10. SVP SECTION

Contents

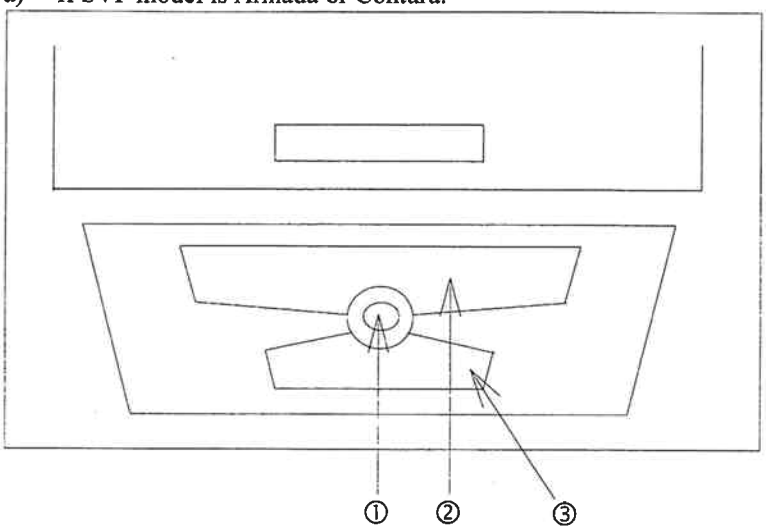
10 SVP

10.1 How to Operate the SVP (PC)

This manual describes how to operate the SVP (PC) with the trackball or touchpad.

10.1.1 How to use a trackball

a) If SVP model is Armada or Contura.



① : Trackball

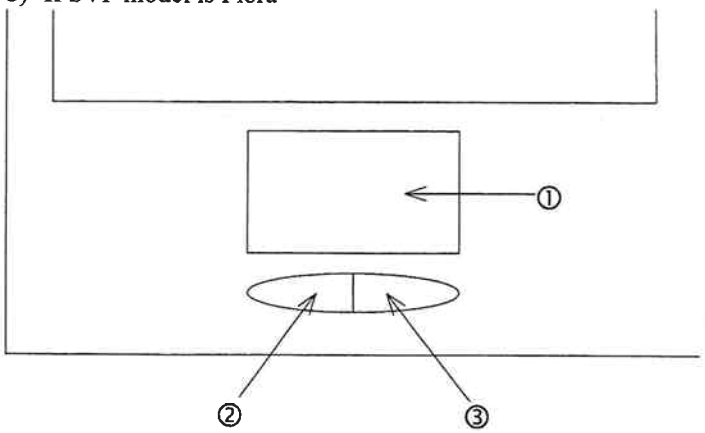
Rotate this device to move the pointer to a desired position.

② : Button

Pressing this button selects an item on which the pointer is placed.

③ : Not used

b) If SVP model is Flora



① : Touchpad

Trace this device to move the pointer to a desired position.

② : Button

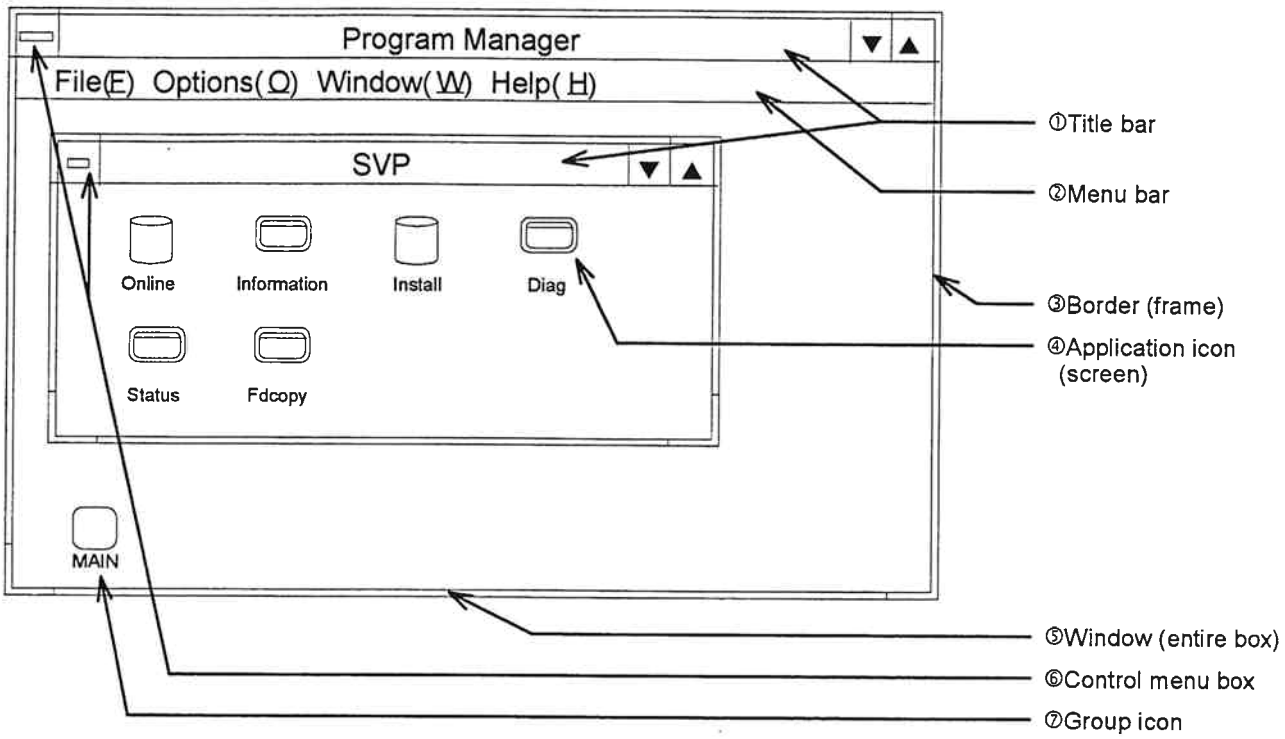
Pressing this button selects an item on which the pointer is placed.

③ : Not used

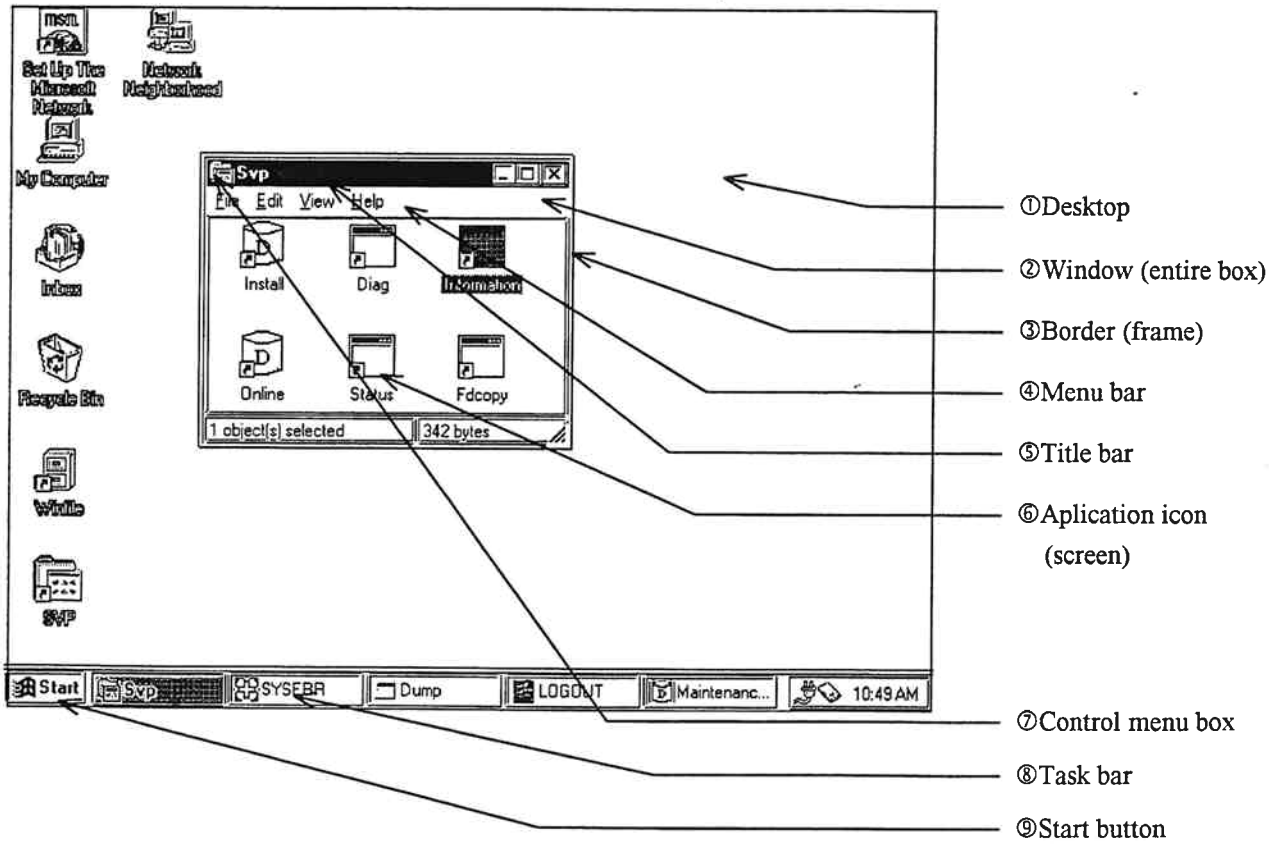
10.1.2 Windows Screen Component Nomenclature

Either of the following windows is displayed.

(1) Windows3.1



(2) Windows95



10.1.3 How to use Windows

(1) Notation

In this manual, "select" has the following three meanings, and (CL), (DC), or (DR) is added to the word for each meaning.

(CL) Click:
Quickly press and release the button above the trackball or touchpad.
(DC) Double-click:
Click the button above the trackball or touchpad twice in rapid succession.
(DR) Drag:
To hold down the button above the trackball or touchpad while you rotate the trackball or trace the touchpad to move the pointer to a desired position. Then release the button.

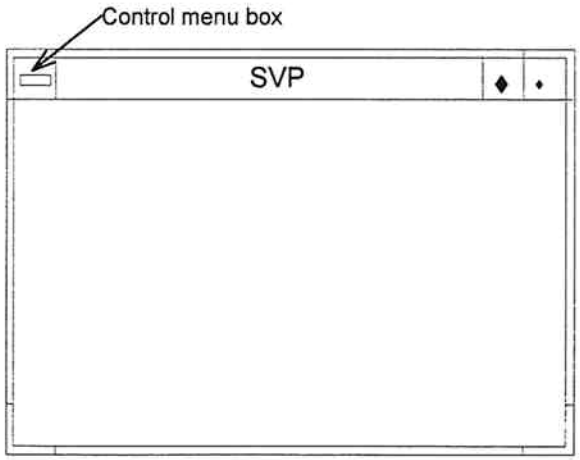
example)
Select (DC) the [Install] icon in the 'SVP' window.

Move the pointer to [Install] with the trackball or touchpad. Then click the button above the trackball or touchpad twice in rapid succession.

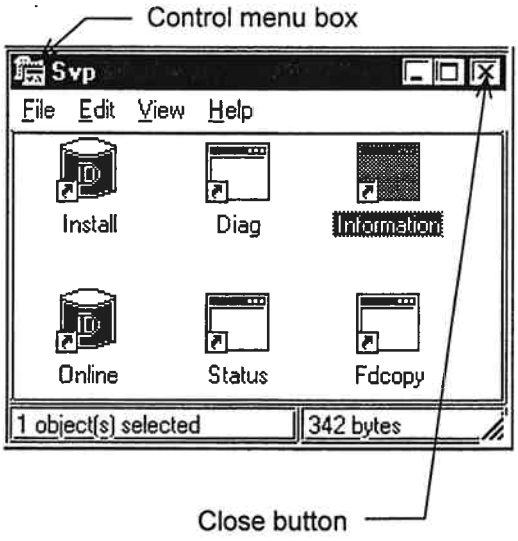
(2) Close

"Close" means to close the aplication window.
(Double-click the control menu box of the window or click the close button for Windows 95.)

• Windows 3.1



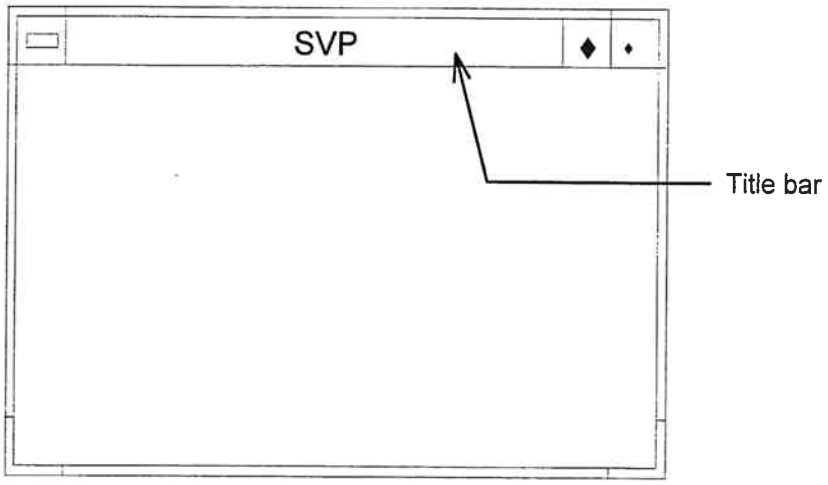
• Windows 95



(3) Moving the Window

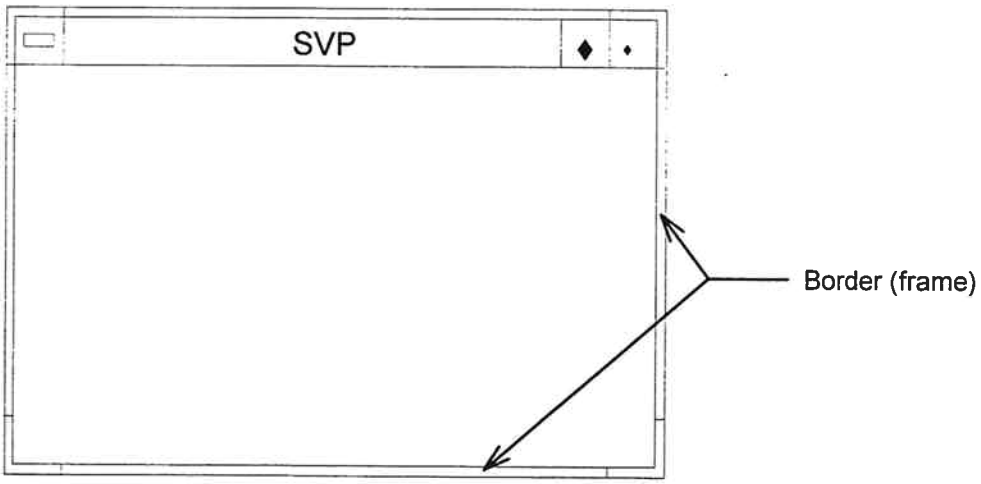
Move the pointer to the title bar with the trackball or touchpad.

While pressing the button, move the window with the trackball or touchpad (DR) to a desired position and release the button.



(4) Changing the window size

Move the pointer to the window border (frame) (the pointer changes to the double- headed arrow). While pressing the button, move the border (the border changes to the broken line) until the window becomes a desired size, and release the button.



(5) Switching the screen (when two or more screens are opened)

While pressing the ALT key , press TAB (or ESC) until your desired window title is displayed, and release the ALT key.

10.1.4 Power On

Usually, SVP start automatically at the breakers-ON.

If some problem occurred and you must start SVP, do as following procedures.

(1) Power On SVP

a. Press Power Switch on the SVP keyboard.

b. Watch messages displayed on the SVP screen.

If following messages are displayed, Go to (2).

Otherwise, power off (press Alt + Ctrl + Power Switch when SVP model is Armada or Contura. press Power Switch when SVP model is Flora.) and on SVP to retry. (*1)

After retrying twice, replace SVP.

[Message]

xxxx KB OK

Starting MS-DOS or Starting Windows95

(Some other messages)

(2) Windows Start (SVP Start)

a. Wait a few minutes until Windows system will start.

b. Read message displayed on the SVP screen. (Go to SVPMSG section)

Otherwise, power off (press Alt + Ctrl + Power Switch when SVP model is Armada or Contura. press Power Switch when SVP model is Flora.) and on SVP to retry. (*1)

After retrying twice, replace SVP.

[End of Power On]

*1: If SVP model is Armada or Contura.

If you press only Power Switch on the SVP keyboard when SVP and Windows system are active, these systems will be frozen.

You should be sure to press Alt + Ctrl + Power Switch for power off SVP.

*2: If Windows95 doesn't start, check the following items.

(1) Is the DKC "CE mode"?

(2) The two LEDs at the LAN cable socket are always on?

If above two conditions are satisfied, pull out LAN cable until Windows95 is starting.

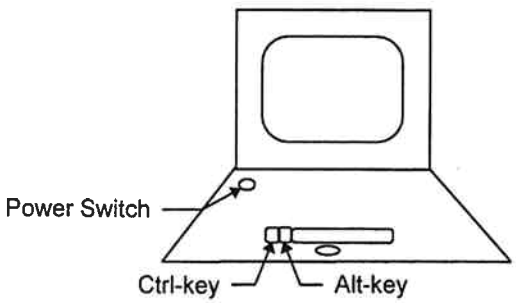


Fig.a SVP model is Armada or Contura

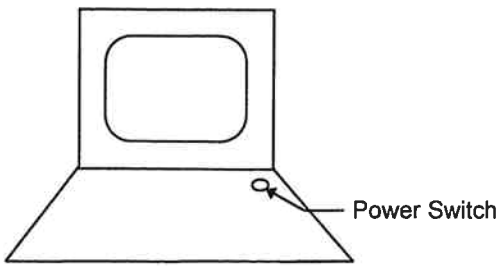


Fig.b SVP model is Flora

10.1.5 Power Off

(1) What is running?

a. See what is displayed.
If Windows is displayed, Go to (2).
If DOS prompt is displayed, like "C:\>", Go to (4).
Otherwise, Go to (3).

(2) Exit Windows(Stop SVP)

If the "Task bar" is displayed, go to e.
(See the figure in subsection 10.1.2 (2) for the "Task bar".)

a. Select "Program Manager" window.
b. Press Alt-key and F4-key. (Or select 'File-Exit Windows' menu.)
c. Select(CL) [OK] to agree to exit Windows.
d. Go to (4).
e. Select (CL) "Start button".
f. Select (CL) "Shut Down".
g. Select (CL) "Shut Down the computer?", and Select (CL) [Yes].
[End of Power Off]

(3) Stop Any Program

a. Press 2 keys simultaneously —— Ctrl-key and 'C' —— to stop program.
If DOS prompt is displayed, Go to (4).
b. Press 3 keys simultaneously —— Ctrl-key, Alt-key and Del-key —— to reboot SVP.
c. Wait until SVP restart, or any problem occurs.
d. Go to (1).

(4) Power Off SVP

a. Press 2 keys —— Ctrl-key and Alt-key ——, and Power Switch simultaneously when SVP model is Armada or Contura. Press Power Switch when SVP model is Flora.
[End of Power Off]

Note : Do not press only Power Switch key when SVP model is Armada or Contura.
Because, since SVP does not stop to perfection, we do not guarantee the operation of SVP after re-power on.
If only Power Switch key was pressed, please power off SVP (see 10.1.5 (4) Power Off SVP).

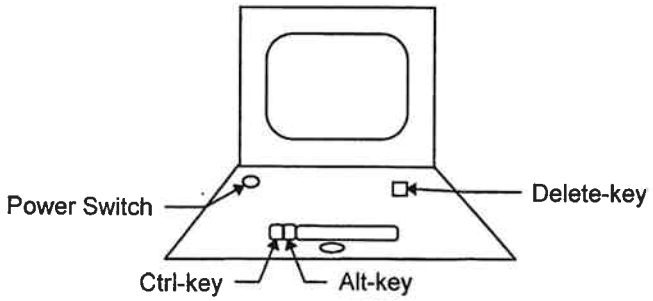


Fig.a SVP model is Armada or Contura

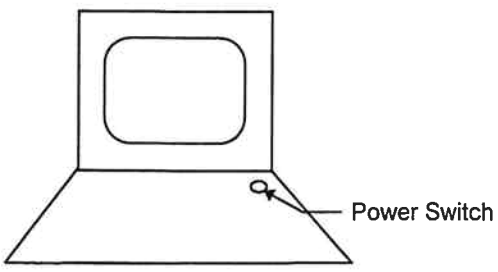


Fig.b SVP model is Flora

10.1.6 Mode

(1) View Mode

In view mode, only referring the subsystem status can be allowed.

(2) Modify Mode

In modify mode, referring and changing the subsystem status can be allowed.

For example, log/pin data indication and status display on on-line are available in any mode, but replacement is available in only modify mode.

Install, On-line, Information and Diag windows have the modes and when each window is opened the default value is view mode.

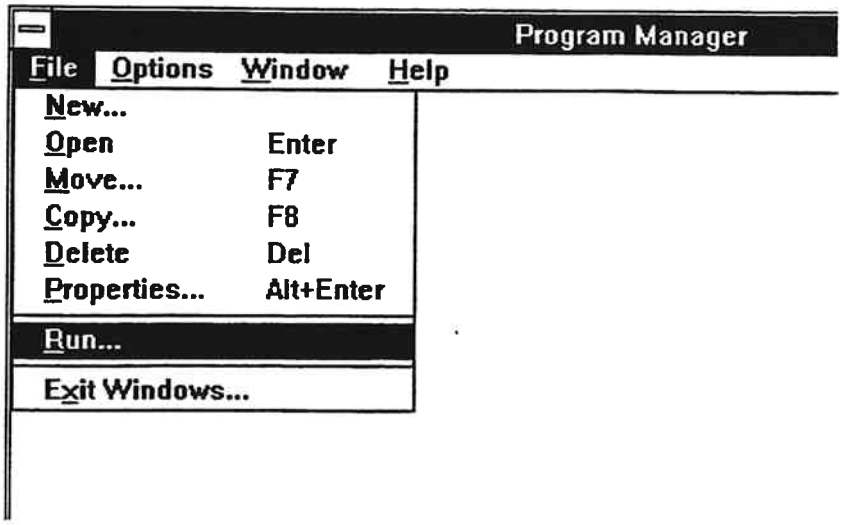
Note : When there is no window in modify mode, pending SIMs (if exist) are reported to host.

10.1.7 Run

(1) <Select the [Run]>

• Windows3.1

Select (CL) the [File] menu in the 'Program manager' window and select (CL) the [Run...].



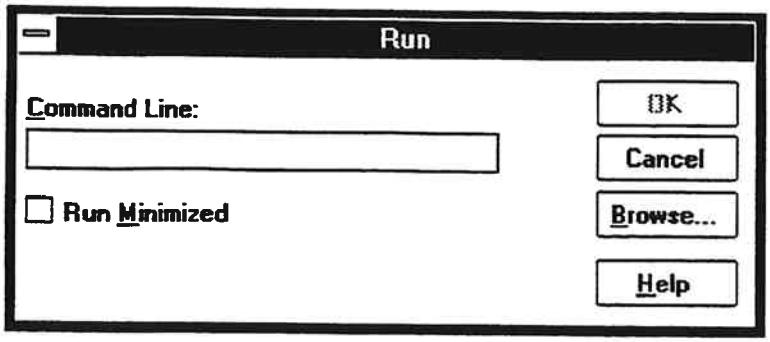
• Windows95

Select (CL) the [Run...] in the [Start button].

(2) <Input file name>

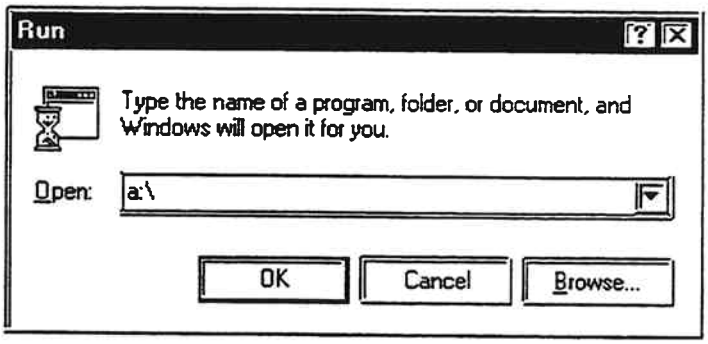
• Windows3.1

Input file name in 'Command Line' and select (CL) [OK].



• Windows95

Input file name in 'Open' and select (CL) [OK].



10.1.8 Screen Saver, and SVP reboot function

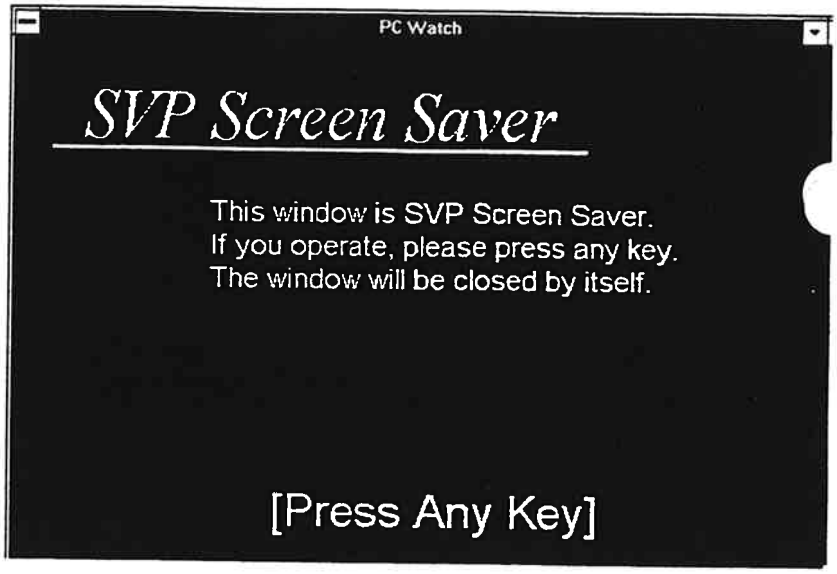
This function executes SVP reboot at intervals of a certain duration, one time per day.
Normally, the function displays a new windows for Screen Saver.

(1) SVP (PC) reboot

When SVP detects the reboot time under displaying the Screen Saver, the function will reboot SVP automatically. But, if other applications of SVP are executing, the function will stop rebooting, and wait until the next time will arrive.

(2) Screen Saver

1. If there is no access from keyboard or mouse during 60 minutes, and other SVP applications windows are closed, SVP will open the screen saver window.

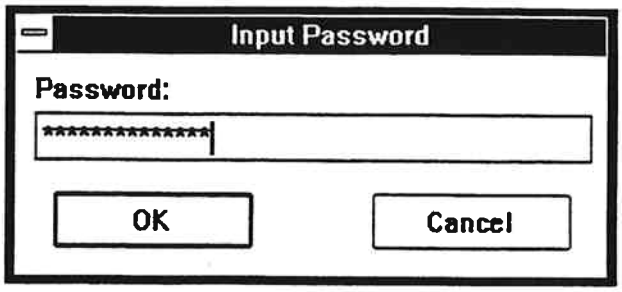


2. Normally, the function becomes icon.

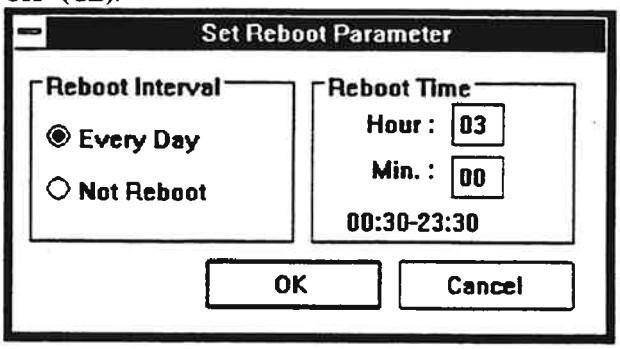
(3) Setting reboot timer

1. Please select "PC Watch" Icon (DC).

2. SVP will displays "Input Password" screen.
   Please enter the password and select "OK" (CL).



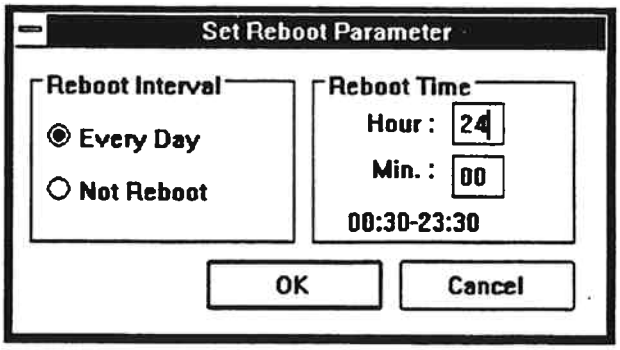
3. Next, SVP will displays "Set Reboot Parameter" Screen.
   Please input Reboot interval and Reboot time, and select "OK" (CL).



① Reboot Interval
   Every Day : one time per day.
   Not Reboot : not available to reboot.

② Reboot Time
   Reboot time will be set.
   Notice:
   The SVP usually receives a TH/ORM log data from DKC-Main at 23:30 - 0:30, so that you can not input those time.

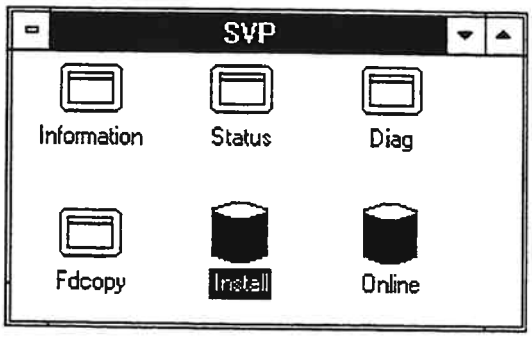
If you input the reboot time as 24:00 or above timer 23:30 - 0:30, will move the focus.



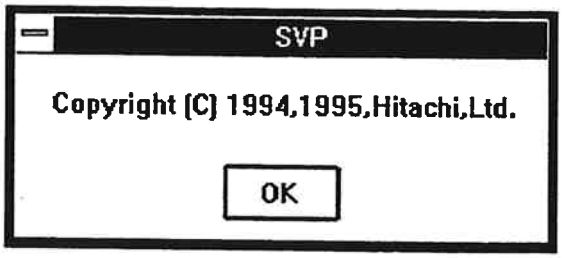
10.2 Function of the SVP

10.2.1 TOD (Time Or Date) setting

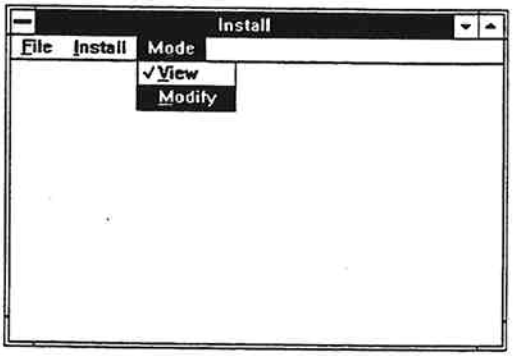
(1) Select (DC) the [Install] icon in the 'SVP' window.



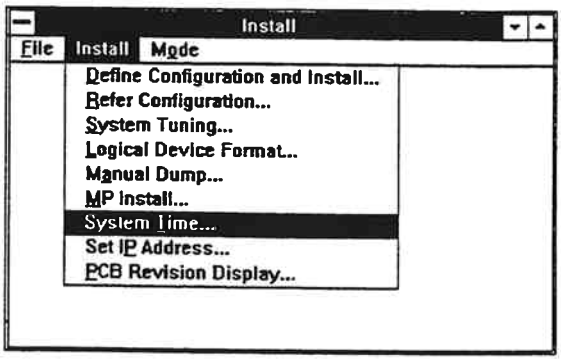
(2) Select (CL) [OK] in the 'SVP' dialog box.



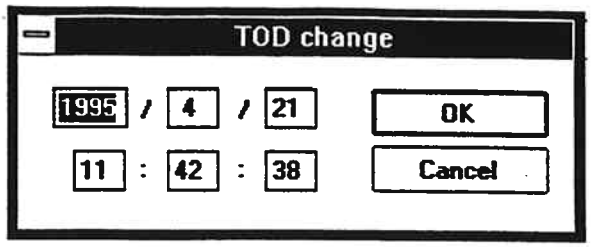
(3) Select (CL) the [Mode] menu in the 'Install' window and select (DR) [Modify].



(4) Select (CL) the [Install] menu in the 'Install' window and select (DR) [System Time...].



(5) Specify the date (year, month and day) and time (hour, minute and second) and select (CL) [OK].



(6) Close the 'Install' window.

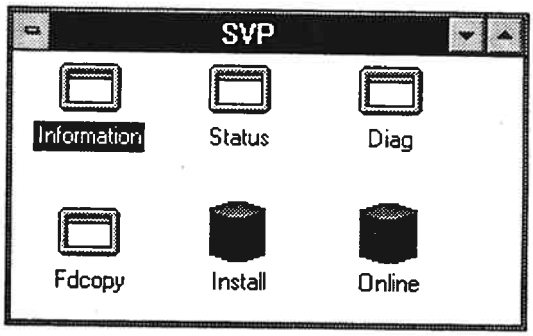
10.2.2 Log indication

Indication condition

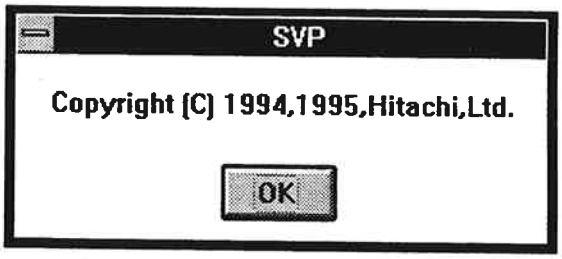
If there is no corresponding log, you cannot select any log from the menu.

