	4
0	5	5
0	6	6
0	7	7
0	10	10
0	11	11
0	12	12
0	13	13
0	14	14
0	15	15
0	16	16
0	17	17
1	0	20
1	1	21
1	2	22
1	3	23
1	4	24
1	5	25
1	6	26
1	7	27
1	10	30
1	11	31
1	12	32
1	13	33
1	14	34
1	15	35
1	16	36
1	17	37

Table 13. CRAY T932 Shared Module Ports and CPUs

View -> I/Os



The View -> I/Os command, as shown at the left, enables you to configure the parameters for the IO modules. This command displays the SCE T90: I/O Configuration window:

SCE SCE	T90: I/O Configuration
I/0:	00 01 02 03 All
I/O State:	Working Broken Unavailable
Route Code: Location:	00/00/00/00/00/00/30 A1
I/O Type:	Cray GigaRing
Major Revision: Minor Revision:	
Position:	0 1 2 3
Sanity Path:	0 (CPU 00) 1 (CPU 01) 2 (CPU 02) 3 (CPU 02) Leaf I/O)
Quadrant O State:	Working Broken Unavailable
Quadrant 1 State:	Working Broken Unavailable
Quadrant 2 State:	Working Broken Unavailable
Quadrant 3 State:	Working Broken Unavailable
MCU Interrupt: PINT Masic	<u>(((((()))))</u>
Flow Control:	CC On CS On
Target ID Location:	Bits 2 & 3 Bits 4 & 5
Primary I/O Group:	0 1 2 3
Secondary I/O Group:	
Primary Memory Group:	0 1 2 3
Secondary Memory Group:	0 1 2 3
Remote Delay:	0 (msec)

Table 14 describes the available I/O configuration parameters.

Table 14.	I/O Parameters

Parameter	Description
I/O	Specifies the IO module for which you want to modify parameters
I/O State	Specifies whether the IO module is working, broken, or unavailable:
	Working: Indicates that the IO module is physically present and in working condition
	Broken: Indicates that the IO module is physically present but not in working condition
	Unavailable: Indicates that the IO module is not logically present
Route Code	Displays the route code used to access the selected IO module
Location	Displays the physical location of the IO module in the mainframe
І/О Туре	Specifies the type of the selected IO module:
	The Cray setting specifies that the module is an IO01 module. The GigaRing setting specifies that the module is an IO02 module.
Major Revision	Specifies the major revision level of the selected IO module
Minor Revision	Specifies the minor revision level of the selected IO module
Position	Specifies the logical position of the selected IO module, which determines the range of I/O channel numbers for the module:
	This value biases the logical channel numbers. For example, if the module is configured as position 0, the module has VHISP channels 20, 21, 22, 23; if the module is configured as position 1, the module has VHISP channels 24, 25, 26, 27; etc.
	Set Position to 0 for a CRAY T94 mainframe.
	NOTE: This parameter is valid only for IO01 modules.
Sanity Path	Selects one of the four CP module pass-through ports through which the IO module sends data:
	This setting specifies the first local CP module to turn sanity on to the IO module. For larger CRAY T90 series mainframes, this is important for the second, third, and fourth IO modules because it establishes the route codes to these IO modules. (This setting specifies which path is used to configure the IO module and return the error logger data.)
	NOTE: This setting applies only to the leaf IO module in the sanity tree. For the root IO module, SCE enables sanity from the local CP modules to the IO module, but error logger data does not return on this path.
Quadrant 0 State	Specifies whether quadrant 0 is working, broken, or unavailable
Quadrant 1 State	Specifies whether quadrant 1 is working, broken, or unavailable

Parameter	Description			
Quadrant 2 State	Specifies whether quadrant 2 is working, broken, or unavailable			
Quadrant 3 State	Specifies whether quadrant 3 is working, broken, or unavailable			
MCU Interrupt	Specifies a value to load into the MCU interrupt register			
	NOTE: This parameter is valid only for IO01 modules.			
PINT Mask	Specifies a value used to mask the I/O group bits sent by a PINT channel operation:			
	Any bit set to 0 in this mask prevents the PINT function from interrupting any CPU in the corresponding I/O channel group			
	NOTE: This parameter is valid only for IO01 modules.			
Flow Control	Selects the handshaking protocol that is used for congestion control (determines what hardware controls the number of packets on the GigaRing nodes):			
	CS: Selects system congestion control			
	CC: Selects client congestion control (Do not enable this setting because the hardware currently does not support client congestion control.)			
	NOTE: This parameter is valid only for IO02 modules.			
Target ID Location	Selects the bits in the GigaRing address that select the I/O group to use.			
	NOTE: This parameter is valid only for IO02 modules.			
Primary I/O Group	Selects the primary I/O group to which the GigaRing node belongs. (This parameter defaults to 0. Do not change this parameter.) NOTE: This parameter is valid only for IO02 modules.			
Secondary I/O Group	Selects the secondary I/O group to which the GigaRing node belongs. (This parameter defaults to 0. Do not change this parameter.)			
	NOTE: This parameter is valid only for IO02 modules.			
Primary Memory Group	Selects the primary memory group to which the GigaRing node belongs. (This parameter defaults to 0. Do not change this parameter.)			
	NOTE: This parameter is valid only for IO02 modules.			

