USER REPLACE SECTION

Contents

1. How to operate the SVP (PC)

1.1 How to use Windows

(1) Common expression
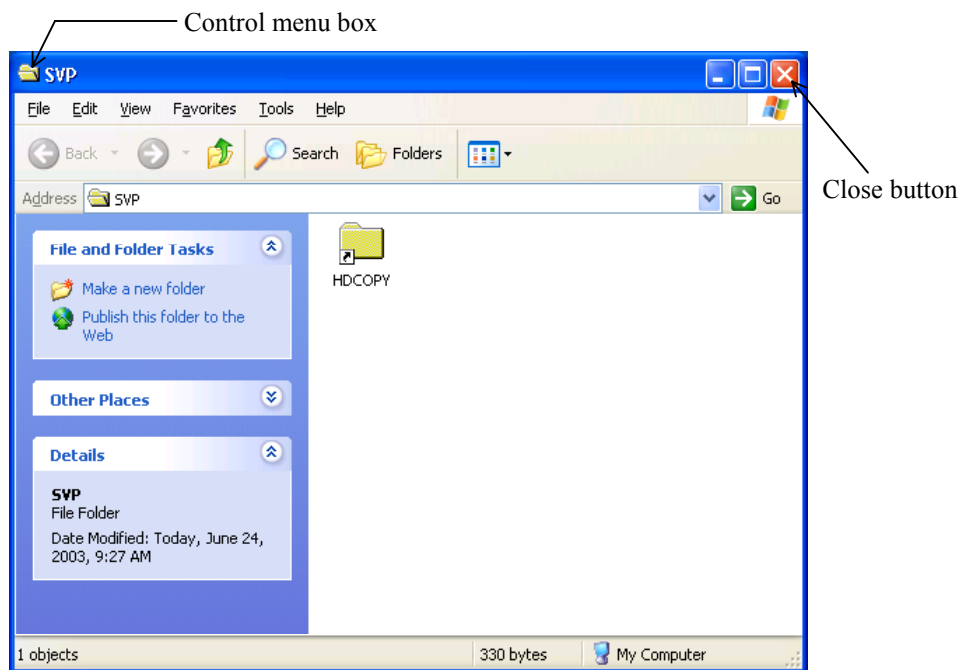In this manual, "select" has the following meaning, and "(CL)" is added to "select".

(CL) Click: Quickly press and release the left mouse button.

Example: Select (CL) [Guidance] in the 'RAID Maintenance Viewer' window.

---

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

Control menu box

Close button

(3) Moving the Window
Move the pointer to the title bar with the trackball.
While pressing the button, move the window with the trackball or touchpad (DR) to a desired
position and release the button.

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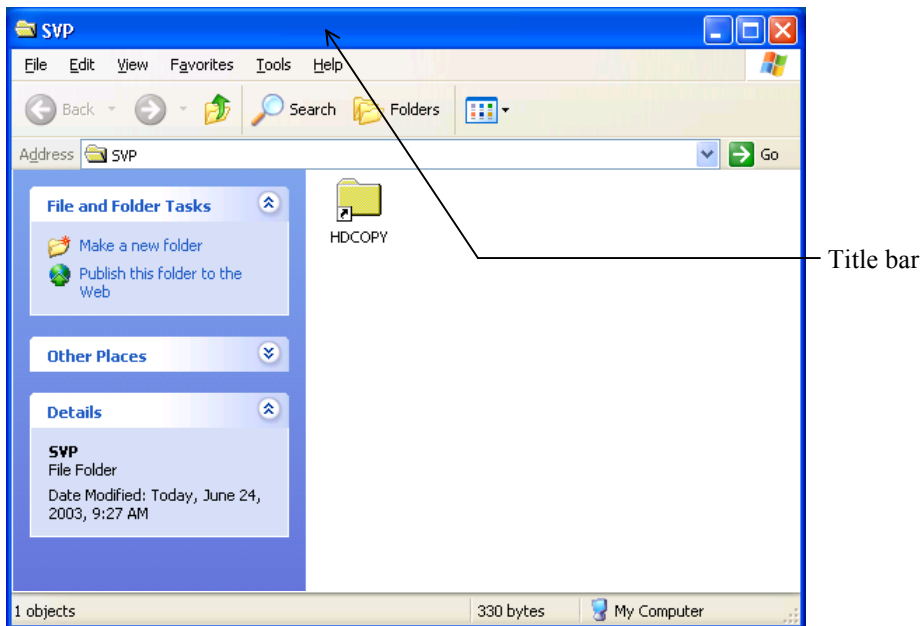
(4) Changing the window size
Move the pointer to the window border (frame) (the pointer changes to the double- headed
arrow). While pressing the button, move the border (the border changes to the broken line)
until the window becomes a desired size, and release the button.