Do this first:

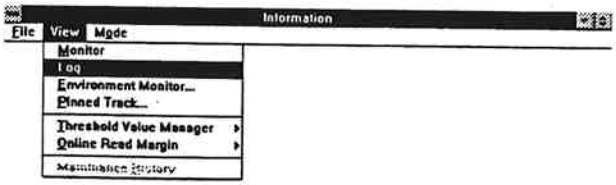
(1) Select (DC) the [Information] icon in the 'SVP' window..



(2) Select (CL) [OK] in the 'SVP' dialog box.

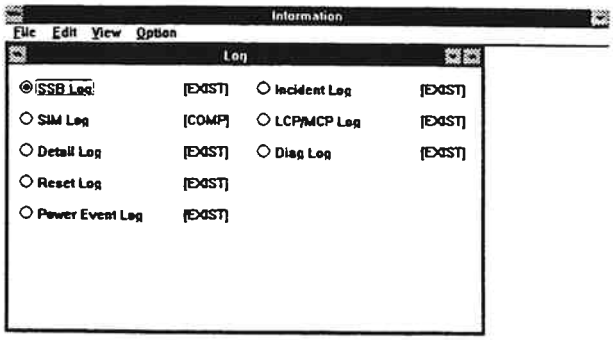


(3) Select (CL) the [View] menu in the 'Information' window and select (DR) [Log].



[1] SSB Log

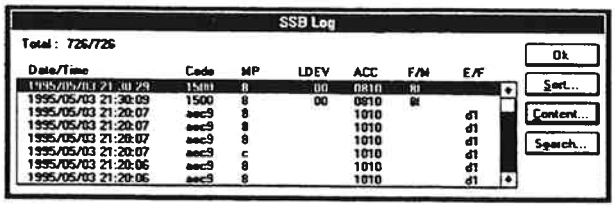
(1) Select (CL) [SSB Log] in the 'Log' dialog box. Select (CL) the [View] menu in the 'Information' window and select (DR) [List...].

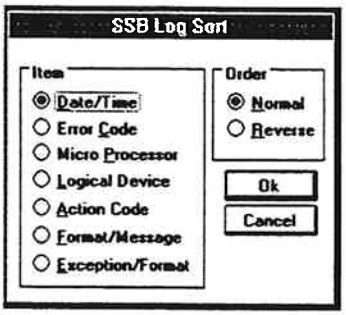


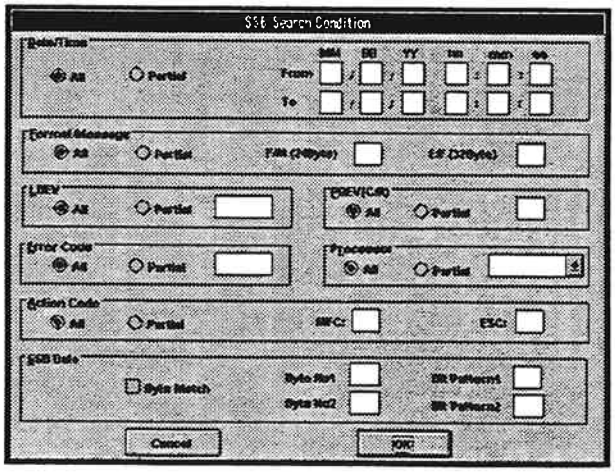
(2) Select (CL) data to be indicated in the 'SSB log' dialog box and select (CL) [Content...].

Note1: To sort and list items, select (CL) [Sort...] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'SSB Log Sort' dialog box, and select (CL) [OK]. To search for the desired log, select (CL) [Search...]. Then set the log for which you want to search individual List in the 'SSB Search Condition' dialog box and select (CL) [OK].

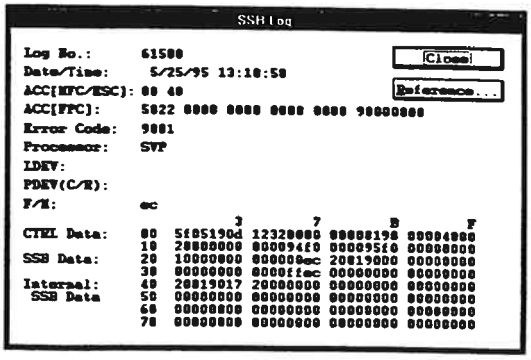
Note2: In case of the log data exceeded 1000 cases (Denominator of the total displays 1000 or more), the log data can be displayed from new data to 1000 data out of the entry sequence on SVP. The entry sequence sometimes differs from occurrence order of the log. Perform search function in order to check occurrence order. Please do not change an application's window until search function finish.



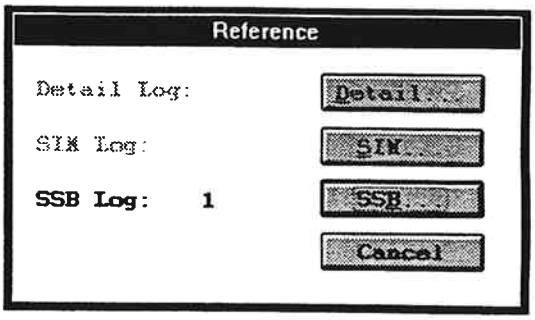




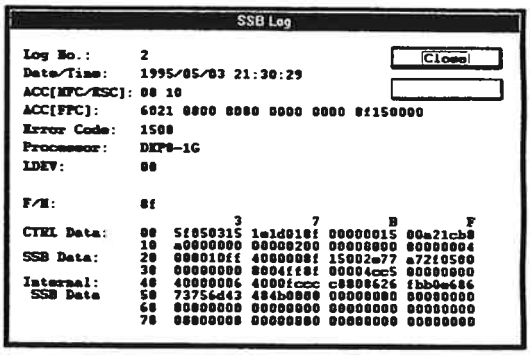
(3) The 'SSB Log' dialog box is displayed.
Select (CL) [Reference...] in the 'SSB Log' dialog box, when the relative log is displayed.



(4) Select (CL) the log to be displayed in the 'Reference' dialog box.
([SSB] is selected in this example.)



(5) Display the log to be selected.
('SSB Log' is displayed in this example.)
See SSB LOG Section

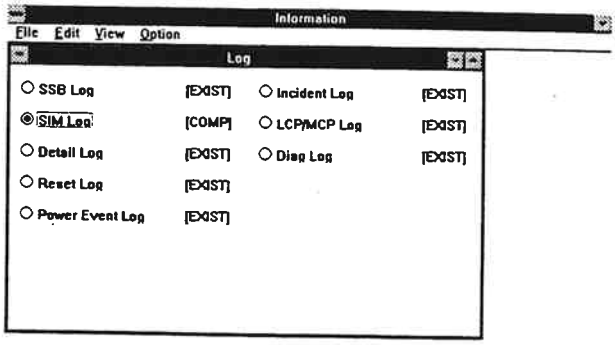


(6) Select (CL) [Close] in the 'SSB Log' dialog box.
Select (CL) [OK] in the 'SSB Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

[2] SIM Log

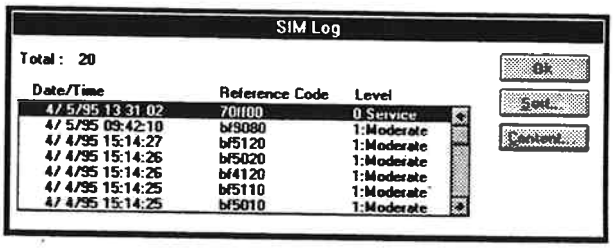
Note: When SIM log exists after SVP started up, the 'SIM Message' window is displayed.

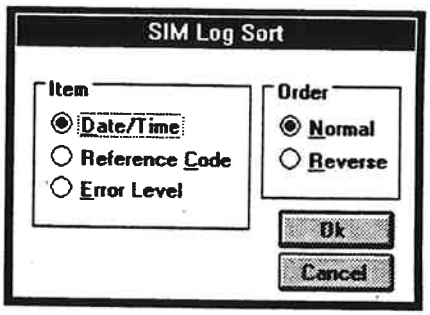
(1) Select (CL) [SIM Log] in the 'Log' dialog box. Select (CL) the [View] menu in the 'Information' window and select (DR) [List...].



(2) Select (CL) data to be indicated in the 'SIM log' dialog box and select (CL) [Content...].

Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'SIM Log Sort' dialog box, and select (CL) [OK].

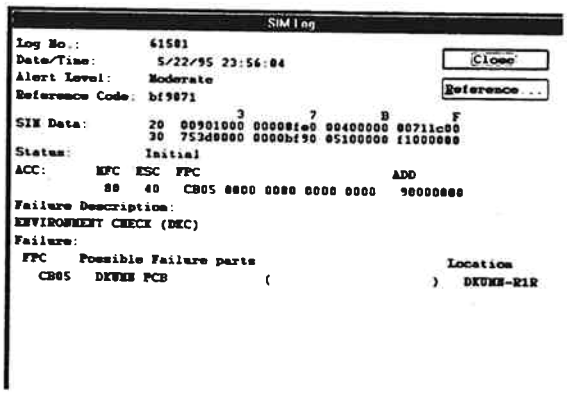




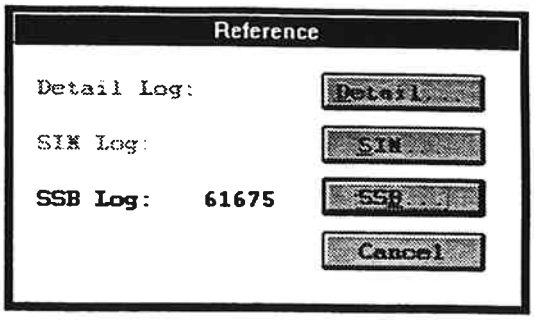
(3) The 'SIM Log' dialog box is displayed. Select (CL) [Reference...] in the 'SIM Log' dialog box, when the relative log is displayed.

Note1: In WCHK1 dump and ABEND dump received SIM (RC = 3080X0, 3081X0), the system error code is indicated in the format [YYYY] as in Reference Code 3080X0[YYYY].

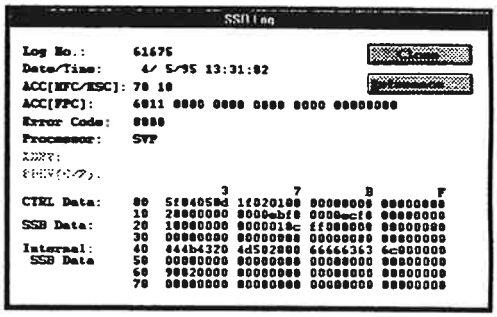
Note2: If Reference Code is 73XX00 or 1400X0, perform the recovery procedure for LAN error. (see TRBL05-70.)



(4) Select (CL) the log to be displayed in the 'Reference' dialog box.
([SSB] is selected in this example.)



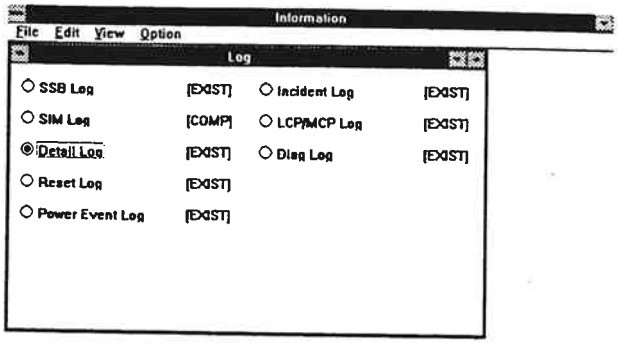
(5) Display the log to be selected.
('SSB Log' is displayed in this example.)



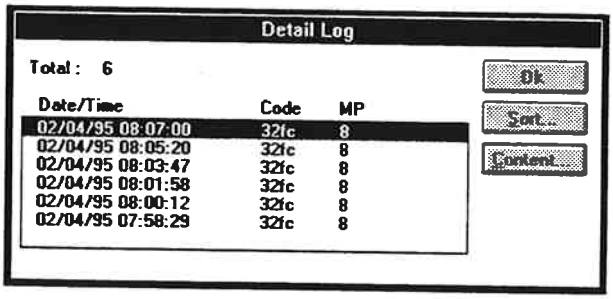
(6) Select (CL) [Close] in the 'SSB Log' dialog box.
Select (CL) [Close] in the 'SIM Log' dialog box.
Select (CL) [OK] in the 'SIM Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

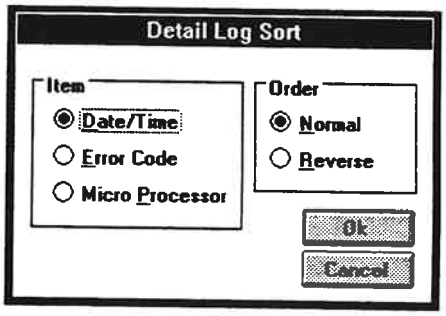
[3] Detail Log

(1) Select (CL) [Detail Log] in the 'Log' dialog box.
Select (CL) the [View] menu in the 'Information' window and select (DR) [List].

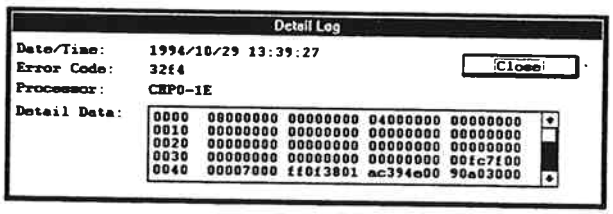


(2) Select (CL) data to be indicated in the 'Detail Log' dialog box and select (CL) [Content...].
Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'Detail Log Sort' dialog box, and select (CL) [OK].





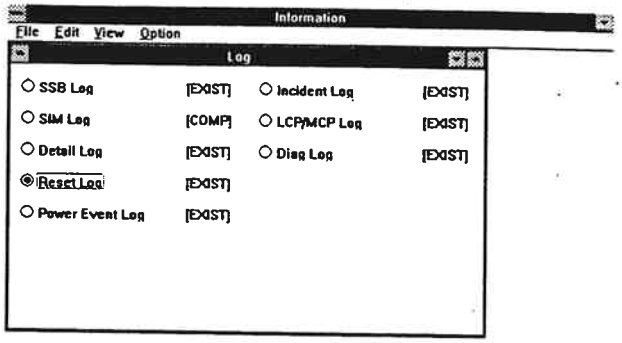
(3) The 'Detail Log' dialog box is displayed.



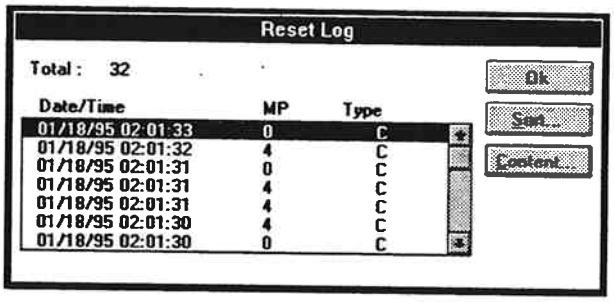
(4) Select (CL) [Close] in the 'Detail Log' dialog box.
Select (CL) [OK] in the 'Detail Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

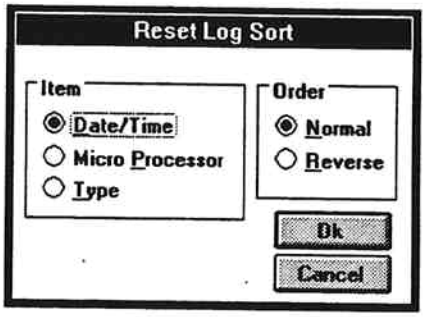
[4] Reset Log

(1) Select (CL) [Reset Log] in the 'Log' dialog box.
Select (CL) the [View] menu in the 'Information' window and select (DR) [List].

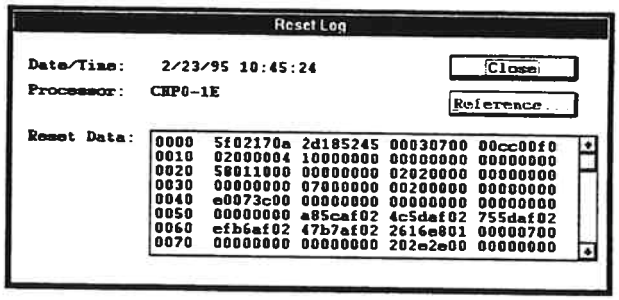


(2) Select (CL) data to be indicated in the 'Reset Log' dialog box and select (CL) [Content...].
Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'Reset Log Sort' dialog box, and select (CL) [OK].





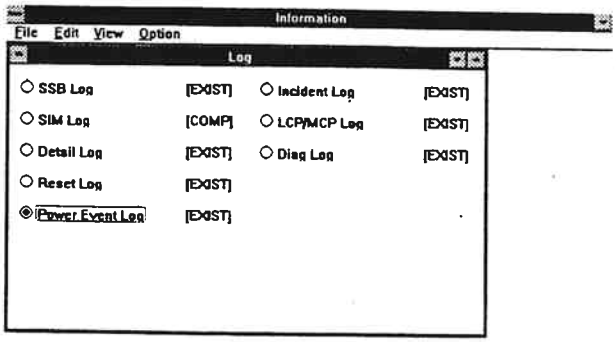
(3) The 'Reset Log' dialog box is displayed.



(4) Select (CL) [Close] in the 'Reset Log' dialog box.
Select (CL) [OK] in the 'Reset Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

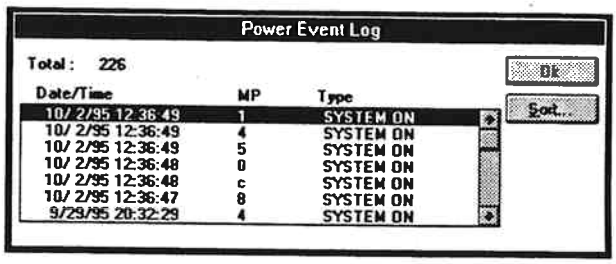
[5] Power Event Log

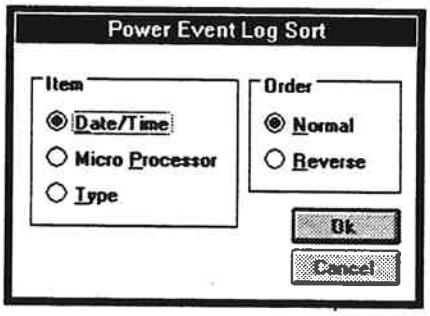
(1) Select (CL) [Power Event Log] in the 'Log' dialog box. Select (CL) the [View] menu in the 'Information' window and select (DR) [List].



(2) The 'Power Event Log' dialog box is displayed.

Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'Power Event Log Sort' dialog box, and select (CL) [OK].

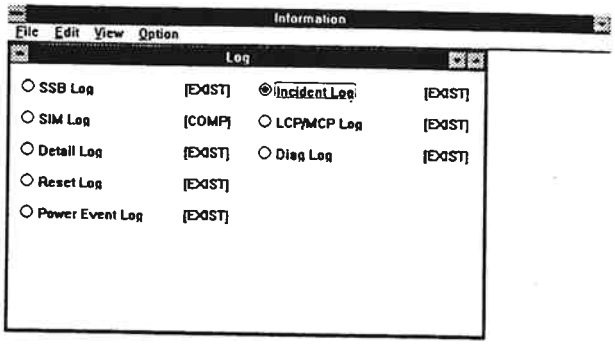




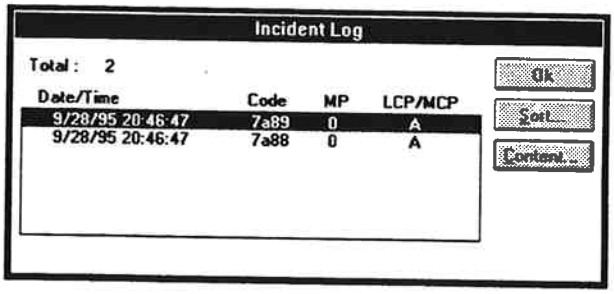
(3) Select (CL) [OK] in the 'Power Event Log' dialog box. Close the 'Log' dialog box and close the 'Information' window.

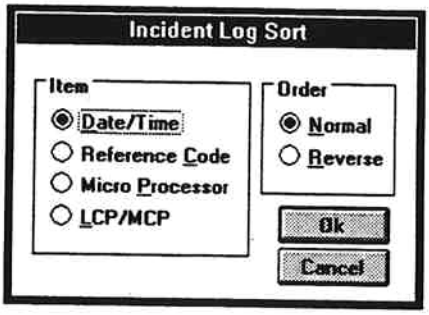
[6] Incident Log

(1) Select (CL) [Incident Log] in the 'Log' dialog box.
Select (CL) the [View] menu in the 'Information' window and select (DR) [List].

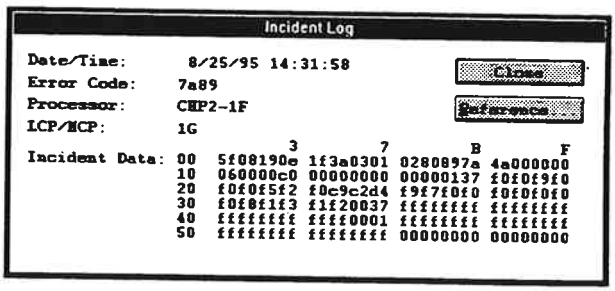


(2) Select (CL) data to be indicated in the 'Incident Log' dialog box and select (CL) [Content...].
Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'Incident Log Sort' dialog box, and select (CL) [OK].





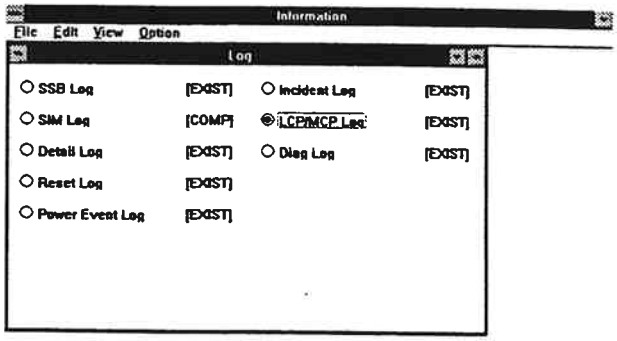
(3) The 'Incident Log' dialog box is displayed.



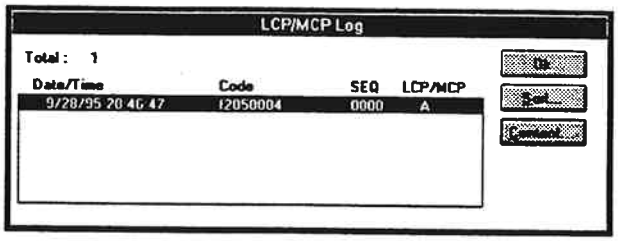
(4) Select (CL) [Close] in the 'Incident Log' dialog box.
Select (CL) [OK] in the 'Incident Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

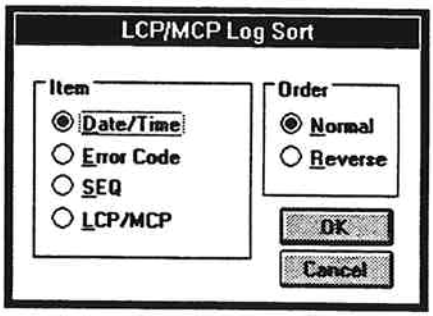
[7] LCP/MCP Log

(1) Select (CL) [LCP Log] in the 'Log' dialog box.
Select (CL) the [View] menu in the 'Information' window and select (DR) [List].

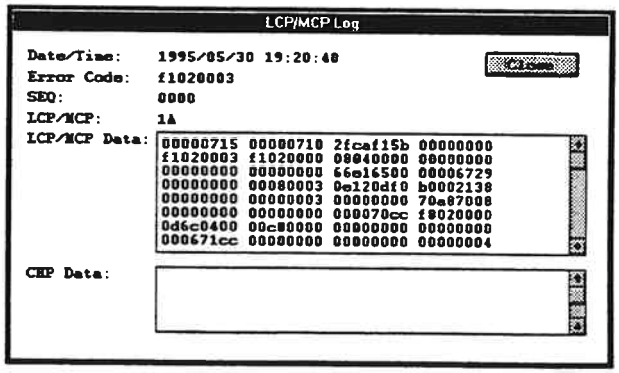


(2) Select (CL) data to be indicated in the 'LCP/MCP Log' dialog box and select (CL) [Content...].
Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'LCP Log Sort' dialog box, and select (CL) [OK].





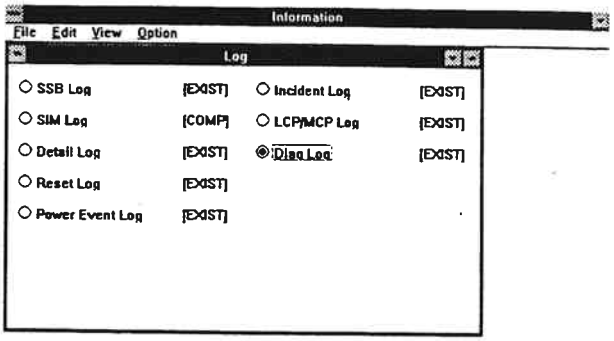
(3) The 'LCP/MCP Log' dialog box is displayed.



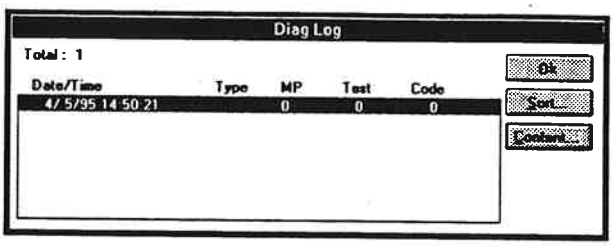
(4) Select (CL) [Close] in the 'LCP/MCP Log' dialog box.
Select (CL) [OK] in the 'LCP/MCP Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

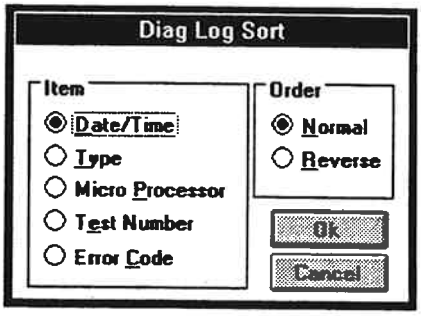
[8] Diag Log

(1) Select (CL) [Diag Log] in the 'Log' dialog box.
Select (CL) the [View] menu in the 'Information' window and select (DR) [List].

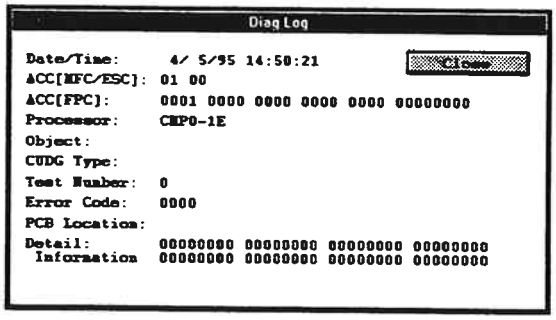


(2) Select (CL) data to be indicated in the 'Diag Log' dialog box and select (CL) [Content...].
Note: To sort and list items, select (CL) [Sort] first. Then select (CL) the desired item in the [Item] and [Order] options in the 'Diag Log Sort' dialog box, and select (CL) [OK].





(3) The 'Diag Log' dialog box is displayed.

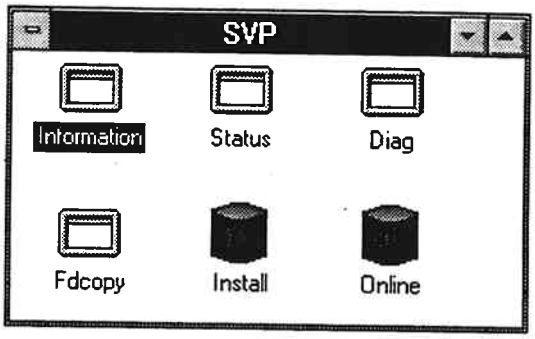


(4) Select (CL) [Close] in the 'Diag Log' dialog box.
Select (CL) [OK] in the 'Diag Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

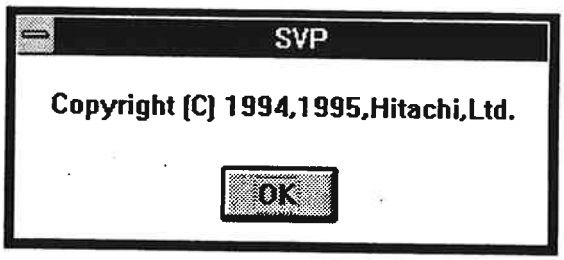
10.2.3 Log delete

[1] SSB Log
[2] SIM Log
[3] Detail Log
[4] Reset Log
[5] Power Event Log
[6] Incident Log
[7] LCP/MCP Log
[8] Diag Log

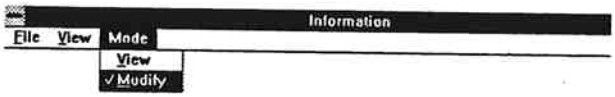
(1) Select (DC) the [Information] icon in the 'SVP' window.



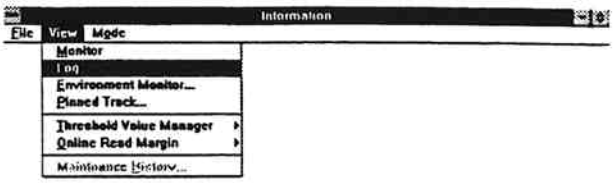
(2) Select (CL) [OK] in the 'SVP' dialog box.



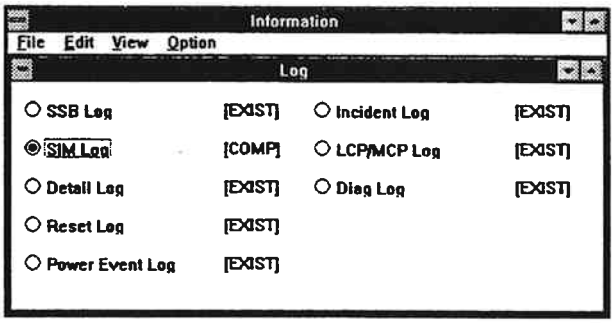
(3) Select (CL) the [Mode] menu in the 'Information' window and select (DR) [Modify].



(4) Select (CL) the [View] menu in the 'Information' window and select (DR) [Log].



(5) In the Log dialog box, select (CL) an item to be deleted. Select (CL) the [Edit] menu in the 'Information' window and select (DR) [Delete].

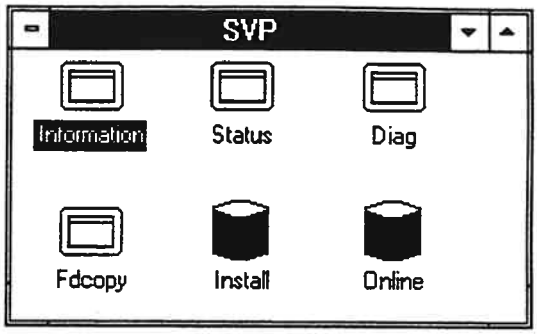


(6) Select (CL) [OK] in the 'Log Delete' dialog box.

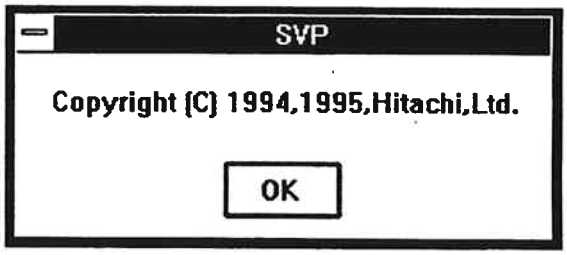
(7) Close the 'Log' dialog box and close the 'Information' window.

10.2.4 Monitoring

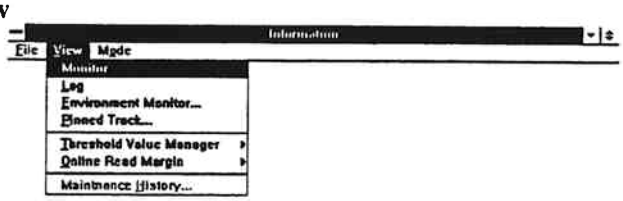
(1) Select (DC) the [Information] icon in the 'SVP' window.



(2) Select (CL) [OK] in the 'SVP' dialog box.

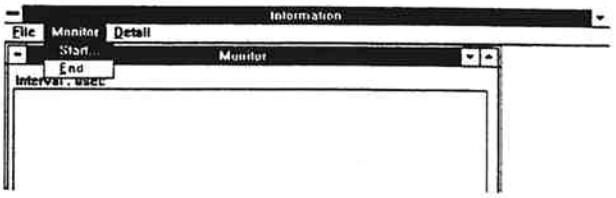


(3) Select (CL) the [View] menu in the 'Information' window and select (DR) [Monitor].



[1] Displaying a graph for items

(1) Select (CL) the [Monitor] menu in the 'Information' window and select (DR) [Start...].



(2) Select (CL) [Interval] , [File Output] , and [Item] in the 'Monitoring' dialog box and select (CL) [OK].