Table 14. I/O Parameters (continued)

Parameter	Description
Secondary Memory Group	Selects the secondary group to which the GigaRing node belongs. (This parameter defaults to 0. Do not change this parameter.) NOTE: This parameter is valid only for IO02 modules.
Remote Delay	Specifies the timeout delay (in milliseconds) on the DN option. NOTE: This parameter is valid only for IO02 modules.

Table 14. I/O Parameters (continued)

View -> Networks



The View -> Networks command, as shown at the left, enables you to configure the network module parameters in CRAY T916 and CRAY T932 mainframes. This command displays the SCE T90: Network Configuration window:

SCE T	SCE T90: Network Configuration					
Network:	00	01	02	03		
	04	05	06	07		
	10	11	12	13		
	14	15	16	17	All	
Network State:	Wor	king	Brol	ken	Unavailable	
	L					
Location:	G4					

Table 15 describes the available network module parameters.

Parameter	Description
Network	Selects the module for which you want to modify the Network State parameter
Network State	Specifies whether the network module is working, broken, or unavailable: Working: Indicates that the network module is physically present and in working condition Broken: Indicates that the network module is physically present but not in working condition Unavailable: Indicates that the network module is not present
Location	Displays the physical location of the module in the mainframe

Table 15.	Network	Module	Parameters
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View -> Channels



The View -> Channels command, as shown at the left, enables you to configure the channel parameters. This command displays the SCE T90: Channel Configuration window, which contains the configuration parameters for the LOSP, HISP, and VHISP channels.

LOSP Channel Configuration Parameters

Click on Channel Type: 1050 to access the LOSP channel configuration parameters. The SCE T90: Channel Configuration window displays the LOSP parameters:

Q	© SCE T90: Channel Configuration					
Channel Type: LOSP HISP VHISP GigaRing						
LOSP Channel:						
100/101 140/141	State: Working					
102/103 142/143	8r-sken					
104/105 144/145	Unavailable					
106/107 146/147	initial frances					
110/111 150/151	Assigned: No					
112/113 152/153	Physical Partition:					
114/115 154/155	Logical Partition:					
116/117 156/157	Coutral: Off					
120/121 160/161						
122/123 162/163	1/0 Graup: [0] 1 [2] 3]					
124/125 164/165	Memory Graup: Off On 0 1 2 3					
126/127 166/167	MISP: Crff On					
130/131 170/171	256K: CTT On					
132/133 172/173	Mada: External Device					
134/135 174/175	izanhark internel					
136/137 176/177	K-suback External (V) 101					
SLOED Channali	Ciperi					
	Support Path: () (CPU 10) (1 (CPU 13)					
	an the second					

Table 16 describes the LOSP channel configuration parameters.

Table 16.	LOSP Parameters
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Parameter	Description
LOSP Channel	Selects the LOSP channel pair for which you want to modify parameters
SLOSP Channel	Selects the support LOSP (SLOSP) channel pair for which you want to modify parameters
State	Specifies whether the LOSP channel pair is working or broken
Logical Channel	Displays the logical channel numbers that SCE assigns to the LOSP channel pair
Assigned	Indicates whether or not the LOSP channel pair is assigned to a physical and logical partition
Physical Partition	Indicates the physical partition to which the LOSP channel pair is assigned
Logical Partition	Indicates the logical partition to which the LOSP channel pair is assigned
Control	Indicates whether the selected LOSP channel pair is On or Off: The channel pair is logically turned off if you do not include it in a configuration (when you do not select it in the SCE base window). The channel pair is logically turned on if you include it in a configuration (when you select it in the SCE base window).
I/O Group	Specifies the I/O group to which the LOSP channel pair is assigned: These channels are isolated to the CPUs within this I/O group, and these channels can interrupt only CPUs in the same I/O group. These channels can accept commands only from CPUs in the same I/O group.
Memory Group	Specifies the memory group to which the LOSP channel pair is assigned
MISP	Specifies whether or not the channel should operate in MISP mode
256K	Specifies whether or not the LOSP channel pair is in 256-Kword mode (used for concurrent maintenance): If the LOSP channel pair is in 256-Kword mode, data transfers are forced to the upper 256 Kwords of common memory.