Border (Frame)
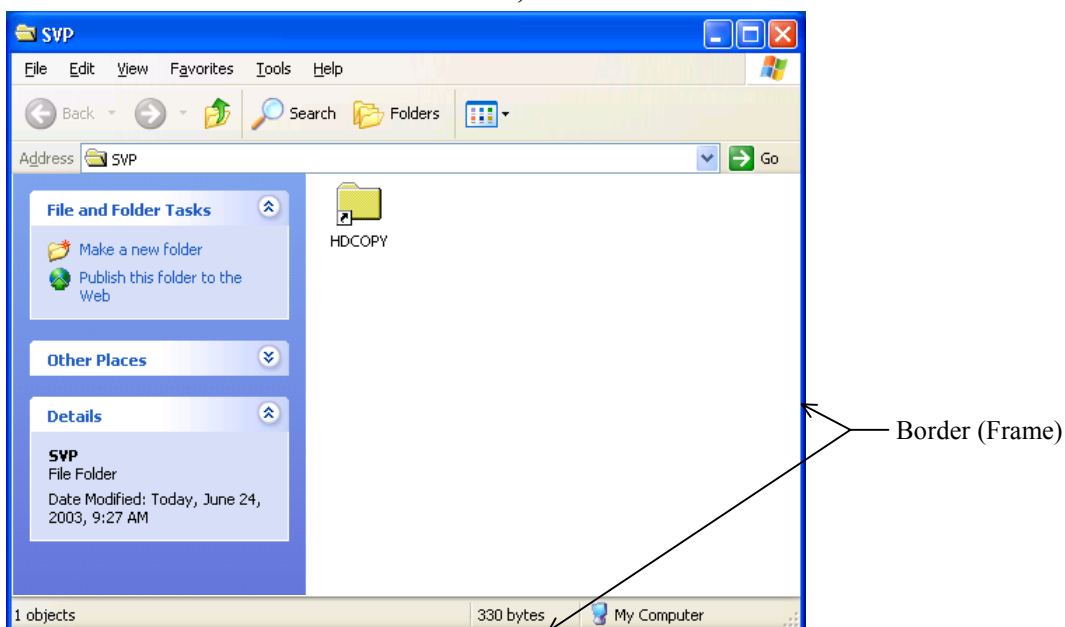
(5) Switching the screen (when two or more screens are opened)
     While pressing the [ALT] key, press [TAB] key (or [ESC] key) until your desired window title
     is displayed, and release the [ALT] key.

1.2 Running the SVP by Specifying a File Name

(1) <Select [Run]>
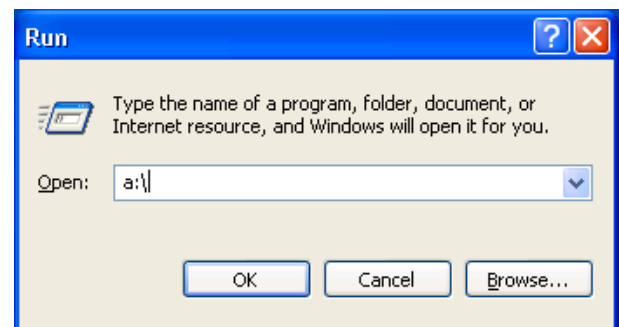Select (CL) [Run…] from the [Start] menu.