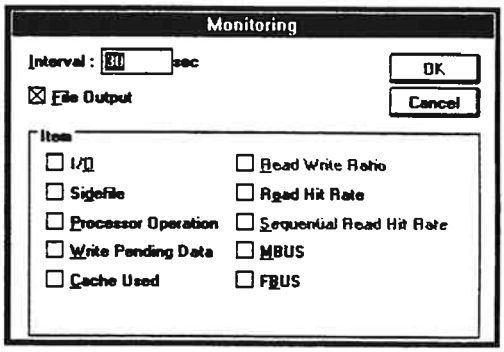
Note 1: When you select [Processor Operation] in the "Item" list box, "Interval" indicates a time interval from 5 to 3600 at which samples are taken.
When you do not select [Processor Operation] in the "Item" list box, "Interval" indicates a time interval from 5 to 43200 at which samples are taken.

Note 2: Up to three items can be selected in the "Item" list box. The selectable values are:

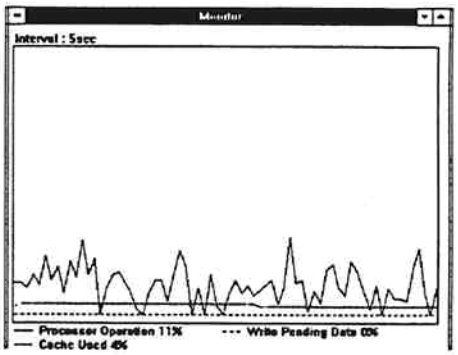
Processor Operation : Operation ratio of the processor
Write Pending Data : Write pending data ratio
Cache Used : Use ratio of the cache
Read Hit Rate : Read hit ratio of the subsystem
Sidefile : Sidefile ratio of the subsystem

After SVP version is 01-06-28/00 or 01-07-02/00

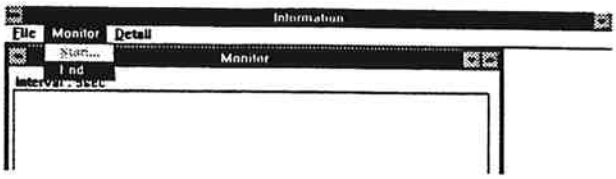
MBUS : Use ratio of MBUS
FBUS : Use ratio of FBUS



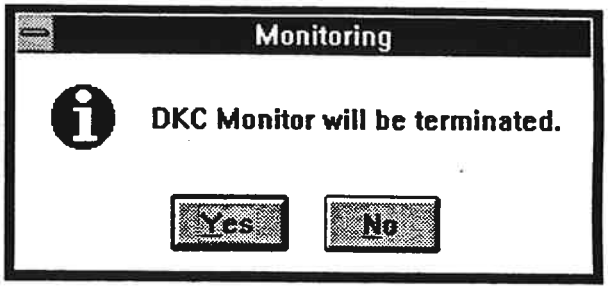
(3) After a few minutes, a graph is displayed for the item selected in step (2).



(4) Select (CL) the [Monitor] menu in the 'Information' window and select (DR) [End].



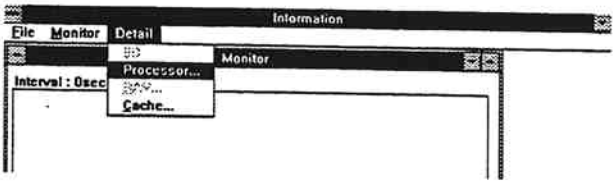
(5) When the message "DKC Monitor will be terminated" is displayed in the 'Monitoring' dialog box, select(CL) [Yes].



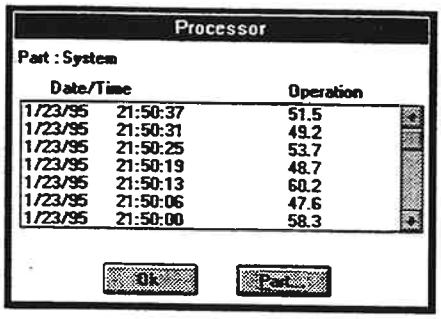
(6) Close the 'Monitor' dialog box and close the 'Information' window.

[2] Displaying the operation ratio of the processor

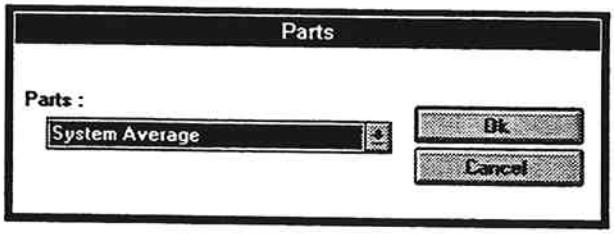
(1) Display a graph (see steps listed above).
Select (CL) [Processor Operation] in the "Item" list box.
Select (CL) the [Detail] menu in the 'Information' window, and select (DR) [Processor].



(2) Select (CL) [Part...]in the 'Processor' dialog box.

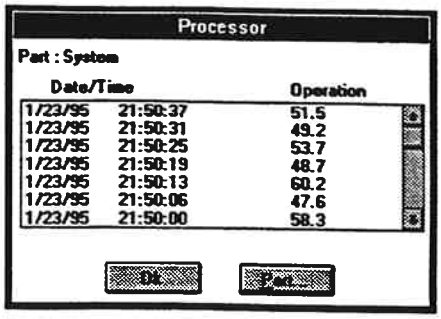


(3) Select (DR) the contents of "Parts" in the 'Parts' dialog box and select (CL) [OK].
Note: In the Parts list box, the following values are selectable.



System Average	: Average in the system
CHP Average	: Average for the CHP
DKP Average	: Average for the DKP
CHP0-1E	: Average for a particular processor
CHP1-1E	: Average for a particular processor
CHP2-1F	: Average for a particular processor
CHP3-1F	: Average for a particular processor
CHP4-2Q	: Average for a particular processor
CHP5-2Q	: Average for a particular processor
CHP6-2R	: Average for a particular processor
CHP7-2R	: Average for a particular processor
DKP8-1G	: Average for a particular processor
DKP9-1H	: Average for a particular processor
DKPA-1J	: Average for a particular processor
DKPB-1K	: Average for a particular processor
DKPC-2L	: Average for a particular processor
DKPD-2M	: Average for a particular processor
DKPE-2N	: Average for a particular processor
DKPF-2P	: Average for a particular processor

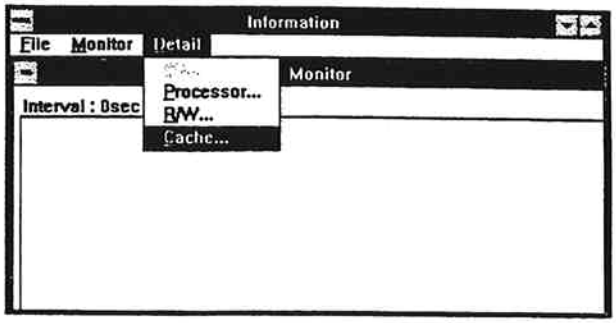
(4) Select (CL) [OK] in the 'Processor' dialog box.



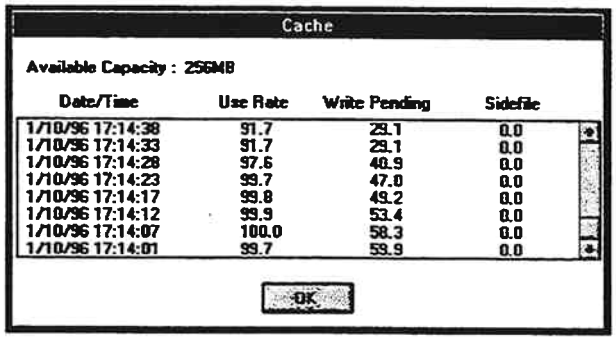
(5) Close the 'Monitor' dialog box and close the 'Information' window.

[3] Displaying the use ratio of the cache and the write pending data ratio in a tabular form.

(1) Display a graph (see section [1] (SVP02-160) above). Select (CL) [Write Pending Data], [Cache Used] or [Sidefile] in the "Item" list box. Select (CL) [Detail] in the 'Information' window, and select (DR) [Cache].



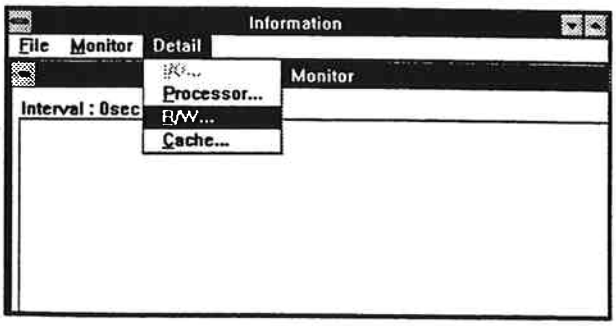
(2) Select (CL) [OK] in the 'Cache' dialog box.



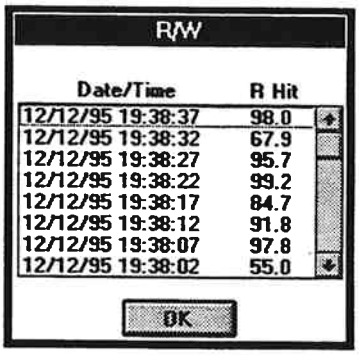
(3) Close the 'Monitor' dialog box and close the 'Information' window.

[4] Displaying the read hit ratio in a tabular form

(1) Display a graph by executing steps (1) to (5) in "[1] Displaying a graph for items" in advance. In step (2), select (CL) [Read Hit Rate] in the "Item" list box. Select (CL) [Detail] in the 'Information' window, and select (DR) [R/W...].



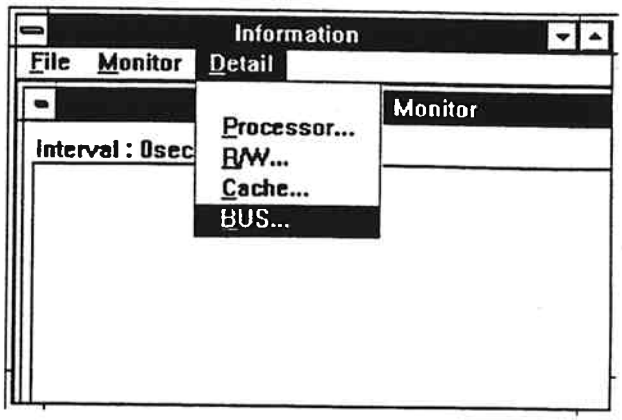
(2) Select (CL) [OK] in the 'R/W' dialog box.



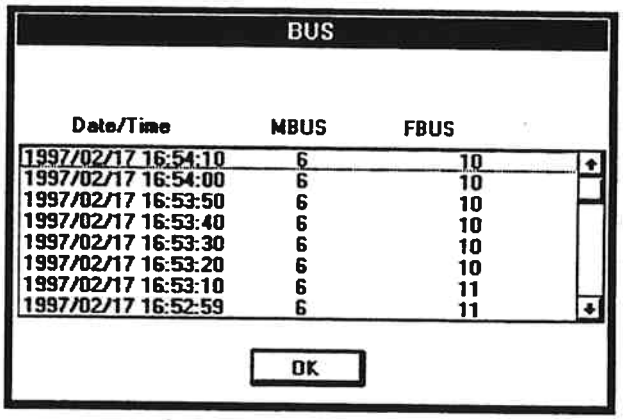
(3) Close the 'Monitor' window and close the 'Information' window.

[5] Displaying the use ratio of the BUS in a tabular form (After SVP version is 01-06-28/00 or 01-07-02/00)

(1) Display a graph by executing steps (1) to (5) in "[1] Displaying a graph for items" in advance. Select (CL) [Detail] in the 'Information' window, and select (DR) [BUS...].



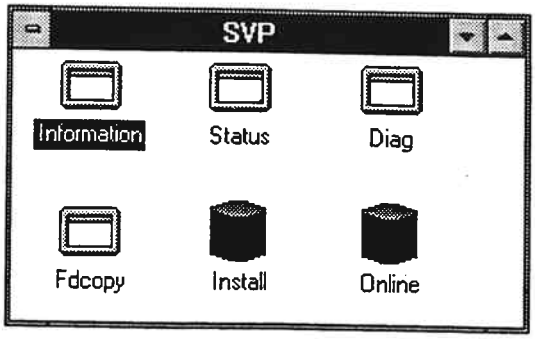
(2) Select (CL) [OK] in the 'BUS' dialog box.



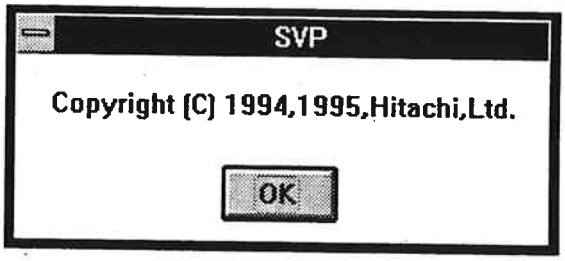
(3) Close the 'Monitor' window and close the 'Information' window.

10.2.5 Environment Monitor

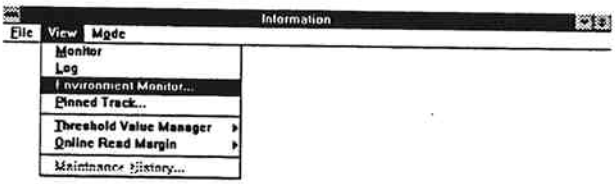
(1) Select (DC) the [Information] icon in the 'SVP' window.



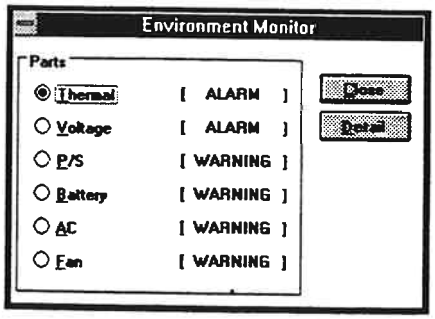
(2) Select (CL) [OK] in the 'SVP' dialog box.



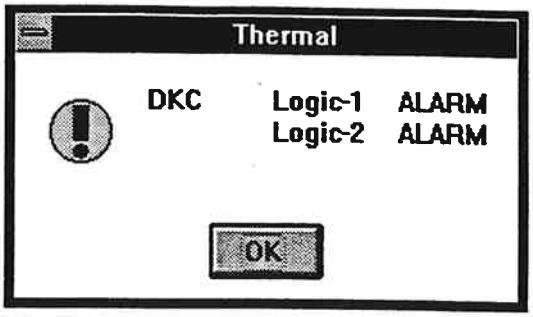
(3) Select (CL) the [View] menu in the 'Information' window and select (DR) [Environment Monitor...].



(4) Select (CL) the corresponding item in the 'Environment Monitor' dialog box and select (CL) [Detail].



(5) Details of the item selected in Step (4) is displayed ("Thermal" is selected in this example).



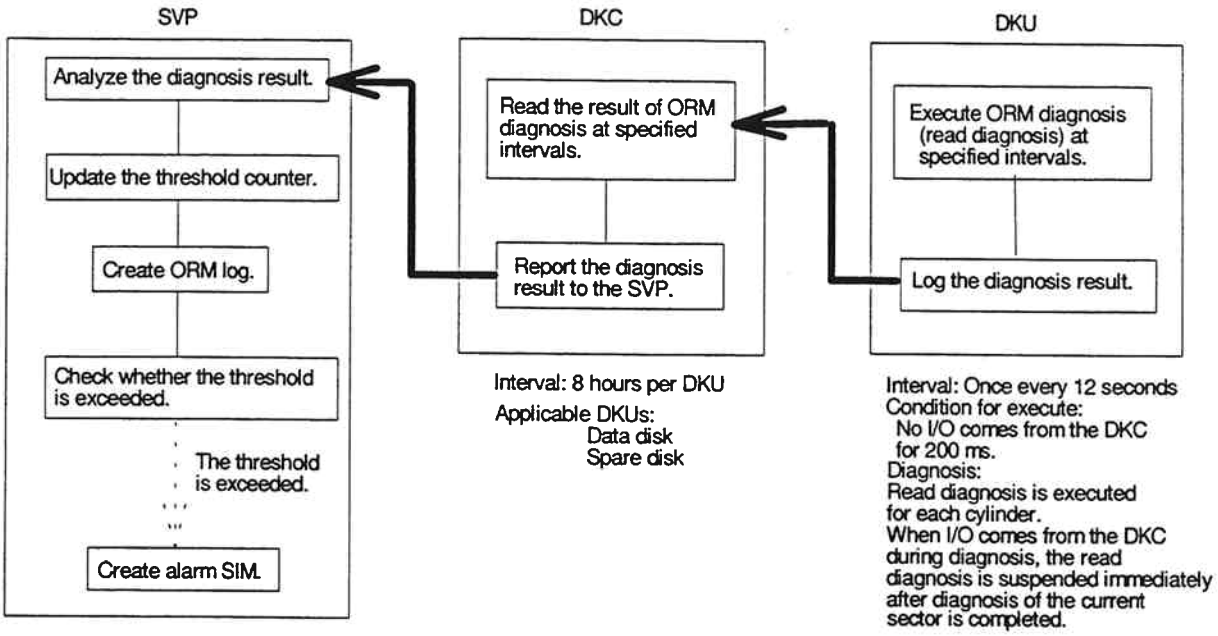
(6) Select (CL) [OK] in the 'Thermal' dialog box.

(7) Close the 'Environment Monitor' dialog box and close the 'Information' window.

10.2.6 Online read margin (ORM)

[Overview]

The on-line read margin test (ORM) function is a read diagnostic function provided for preventive maintenance of disk drives. The diagnostic is automatically executed in each SCSI drive. The DKC reads the diagnostic result at specified intervals and reports it to the SVP.



The SVP calculates the error ratio to the threshold value which is set in advance, and indicates it in the OVER RATE Display (see [1], (2)). When the Rate in the display exceeds 100%, it means the error count is exceeding the threshold, the SVP creates the warning SIM. It is, however, not reported to the Host. The disk drive reporting the SIM should be exchanged with higher priority than other normal drives.

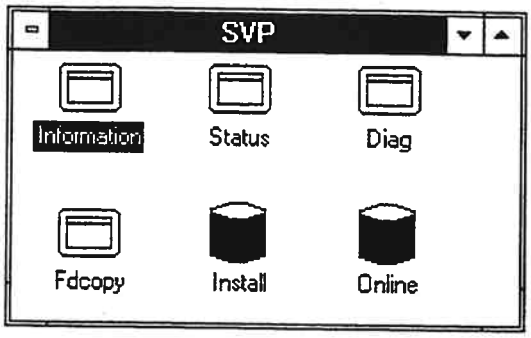
The SVP classifies the errors into six types in the Over Rate Counter Display. They are Unrecovered Read Error, Recovered Read Error, Unrecovered Seek error, Recovered Seek Error, Not Ready and Other Errors. Each has three types of counters indicated as Today, 7 days and Total. Refer to [1], (4) for the Over Rate Counter Display. In the OVER RATE Display, the error ratio which has the largest number among those classified types is displayed for each drive to represent each error.

The warning SIMs to be reported in the ORM are shown below.

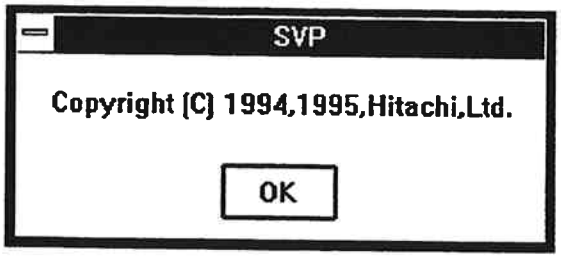
ORM SIM and Reference Code

No	Error Type	Reference Code	Meaning
1	Unrecovered Read Error	5020	Drive Media Error
2	Recovered Read Error		
3	Unrecovered Seek Error	5010	Drive Unit Error
4	Recovered Seek Error		
5	Not Ready		
6	Other Errors		

(1) Select (DC) the [Information] icon in the 'SVP' window.

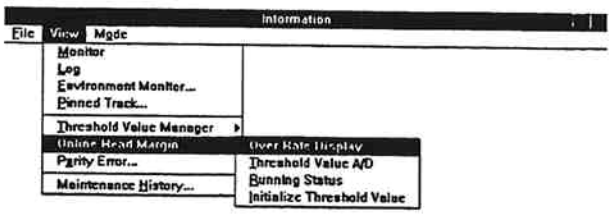


(2) Select (CL) [OK] in the 'SVP' dialog box.

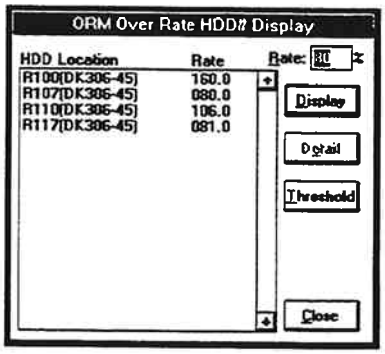


[1] Displaying an error count, thresholds, and log

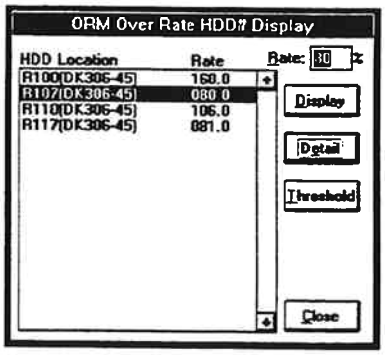
(1) Select (CL) the [View] menu in the 'Information' window and select (DR) [Online Read Margin]. A pop-up menu will appear. Select (DR) [Over Rate Display].



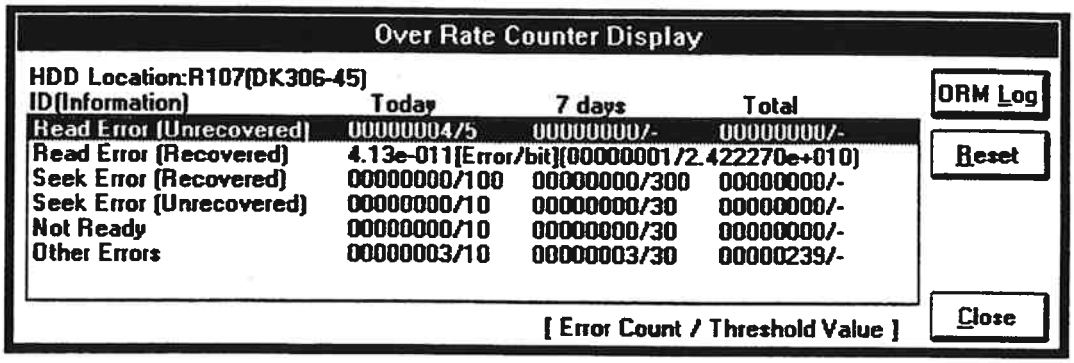
(2) Enter a value from 0 to 100 at "Rate" in the 'ORM Over Rate HDD# Display' dialog box. Select (CL) [Display]. Then only the HDDs which have the rate of equal to or greater than the specified value will appear in the display.



(3) When more detail information is needed for the particular drive, select (CL) the HDD from the "HDD Location" list box. Select (CL) [Detail].



(4) In the 'Over Rate Counter Display' dialog box,
select (CL) the error for which detailed log is to be displayed from the "ID" list box. Select (CL) [ORM LOG].



The errors detected in the ORM are classified into six types of error category. Each error has the following definition.

a) Read Error [Unrecovered]
A disk media error was detected. After ten times retries, the error was judged that it might become a serious media error which could not be recovered with ECC or retries.

b) Read Error [Recovered]
A disk media error was detected. After ten times retries, the error was judged that it was an intermittent read error and recoverable, and included in the error rate management for the preventive maintenance.

c) Seek Error [Recovered]
A seek error was detected. After ten times retries, the error was judged to be recoverable.

d) Seek Error [Unrecovered]
A seek error was detected. After ten times retries, the error was judged to be unrecoverable.

e) Not Ready
Not Ready status of the drive was detected.

f) Other Errors
Any error which does not belong to the above classification was detected.

They are also managed with different time periods. "Today" is for one day count and cleared at AM 0:00 every day. "7 days" is for the cumulative value in the latest 7 days. "Total" shows the total cumulative count.

In this Over Rate Counter Display, each error category indicates the Error Count and the Threshold value except for the Read Error [Recovered]. The "-" for the Threshold value means no threshold is set.

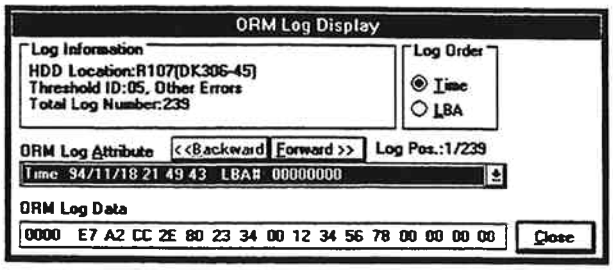
Only the Read Error [Recovered] has an error rate expression. It is not managed with error count per day, per 7 days or Total. The error rate of the Read Error [Recovered] is calculated in the following formula:

Error rate = Number of error sectors/Number of ORM scan bits

Note 1) Only the result from approximately the latest one volume scan in ORM is used for the calculation.

In the example display, "4.13e-011" means the error rate is "3.18×10^{-10}". This is corresponding to the raw error count and scan bits shown as "00000001/2.422270e+010", where the error count is one sector and the scan bits is 2.422270×10^{10}.

(5) The nature of the error selected in step (4) is displayed. (In this example, the nature of "Other Errors" is displayed.)



Byte	Bit	Name	Explanation
0 - 3		UCT	Time when the diagnostic result was reported from the DKC to the SVP
4	7	Log Valid	When this bit is 1, it indicates that this log is valid.
	6	Address Valid	When this bit is 1, it indicates that the address information in bytes 8 to F is valid
	5 - 4	(Reserved)	Reserved
	3 - 0	Sense Key	Error sense key in the SCSI drive report. (*1)
5		Additional Sense Code	Additional sense code in the SCSI drive report .(*1)
6		Sense Code Qualifier	Additional sense code qualifier in the SCSI drive report. (*1)
7		Seek Error Count	Number of seek errors within 10 seek error retries.
8 - 9		CC	Address of the cylinder where the error occurred.
A		H	Address of the head where the error occurred.
B		S	Address of the sector where the error occurred.
C - F		LBA	LBA where the error occurred.

*1 Definition and contents of the error codes are same as those of the SSB for ordinary DKU errors.

(6) Select (CL) [Close] in the 'ORM Log Display' dialog box.

(7) Select (CL) [Close] in the 'Over Rate Counter Display' dialog box.

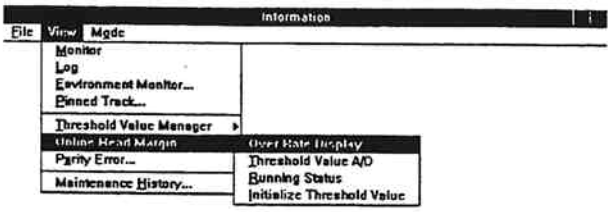
(8) Select (CL) [Close] in the 'ORM Over Rate HDD# Display' dialog box.

(9) Close the 'Information' window.

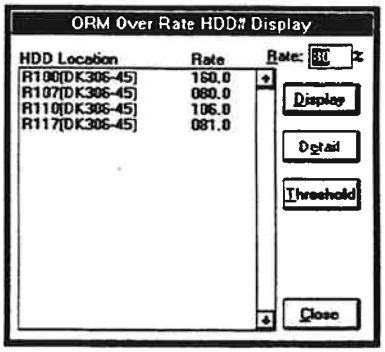
[2] Resetting an error count

(1) Select (CL) the [Mode] menu in the 'Information' window and select (DR) [Modify].

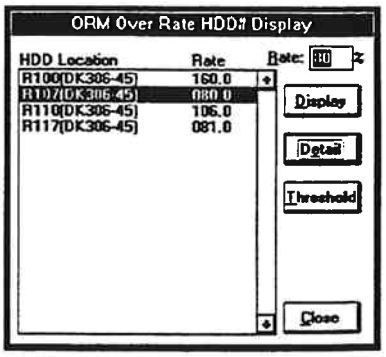
(2) Select (CL) the [View] menu in the 'Information' window and select (DR) [Online Read Margin]. A pop-up menu will appear. Select (DR) [Over Rate Display].



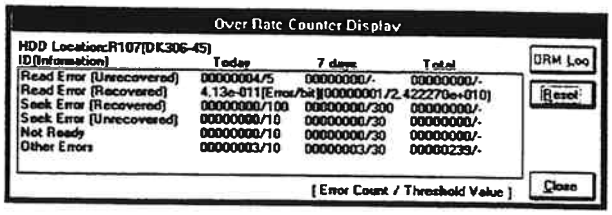
(3) Enter a value from 0 to 100 at 'Rate' in the 'ORM Over Rate HDD# Display' dialog box. Select (CL) [Display].



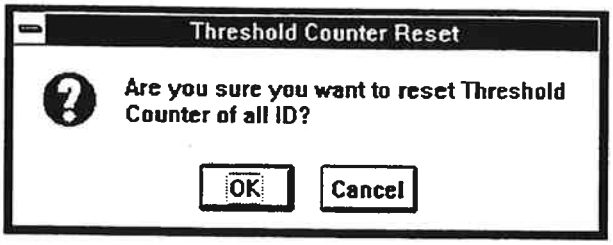
(4) In the 'ORM Over Rate HDD# Display' dialog box, select (CL) the HDD for which an error count and thresholds are to be displayed from the "HDD Location" list box. Select (CL) [Detail].



(5) In the 'Over Rate Counter Display' dialog box, select (CL) [Reset].



(6) Select (CL) [OK] in the 'Threshold Counter Reset' dialog box.



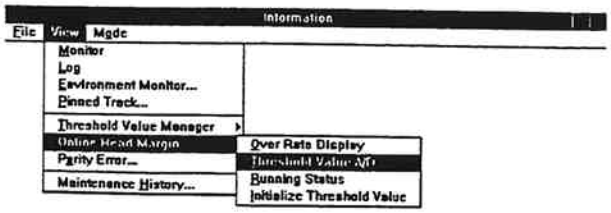
(7) Select (CL) [Close] in the 'Over Rate Counter Display' dialog box.

(8) Select (CL) [Close] in the 'ORM Over Rate HDD# Display' dialog box.

(9) Close the 'Information' window.

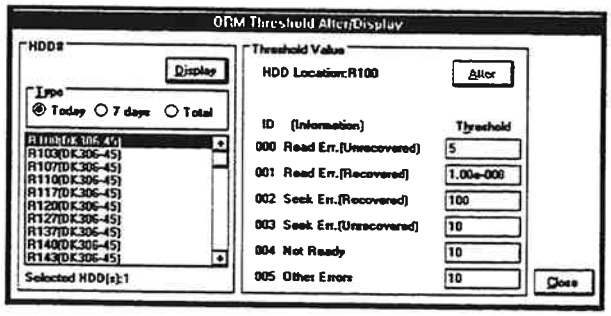
[3] Displaying thresholds

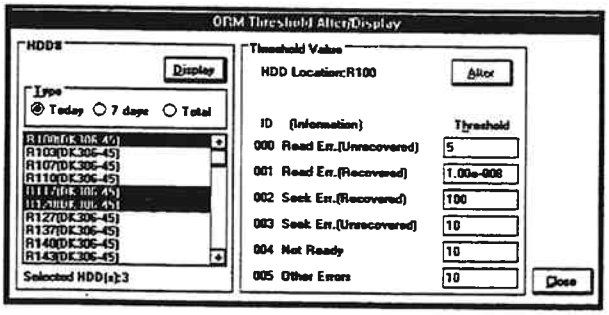
(1) Select (CL) the [View] menu in the 'Information' window and select (DR) [Online Read Margin]. A pop-up menu will appear. Select (DR) [Threshold Value A/D].



(2) In the 'ORM Threshold Alter/Display' dialog box, select (CL) an HDD from the "HDD#" list box and select (CL) [Display]. In order to display threshold of another interval, select (CL) the interval from the "Type" list box.

Note: Multiple HDDs can be selected (CL) from the "HDD#" list box while the control key is being held down. In this case, each "Threshold" field in the "Threshold Value" list box shows the threshold for the HDD that is highlighted in the "HDD#" list box.



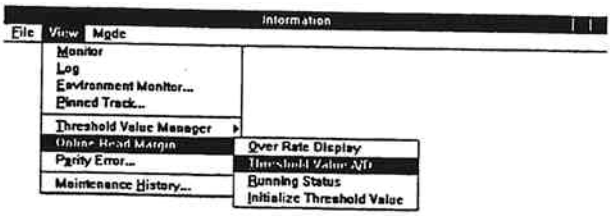


(3) Select (CL) [Close] in the 'ORM Threshold Alter/Display' dialog box and close the 'Information' window.

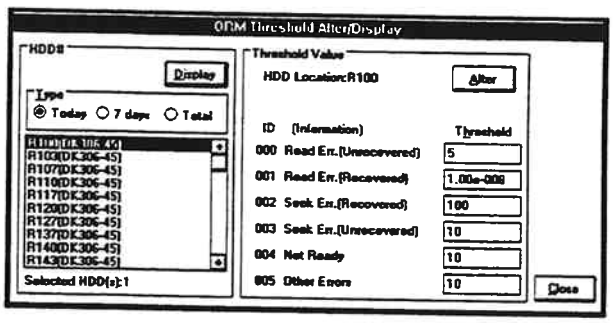
[4] Altering a threshold

(1) Select (CL) the [Mode] menu in the 'Information' window and select (DR) [Modify].

(2) Select (CL) the [View] menu in the 'Information' window and select (DR) [Online Read Margin]. A pop-up menu will appear. Select (DR) [Threshold Value A/D].