Parameter	Description
Mode	Specifies which mode the channel pair is running:
	External Device indicates that the LOSP channel pair is connected to an external device
	Loopback Internal indicates that the LOSP channel pair is looped back inside the mainframe chassis (on the module)
	Loopback External indicates that the channel is looped back through an external cable on the bulkhead: choose the channel to which the current LOSP channel is looped back.
	Open indicates that a channel is open: For example, if channel 100 is looped back to channel 103, you should set channel pair 102/103 to open because channel 102 is not connected.
Support Path	Specifies the CP module through which the support channel data is routed (Valid for SLOSP channels only)

Table 16. LOSP Parameters (continued)

HISP Channel Configuration Parameters

Click on Channel Type: HEP to access the HISP channel configuration parameters. The SCE T90: Channel Configuration window displays the HISP parameters:

Ś	9			SCE T90: Channel Configuration			
[Channel Type: LOSP HISP VHISP GigaRing						
	HISP Channel:						
		400	420	State: Working			
		401	421	Broken			
		402	422	Unavailable			
		403	423	Logical Channels 400			
		404	424	Accimed: Yes			
		405	425	Physical Partition: 0			
		406	426	Logical Partition: 0			
		407	427	Control On			
		410	430	Control: On			
		411	431	Memory Group: Off On 0 1 2 3			
		412	432	256K: Off On			
		413	433				
		414	434				
		415	435				
		416	436				
		417	437				

Table 17 describes the HISP channel configuration parameters.

Table	17.	HISP	Parameters

Parameter	Description
HISP Channel	Selects the HISP channel for which you want to modify parameters
State	Specifies whether the HISP channel is working or broken
Logical Channel	Displays the logical channel number that SCE assigns to the HISP channel
Assigned	Indicates whether or not the HISP channel is assigned to a physical partition and logical partition

Parameter	Description
Physical Partition	Indicates the physical partition to which the HISP channel is assigned
Logical Partition	Indicates the logical partition to which the HISP channel is assigned
Control	Indicates whether the selected HISP channel is On or Off: The channel is logically turned off if you do not include it in a configuration (when you do not select it in the SCE base window). The channel is logically turned on if you include it in a configuration (when you select it in the SCE base window).
Memory Group	Specifies the memory group to which the HISP channel is assigned
256K	Specifies whether or not the HISP channel is in 256-Kword mode (used for concurrent maintenance): If the HISP channel is in 256-Kword mode, data transfers are forced to the upper 256 Kwords of common memory.

Table 17. HISP Parameters (continued)

VHISP Channel Configuration Parameters

Click on Channel Type: UHEP to access the VHISP channel configuration parameters. The SCE T90: Channel Configuration window displays the VHISP parameters:

SCE T90: Channel Configuration					
Channel Type: LOSP HISP VHISP GigaRing					
	VHISE	Chan	nel:		
	020	030	State: Working		
	021	031	Broken		
	022	032	Unvavailable		
	023	033			
	024	034	Logical Channel: 020		
	025	035	Assigned: Yes		
	026	036	Physical Partition: 0		
	027	037	Logical Partition: 0		
			Control: On		
I/O Group: 0 1 2 3					
Memory Group: Off On					
256K: Off On					
			Logic 0 Width: 🔔 🛋		
			Logic 1 Width: 2 AV		
			0/1 Edge: Odd Even		
1/0 Edge: Odd Even					
Offset Delay: 0_					
Capture Delay: 1 🔊					
NOTE: SSD configuration in Miscellaneous Configuration popup.					

Table 18 describes the VHISP channel configuration parameters.

Parameter	Description
VHISP Channel	Selects the VHISP channel for which you want to modify parameters
State	Specifies whether or not the VHISP channel is working or broken
Logical Channel	Displays the logical channel number that SCE assigns to the VHISP channel
Assigned	Indicates whether or not the VHISP channel is assigned to a physical partition and a logical partition