(2) <Entering a file name>
Enter a file name in the "Open" box and
select (CL) the [OK] button.

1.3 Connection to the SVP

To connect to the SVP (PC), execute Remote Desktop Connection from the console PC by following the procedure below.

(1) Executing Remote Desktop Connection
Select (CL) [Run…] from the [Start] menu.
Enter "mstsc.exe" in the Open field, and
select (CL) [OK].

(2) Establishing the connection
Enter the IP address of the SVP (PC) or host
name in the Computer field, and select (CL)
[Connect].
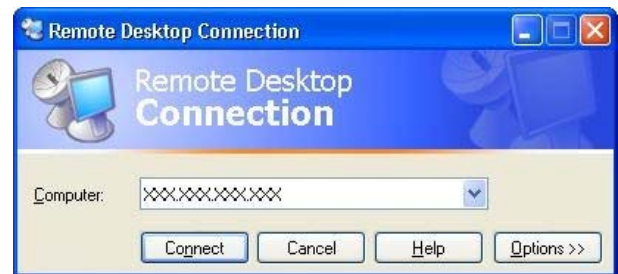
Note: When executing the connection, make sure that the
local disk drive automatic setting has been set. To
check the setting, select (CL) [Options], and then
the Local Resources tab in the Remote Desktop
Connection window. In the tab display, check that
the Disk drives item is selected.

(3) Logging on
    Enter a user name and password, and select
    (CL) [OK].
    You will be logged on to the SVP (PC).

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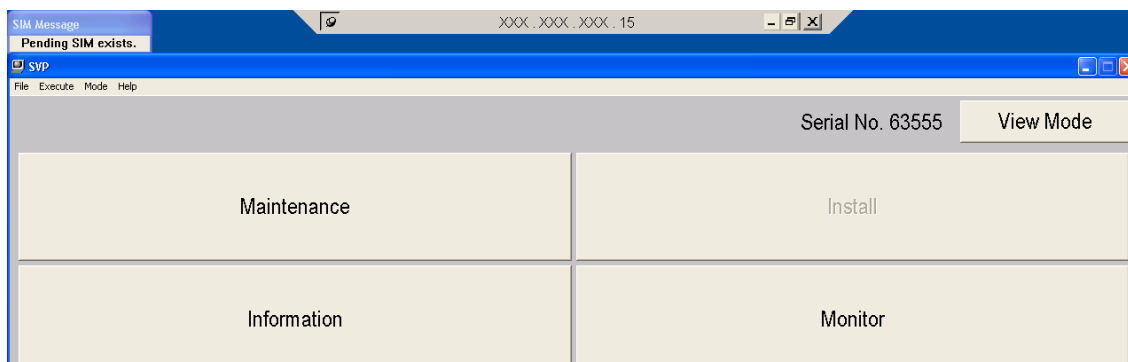Copyright © 2007, Hitachi, Ltd.

1.4 Disconnecting the SVP

Disconnect the Console PC from the SVP.

(1) Disconnection
Move the pointer to the upper central portion of the window. Select (CL) the mark "×" on the bar displayed.
The SVP window on the Console PC is closed.

2. UserReplace feature

This function is only available for the HP version.

2.1 Creating an account for user maintenance

(1) <Connection to the SVP>
Use the Remote Desktop Connection from the Console PC to connect to the SVP.
See "1.3 Connection to the SVP".

Enter the user name and password of the account of maintenance personnel and select (CL) [OK].