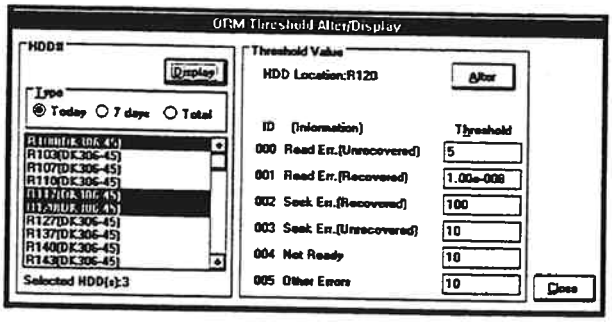


(3) In the 'ORM Threshold Alter/Display' dialog box, select (CL) an HDD from the "HDD#" list box and select (CL) [Display]. In order to display threshold of another interval, select (CL) the interval from the "Type" list box.

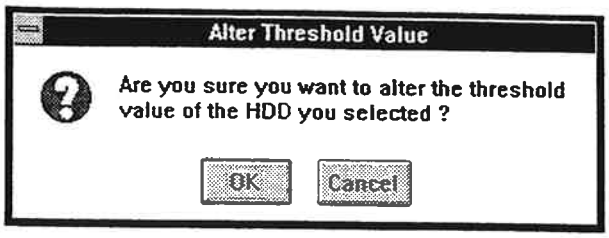


(4) In the 'ORM Threshold Alter/Display' dialog box, alter the threshold in the "Threshold" field in the "Threshold Value" list box. Then select (CL) [Alter].

Note: When multiple HDDs are selected in the "HDD#" list box, the thresholds of all HDDs are altered to the same value.



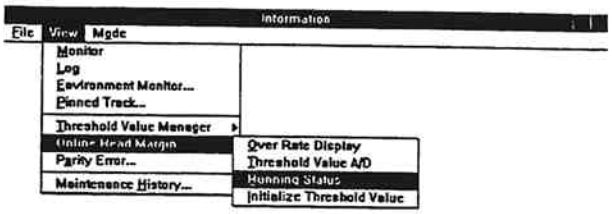
(5) Select (CL) [OK] in the 'Alter Threshold Value' dialog box.



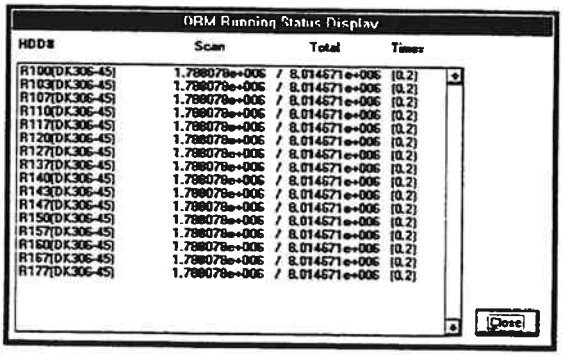
(6) Select (CL) [Close] in the 'ORM Threshold Alter/Display' dialog box and close the 'Information' window.

[5] Displaying the ORM running status

(1) Select (CL) the [View] menu in the 'Information' window and select (DR) [Online Read Margin]. A pop-up menu will appear. Select (DR) [Running Status].



(2) In the 'ORM Running Status Display' dialog box, the ORM running status is displayed as the number of sectors.
Note: The "HDD#" list box shows the location numbers of HDDs. "Scan" shows the number of scanned sectors. "Total" shows the total number of sectors in the drive. "Times" shows the number of times the entire drive was scanned.

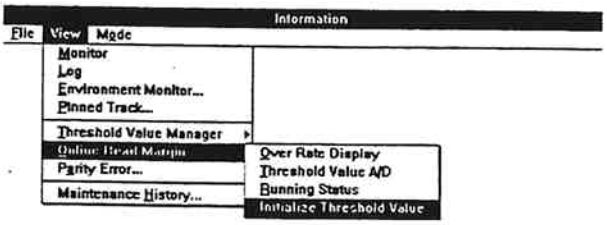


(3) Select (CL) [Close] in the 'ORM Running Status Display' dialog box and close the 'Information' window.

[6] Resetting thresholds

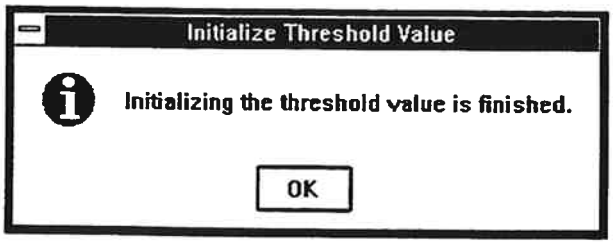
(1) Select (CL) the [Mode] menu in the 'Information' window and select (DR) [Modify].

(2) Select (CL) the [View] menu in the 'Information' window and select (DR) [Online Read Margin]. A pop-up menu will appear. Select (DR) [Initialize Threshold Value].



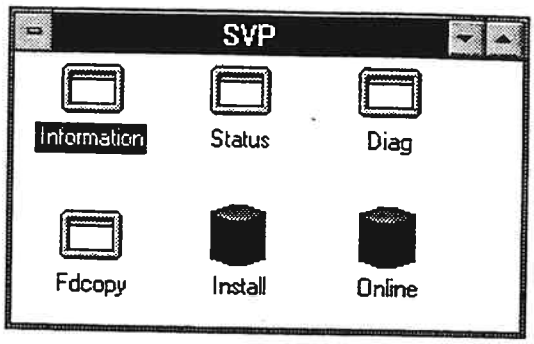
(3) The message "Please wait a moment." is displayed.

(4) Select (CL) [OK] in the 'Initialize Threshold Value' dialog box.

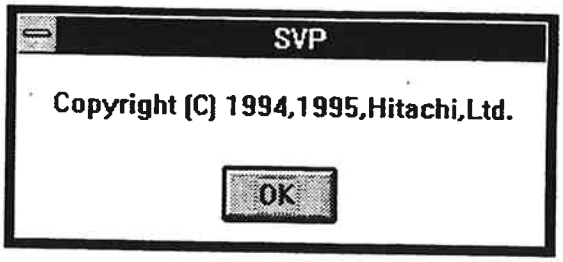


10.2.7 SIM Reporting Specification

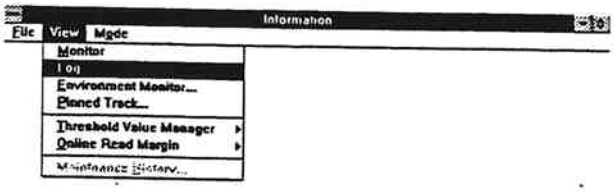
(1) Select (DC) the [Information] icon in the 'SVP' window.



(2) Select (CL) [OK] in the 'SVP' dialog box.

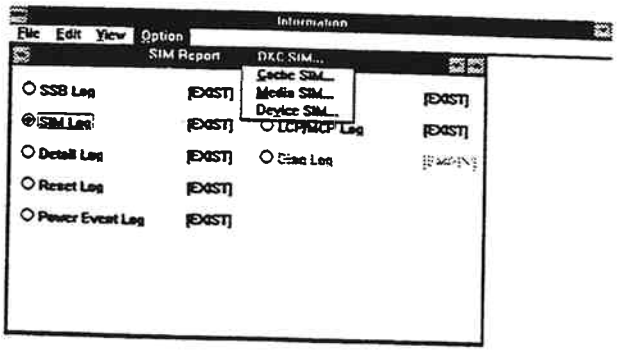


(3) Select (CL) the [View] menu in the 'Information' window and also select (DR) [Log].



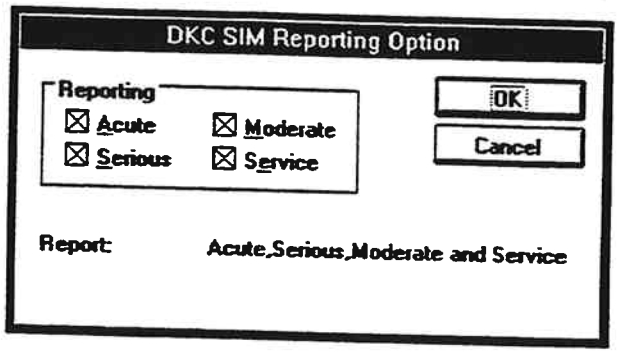
[1] DKC SIM

(1) Select (CL) the [Option] menu in the 'Information' window and also select (DR) [SIM Report]. A pop-up menu will be displayed. Select (DR) [DKC SIM...].



(2) Select (CL) the level to be reported in the 'DKC SIM Reporting Option' dialog box, and also select (CL) [OK].

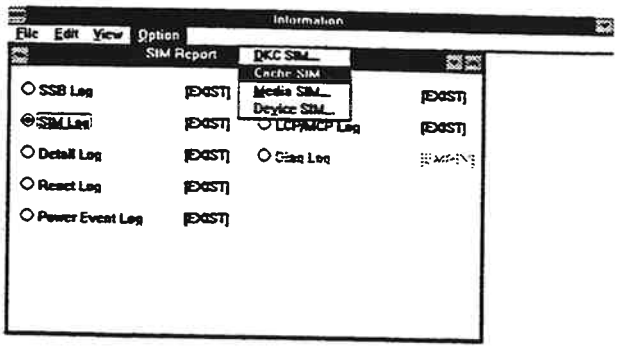
SIM message report level are arranged as follows in order of the higher level.
Acute > Serious > Moderate > Service
Selecting of a level means all higher levels are to be reported.



(3) Close the 'Log' dialog box and also close the 'Information' window.

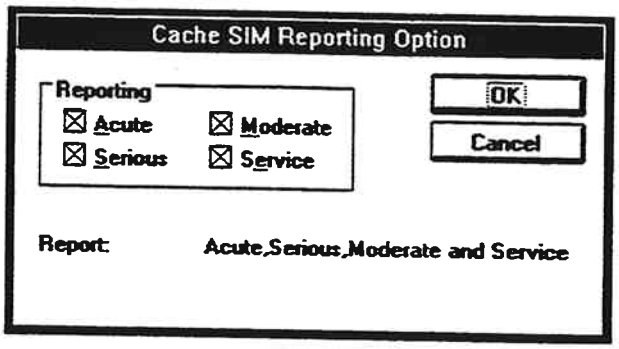
[2] Cache SIM

(1) Select (CL) the [Option] menu in the 'Information' window and also select (DR) [SIM Report].
A pop-up menu will be displayed. Select (DR) [Cache SIM...].



(2) Select (CL) the level to be reported in the 'Cache SIM Reporting Option' dialog box, and also select (CL) [OK].

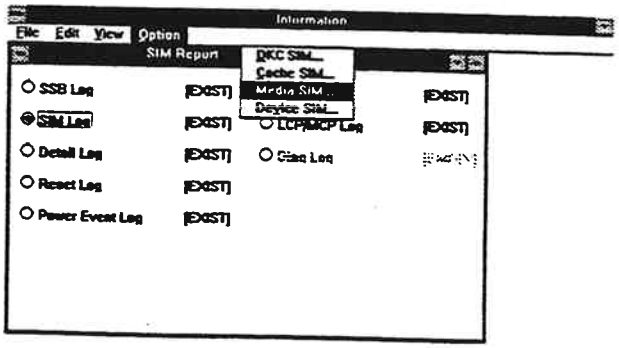
SIM message report level are arranged as follows in order of the higher level.
Acute > Serious > Moderate > Service
Selecting of a level means all higher levels are to be reported.



(3) Close the 'Log' dialog box and also close the 'Information' window.

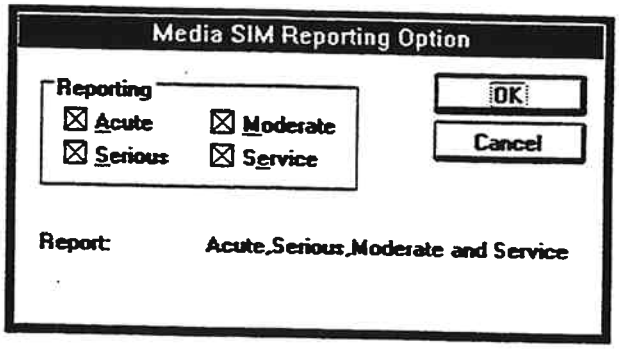
[3] Media SIM

(1) Select (CL) the [Option] menu in the 'Information' window and also select (DR) [SIM Report].
A pop-up menu will be displayed. Select (DR) [Media SIM...].



(2) Select (CL) the level to be reported in the 'Media SIM Reporting Option' dialog box, and also select (CL) [OK].

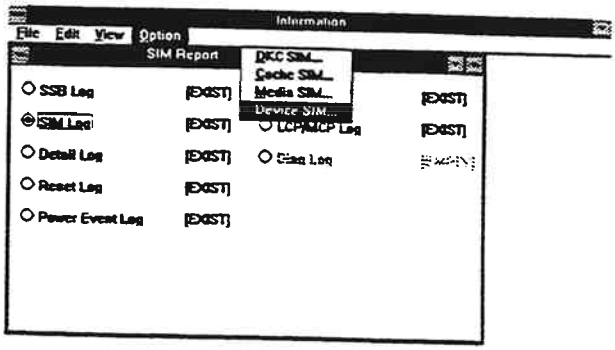
SIM message report level are arranged as follows in order of the higher level.
Acute > Serious > Moderate > Service
Selecting of a level means all higher levels are to be reported.



(3) Close the 'Log' dialog box and also close the 'Information' window.

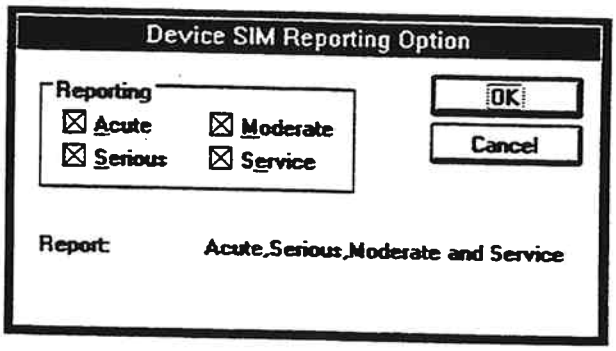
[4] Device SIM

(1) Select (CL) the [Option] menu in the 'Information' window and also select (DR) [SIM Report].
A pop-up menu will be displayed. Select (DR) [Device SIM...].



(2) Select (CL) the level to be reported in the 'Device SIM Reporting Option' dialog box and also select (CL) [OK].

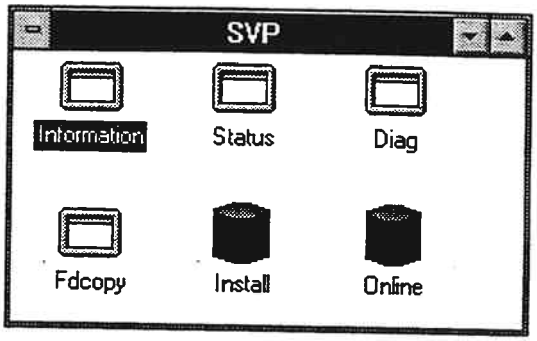
SIM message report level are arranged as follows in order of the higher level.
Acute > Serious > Moderate > Service
Selecting of a level means all higher levels are to be reported.



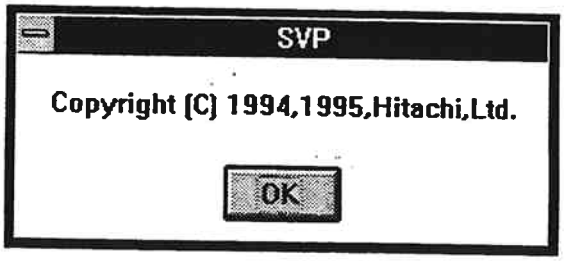
(3) Close the 'Log' dialog box and also close the 'Information' window.

10.2.8 Management of drive threshold values

(1) Select (DC) the [Information] icon in the 'SVP' window.

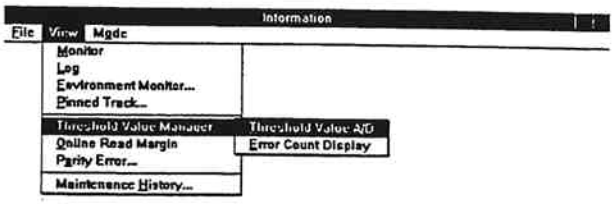


(2) Select (CL) [OK] in the 'SVP' dialog box.

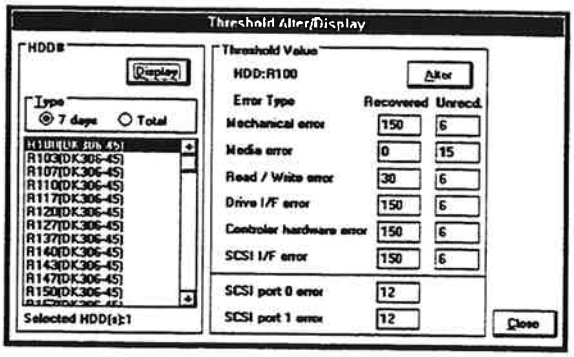


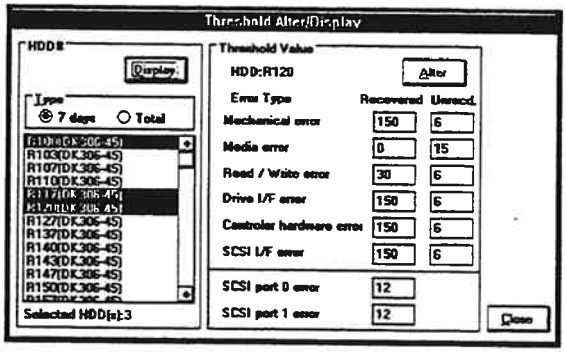
[1] Displaying threshold values

(1) Select (CL) the [View] menu in the 'Information' window and also select (DR) [Threshold Value Manager]. A pop-up menu will be displayed. Select (DR) [Threshold Value A/D].



(2) Select (CL) an HDD location from the "HDD#" list box in the 'Threshold Alter/Display' dialog box and select (CL) [Display].
In order to display threshold of another interval, select (CL) the interval from the "Type" list box.
Note: Multiple HDD locations can be selected (CL) from the "HDD#" list box while the control key being held down. The threshold value in the "Threshold Value" list box shows the threshold valu for the HDD location that is highlighted in the "HDD#" list box.
Recovered: Threshold of errors recoverable by retry.
Unrecd: Threshold of errors not recoverable by retry.



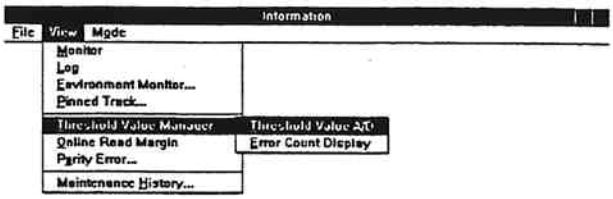


(3) Select (CL) [Close] in the 'Threshold Alter/Display' dialog box and close the 'Information' window.

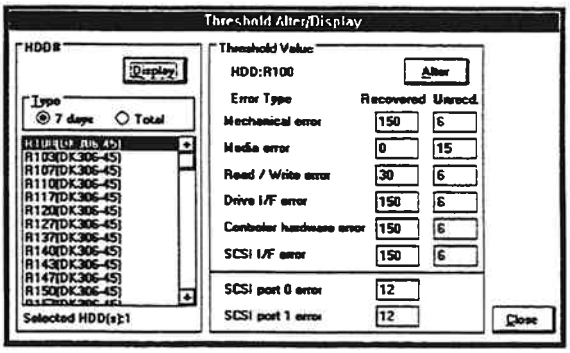
[2] Altering threshold value

(1) Select (CL) the [Mode] menu in the 'Information' window and also select (DR) [Modify].

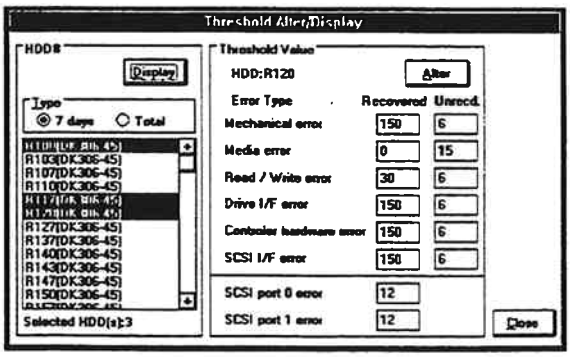
(2) Select (CL) the [View] menu in the 'Information' window and also select (DR) [Threshold Value Manager].
A pop-up menu will be displayed.
Select (DR) [Threshold Value A/D].



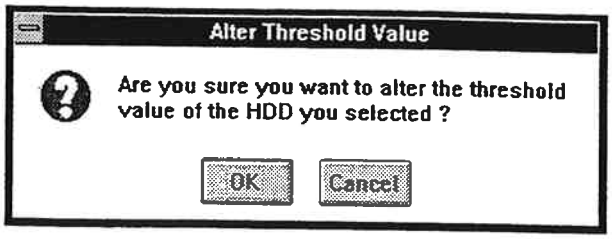
(3) Select (CL) an HDD location from the "HDD#" list box in the 'Threshold Alter/Display' dialog box and select (CL) [Display]. In order to display threshold of another interval, select (CL) the interval from the "Type" list box.



(4) Alter a threshold value in the "Threshold Value" list box in the 'Threshold Alter/Display' dialog box.
Then select (CL) [Alter].
Note: When multiple HDD location are selected (CL) from the "HDD#" list box while the control key being hold down, the thresholds for the all selected HDDs are modified to the same value.



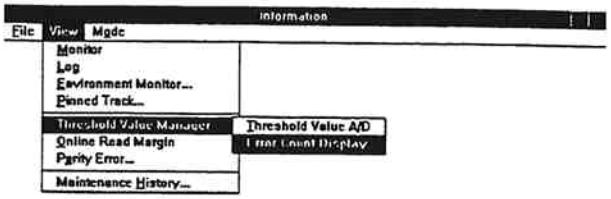
(5) Select (CL) [OK] in the 'Alter Threshold Value' dialog box.



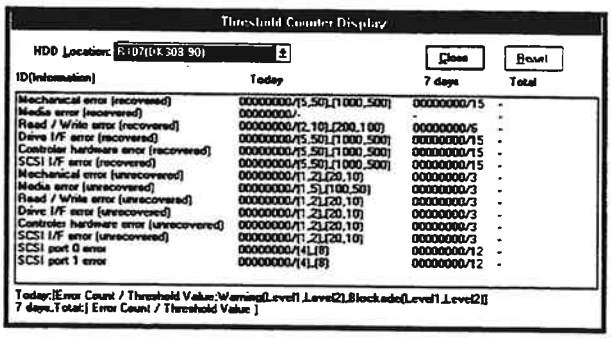
(6) Select (CL) [Close] in the 'Threshold Alter/Display' dialog box and close the 'Information' window.

[3] Displaying an error count

(1) Select (CL) the [View] menu in the 'Information' window and also select (DR) [Threshold Value Manager]. A pop-up menu will be displayed. Select (DR) [Error Count Display].



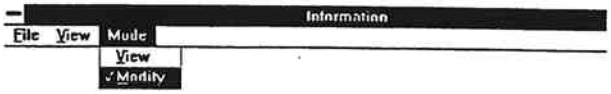
(2) Select (CL) an HDD location from the "HDD Location" drop-down list in the 'Threshold Counter Display' dialog box to display the error count for the HDD.



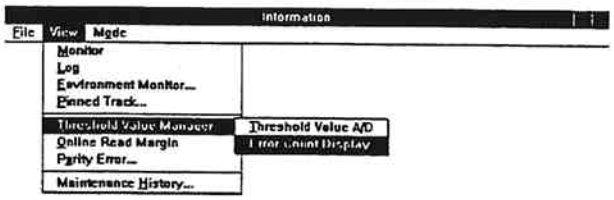
(3) Select (CL) [Close] in the 'Threshold Counter Display' dialog box and close the 'Information' window.

[4] Resetting an error count

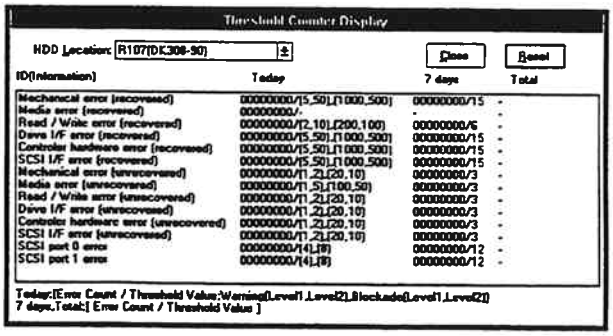
(1) Select (CL) the [Mode] menu in the 'Information' window and also select (DR) [Modify].



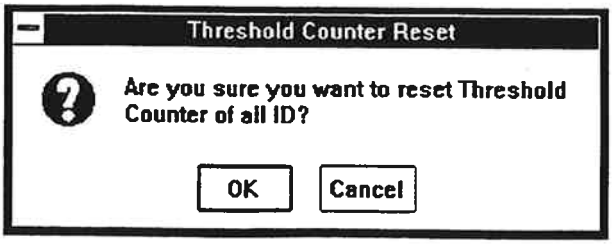
(2) Select (CL) the [View] menu in the 'Information' window and also select (DR) [Threshold Value Manager]. A pop-up menu will be displayed. Select (DR) [Error Count display].



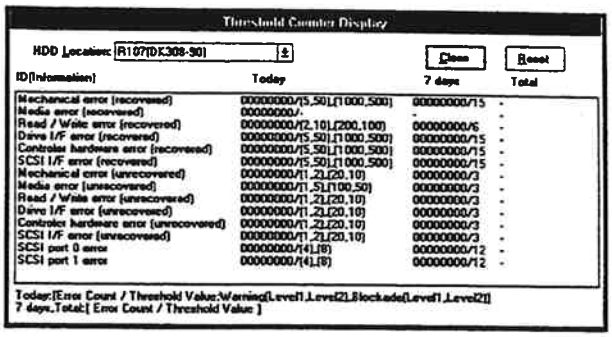
(3) Select (CL) the HDD location , for which you want to reset the error count, from the "HDD Location" drop-down list in the 'Threshold Counter Display' dialog box and also select (CL) [Reset].



(4) Select (CL) [OK] in the 'Threshold Counter Reset' dialog box.



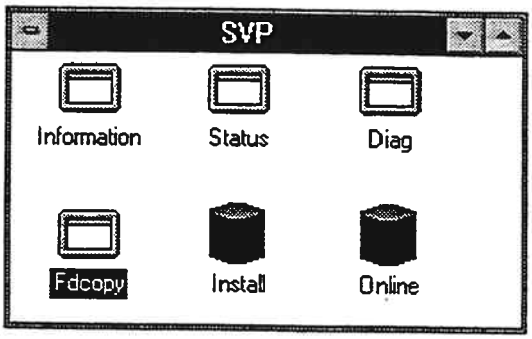
(5) After confirming that the error count has been reset in the ''Threshold Counter Display' dialog box select (CL) [Close] and close the 'Information' window.



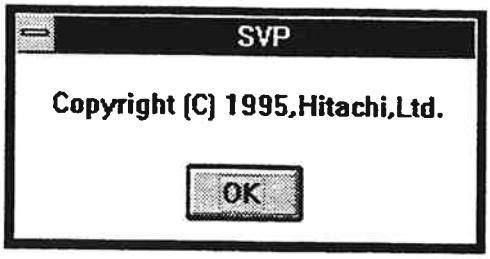
10.2.9 DUMP/LOG FD Copy

The first operation.

(1) Select (DC) the [Fdcopy] icon in the 'SVP' window.

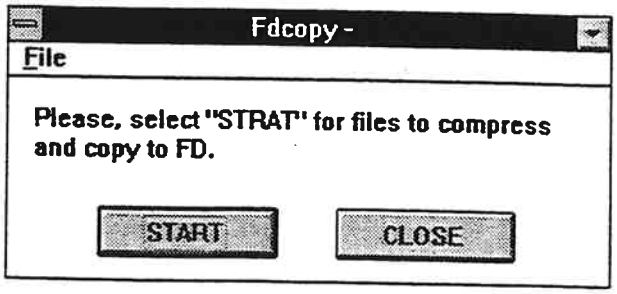


(2) Select (CL) [OK] in the 'SVP'dialog box.



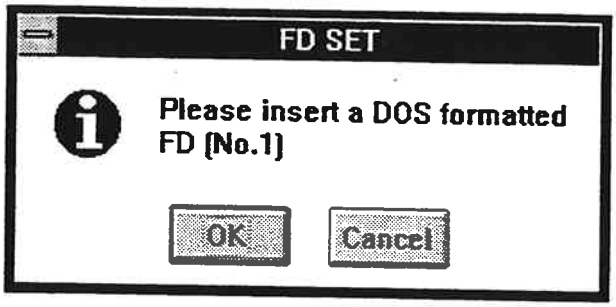
Copying the dump and log files to a floppy disk.

(1) Select (CL) [START] in the 'Fdcopy" dialog box.

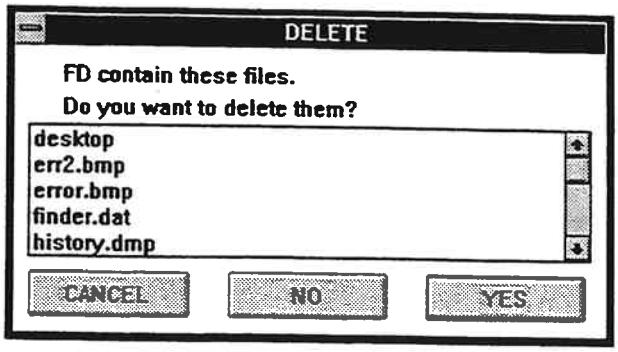


(2) The message "Please insert a DOS formatted FD (NO.1) " will be displayed in the 'FD SET' dialog box. In response to this message, insert a floppy disk and select (CL) [OK].

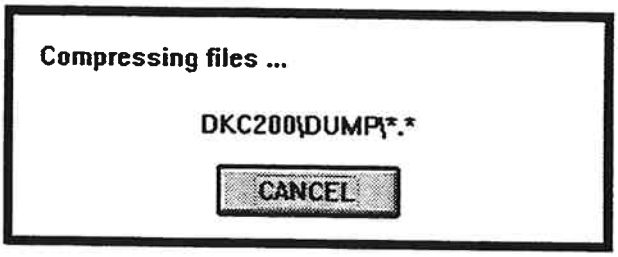
Note: When the ejective button of the FDD is pushed, the FD is jumped out. Do not drop the FD.



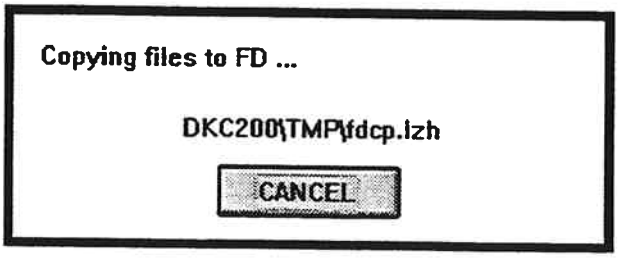
(3) If the floppy disk contains files, the message "FD contain these files. Do you want to delete them ?" is displayed.
If you want to delete these files, select (CL) [YES] and proceed to step (5).
If you don't want to delete these files, select (CL) [NO] and proceed to step (5).
If an error occurs, check the items indicated by the 'ACCESS ERROR!!' dialog box then select (CL) [Retry].
(You will go back to the beginning of step (4).)



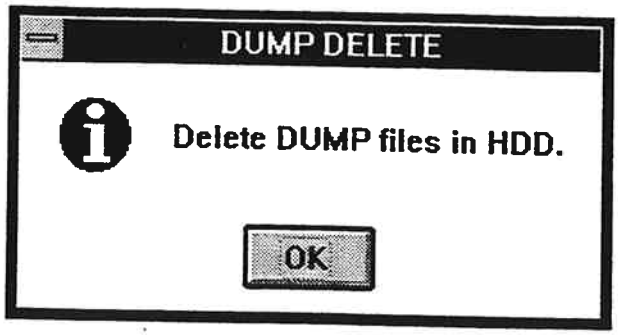
(4) The message "Compressing files..." is displayed, and compressing is started.



(5) The message "Copying files to FD..." is displayed, and copying is started.
(If the capacity of the floppy disk becomes insufficient, go back to step (2) and replace the floopy disk with a new one.)



(6) The message "Delete DUMP files in HDD." is displayed in the 'DUMP DELETE' dialog box.
Select (CL) [OK] and delete DUMP files in HDD.

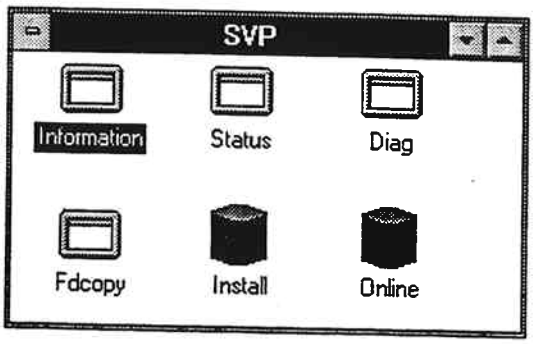


(7) Close the 'Fdcopy' dialog box.