Parameter	Description			
Physical Partition	Indicates the physical partition to which the VHISP channel is assigned			
Logical Partition	Indicates the logical partition to which the VHISP channel is assigned			
Control	Indicates whether the selected VHISP channel is On or Off:			
	The channel is logically turned off if you do not include it in a configuration (when you do not select it in the SCE base window).			
	The channel is logically turned on if you include it in a configuration (when you select it in the SCE base window).			
I/O Group	Specifies the I/O group to which the VHISP channel is assigned			
Memory Group	Specifies the memory group to which the VHISP channel is assigned			
256K	Specifies whether or not the VHISP channel is in 256-Kword mode (used for concurrent maintenance):			
	If the VHISP channel is in 256-Kword mode, data transfers are forced to the upper 256 Kwords of common memory.			
Logic 0 Width	Specifies the number of clock periods the VHISP clock is 0			
	Do not change this parameter. If you change this parameter, the mainframe could become unusable.			
Logic 1 Width	Specifies the number of clock periods the VHISP clock is 1			
	Do not change this parameter. If you change this parameter, the mainframe could become unusable.			
0/1 Edge	Specifies when the 0/1 transition in the generated wave occurs:			
	If this parameter is set to odd, the 0/1 transition in the generated wave occurs on the 0/1 edge of the mainframe clock. If the parameter is set to even, the transition occurs 1/2-clock period earlier.			
	Do not change this parameter. If you change this parameter, the mainframe could become unusable.			
1/0 Edge	Specifies when the 1/0 transition in the generated wave occurs:			
	If this parameter is set to odd, the 1/0 transition in the generated wave occurs on the 0/1 edge of the mainframe clock. If the parameter is set to even, the transition occurs 1/2-clock period earlier.			
	Do not change this parameter. If you change this parameter, the mainframe could become unusable.			

Table 18. VHISP Parameters (continued)

Parameter	Description		
Offset Delay	Specifies a delay, in clock periods, for output data and control signals to be valid after the leading edge of the generated VHISP clock:		
	This value is within a modulus of the generated VHISP clock period.		
	Do not change this parameter. If you change this parameter, the mainframe could become unusable.		
Capture Delay	Specifies a delay, in clock periods, after the leading edge of the input data ready strobe before data is captured in the channel input register:		
	This delay is added to 4 clock periods.		
	Do not change this parameter. If you change this parameter, the mainframe could become unusable.		

Table 18. VHISP Parameters (continued)

GigaRing Channel Parameters

Click on Channel Type: Gatim to access the GigaRing channel configuration parameters. The SCE T90: Channel Configuration window displays the GigaRing parameters:

Q			SCE T90: Channel Co	nfiguration
Ch	annel Ty	pe: LOSP	HISP VHISP GigaRin	19
	GigaRing	Node:		
[00 O n	20 -	State:	Working
	01 On	21 -		Broken
	02 On	22 -		Unavailable
	03 On	23 -		
	04 On	24 -	Control:	Off On
	05 On	25 -	Enabled Channels:	Error Channel A
	06 On	26 -		
	07 On	27 -		Error Channel B
	10 -	30 -		Input Message Channel A
	11 -	31 -		Input Message Channel B
	12 -	32 -		
	13 -	33 -		Output Message Channel
	14 -	34 -		DMA Channel
	15 -	35 -		
	16 -	36 -	On Time:	0 1 2 3 4 5 6 7
	17 -	37 -	Off Time:	0 1 2 3 4 5 6 7
			Input Offset: Output Offset:	
			Manufacturer ID: Device ID:	

Table 19 describes the GigaRing channel configuration parameters.

Parameter	Description				
GigaRing Node	Selects the GigaRing node for which you want to modify parametersNOTE: The text that SCE displays in the GigaRing Node settings changes depending on the state of the node. SCE displays the following symbols in the GigaRing Node settings:				
	Symbol: Description:				
	OnThe node/channel is on.OffThe node/channel is offThe node/channel is not available.				
State	Specifies that the GigaRing node is working, broken, or unavailable				
Control	Specifies whether the GigaRing node is On or Off				
Enabled Channels	Specifies which of the following channels are enabled (for diagnostic configuration): error channel A, error channel B, input message channel A, input message channel B, the output message channel, and the DMA Channel These channels are GigaRing subchannels that are used for				
On Time	Specifies the number of phases that the GigaRing channel is on				
Off Time	Specifies the number of phases that the GigaRing channel is off				
Input Offset	Sets the input data offset register				
Output Offset	Sets the output data offset register				
Manufacturer ID	Sets the manufacturer ID register				
Device ID	Sets the device ID register				