(2) <Starting UserMaintenance Setup>
Select (CL) [Run…] from [Start].
Enter "C:\dkc200\mp\pc\um_ACSetup.exe" in the "Open" box and select (CL) [OK].
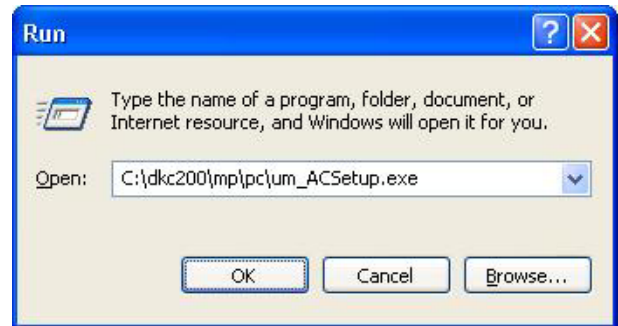
(3) <Starting dialog box>
Display the 'UserMaintenace Setup' dialog box.

Select (CL) [Create] in the 'UserMaintenace Setup' dialog box.
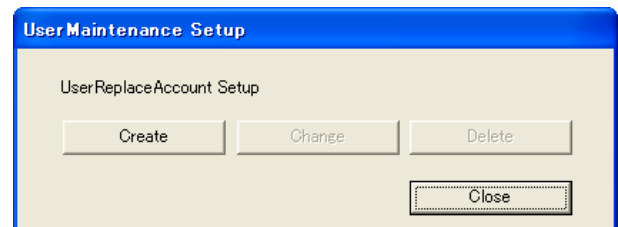
Note: When the account of UserReplace exists, you cannot select (CL) [Create].

(4) <Execution>
     Display the 'Create UserMaintenance
     Account' dialog box.

     Enter the user name and password of the
     account of UserReplace in "Login User
     Name" and "Input Password".
     Enter the password in "Input Password
     Again" again for confirmation.

     After that, select (CL) [OK].

     Note: Enter the user name using 1 to 20 characters.
            Enter the password using 7 to 30 characters.
            Only alphanumeric characters and the following symbols can be used for the user name
            and the password: -   _   .   (   )

     Note: When the 'Create UserMaintenance Account' dialog is displayed, the default user name
            and password are entered.

---

(5) <Execution check>
     A message confirming the creation appears.
     Select (CL) [OK].
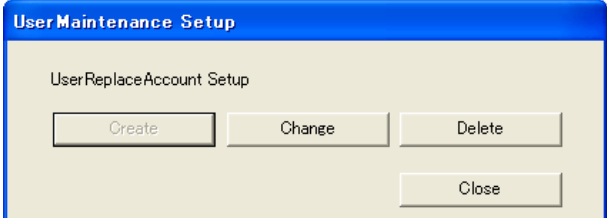
---

(6) <Completion check>
     A message indicating that the creation was completed appears.
     Select (CL) [OK].

---

(7) <Post-processing>
     Select (CL) [Close] to close the
     'UserMaintenace Setup' dialog box.

### 2.2 Changing an account for user maintenance

(1) <Connection to SVP>
Use the Remote Desktop Connection from the
Console PC to connect to the SVP.
See "1.3 Connection to the SVP".

Enter the user name and password of the
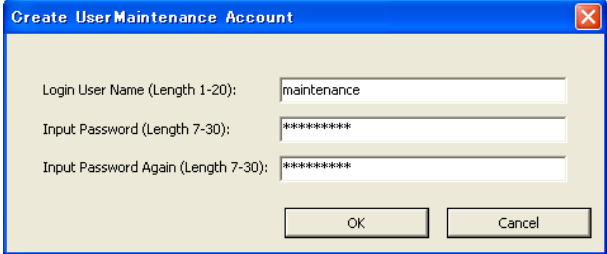account of maintenance personnel and select
(CL) [OK].