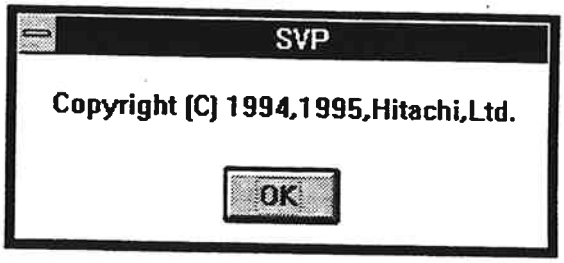
Blank Sheet

10.2.10 SIM Log Complete

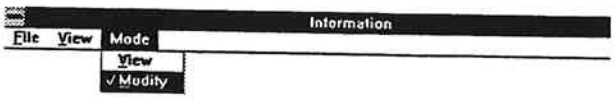
(1) Select (DC) the [Information] icon in the 'SVP' window.



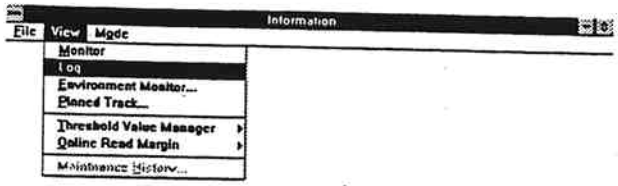
(2) Select (CL) [OK] in the 'SVP' dialog box.



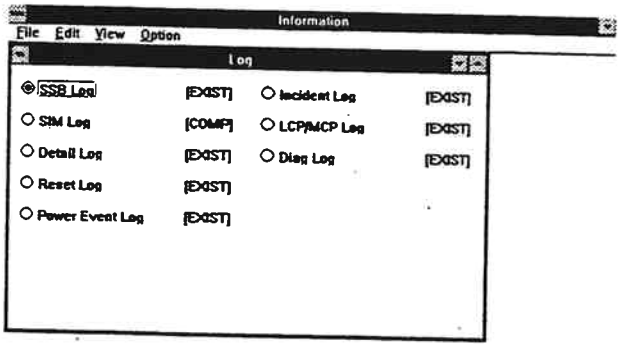
(3) Select (CL) the [Mode] menu in the 'Information' window and select (DR) [Modify].



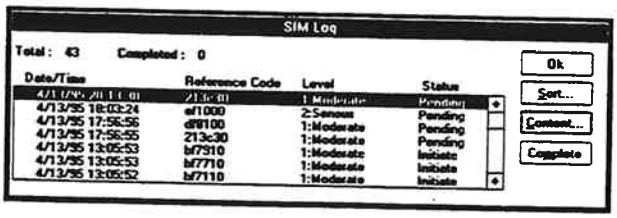
(4) Select (CL) the [View] menu in the 'Information' window and select (DR) [Log].



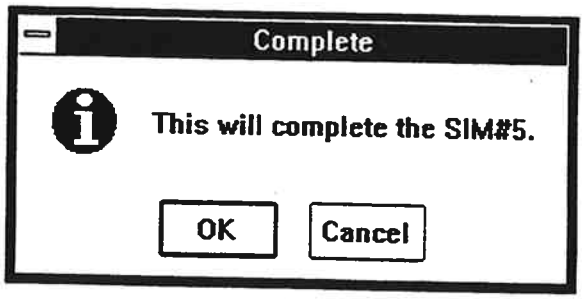
(5) Select (CL) [SIM Log] in the 'Log' dialog box.
Select (CL) the [View] menu in the 'Information' window and select (DR) [List].



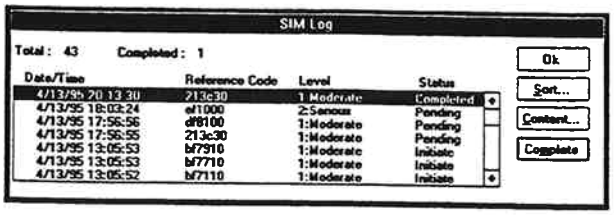
(6) Select (CL) data to be completed in the 'SIM Log' dialog box and select (CL) [Complete].



(7) Select (CL) [OK] in the 'Complete' dialog box.



(8) In the 'SIM Log' dialog box, [Status] is displayed.

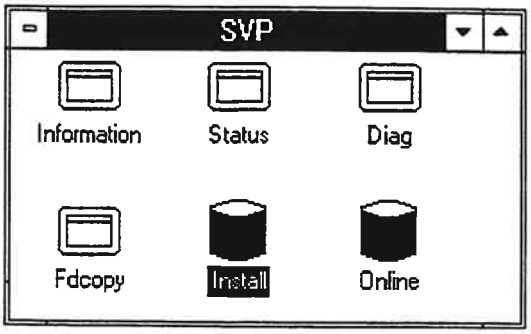


(9) Select (CL) [OK] in the 'SIM Log' dialog box.
Close the 'Log' dialog box and close the 'Information' window.

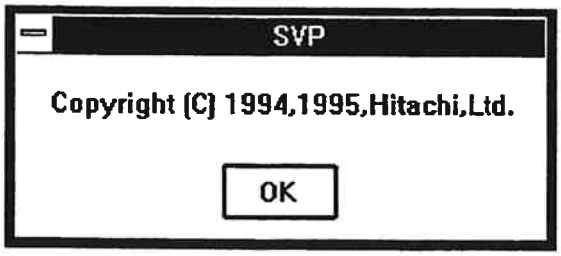
10.2.11 Dump

[1] Manual Dump

(1) Select (DC) the [Install] icon in the 'SVP' window.

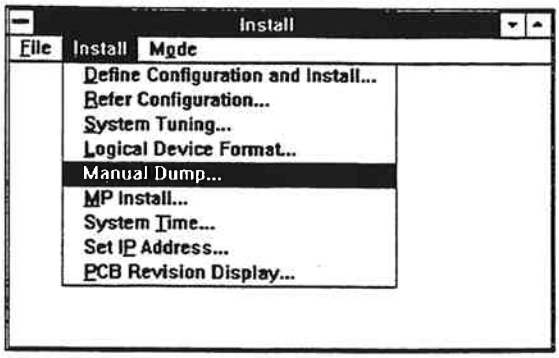


(2) Select (CL) [OK] in the 'SVP' dialog box.

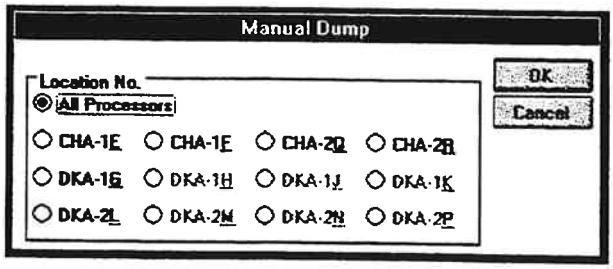


(3) Select (CL) the [Mode] menu in the 'Install' window and select (DR) [Modify].

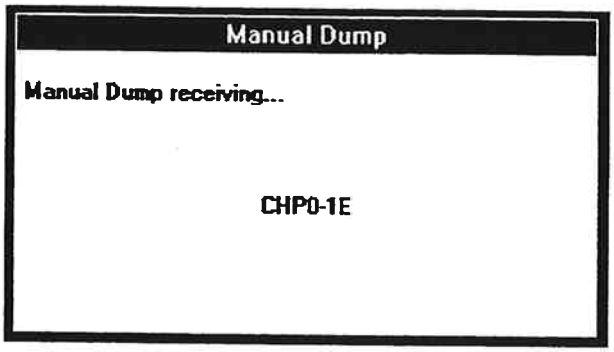
(4) Select (CL) the [Install] menu in the 'Install' window and select (DR) [Manual Dump...].



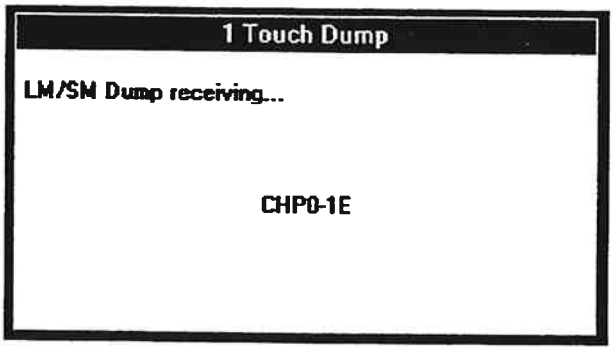
(5) Select (CL) processor in the [Location No.] in the 'Manual Dump' dialog box, and select (CL) [OK]. [All processors] indicates that dumps for all processors are collected.



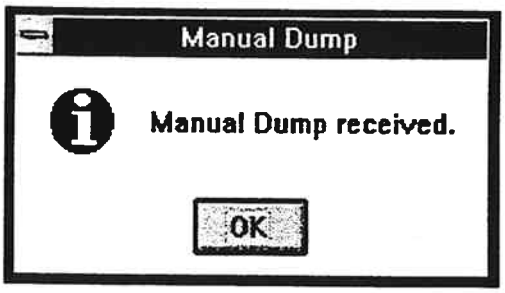
(6) The message "Manual Dump receiving..." is displayed in the 'Manual Dump' dialog box.
Note: "LCP" is displayed as a processor name during the collection of the dump for MCP. (Within about 1 minute)



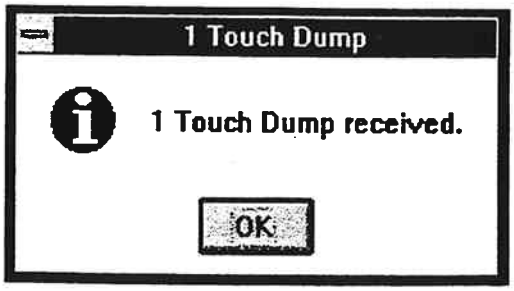
If you selected [All processors] at step (5), the message "LM/SM Dump receiving..." is displayed in the '1 Touch Dump'. (about 1 minute/processor)



(7) Select (CL) [OK] in the 'Manual Dump' dialog box.



If you selected [All processors] at step (5), select (CL) [OK] in the '1 Touch Dump'.



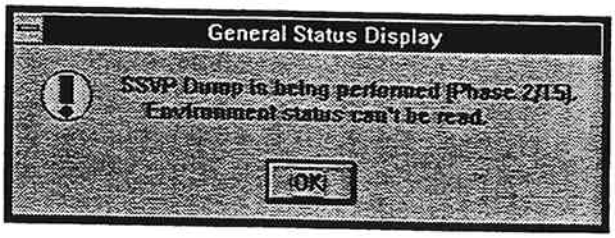
(8) If you want to copy the Dump file to a floppy disk, perform 'Dump FD Copy'.
(Refer to 10.2.9 DUMP/LOG FD Copy)

(9) Close the 'Install' window.

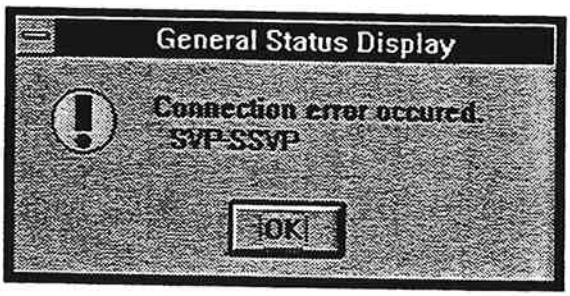
[2] SSVP DUMP

(1) Set the SSVP ALARM RESET/DUMP switch to DUMP position.
(see "2.3.2 Other switches and LEDs" on page LOCATION03-30.)

(2) Open STATUS display (see STATUS section).
Confirm that the message "SSVP Dump is being performed [XXXX]. Environment status can't be read." is displayed and select [OK] (CL).



If the message "Connection error occurred. SVP-SSVP" is displayed, check the wiring connection and select [OK] (CL) to start from step (1) again.
If step (1) is performed three times and the same message "Connection error occurred. SVP-SSVP" is displayed, replace SSVP (see REP01-150).

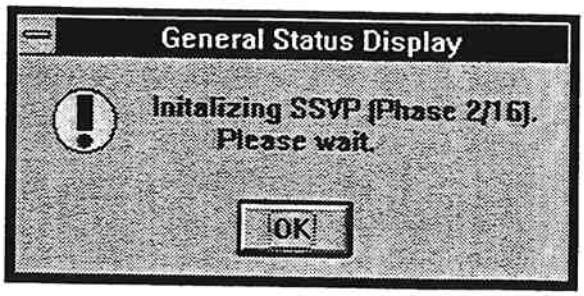


(3) SSVP ALARM lamp blinks after completion of dump.
(Within about 40 minutes after performing step (1))

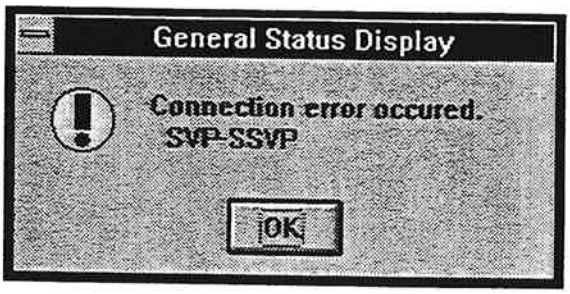
(4) Copy dump file to FD.
Perform "10.2.9 DUMP/LOG FD COPY" on page SVP02-460.

(5) Set SSVP ALARM RESET/DUMP switch to RESET position and implement SSVP again.
(see "2.3.2 Other switches and LEDs" on page LOCATION03-30.)

(6) Open STATUS display.
Confirm that the message "Initalizing SSVP [XXXX]. Please wait." is displayed and select [OK] (CL).



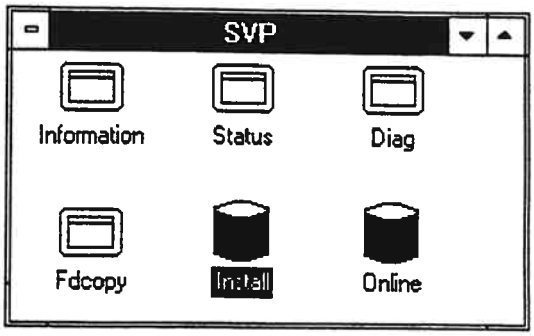
If the message "Connection error occurred. SVP-SSVP" is displayed, select [OK] (CL) to perform step (5) again.
If step (5) is performed three times and the same message "Connection error occurred. SVP-SSVP" is displayed, replace SSVP (see REP01-150).



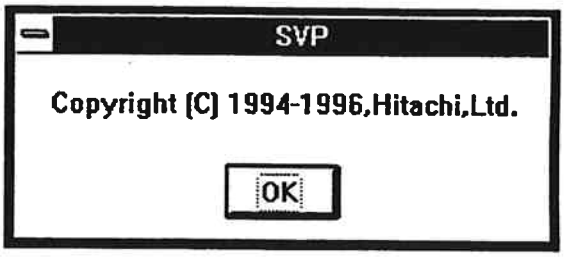
(7) Open STATUS display again after waiting for about 20 minutes.
If two messages shown at step (6) are not displayed, the SSVP implementation is completed.

[3] TPF Dump

(1) Select (DC) the [Install] icon in the 'SVP' window.

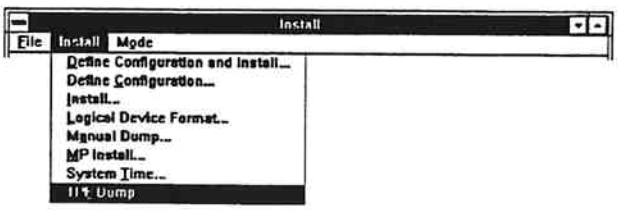


(2) Select (CL) [OK] in the 'SVP' dialog box.

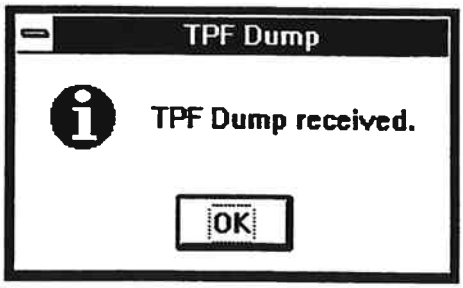


(3) Select (CL) the [Mode] menu in the 'Install' window and select (DR) [Modify].

(4) Select (CL) the [Install] menu in the 'Install' window and select (DR) [TPF Dump].

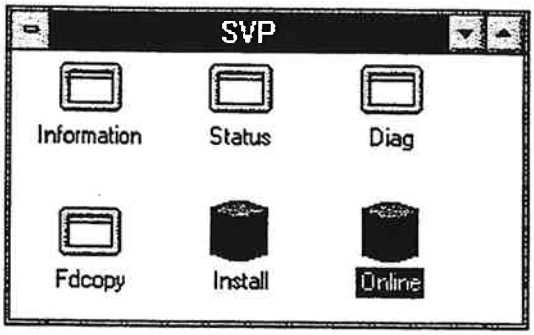


(5) Select [OK] (CL) in response to "TPF Dump received.".
If you want to copy the Dump file to a floppy disk, perform 'Dump FD Copy'.
(refer to 10.2.9 DUMP/LOG FD Copy)

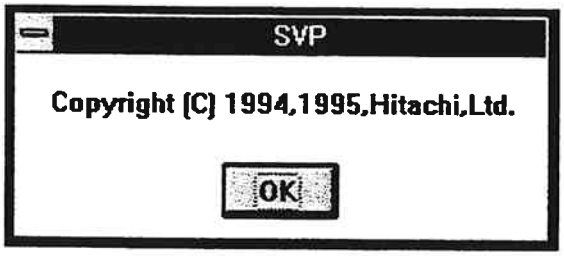


10.2.12 Logical Device Maintenance

(1) Select (DC) the [Online] icon in the 'SVP' window.

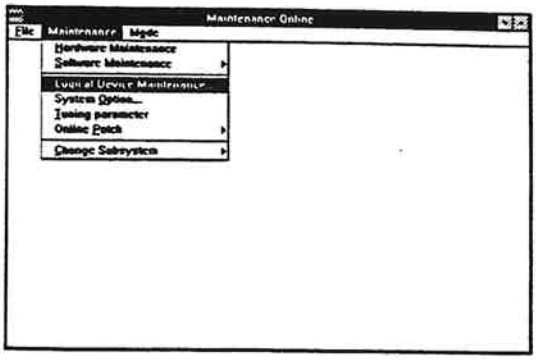


(2) Select (CL) [OK] in the 'SVP' dialog box.



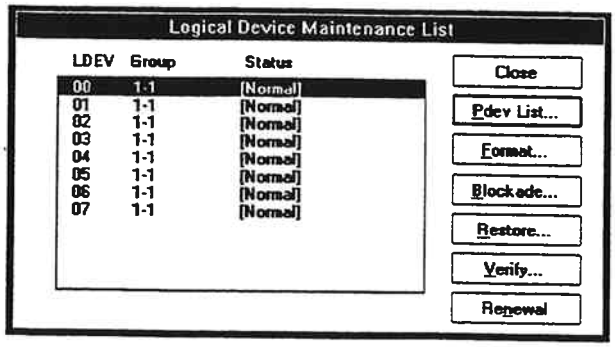
(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and also select (DR) [Modify].

(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and also select (DR) [Logical Device Maintenance...].
"Logical Device Maintenance List" is displayed.

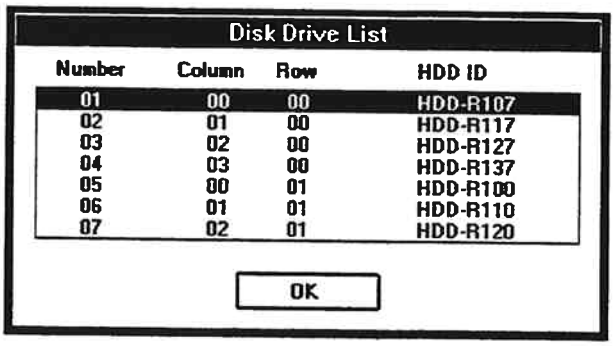


[1] Physical Device List

(1) Select (CL) an LDEV from the LDEV list box in the 'Logical Device Maintenance List' dialog box and select [Pdev List...].



(2) 'Disk Drive List' is displayed.
And select (CL) [OK].



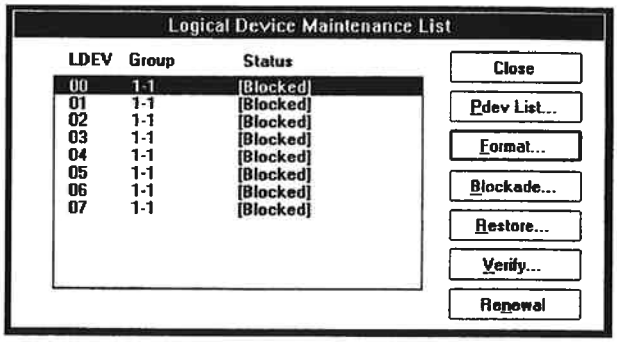
(3) Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box.
Close the 'Maintenance Online' window.

[2] FORMAT Logical Device

NOTICE
Executing this operation may cause a serious error such as a system down or a data loss. Accordingly, confirmation of the appropriateness of the operation and input of a password on the succeeding password input screen is required.

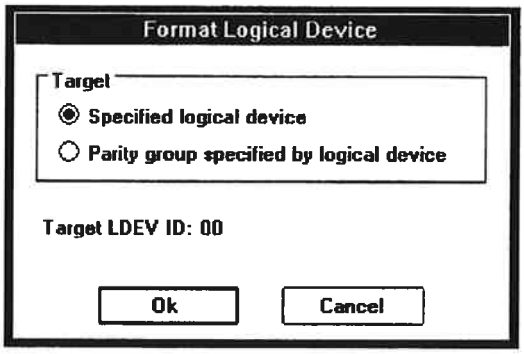
(1) Select (CL) an LDEV from the LDEV list box in the 'Logical Device Maintenance List' dialog box and select (CL) [Format...].

Note: Execute Format Logical Device after you confirm the target Logical Device is blocked.

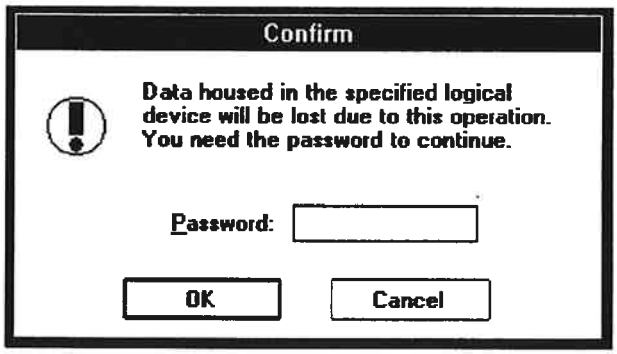


(2) Select (CL) corresponding item from the target list in the 'Format Logical Device' dialog box and select (CL) [Ok].

If target LDEV was not blocked, return to 'Logical Device Maintenance List' dialog box after message displayed.

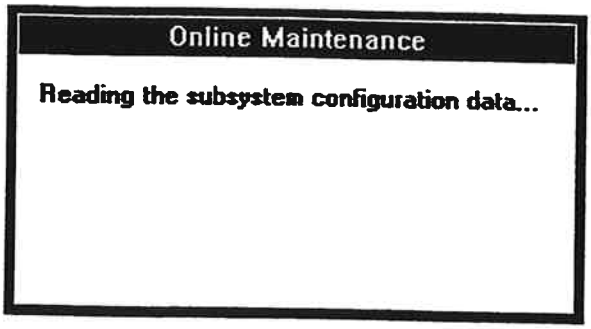


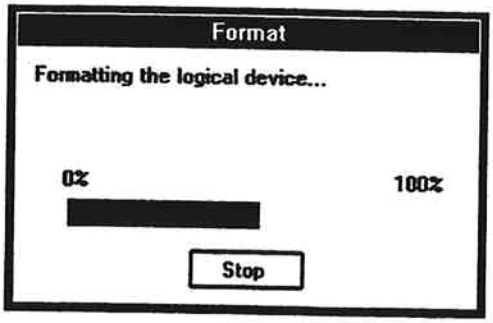
(3) "Data housed in the specified logical device will be lost due to this operation. You need the password to continue." is displayed.
Enter the password and select (CL) [OK].



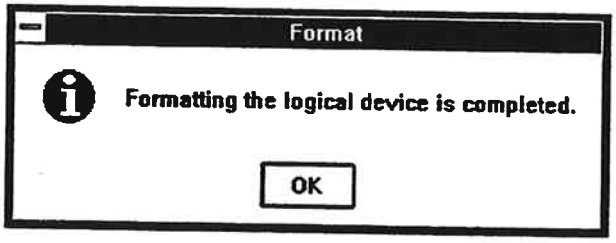
NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

(4) "Reading the subsystem configuration data..." is displayed, and then "Formatting the logical device..." is displayed.





(5) Select (CL) [OK] in response to "Formatting the logical device is completed.".

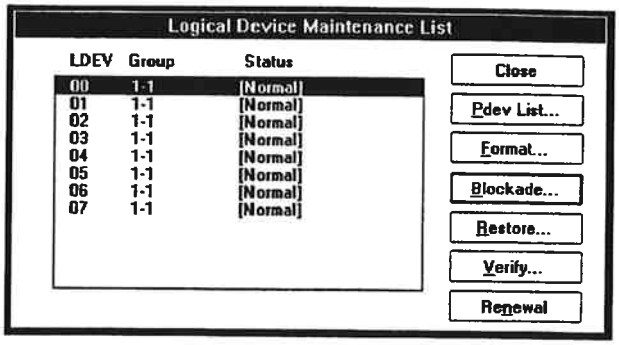


(6) Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box.
Close the 'Maintenance Online' window.

[3] Block Logical Device

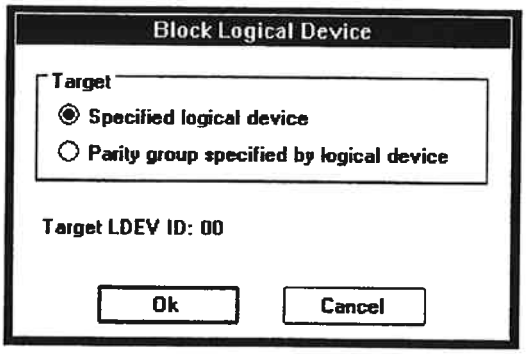
NOTICE
Executing this operation may cause a serious error such as a system down or a data loss. Accordingly, confirmation of the appropriateness of the operation and input of a password on the succeeding password input screen is required.

(1) Select (CL) an LDEV from the LDEV list box in the 'Logical Device Maintenance List' dialog box and select (CL) [Blockade].



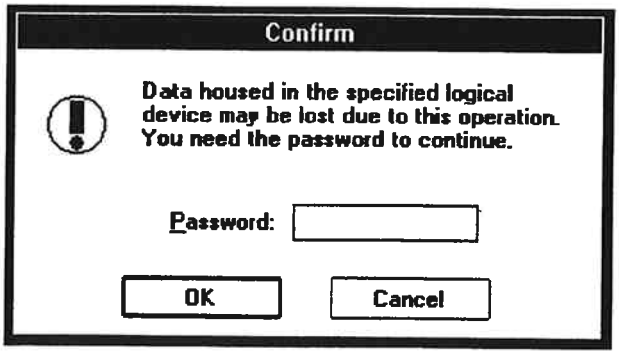
NOTICE
Excute Format Logical Device after you confirm the LDEV Logical Device is blocked.

(2) Select corresponding item from the target list in the 'Block Logical Device' dialog box and select (CL) [Ok].



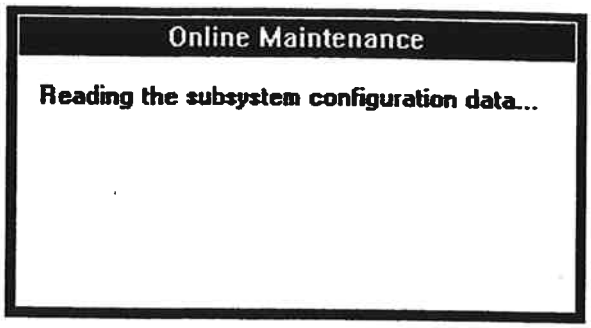
NOTICE
Execute Format Logical Device after you confirm the target Logical Device is blocked.

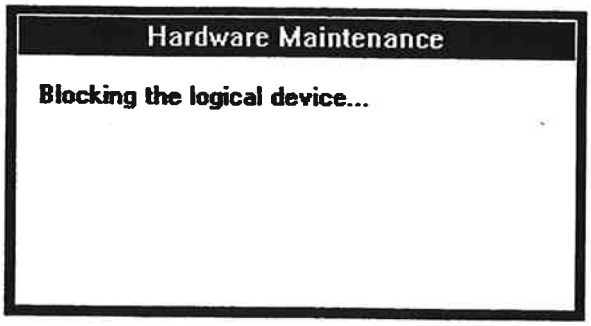
(3) "Data housed in the specified logical device may be lost due to this operation. You need the password to continue." is displayed.
Enter the password and select (CL) [OK].



NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

(4) "Reading the subsystem configuration data..." is displayed, and then "Blocking the logical device..." is displayed.





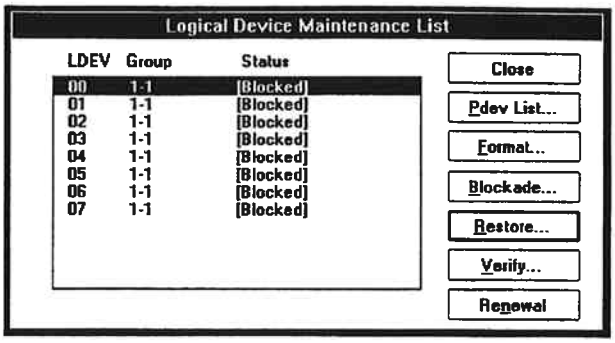
(5) Select (CL) [OK] in response to "Blocking the logical device is completed.".

(6) Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box .
Close the 'Maintenance Online' window.

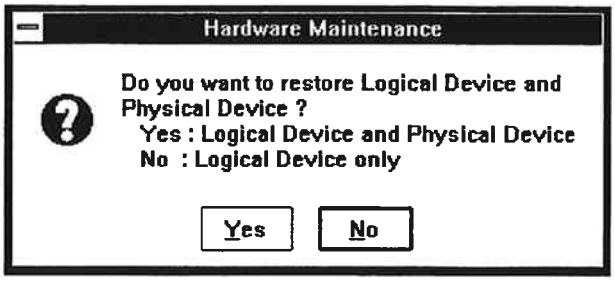
[4] Restore the Logical Device

NOTICE
Executing this operation may cause a serious error such as a system down or a data loss. Accordingly, confirmation of the appropriateness of the operation and input of a password on the succeeding password input screen is required.

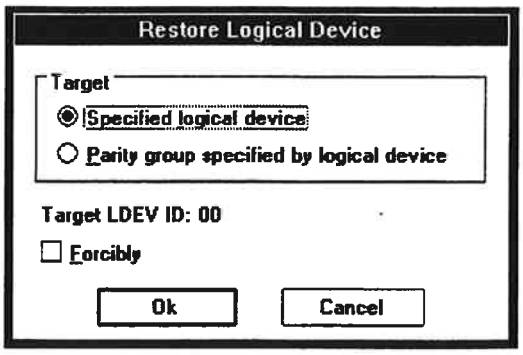
(1) Select (CL) an LDEV from the LDEV list box in the 'Logical Device Maintenance List' dialog box and select (CL) [Restore].



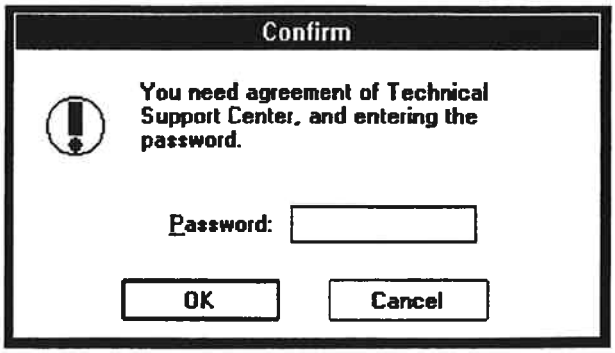
(2) "Do you want to restore Logical Device and Physical Device? Yes : Logical Device and Physical Device No : Logical Device only" is displayed. Select (CL) [No].



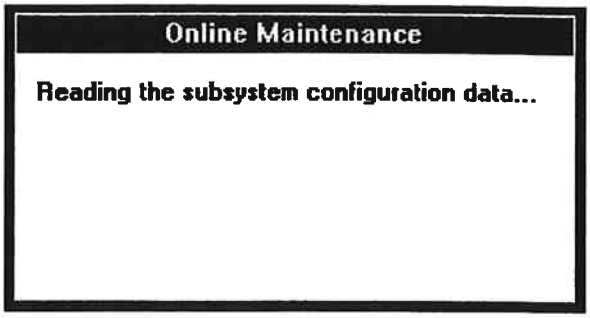
(3) Select (CL) corresponding item from the target list in the 'Restore Logical Device' dialog box and select (CL) [OK]. If 'Forcibly' is selected, Message is displayed in the 'Confirm' dialog box. Enter the password and select (CL) [OK].



NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.



(4) "Reading the subsystem configuration data..." is displayed, and then "Restoring the logical device..." is displayed.

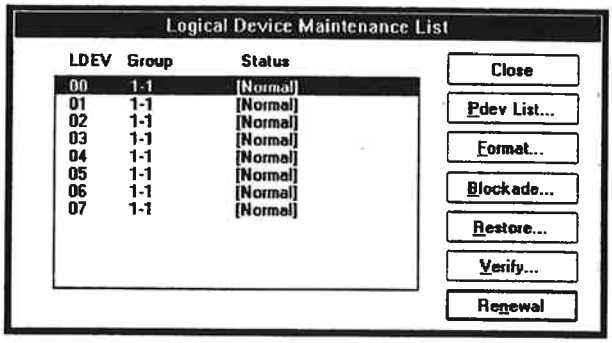


(5) Select (CL) [OK] in response to "Restoring the logical device is completed.".