Table 19. GigaRing Parameters

View -> Miscellaneous

View	The View -> Miscellaneous command, as shown at the left, enables you to				
CPUs	SCE T90: Miscellaneous Configuration window:				
I/Os					
Networks Channels					
Chaimeis	SCE T90: Miscellaneous Configuration				
(Miscellaneous)	Configure: MPN/TSM SSD				
Spare Chip					
Log	Side A: (CPUs 0017, I/O 0 & 1, Shared 0)				
	Port: 1/0 1/0 E				
	MPN Hostname: mpnh-xt+)				
	Maintenance Channel: FEI: 🔽 1				
	Boundary Scan Channel: FEI: 🗹 3				
	Error Logger Channel: FEI: 🔽 2				
	Support Channel: FEI: 🟹 5 Input: 🔍 060 Output: 🔍 061				
	Side B: (CPUs 2037, I/O 2 & 3, Shared 1)				
	Port: 1/0 A 1/0 M				
	MPN Hostname: mpnh-xt1				
	Maintenance Channel: FEI: 🗹 11				
	Boundary Scan Channel: FEI: 💟 13				
	Error Logger Channel: FEI: 👽 12				

This window contains two sets of parameters: the CRAY T90 series support multiplexer (TSM) channel parameters and the SSD parameters. By default, this window displays the TSM channel parameters. Table 20 describes the TSM channel parameters.

Support Channel: FEI: 🔽 15 Input: 🔽 064

Output: 🔽 065

NOTE: The Side A parameters are available for all mainframe configurations. The Side B parameters are available only for CRAY T932 mainframe configurations that include two physical partitions.

Parameter	Description				
MPN Hostname	Specifies the hostname of the multipurpose node to which the SWS is connected in a GigaRing system				
	NOTE: This parameter is valid only for systems that use IO02 modules.				
Maintenance Channel †	Front-end interface (FEI) channel and maintenance port to which the maintenance channel is connected				
	Choose the port from the corresponding Port menu.				
	NOTE: This parameter is valid only for systems that use IO01 modules.				
Boundary Scan Channel †	FEI channel and port to which the boundary scan channel is connected				
	Choose the port from the corresponding Port menu.				
	NOTE: This parameter is valid only for systems that use IO01 modules.				
Error Logger Channel †	FEI channel to which the error logger channel is connected				
	NOTE: This parameter is valid only for systems that use IO01 modules.				
Support Channel †	FEI channel to which the support channel is connected and the channels used as input and output for the support channel				
	NOTE: This parameter is valid only for systems that use IO01 modules.				

Table 20. TSM Channel Parameters

[†] The xcfg program configures this channel. You should set this parameter to the value specified in xcfg. SCE provides this information to other software applications, so you must set this parameter correctly. If you need to change the configuration information for this channel, update this parameter and the corresponding parameter in xcfg.

Click on Configure: **SE** to access the SSD parameters. The window changes to display the SSD parameters, as shown in the following snap.

50		SCE T	Г90: Mi≤	cellane	eous Co	nfiguration	لم ا
C	Configure: T	SM SSD)				
	SSDs:	<u>\</u>	0				
	SSD:	0					
	SSD Type:	SSDE JSSD-1	281	5D-321			
s	SD Memory:	8M	16M	32M	64 M]	
		128M	256M	512M	1G		
		2G	4G	8G		-	
L,							نے

Table 21 describes the SSD parameters.

Parameter	Description		
Configure	Selects the miscellaneous parameters to configure:		
	Currently, SSD parameters are the only miscellaneous parameters available.		
SSDs	Specifies the number of SSDs connected to the mainframe:		
	Currently, you can set this parameter to 0 or 1.		
SSD	Specifies the SSD for which you want to change the parameters:		
	Click on the number of the SSD for which you want to change the parameters. Currently, you can change parameters for SSD number 0 only (when the SSDs parameter is set to 1).		
SSD Type	Specifies the type of SSD		
SSD Memory	Specifies the memory size of the SSD		

View -> Spare Chip



The View -> Spare Chip command, as shown at the left, enables you to control the spare chip functionality of the CRAY T90 series mainframe. This command displays the SCE T90: Spare Chip window:

Q	SCE T90: Spare Chip
View Modules:	▼ All
Type Serial	Location
View Spare Ch Type Serial	ips: All B/SS/S Bit Location

For more information about using SCE to control the spare-chip functionality, refer to the *SCE User Guide*, publication number HDM-069-C.

View -> Log

View 🗸	
Memory	
CPUs	
Shareds	
I/Os	
Networks	
Channels	
Miscellaneous	
Spare Chip	
Log	

The View -> Log command, as shown at the left, enables you to view a log from the last application of a configuration. This command displays the SCE T90: Log Output window:

😡 SCE T90: Log Output	

Configure: S/N 7001.	
Generated: Fri Dec 29 10:28:46 1995 by SCET90 1.1.4	
Open the boundary scan channel.	
Close the boundary scan channel.	
Open the maintenance channel.	
Tell simulator mainframe type	
Reset maintenance channel interface.	
Activate sanity generator I/O 00.	
Reset I/O 00.	