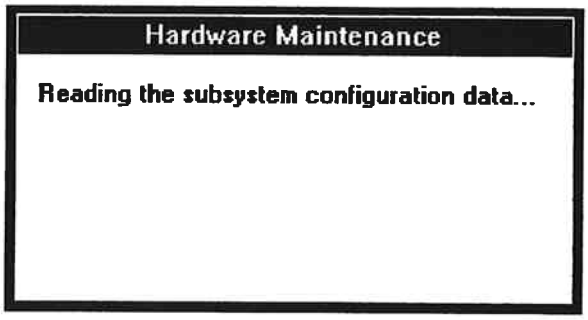
(6) Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box.
Close the 'Maintenance Online' window.

[5] Refer the system configuration data

(1) Select (CL) [Renewal] in the 'Logical Device Maintenance List' dialog box.



(2) "Reading the subsystem configuration data..." is displayed.

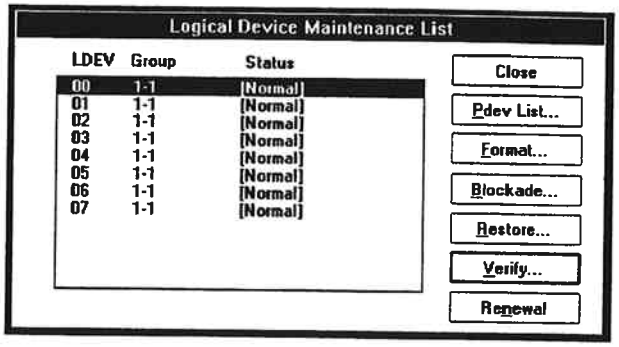


(3) Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box.
Close the 'Maintenance Online' window.

[6] Verify Logical Device

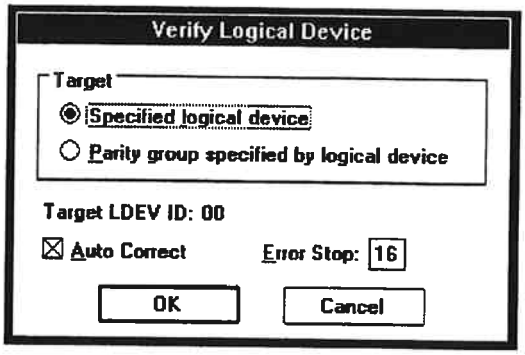
NOTICE
Executing this operation may cause a serious error such as a system down or a data loss. Accordingly, confirmation of the appropriateness of the operation and input of a password on the succeeding password input screen is required.

(1) Select (CL) an LDEV from the LDEV list box in 'Logical Device Maintenance List' dialog box and select (CL) [Verify...].



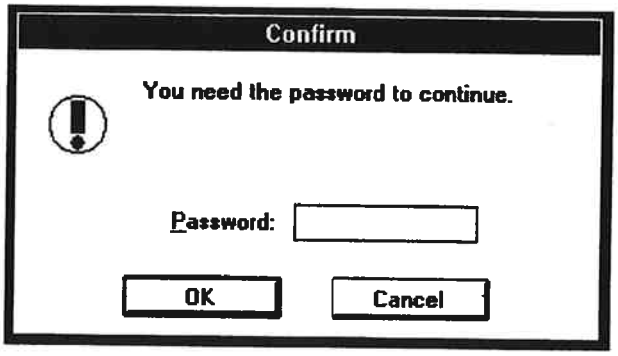
(2) Select (CL) corresponding item from the target list in the 'Verify Logical Device' dialog box and select (CL) [OK].

If target LDEV was not normal, return to 'Logical Device Maintenance List' dialog box after message displayed.

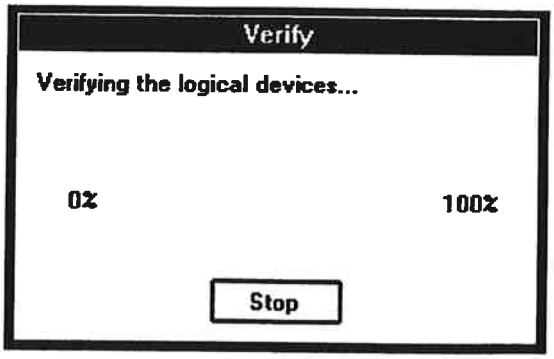


Enter the password and select (CL) [OK].

NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

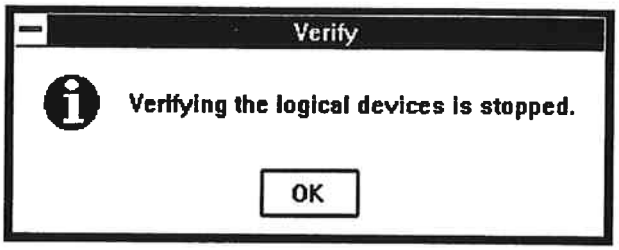


(3) "Verifying the logical device..." is displayed.



(4) If parity has errors less than the specified "Error Stop", "Verifying the logical device is finished." is displayed.

(5) If parity has errors more than the specified "Error Stop", "Verifying the logical device is stopped." is displayed.



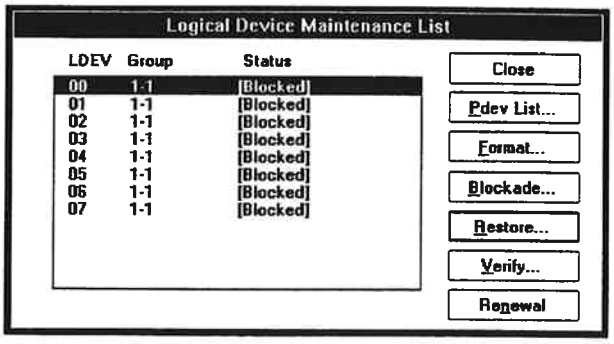
(6) If [Stop] is selected (CL) and [OK] in response to inquiry message is selected (CL), "Verifying the logical device is interrupted by SVP." is displayed.

(7) Select (CL) [OK] in response to the message (4) ~ (6).
Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box, Close the 'Maintenance Online' window.

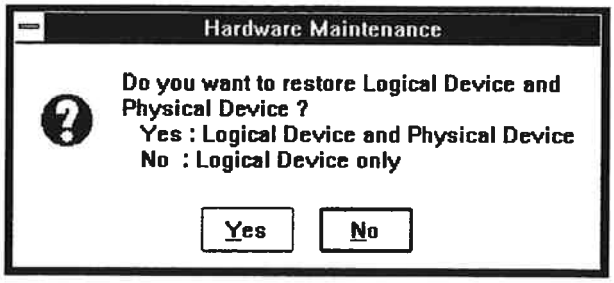
(8) Confirm the Parity Error.
(See 10.2.21 Parity Error indication)

[7] LDEV recovery for multiple PDEV failure

(1) Select (CL) an LDEV from the LDEV list box in the 'Logical Device Maintenance List' dialog box and select [Restore].



(2) "Do you want to restore Logical Device and Physical Device? Yes : Logical Device and Physical Device No : Logical Device only" is displayed. Select (CL) [Yes].



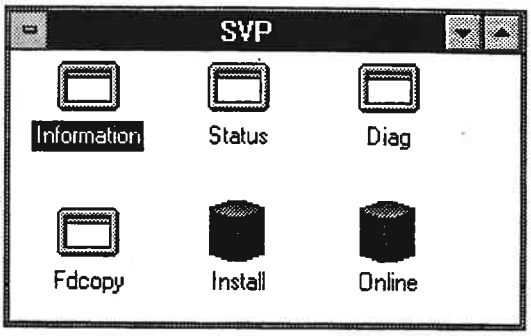
(3) "Restoring the logical device is completed." is displayed. Select (CL) [OK].

(4) Select (CL) [Close] in the 'Logical Device Maintenance List' dialog box. Close the 'Online Maintenance'

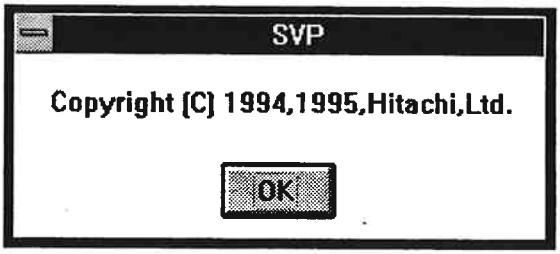
10.2.13 Pin Data indication

Prerequisite operation

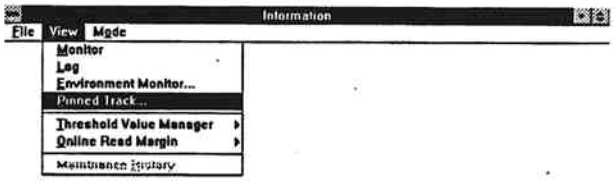
(1) Select (DC) the [Information] icon in the 'SVP' window.



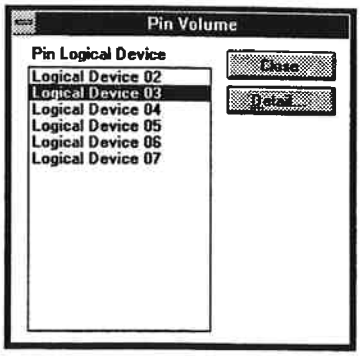
(2) Select (CL) [OK] in the 'SVP' dialog box.



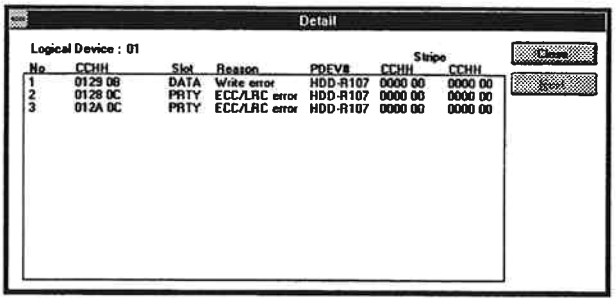
(3) Select (CL) the [View] menu in the 'Information' window and select (DR) [Pinned Track...].



(4) LDEV to exist Pin Slot is displayed. Select (CL) LDEV to be indicated in the 'Pin Volume' dialog box and select (CL) [Detail...].
(Note) When Pin Slot recovered, LDEV to be reported Pin Slot SIM is not displayed.



(5) Detail of Pin Slot is displayed.
(When "No." exist more than 17, select (CL) [Next].)
(Note) When impediment of Slot can recover, detail of Pin Slot is not displayed.



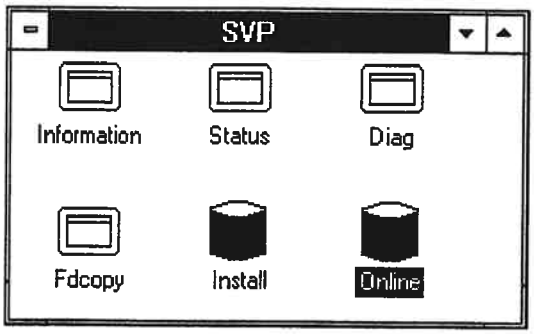
(6) Select (CL) [Close] in the 'Detail' dialog box.
Select (CL) [Close] in the 'Pin Volume' dialog box.
Close the 'Information' window.

10.2.14 MP Restart

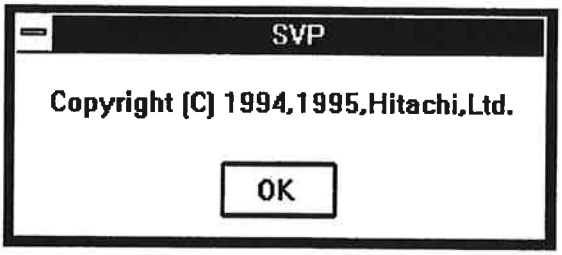
NOTICE
This is a special (exceptional) operation. Ask the technical support center about the appropriateness of the operation.

[Over view]
This facility is used to restore a processor in a DKC that is placed in a failed state due to a logical inconsistency. It may be used in cases there a processor is in the WCHK 1 state or both processors in a CHA are in the failed state. In such cases, the replace function of MP Restart must be used.

(1) Select (DC) the [Online] icon in the 'SVP' window.

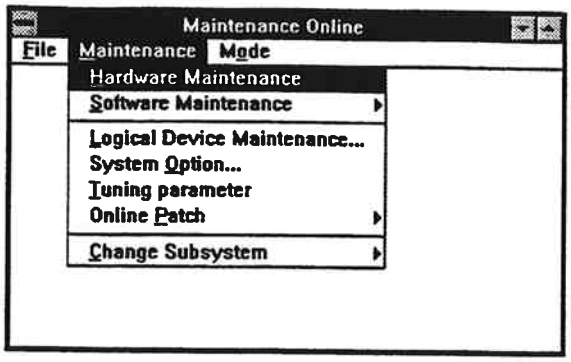


(2) Select (CL) [OK] in the 'SVP' dialog box.

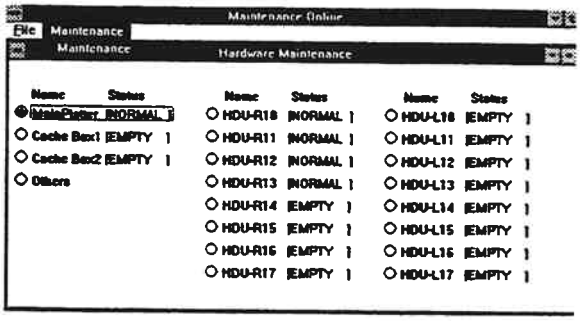


(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and also select (DR) [Modify].

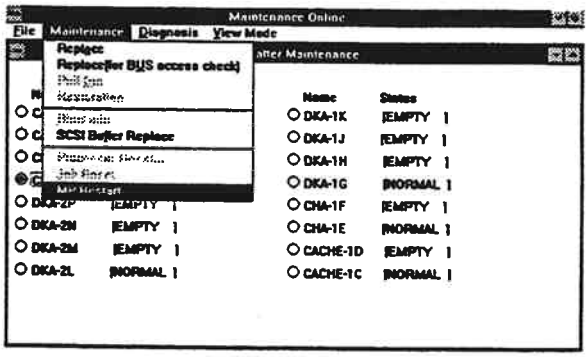
(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Hardware Maintenance].



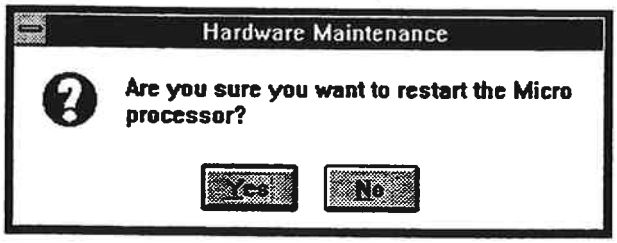
(5) Select (CL) the [MainPlatter] in the 'Hardware Maintenance' window.
Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Maintenance].
Make sure that the 'Status' of [Mainplatter] is [WARNING].



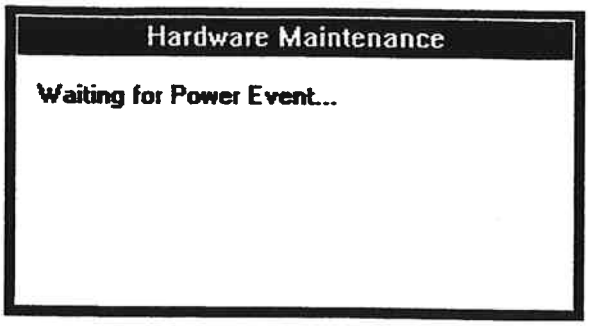
(6) Select (CL) the [CHAnn] or [DKAnn] to be restarted in the 'MainPlatter Maintenance' window.
Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [MP Restart].



(7) In response to the message "Are you sure you want to restart the Micro processor?", select (CL) [Yes].

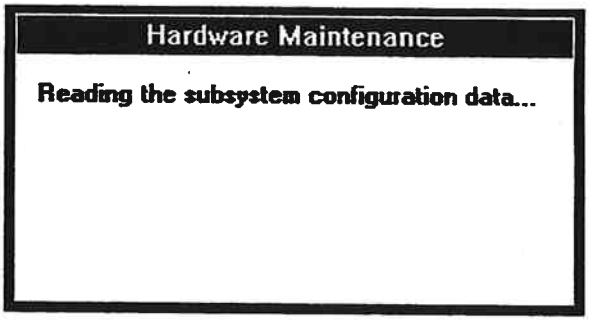


(8) "Waiting for Power Event..." is displayed.



(9) In response to the message "This PCB restarting is done.", select (CL) [OK].

(10) "Reading the subsystem configuration data..." is displayed.



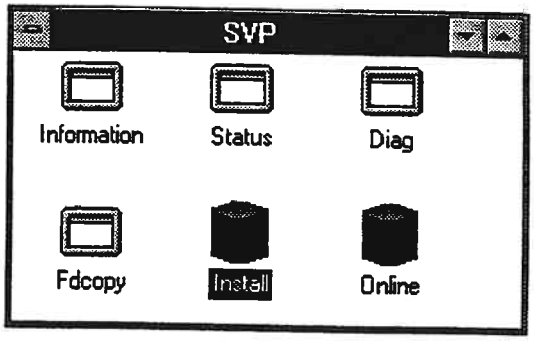
(11) Close the 'Maintenance Online' window.

10.2.15 FD Backup

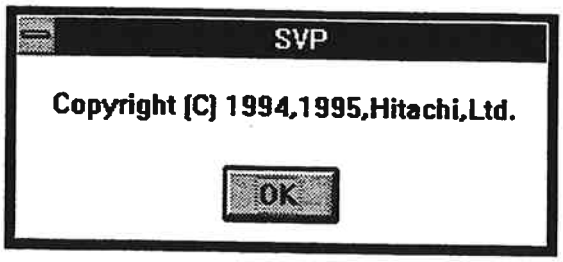
[1] Micro Program ---------- SVP02-710
[2] Configuration ---------- SVP02-731

[1] Micro Program

(1) Select (DC) [Install] icon in the 'SVP' window.

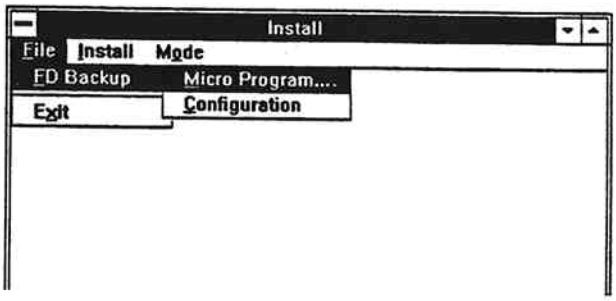


(2) Select (CL) [OK] in the 'SVP' dialog box.

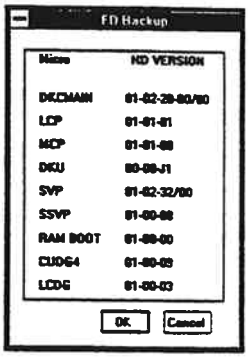


(3) Select (CL) the [Mode] menu in the 'Install' window and select (DR) [Modify].

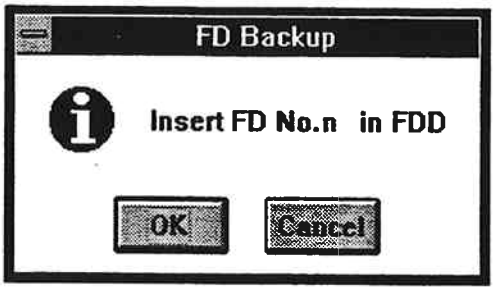
(4) Select (CL) the [File] menu in the 'Install' window and select (CL) [FD Backup] and select (DR) [Micro Program...].



(5) The microprogram types and HD versions are displayed.
Select (CL) [OK].



(6) In response to the message "Insert FD No.n in FDD",
remove the inserted floppy disk and select (CL) [OK].
(n=2,3,·····,n n:Number of floppy disks)



(7) Copying HD files to FD.

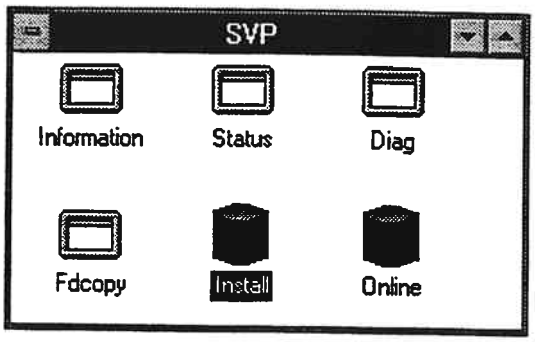
(8) Upon completion of reading from all the floppy disk, the message "Remove FD No.n" appeared.
In response to this message, remove the floppy disk and select (CL) [OK].
(n:Number of floppy disks)

(9) Close the 'Install' window.

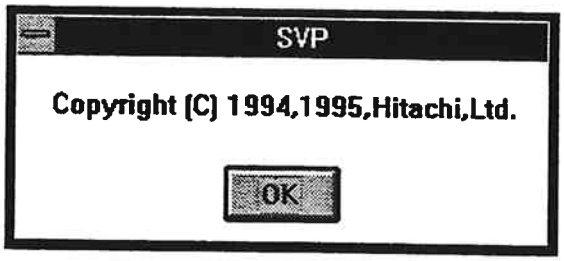
[2] Configuration

Install information

(1) Select (DC) [Install] icon in the 'SVP' window.

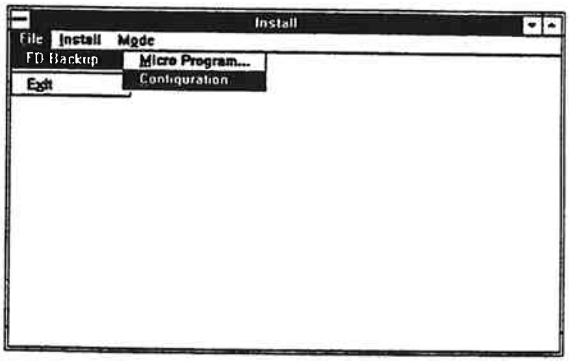


(2) Select (CL) [OK] in the 'SVP' dialog box.



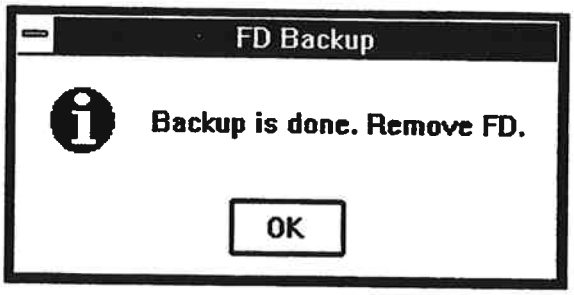
(3) Select (CL) the [Mode] menu in the 'Install' window and select (DR) [Modify].

(4) Select (CL) the [File] menu in the 'Install' window and select (CL) [FD Backup] and select (DR) [Configuration].



(5) Insert the Configuration FD into FDD, select (CL) [OK].

(6) When this procedure is completed, message "Backup is done. Remove FD." is displayed.
Remove the FD, select [OK].



(7) Close the 'Install' window.

10.2.16 System Option

[Over view]

Change following system option when the system operates.

<1> Spare Disk Recovering ------- Select the performance density when data is copied to a spare disk. (correction copy and drive copy)

- Interleave : Everytime 4-slot copy is completed, copy job sleeps for the time dependent on load of HOST I/O.
- Offline : No sleep. (No considering HOST job)

NOTICE
Please do not use if no channel paths is varied offline.

<2> Disk Copy Pace ---------- Specification of copy pace is supported with the "Interleave" mode at Spare Disk Recovering. 3 modes are supported.

- Medium : Optimization mode. The copy time depends on load of HOST I/O.
- Faster : Copy job is prior to HOST job.
- Slower : HOST job is prior to copy job.

<3> Dynamic Sparing ---------- Copy automatic to a spare disk if disk failure exceeded the threshold value.

- Do : When failure occurs, drive copy is executed automatically. Also drive copy can be started by SVP operation.
- Do not : Drive copy can be executed only by SVP operation.

<4> Correction Copy ---------- Execute correction copy to a spare disk automatically when one drive has blocked.

- Do : When failure occurs, correction copy is executed automatically. Also correction copy can be started by SVP operation.
- Do not : Correction copy can be executed only by SVP operation.

Note) You can not select "Do" at Dynamic Sparing and "Do not" at Correction Copy at the same time.

<5> Bus Mode ---------- Select the bus mode.

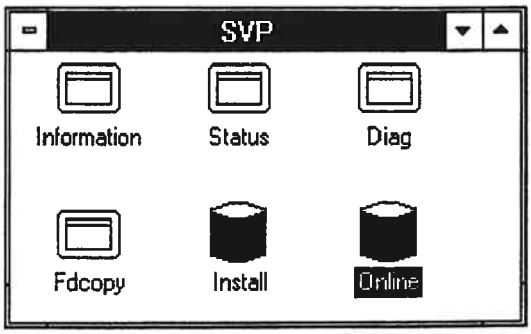
- Sequential mode
- Transactional mode

<6> High Speed Adapter Check -- After change all CHA/DKA to high speed adapter, check to insert non-high speed adapter in DKC.

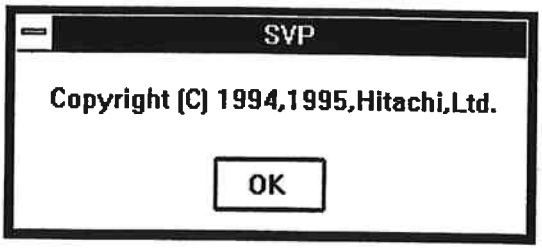
- Do : Issue warning message, if insert non-high speed adapter.
- Do not : No check.

<7> Option Install ---------- Install a feature Option. (See 10.3 Option Install).

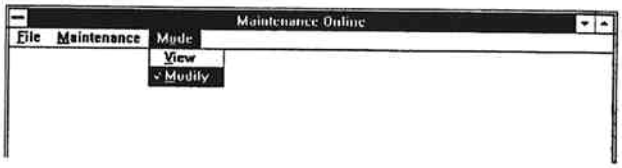
(1) Select (DC) the [Online] icon in the 'SVP' window.



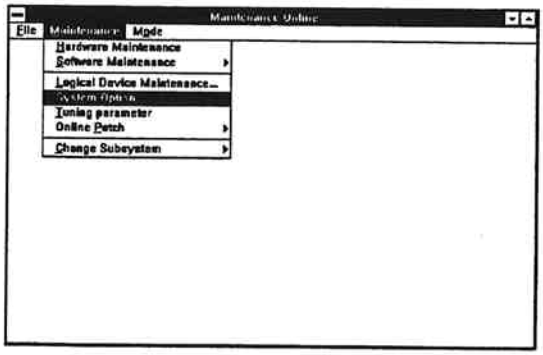
(2) Select (CL) [OK] in the 'SVP' dialog box.



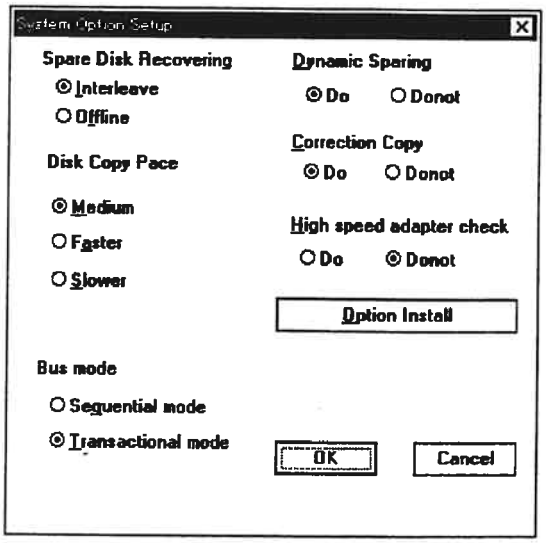
(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].



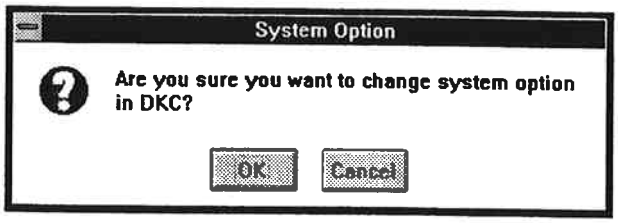
(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [System Option].



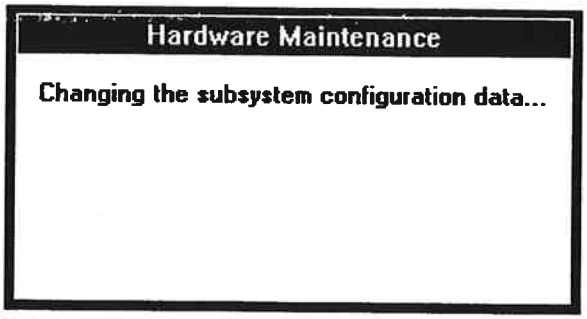
(5) Select (CL) the desired item in the 'System Option Setup' dialog box, and select (CL) [OK].



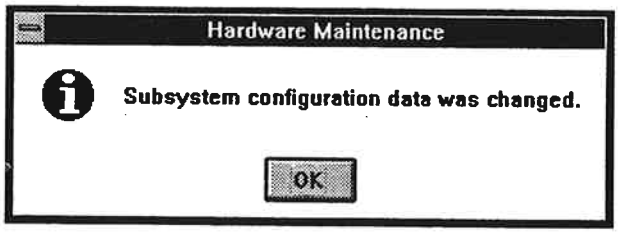
(6) If you want to change system option in the 'System Option' dialog box, select (CL) [OK].



(7) The message is displayed in the 'Hardware Maintenance' dialog box.



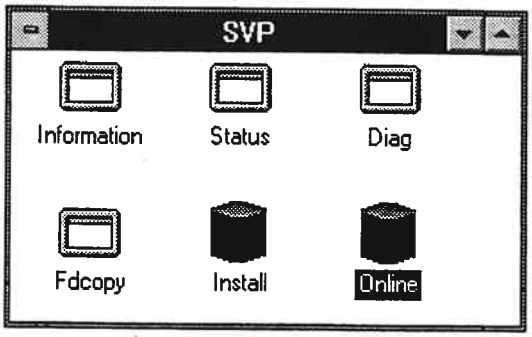
(8) Select (CL) [OK] in the 'Hardware Maintenance' dialog box, in order to finish processing.



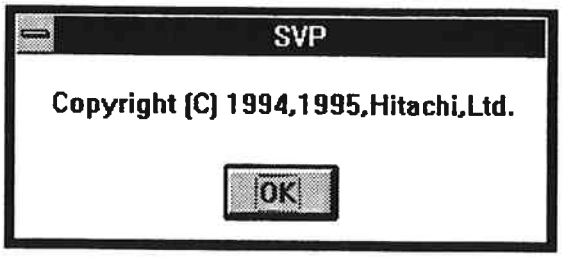
(9) Close the 'Maintenance Online' window.

10.2.17 Recovery Procedure for Bus

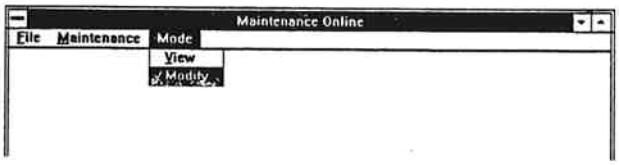
(1) Select (DC) the [Online] icon in the 'SVP' window.



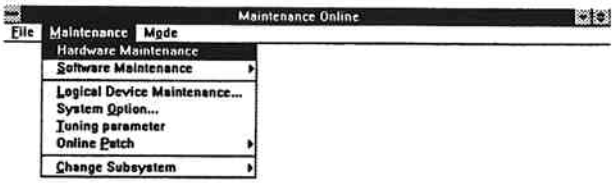
(2) Select (CL) [OK] in the 'SVP' dialog box.



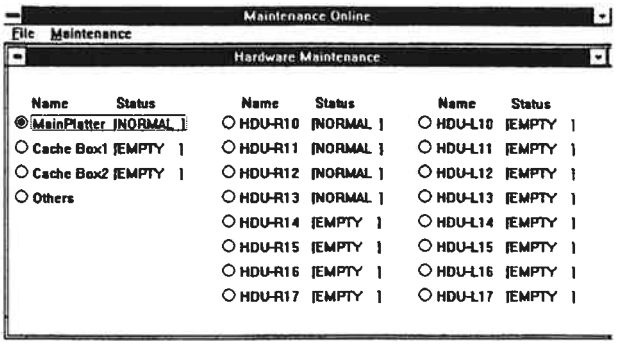
(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].



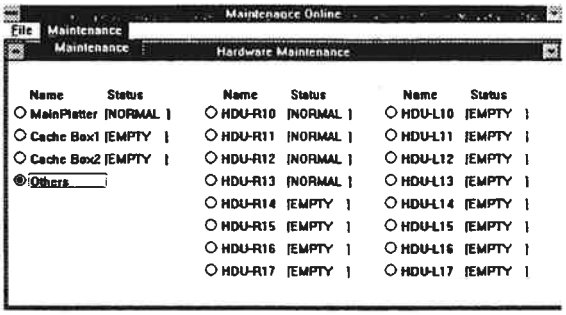
(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Hardware Maintenance].



(5) 'Hardware Maintenance' is displayed.

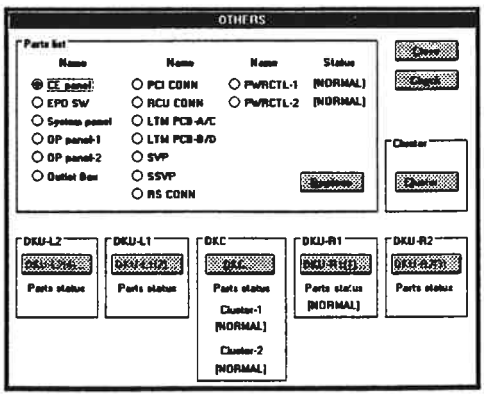


(6) Select [Others] from 'Hardware Maintenance' (CL) and select [Maintenance] from [Maintenance] (DR).