Edit -> Reset Configuration



The Edit -> Reset Configuration command, as shown at the left, resets all parameters to the last applied configuration.

Edit -> Properties



The Edit -> Properties command, as shown at the left, enables you to modify the way that SCE works. This command displays the SCE T90: Properties window:

9	SCE T90: Properties
Sparechip Directory:	usr/cfg
Sequence Save:	Always On Error Never
Debug Level:	None Internals Channel Functions
Current Working Directory:	/cri/cme/t32
C	Apply) (Reset)

The following subsections describe the properties that you can modify. Click on the (Apply) button to apply the new properties that you set. Click on the (Reset) button to reset the properties to the default values.

Sparechip Directory Field

In the Sparechip Directory field, enter the directory in which you want to store the spare-chip data.

Sequence Save Settings

Use the Sequence Save settings to enable the automatic save configuration function, which automatically saves the current sequence of maintenance channel functions in the usr/seq/FASTT.*serial#*.Z file. Then, you can use compose mode in MME environment 0 to view the sequence.

Click on *Muniper* to save the sequence every time SCE builds the sequence while asserting a configuration. Click on *On Ender* to save the sequence only when SCE detects errors in the sequence while asserting the configuration. Click on *Tenner* to never save the sequence.

Debug Level Settings

Use the Debug Level settings to specify the type of information that SCE should display in the standard output window.

Click on **Metter** to indicate that SCE should not display information about the actions that it performs.

Click on **Internals** to have SCE display spare-chip information, client connections and disconnections, and information about other SCE internal functions.

NOTE: When you are using spare memory chips, you should set the Debug Level setting to **Internate**. This causes SCE to display the flaw map in the standard output window when you assert a configuration. By viewing the flaw map during an assertion, you will see any errors related to the spare chip assignment. For example, if you enter 2 flaws in the same stack (which invalidates the first flaw), SCE will not display an error until you assert the configuration.

Click on **Channel Functions** to have SCE display the functions that are sent to the mainframe and the information displayed for the **Internals** setting.

Current Working Directory

The Current Working Directory field shows the directory that SCE uses to access all relative paths (paths that do not start with a slash [/]) shown in SCE windows. SCE appends all relative paths to this directory. For example, if a window displays usr/cfg and this field displays /cri/cme/t32, SCE uses the /cri/cme/t32/usr/cfg/ directory to access files. This field is read-only.

The information in this field is useful in the Systems Test and Checkout (STCO) environment in which technicians have access to remotely mounted directories of prereleased software. This information enables a technician to verify the paths that are used to load and save files so the technician can ensure that the proper software is being used.

Utilities -> Boundary Scan

Utilities Oundary Scan...

The Utilities -> Boundary Scan command, as shown at the left, provides a graphical user interface (GUI) that you can use to run the boundary scan system test. This command displays the SCET90: Boundary Scan Configuration window:

	Side/Port	Description	Boundary Scan Port: Side A/Port 4
<	A/ 0	CP02 00 @ B001 REV 3100	- Module Type: ♥ CPU
	A/ 2 A/ 3	[Not Used (A/ 1)] [Not Used (A/ 2)] [Not Used (A/ 3)]	Module Revision: <u>3100</u>
∢	A/ 4 A/ 5	CP02 01 @ B002 REV 3100 [Not Used (A/ 5)]	
~	A/ 7 A/ 8	[Not Used (A/ 6)] [Not Used (A/ 7)] CPO2 02 @ BO03 REV 3100	Tests: Setup
	A/ 9 A/10 A/11	[Not Used (A/ 9)] [Not Used (A/10)] [Not Used (A/11)]	Shift Scan
*	A/12 A/13 A/14	CPO2 03 @ BOO4 REV 3100 [Not Used (A/13)] [Not Used (A/14)]	Run Selected Tests V
*	A/15 A/16 A/17	[Not Used (A/15)] SR01 00 @ C001 REV 1007 [Not Used (A/17)]	Directory: usr/bscan/7001/*
∢	A/18 A/19 A/20	[Not Used (A/18)] [Not Used (A/19)] CM02 00 @ CO02 REV 2100	970225.142352/ 970225.143546/
	A/21 A/22 A/23	[Not Used (A/21)] [Not Used (A/22)] [Not Used (A/23)]	970225.144120/
*	A/24 A/25 A/26	CMO2 01 @ COO3 REV 2100 [Not Used (A/25)] [Not Used (A/26)]	View Setup Results
∢	A/27 A/28	[Not Used (A/27)] CMO2 02 @ CO04 REV 2100	View Shift Results
	A/30 A/31	[Not Used (A/30)] [Not Used (A/31)]	Delete Results

Perform the following procedure to run the boundary scan system test from this window:

 In the scroll box on the left side of the window, select the modules that you want to test. A check mark (✓) next to an entry indicates that the module is selected. Click the ADJUST mouse button on an entry to select or deselect the entry.