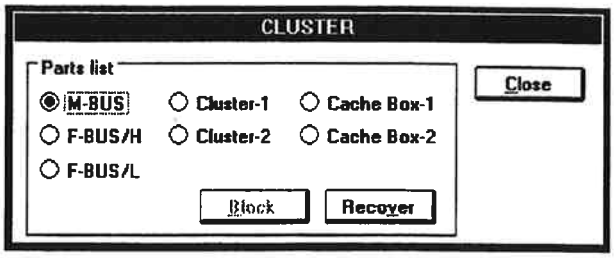


(7) "Reading configuration..." is displayed.

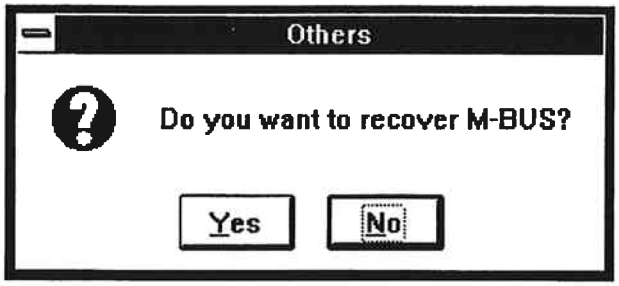
(8) Select [Cluster...] (CL) from 'Cluster' group box in 'OTHERS'.



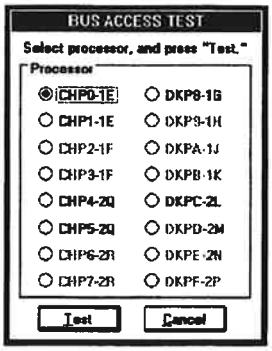
(9) Select blocked bus [XXXX] (see STATUS section) from 'parts list' group box (CL) and select [Recover] (CL).
Valid [XXXX] values are listed below.
- [M-BUS] ------ M-BUS
- [F-BUS/H] ---- F-BUS (High)
- [F-BUS/L] ----- F-BUS (Low)



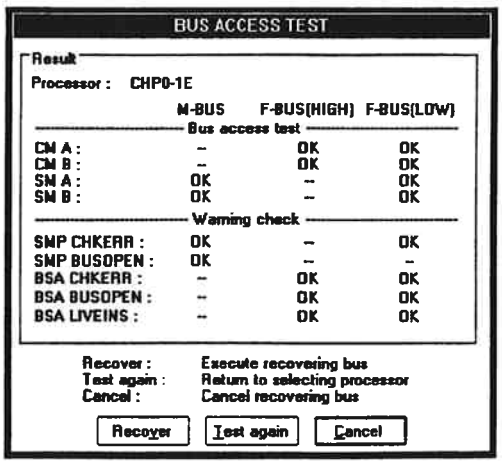
(10) Select [Yes] (CL) in response to "Do you want to recover XXXX?".
XXXX represents one of the bus names listed in step (9).



(11) Select a processor that execute bus access test, and select [Test] (CL).
If you select [Cancel], Bus Recovery is executed without Bus Access Test and the result (13) in SVP02-800 is displayed.



(12) Bus access test has finished normally, and the result is displayed.
Processor ---------- Processor name selected in step (11).
Bus access test--------- OK : Failure has not occurred.
NG : Failure has occurred.
** : Memory is blocked.
-- : This term is not tested.
Warning check (*1) -- OK : Warning has not occurred.
NG : Warning has occurred.
-- : This term is not checked.
*1 When warning check is not supported, all columns are "--".

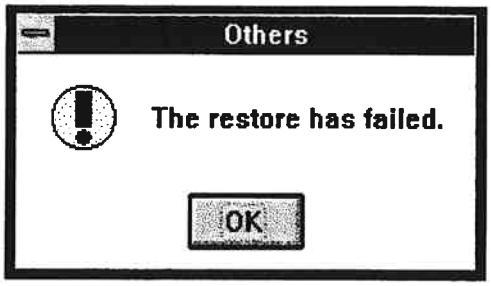


If blocked bus isn't a failure part, you select [Recover] and recover the bus.
Refer to the following table:
"Patterns of bus access test result and guessed failure parts" (SVP02-800 ~ 802).
If you select [Recover] (CL), go to (13).
If you select [Test again] (CL), go to (11).
If some errors have occurred at bus access test, go to (11).

(13) Select [OK] (CL) in response to "The restore has finished.".

If an error has occurred, the message "The restore has failed." is displayed as shown on the right.

return to TRBL05-20.



Patterns of bus access test result and guessed failure parts

	Pattern				Failure Part
1		MBUS	FBUS H	FBUS L	1.Nothing
	CM A	*	OK	OK	
	CM B	*	OK	OK	
	SM A	OK	*	OK	
	SM B	OK	*	OK	
2		MBUS	FBUS H	FBUS L	1.F/H failure
	CM A	*	NG	OK	
	CM B	*	NG	OK	
	SM A	OK	*	OK	
	SM B	OK	*	OK	
3		MBUS	FBUS H	FBUS L	1.F/L failure
	CM A	*	OK	NG	
	CM B	*	OK	NG	
	SM A	OK	*	NG	
	SM B	OK	*	NG	
4		MBUS	FBUS H	FBUS L	1.M BUS failure
	CM A	*	OK	OK	
	CM B	*	OK	OK	
	SM A	NG	*	OK	
	SM B	NG	*	OK	

	Pattern	Failure Part
5	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A NG, CM B OK, SM A *, SM B * FBUS L: CM A NG, CM B OK, SM A OK, SM B OK	1.CACHE A failure
6	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B NG, SM A *, SM B * FBUS L: CM A OK, CM B NG, SM A OK, SM B OK	1.CACHE B failure
7	MBUS: CM A *, CM B *, SM A NG, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A NG, SM B OK	1.Shared Memory A failure
8	MBUS: CM A *, CM B *, SM A OK, SM B NG FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A OK, SM B NG	1.Shared Memory B failure
9	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A NG, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A OK, SM B OK	1.F/H failure (2.CHACE A failure)
10	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B NG, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A OK, SM B OK	1.F/H failure (2.CACHE B failure)
11	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A NG, CM B OK, SM A OK, SM B OK	1.F/L failure (2.CACHE A failure)
12	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B NG, SM A OK, SM B OK	1.F/L failure (2.CACHE B failure)
13	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A NG, SM B OK	1.F/L failure (2.Shared Memory A failure)

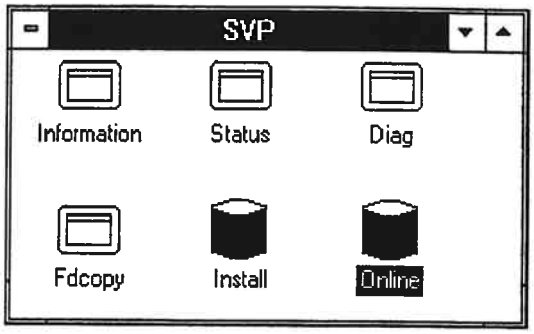
	Pattern	Failure Part
14	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A OK, SM B NG	1.F/L failure (2.Shared Memory B failure)
15	MBUS: CM A *, CM B *, SM A NG, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A OK, SM B OK	1.M BUS failure (2.Shared Memory A failure)
16	MBUS: CM A *, CM B *, SM A OK, SM B NG FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A OK, SM B OK	1.M BUS failure (2.Shared Memory B failure)
17	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A NG, CM B NG, SM A OK, SM B OK	1.F/L failure
18	MBUS: CM A *, CM B *, SM A OK, SM B OK FBUS H: CM A OK, CM B OK, SM A *, SM B * FBUS L: CM A OK, CM B OK, SM A NG, SM B NG	1.F/L failure

* If warning check "NG" occurred, see "Error Recovery Procedure for Warning SIM" (TRBL05-300).

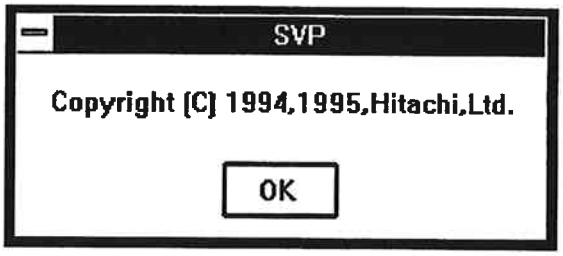
10.2.18 Blocking of Cluster

NOTICE
This is a special (exceptional) operation. Ask the technical support center about the appropriateness of the operation.

(1) Select (DC) the [Online] icon in the 'SVP' window.

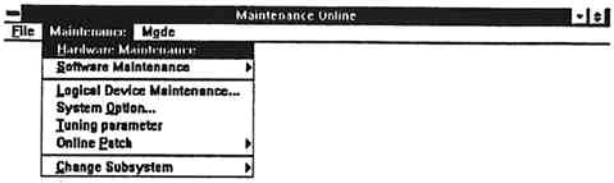


(2) Select (CL) [OK] in the 'SVP' dialog box.



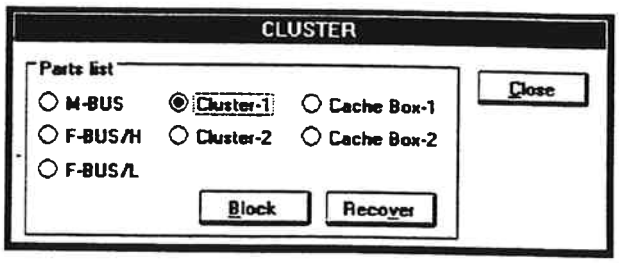
(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].

(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Hardware Maintenance].



(9) Start of Cluster block

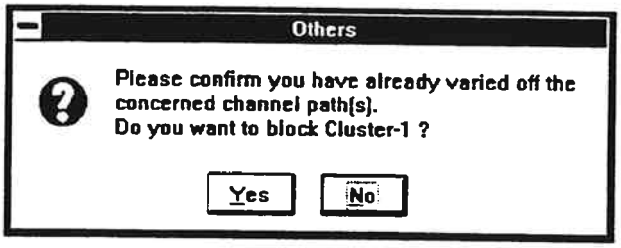
Select [Cluster-1] or [Cluster-2] from 'CLUSTER' (CL), and select [Block] (CL).



(10) Beginning Block

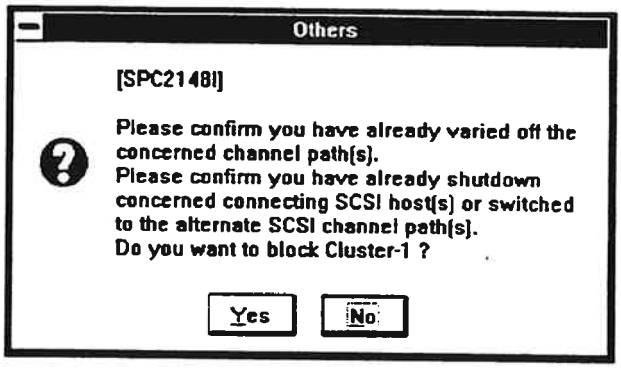
• When only serial or parallel channels, or they are mixed.

Select [Yes] (CL) in response to "Please confirm you have already varied off the concerned channel path(s). Do you want to block xxxxx?".



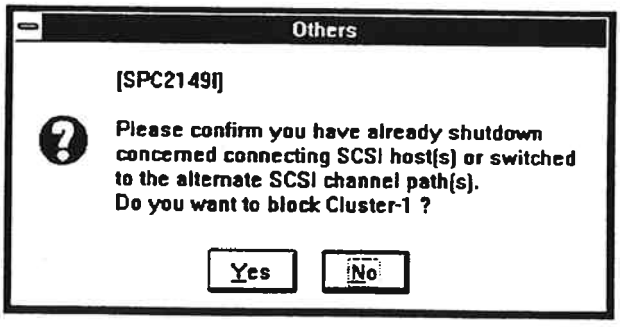
• When SCSI channels and other kinds are mixed.

Select [Yes] (CL) in response to "Please confirm you have already varied off the concerned channel path(s). Please confirm you have already shutdown concerned connecting SCSI host(s) or switched to the alternate SCSI channel path(s). Do you want to block xxxxx?".



• When only SCSI channels are installed.

Select [Yes] (CL) in response to "Please confirm you have already shutdown concerned connecting SCSI host(s) or switched to the alternate SCSI channel path(s). Do you want to block xxxxx?".

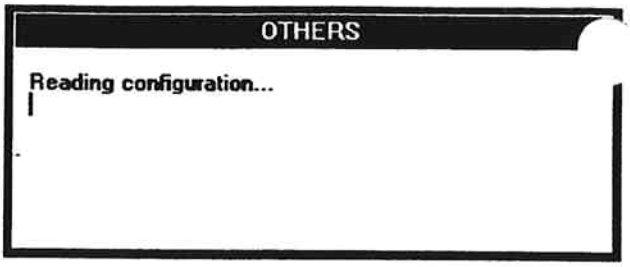


Valid xxxxx values are listed below.

• Cluster-1

• Cluster-2

(11) Processing to Cluster block.



"Reading configuration..."
"Blocking cache memory..."
"Blocking shared memory..."
"Blocking Bus..."
"Changing Bus arbiter..."
"Blocking CHA..."
"Blocking DKA..."
"Blocking CHP..."
"Blocking DKP..."
"Blocking DKC-SVP communication..."
"Blocking Cluster failure report..."
"Processing to disable the environment check..."
"Blocking SVP-SSVP communication..."

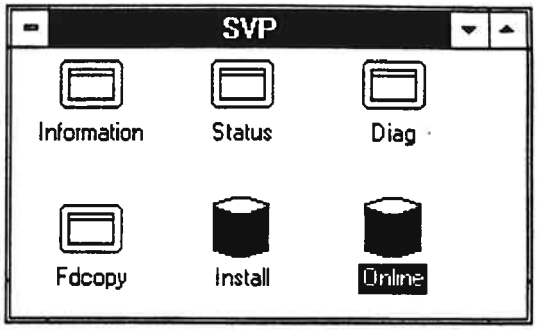
(12) End of Cluster block

Select [OK] (CL) in response to "The blockade has finished. Cluster is blocked.".

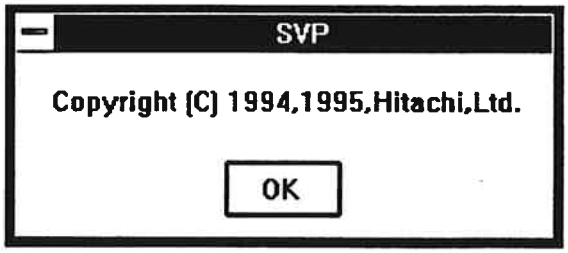
10.2.19 Recovering of Cluster

Note : Before recovering of Cluster, please reboot PC.

(1) Select (DC) the [Online] icon in the 'SVP' window.



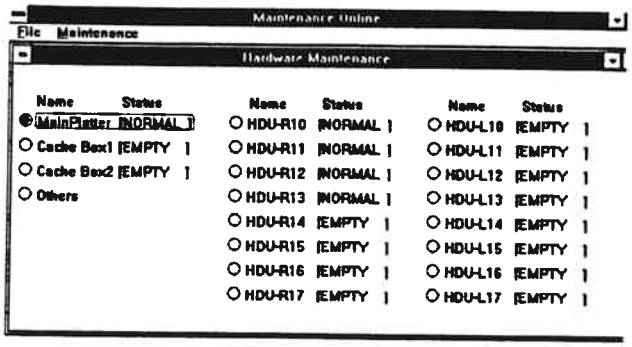
(2) Select (CL) [OK] in the 'SVP' dialog box.



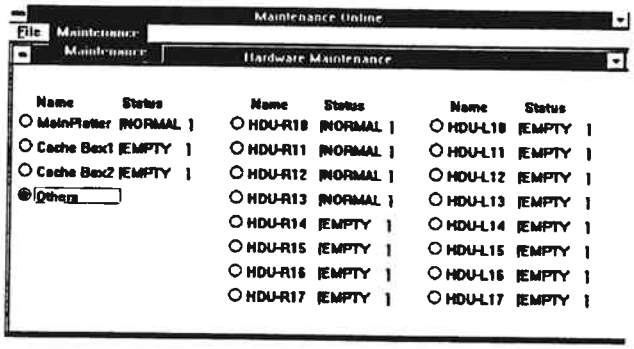
(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].

(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Hardware Maintenance].

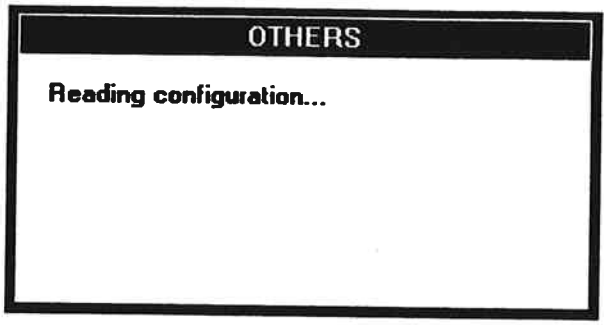
(5) 'Hardware Maintenance' is displayed.



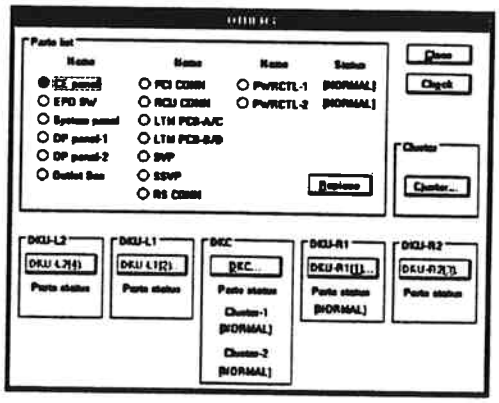
(6) Select [Others] from 'Hardware Maintenance' (CL) and select [Maintenance] from [Maintenance] (DR).



(7) "Reading configuration..." is displayed.

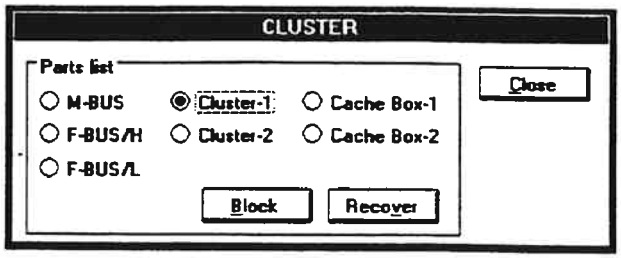


(8) Select [Cluster...] (CL) from 'Cluster' group box in 'OTHERS'.



(9) Start of Cluster recover

Select [Cluster-1] or [Cluster-2] from 'CLUSTER' (CL), and select [Recover] (CL).

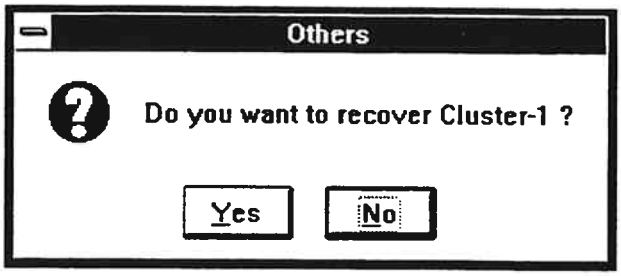


(10) Beginning Recover

Select [Yes] (CL) in response to "Do you want to recover xxxx?".

Valid xxxx values are listed below.

- Cluster-1
- Cluster-2

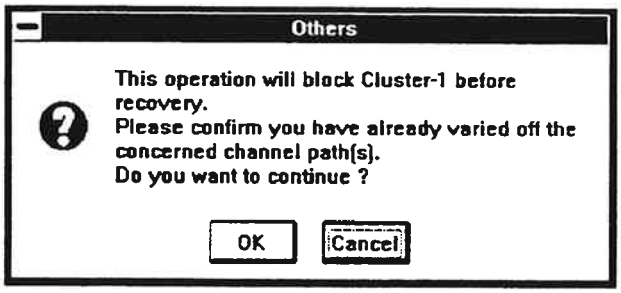


If Cluster 1/2 is fail. Go to (11)
If Cluster 1/2 is blockade. Go to (14)
If Cluster 1/2 is normal. Go to (15)

(11) Confirm varied Off-line.

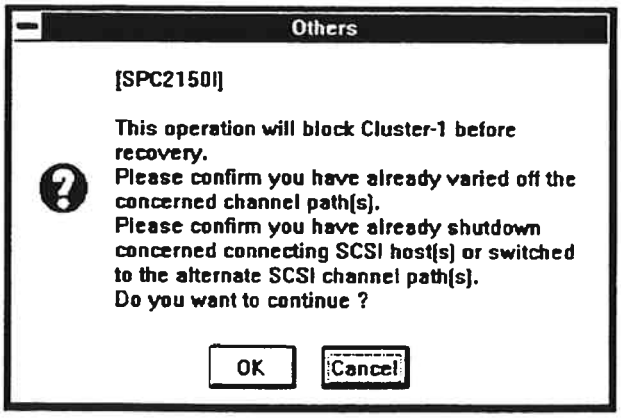
- When only serial or parallel channels, or they are mixed.

Select [OK] (CL) in response to "This operation will block xxxxx before recovery. Please confirm you have already varied off the concerned channel path(s). Do you want to continue?".

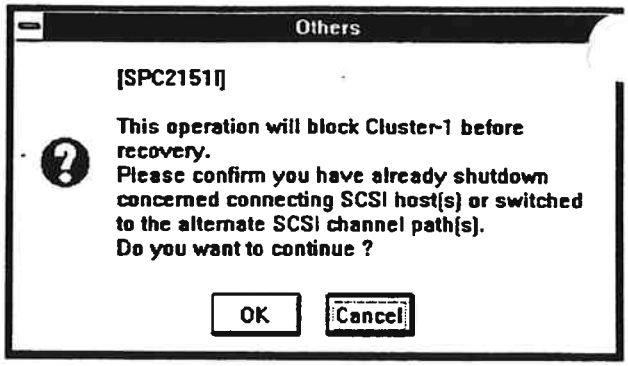


- When SCSI channels and other kinds are mixed.

Select [OK] (CL) in response to "This operation will block xxxxx before recovery. Please confirm you have already varied off the concerned channel path(s). Please confirm you have already shutdown concerned connecting SCSI host(s) or switched to the alternate SCSI channel path(s). Do you want to continue?".

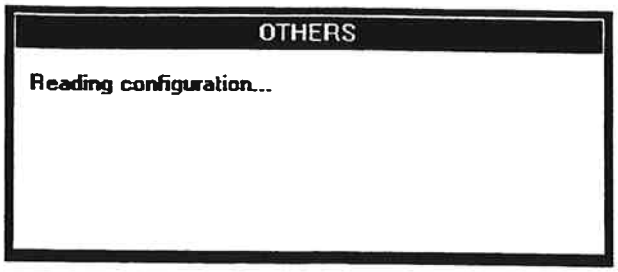


• When only SCSI channels are installed.
Select [OK] (CL) in response to "This operation will block xxxxx before recovery. Please confirm you have already shutdown concerned connecting SCSI host(s) or switched to the alternate SCSI channel path(s). Do you want to continue?".



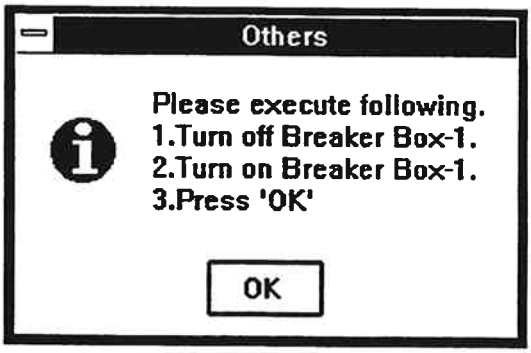
Valid xxxxx values are listed below.
• Cluster-1
• Cluster-2

(12) Processing to Cluster block.

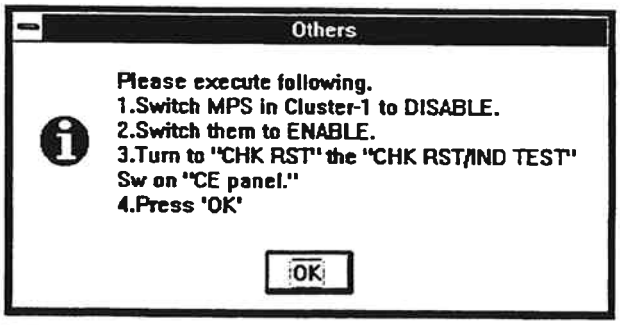


"Reading configuration..."
"Checking status of Cluster..."
"Blocking Cluster..."
"Blocking cache memory..."
"Blocking shared memory..."
"Blocking Bus..."
"Blocking OP-Panel..."
"Changing Bus arbiter..."
"Blocking CHA..."
"Blocking DKA..."
"Blocking CHP..."
"Blocking DKP..."
"Blocking Cluster failure report..."
"Processing to disable the environment check..."

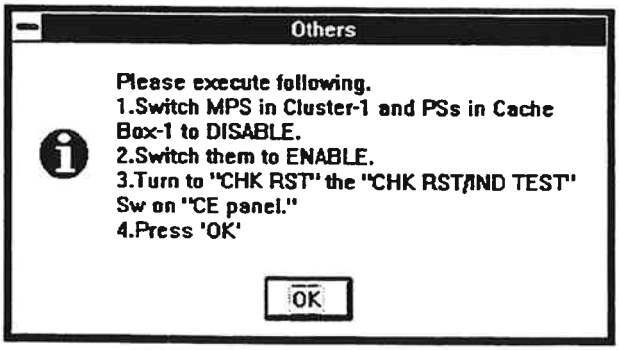
(13) When redundant PS is not installed, select [OK] (CL) response to "Please execute following.
1.Turn off Breaker Box-X. 2.Turn on Breaker Box-X. 3.Press 'OK'.".



When Logic Redundant PS is installed, and Add Cache Box is not installed, select [OK] (CL) response to "Please execute following. 1.Switch MPS in Cluster-X to DISABLE. 2.Switch them to ENABLE. 3.Turn to "CHK RST" the "CHK RST/IND TEST" Sw on "CE panel." 4.Press 'OK'.".



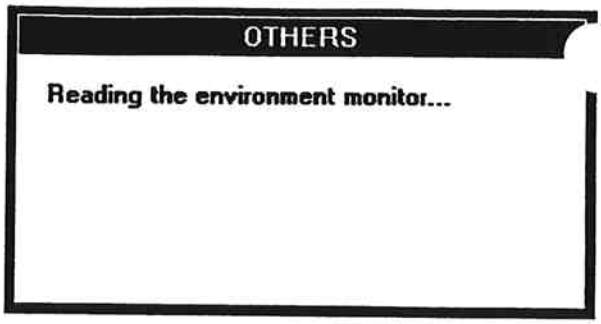
When Add Cache Box is installed, and Logic or Cache Redundant PS is installed, select [OK] (CL) response to "Please execute following. 1.Switch MPS in Cluster-X and PSs in Cache Box-X to DISABLE. 2.Switch them to ENABLE. 3.Turn to "CHK RST" the "CHK RST/IND TEST" Sw on "CE panel." 4.Press 'OK'.".



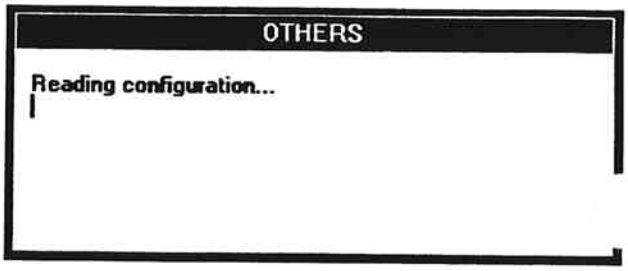
Valid X values are listed below.

- Cluster-1 --- 1
- Cluster-2 --- 2

(14) "Reading the environment monitor..." is displayed.



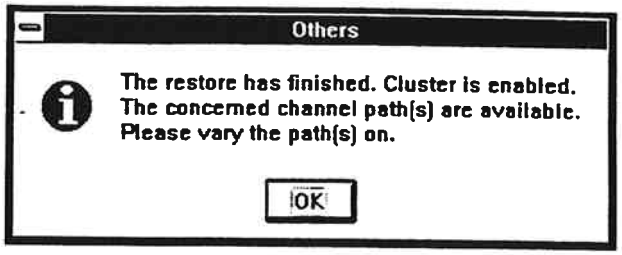
(15) Processing to Cluster recover.



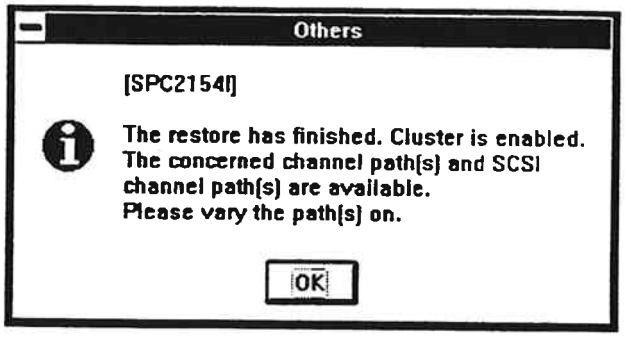
"Reading configuration..."
"Checking status of Cluster..."
"Restoring Cluster..."
"Waiting for restart..."
"Restoring DKC-SVP communication..."
"Restoring DKA..."
"Restoring DKA (SCSI Path)..."
"Restoring DKP Path..."
"Restoring CHA..."
"Restoring Cluster failure report..."
"Restoring Bus..."
"Restoring shared memory..."
"Restoring cache memory..."
"Processing to enable the environment check..."

(16) End of Cluster Recover

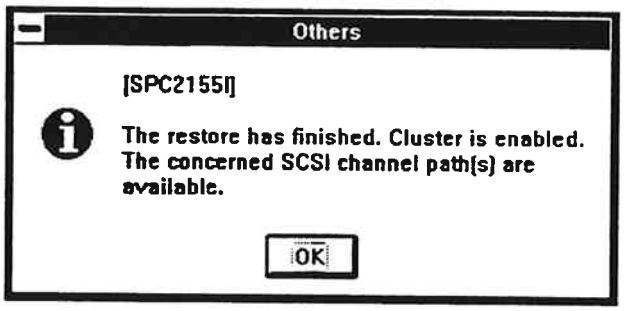
• When only serial or parallel channels, or they are mixed.
Select [OK] (CL) in response to "The restore has finished. Cluster is enabled. The concerned channel path(s) are available. Please vary the path(s) on.".



• When SCSI channels and other kinds are mixed.
Select [OK] (CL) in response to "The restore has finished. Cluster is enabled. The concerned channel path(s) and SCSI channel path(s) are available. Please vary the path(s) on.".

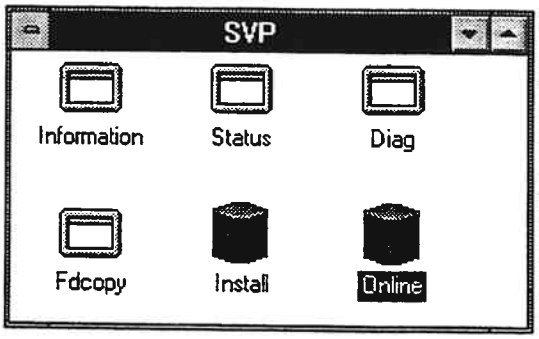


• When only SCSI channels are installed.
Select [OK] (CL) in response to "The restore has finished. Cluster is enabled. The concerned SCSI channel path(s) are available.".

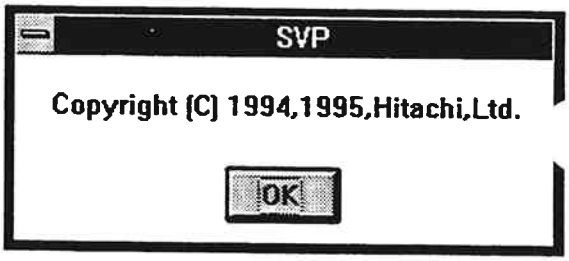


10.2.20 Parallel Configuration

(1) Select (DC) the [Online] icon in the 'SVP' window.

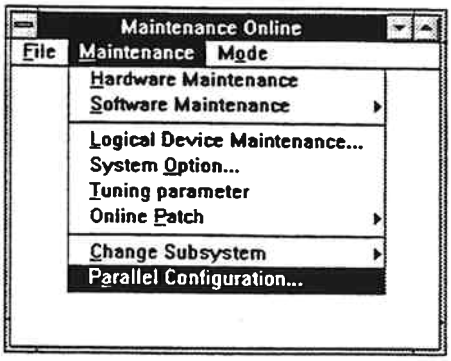


(2) Select (CL) [OK] in the 'SVP' dialog box.



(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].

(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Parallel Configuration...].

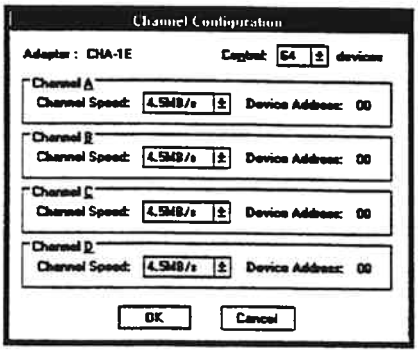


(5) Set parallel channel configuration

Define the device configuration information from 'Channel Configuration'.

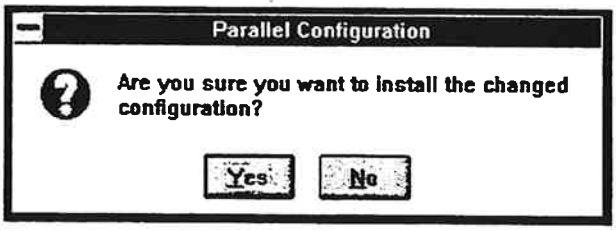
After setting up all items, select [OK] (CL).

After setting up all channel adapters, the next message is displayed.



(6) Confirm installation of the configuration

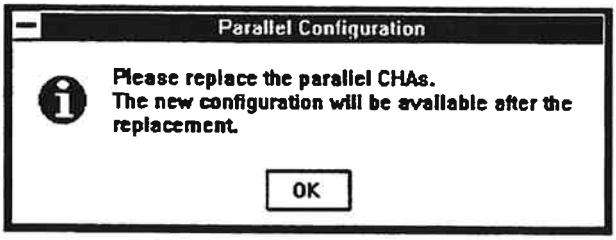
Select [Yes] (CL) in response to message "Are you sure you want to install the changed configuration?".



(7) Replace CHAs

After installation of the configuration, message "Please replace the parallel CHAs." is displayed.

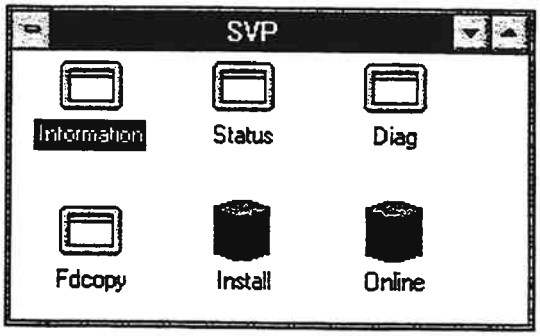
Select [OK] (CL) in response to the message, replace CHAs. (See REPLACE SECTION)



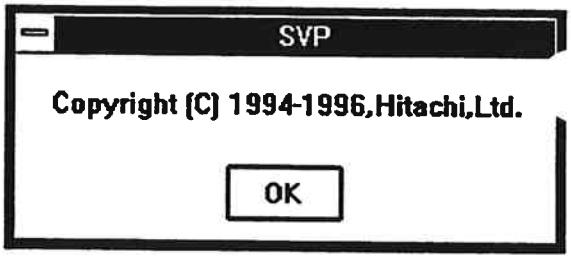
10.2.21 Parity Error indication

Prerequisite operation

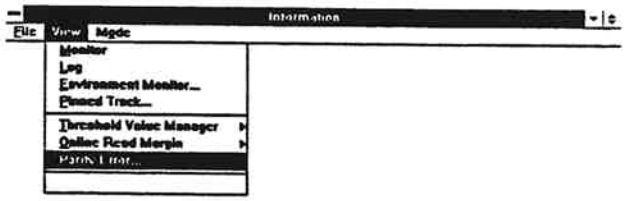
(1) Select (DC) the [Information] icon in the 'SVP' window.



(2) Select (CL) [OK] in the 'SVP' dialog box.

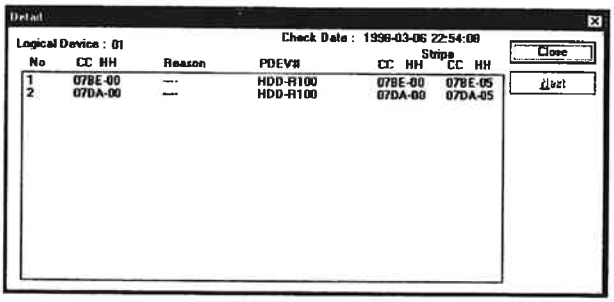


(3) Select (CL) the [View] menu in the 'Information' window and select (DR) [Parity Error...]



(4) LDEV to exist parity errors is displayed. Select (CL) LDEV to be indicated in the 'Parity Check Volume' dialog box and select (CL) [Detail...].

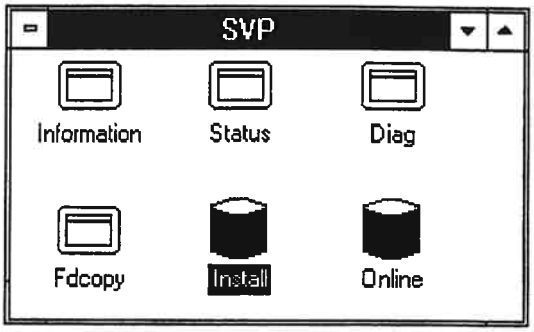
(5) Detail of parity errors.
(When "No." exist more than 17, select (CL) [Next].)



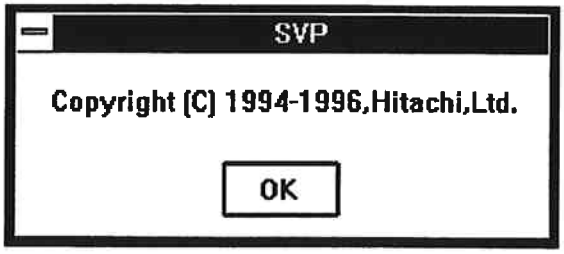
(6) Select (CL) [Close] in the 'Detail' dialog box.
Select (CL) [Close] in the 'Parity Check Volume' dialog box.
Close the 'Information' window.

10.2.22 PCB Revision Display

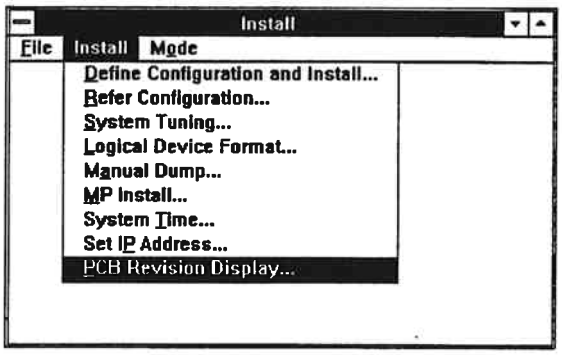
(1) Select (DC) [Install] icon in the 'SVP' window.



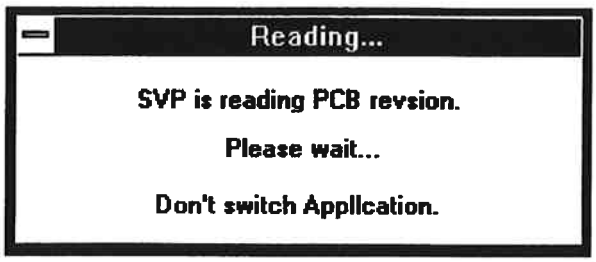
(2) Select (CL) [OK] in the 'SVP' dialog box.



(3) Select (CL) the [Install] menu in the 'Install' window and select(CL) [PCB Revision Display...].

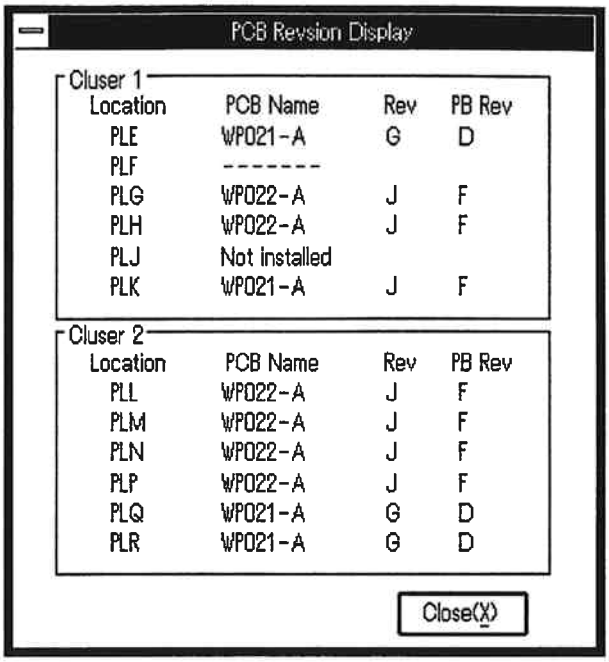


(4) 'Reading' is displayed.



(5) PCB Revisions are displayed.

Meaning of comments in the PCB Name.
'----------' ;
Revision data isn't written on this PCB.
'Not Installed' ;
PCB isn't installed on this location or PCB on this location is failed.
'Not Supported' ;
This PCB's main micro doesn't support the function of 'PCB revision display'.



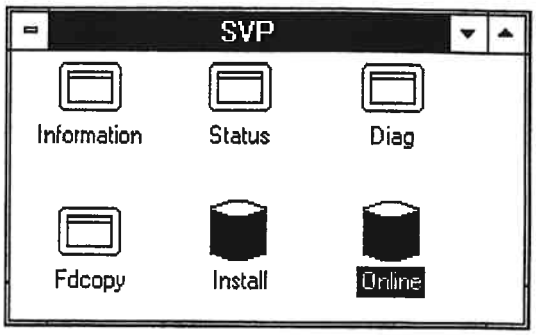
(6) Select(CL) [Close] in the 'PCB Revision Display' dialog box.

(7) Close the 'Install' window.

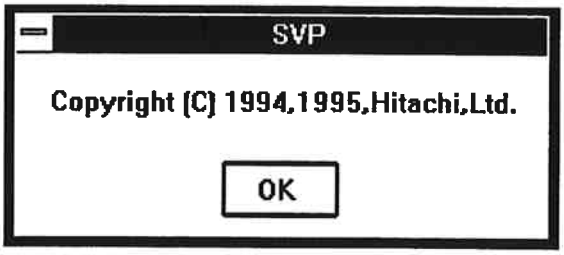
10.2.23 Blocking of Cache Box

NOTICE
This is a special (exceptional) operation. Ask the technical support center about the appropriateness of the operation.

(1) Select (DC) the [Online] icon in the 'SVP' window.

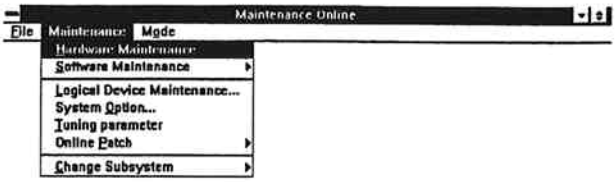


(2) Select (CL) [OK] in the 'SVP' dialog box.

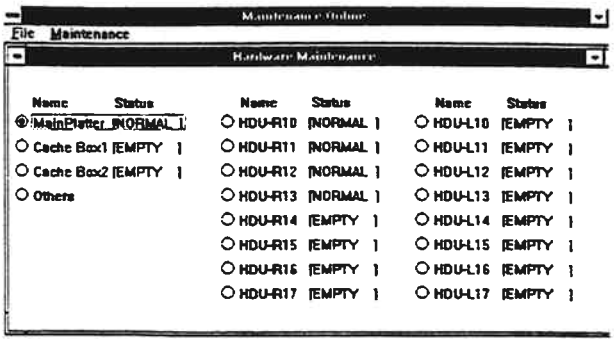


(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].

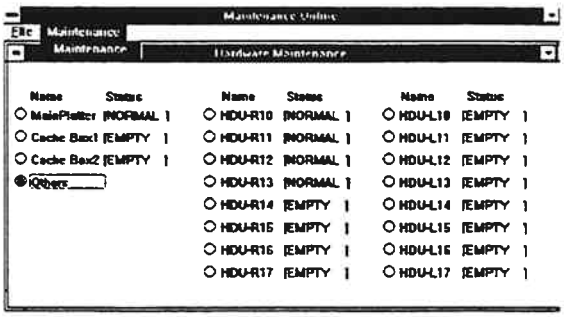
(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Hardware Maintenance].



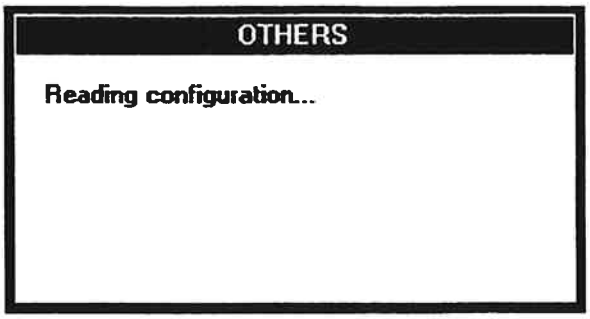
(5) 'Hardware Maintenance' is displayed.



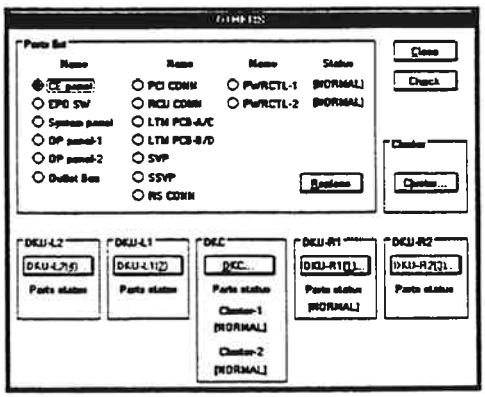
(6) Select [Others] from 'Hardware Maintenance' (CL) and select [Maintenance] from [Maintenance] (DR).



(7) "Reading configuration..." is displayed.

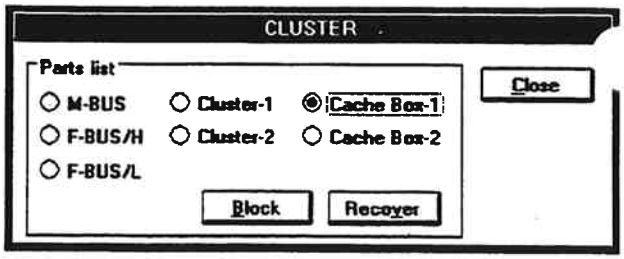


(8) Select [Cluster...] (CL) from 'Cluster' group box in 'OTHERS'.



(9) Start of Cache Box block

Select [Cache Box-1] or [Cache Box-2] from 'CLUSTER' (CL), and select [Block] (CL).

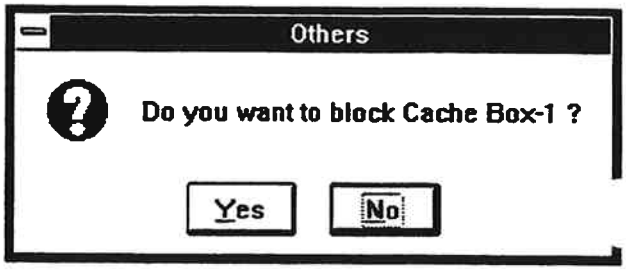


(10) Beginning Block

Select [Yes] (CL) in response to "Do you want to block xxxx?".

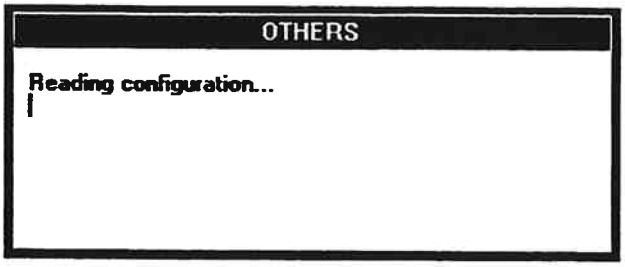
Valid xxxx values are listed below.

- Cache Box-1
- Cache Box-2



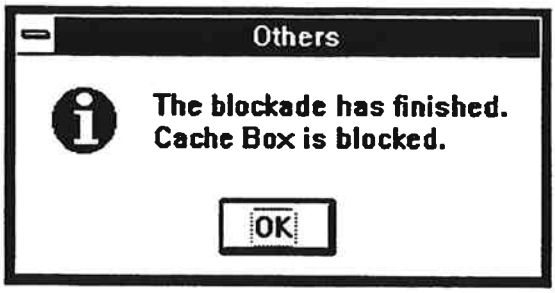
(11) Processing to Cache Box block.

"Reading configuration..."
"Blocking Cache Box..."
"Blocking cache memory..."
"Processing to disable the environment check..."



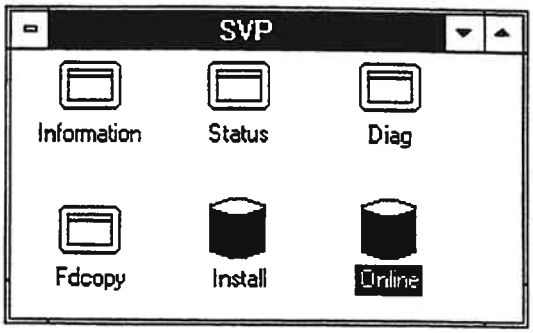
(12) End of Cache Box block

Select [OK] (CL) in response to "The blockade has finished. Cache Box is blocked.".

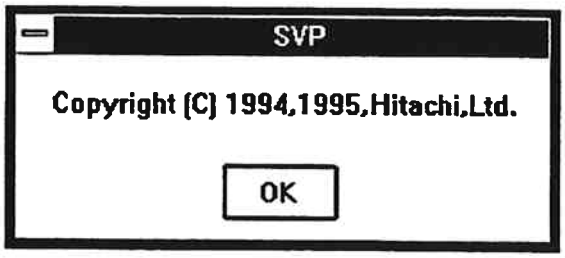


10.2.24 Recovering of Cache Box

(1) Select (DC) the [Online] icon in the 'SVP' window.

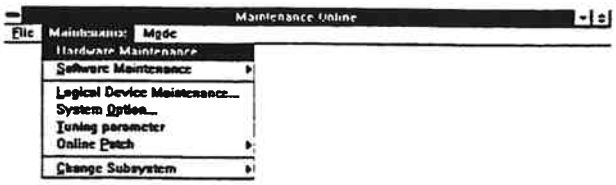


(2) Select (CL) [OK] in the 'SVP' dialog box.

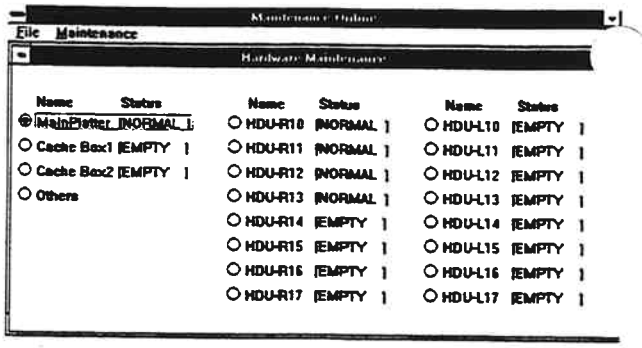


(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].

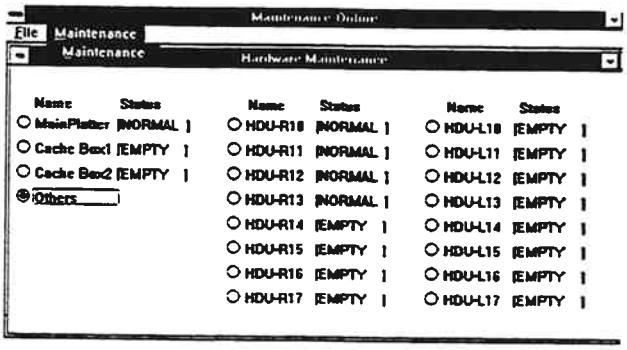
(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [Hardware Maintenance].



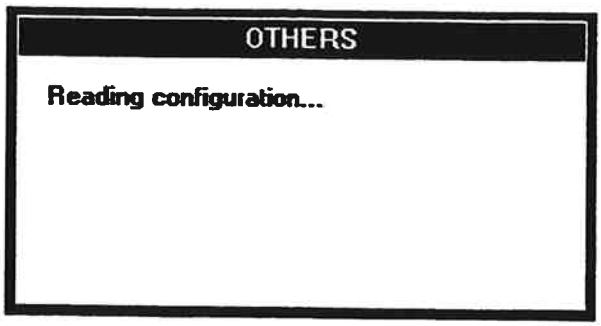
(5) 'Hardware Maintenance' is displayed.



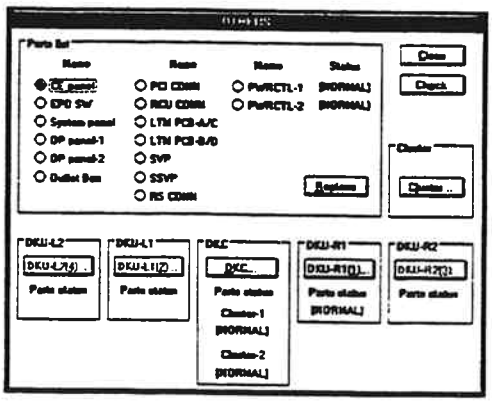
(6) Select [Others] from 'Hardware Maintenance' (CL) and select [Maintenance] from [Maintenance] (DR).



(7) "Reading configuration..." is displayed.

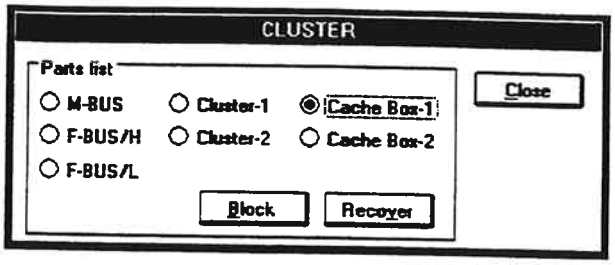


(8) Select [Cluster...] (CL) from 'Cluster' group box in 'OTHERS'.



(9) Start of Cache Box recover

Select [Cache Box-1] or [Cache Box-2] from 'CLUSTER' (CL), and select [Recover] (CL).

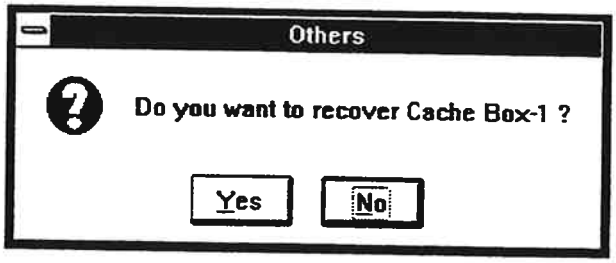


(10) Beginning Recover

Select [Yes] (CL) in response to "Do you want to recover xxxx?".

Valid xxxx values are listed below.

- Cache Box-1
- Cache Box-2



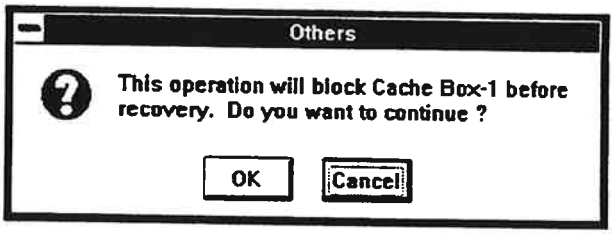
If Cache Box 1/2 is fail. Go to (11)
If Cache Box 1/2 is blockade. Go to (14)
If Cache Box 1/2 is normal. Go to (15)

(11) Confirm message.

Select [OK] (CL) in response to "This operation will block Cache Box-X before recovery. Do you want to continue?".

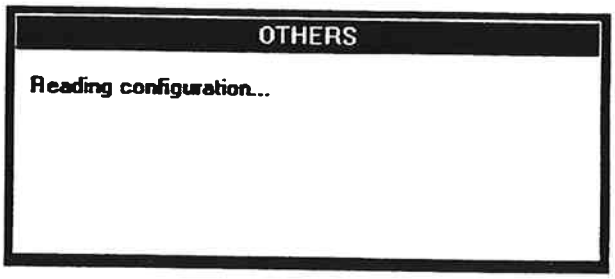
Valid Cache Box-X values are listed below.

- Cache Box-1
- Cache Box-2



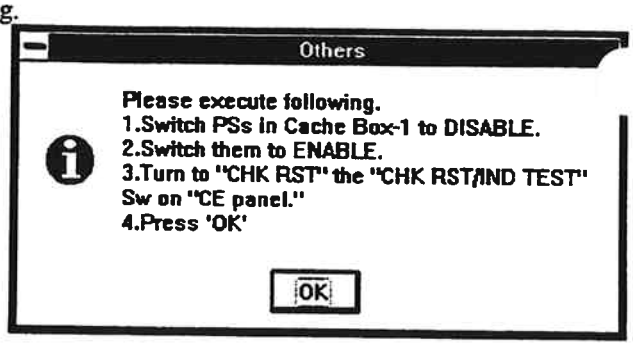
(12) Processing to Cache Box block.

"Reading configuration..."
"Checking status of Cache Box..."
"Blocking Cache Box..."
"Blocking cache memory..."
"Processing to disable the environment check..."



(13) Select [OK] (CL) in response to "Please execute following.

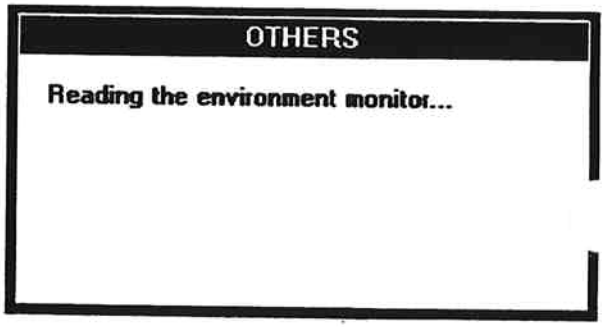
1.Switch PSs in Cache Box-X to DISABLE.
2.Switch them to ENABLE.
3.Turn to "CHK RST" the "CHK RST/IND TEST" Sw on "CE panel."
4.Press 'OK'".



Valid Cache Box-X values are listed below.

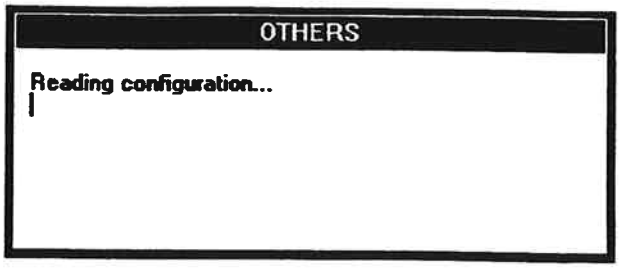
- Cache Box-1
- Cache Box-2

(14) "Reading the environment monitor..." is displayed.



(15) Processing to Cache Box recover.

"Reading Configuration..."
"Checking status of Cache Box..."
"Restoring Cache Box..."
"Waiting for restart..."
"Restoring cache memory..."
"Processing to enable the environment check..."



(16) End of Cache Box Recover

Select [OK] (CL) in response to "The restore has finished. Cache Box is enabled.".

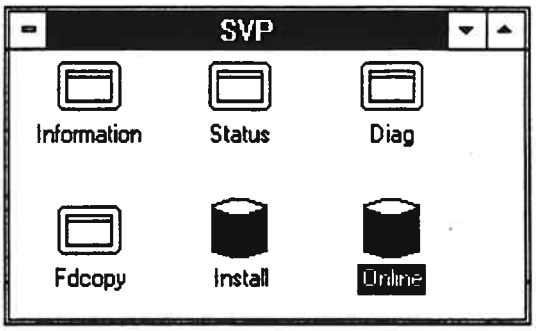
10.3 Option Install

This section describes how to install feature option.

10.3.1 HMBR Install/de-install

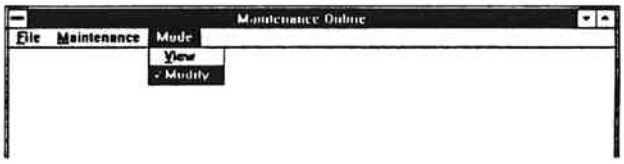
The view of HMBR is described in MULTIPLATFORM SECTION (See 21.7).
If you want to install this function, you need a special FD (DKC-F210I-M80).
Please prepare the FD.

(1) Select (DC) the [Online] icon in the 'SVP' window.

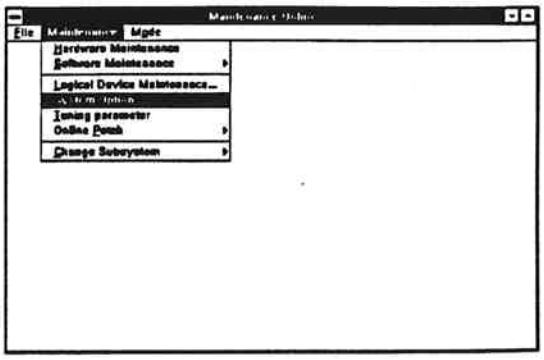


(2) Select (CL) [OK] in the 'SVP' dialog box.

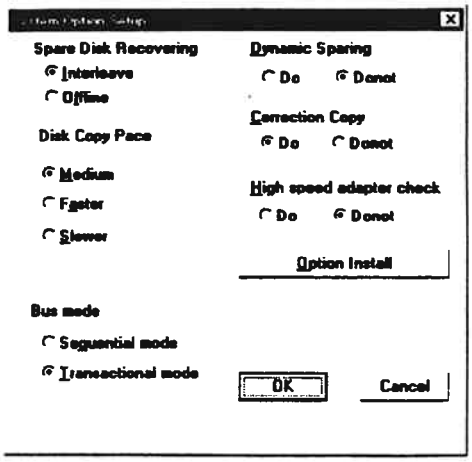
(3) Select (CL) the [Mode] menu in the 'Maintenance Online' window and select (DR) [Modify].



(4) Select (CL) the [Maintenance] menu in the 'Maintenance Online' window and select (DR) [System Option].

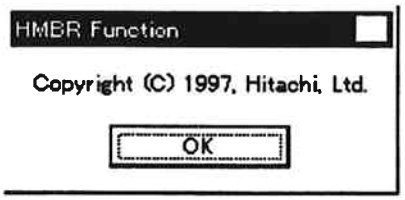


(5) Select (CL) [Option Install]



(6) Insert Special FD (DKC-F210I-M80), and select (CL) [OK].
If you don't have FD, select (CL) [Cancel].

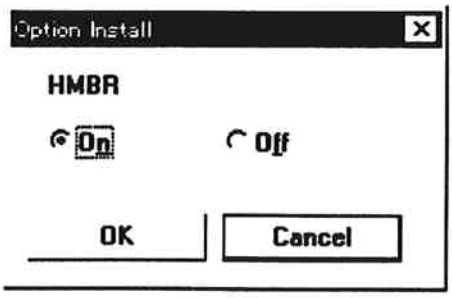
(7) Select (CL) [OK].



(8) If you want to install HMBR function check (CL) [On] and select (CL) [OK].
If you want to de-install HMBR function, check (CL) [Off], and select (CL) [OK].

Install	Go to step (10).
De-install	Go to step (9).

Note : If you select (CL) [OK], the SVP will write the serial number in the FD. Therefore, you have to select (CL) [OK] in the 'System Option' setup screen (next step 11).

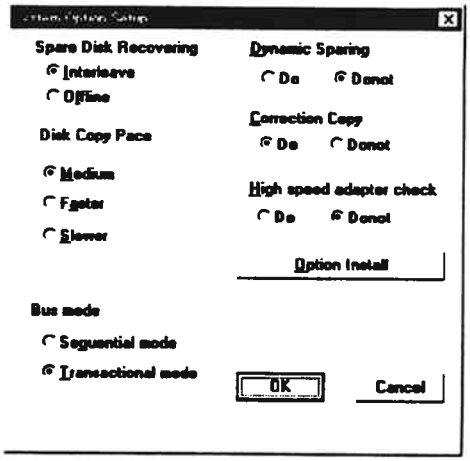


(9) Select (CL) [OK].

(10) Remove FD. And select (CL) [OK].

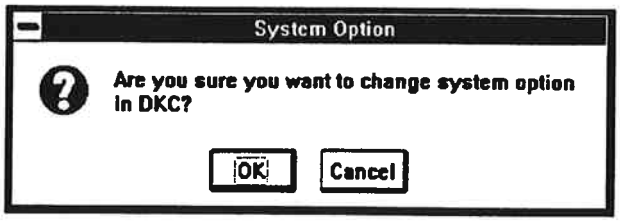
(11) Select (CL) [OK].

Note : If you set the HMBR option and selected [OK] in the 'Option Install' screen, you have to select.

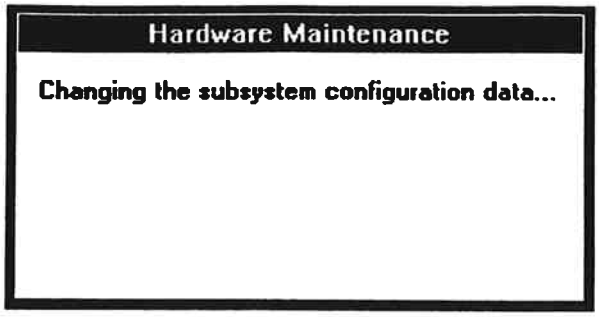


(12) If you want to change system option in the 'System Option' dialog box, select (CL) [OK].

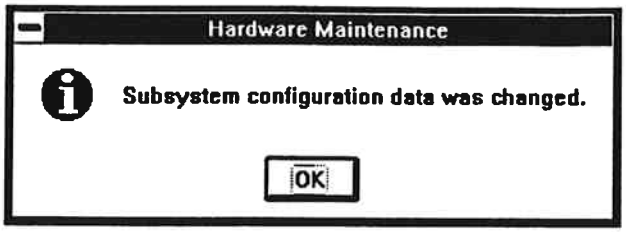
Note : If you set the HMBR option and selected [OK] in the 'Option Install' screen, you have to select.



(13) The message is displayed in the 'Hardware Maintenance' dialog box.



(14) Select (CL) [OK] in the 'Hardware Maintenance' dialog box, in order to finish processing.



(15) Close the 'Maintenance Online' window.