When you click the SELECT mouse button on an entry, the window shows the Boundary Scan Port, Module Type, Module Number, and Module Revision data for the entry. You can modify the Module Type, Module Number, and Module Revision data.

- **NOTE:** Use the Sort By settings (<u>side/Port</u> and <u>testription</u>) to change the order in which the scroll box displays the module information.
- 2. Click on Tests: <u>Setup</u>, <u>ID</u>, <u>Shilt</u>, or <u>Scan</u> to specify the tests that you want to run.

Refer to the *Boundary Scan System Test* document, publication number HDM-117-B, for more information about the tests.

 Choose Run Selected Tests -> Physical Partition 0, Run Selected Tests -> Physical Partition 1, or Run Selected Tests -> Both Partitions to run the tests.

When you run a test, SCE creates a new directory in the usr/bscan directory structure to store the configuration file and the results from the test. The directory name includes the mainframe serial number and the date and time that you ran the test.

4. View the results. Table 22 describes the buttons that you can use to view the results.

Button	Description
(View Configuration)	Displays the configuration file that SCE used to perform the selected tests
View Setup Results)	Displays the results of a setup test
(View ID Results)	Displays the results of an ID test
(View Shift Results)	Displays the results of a shift test
View Scan Results	Displays the results of a scan test

Table 22. Buttons That Display Boundary Scan Test Results

You can view the results from a previous boundary scan system test by clicking on the directory name in the scroll box and then clicking on one of the buttons that Table 22 describes.

To delete the boundary scan test files that you no longer need, click on the directory name in the scroll box and then click on the Delete Results button.

Assume -> Physical Partition 0



The Assume -> Physical Partition 0 command, as shown at the left, sends the current configuration data for physical partition 0 to all clients without updating the sanity tree.

Assume -> Physical Partition 1



The Assume –> Physical Partition 1 command, as shown at the left, sends the current configuration data for physical partition 1 to all clients without updating the sanity tree. This command is available only when SCE contains a configuration for a CRAY T932 mainframe with two physical partitions.

Assume -> Both Partitions



The Assume –> Both Partitions command, as shown at the left, sends the current configuration data for both physical partitions to all clients without updating the sanity tree. This command is available only when SCE contains a configuration for a CRAY T932 mainframe with two physical partitions.

Assert -> Physical Partition 0



The Assert -> Physical Partition 0 command, as shown at the left, generates a new sanity tree for physical partition 0 and sends the configuration data to all clients.

SCE performs the following functions in physical partition 0 to assert the configuration:

1. SCE opens the boundary scan channel, performs a soft master clear on the boundary scan channel, and closes the boundary scan channel.

- 2. SCE turns on the sanity code generator on the IO module and verifies that the generator is on by using the logic monitor of the IO module to check test points. Then, SCE resets the IO configuration codes.
- 3. SCE turns on the sanity code from the IO module to the shared module and verifies the sanity code by checking test points on the IO module.
- 4. SCE configures the shared module. The shared module does not have configuration test points, so verification is not possible.
- 5. SCE turns on the sanity codes from the shared module to each of the CP modules configured in the system and verifies the sanity codes by checking sanity test points on the shared module.
- 6. SCE configures the CP modules and verifies the configurations by checking test points. SCE configures memory as part of the CP module configuration process.
- 7. SCE configures the shared ports.
- 8. SCE turns on the sanity code from each CP module to the IO module and verifies the sanity code by checking test points on the IO module.
- 9. SCE configures the IO module and verifies the configuration by checking test points on the IO module.
- 10. SCE configures the LOSP, HISP, and VHISP channels and verifies the configurations by checking test points on the IO module.
- **NOTE:** If SCE detects errors while attempting to verify a configuration, the window shown in Figure 4 appears. Click on <u>(View Log</u>) to view a log of the detected errors. Click on <u>(Continue</u>) to continue.

Problems with the apply request. Assert failed.
(View Log) (Continue)

Figure 4. Configuration Verification Errors Detected

Assert -> Physical Partition 1

(Assert ⊽)
Physical Partition 0
Physical Partition 1
Both Partitions

The Assert -> Physical Partition 1 command, as shown at the left, generates a new sanity tree for physical partition 1 and sends the configuration data to all clients. This command is available only when SCE contains a configuration for a CRAY T932 mainframe with two physical partitions.

SCE performs the following functions in physical partition 1 to assert the configuration:

- 1. SCE opens the boundary scan channel, performs a soft master clear on the boundary scan channel, and closes the boundary scan channel.
- 2. SCE turns on the sanity code generator on the IO module and verifies that the generator is on by using the logic monitor of the IO module to check test points. Then, SCE resets the IO configuration codes.
- 3. SCE turns on the sanity code from the IO module to the shared module and verifies the sanity code by checking test points on the IO module.
- 4. SCE configures the shared module. The shared module does not have configuration test points, so verification is not possible.
- 5. SCE turns on the sanity codes from the shared module to each of the CP modules configured in the system and verifies the sanity codes by checking sanity test points on the shared module.
- 6. SCE configures the CP modules and verifies the configurations by checking test points. SCE configures memory as part of the CP module configuration process.
- 7. SCE configures the shared ports.
- 8. SCE turns on the sanity code from each CP module to the IO module and verifies the sanity code by checking test points on the IO module.
- 9. SCE configures the IO module and verifies the configuration by checking test points on the IO module.
- 10. SCE configures the LOSP, HISP, and VHISP channels and verifies the configurations by checking test points on the IO module.

NOTE: If SCE detects errors while attempting to verify a configuration, the window shown in Figure 4 on page 66 appears. Click on (View Log) to view a log of the detected errors. Click on (Continue) to continue.

Assert -> Both Partitions



The Assert -> Both Partitions command, as shown at the left, generates a new sanity tree for each physical partition and sends the configuration data to all clients. This command is available only when SCE contains a configuration for a CRAY T932 mainframe with two physical partitions.

SCE performs the following functions in each physical partition to assert the configuration:

- 1. SCE opens the boundary scan channel, performs a soft master clear on the boundary scan channel, and closes the boundary scan channel.
- 2. SCE turns on the sanity code generator on the IO module and verifies that the generator is on by using the logic monitor of the IO module to check test points. Then, SCE resets the IO configuration codes.
- 3. SCE turns on the sanity code from the IO module to the shared module and verifies the sanity code by checking test points on the IO module.
- 4. SCE configures the shared module. The shared module does not have configuration test points, so verification is not possible.
- 5. SCE turns on the sanity codes from the shared module to each of the CP modules configured in the system and verifies the sanity codes by checking sanity test points on the shared module.
- 6. SCE configures the CP modules and verifies the configurations by checking test points. SCE configures memory as part of the CP module configuration process.
- 7. SCE configures the shared ports.
- 8. SCE turns on the sanity code from each CP module to the IO module and verifies the sanity code by checking test points on the IO module.
- 9. SCE configures the IO module and verifies the configuration by checking test points on the IO module.

- 10. SCE configures the LOSP, HISP, and VHISP channels and verifies the configurations by checking test points on the IO module.
- NOTE: If SCE detects errors while attempting to verify a configuration, the window shown in Figure 4 on page 66 appears. Click on (View Log) to view a log of the detected errors. Click on (Continue) to continue.

Reset -> Maintenance Channel -> Physical Partition 0



The Reset -> Maintenance Channel -> Physical Partition 0 command, as shown at the left, resets the maintenance channel for physical partition 0 by resetting the front-end interface (FEI) for the channel.

Reset -> Maintenance Channel -> Physical Partition 1



The Reset -> Maintenance Channel -> Physical Partition 1 command, as shown at the left, resets the maintenance channel for physical partition 1 by resetting the FEI for the channel.

This command is available only when SCE contains a configuration for a CRAY T932 mainframe with two physical partitions.

Reset -> Error Logger Channel -> Physical Partition 0

This command is not implemented yet.

Reset -> Error Logger Channel -> Physical Partition 1

This command is not implemented yet.

Reset -> Boundary Scan Channel -> Physical Partition 0



The Reset -> Boundary Scan Channel -> Physical Partition 0 command, as shown at the left, resets the boundary scan channel for physical partition 0 by resetting the FEI for the channel.

Reset -> Boundary Scan Channel -> Physical Partition 1



The Reset -> Boundary Scan Channel -> Physical Partition 1 command, as shown at the left, resets the boundary scan channel for physical partition 1 by resetting the FEI for the channel.

This command is available only when SCE contains a configuration for a CRAY T932 mainframe with two physical partitions.


Figure 5. Menu Quick Reference



New configuration.





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T932 T916 T94 Tester

New

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Save... Load...

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File ⊽

Delete...

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CPUs...

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Memory...

View ⊽)



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