(2) <Starting UserMaintenance Setup>
Select (CL) [Run…] from [Start].
Enter "C:\dkc200\mp\pc\um_ACSetup.exe"
in the "Open" box and select (CL) [OK].
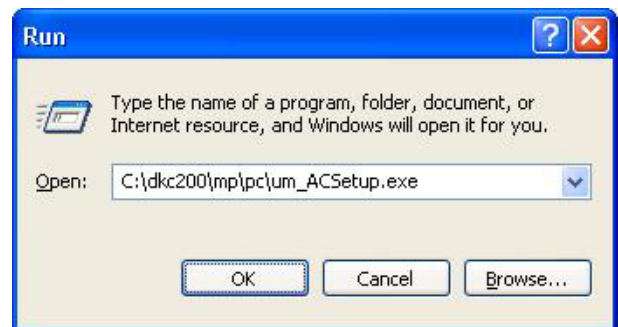
(3) <Starting dialog box>
Display the 'UserMaintenace Setup' dialog
box.

Select (CL) [Change] in the 'UserMaintenace
Setup' dialog box.
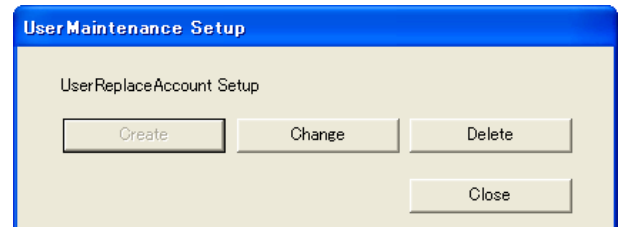
Note: When the account of UserReplace does not exist, you cannot select (CL) [Change].

(4) <Execution>
Display the 'Change UserMaintenance
Account' dialog box.

To change the user name of the account of
UserReplace, select (CL) "Change User
Name" and enter a user name in "Login User
Name".
To change the password of the account of
UserReplace, select (CL) "Change Password" and enter a password in "Input Password".
Enter the password in "Input Password Again" again for confirmation.
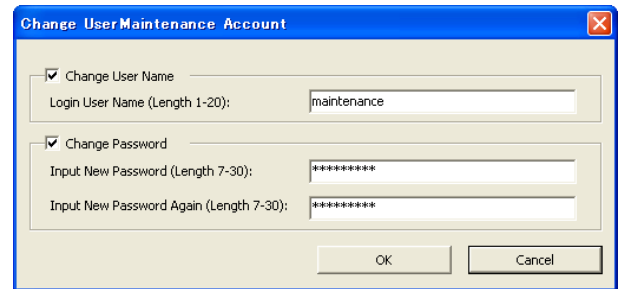
After that, select (CL) [OK].

Note: Enter the user name using 1 to 20 characters.
Enter the password using 7 to 30 characters.
Only alphanumeric characters and the following symbols can be used for the user name
and the password: -   _   .   (   )

(5) <Execution check>
A message confirming the creation appears.
Select (CL) [OK].

(6) <Completion check>
A message indicating that the creation was completed appears.
Select (CL) [OK].

(7) <Post-processing>
Select (CL) [Close] to close the
'UserMaintenace Setup' dialog box.
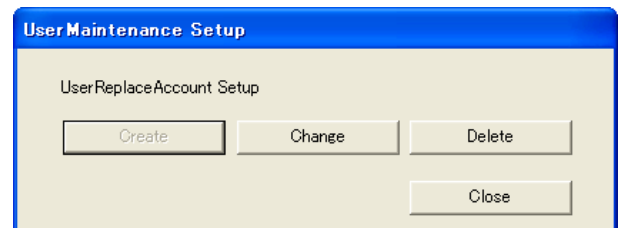
2.3 Deleting the account for user maintenance

(1) <Connection to the SVP>
Use the Remote Desktop Connection from the
Console PC to connect to the SVP.
See "1.3 Connection to the SVP".

Enter the user name and password of the
account of maintenance personnel and select
(CL) [OK].

(2) <Starting UserMaintenace Setup>
Select (CL) [Run…] from [Start].
Enter "C:\dkc200\mp\pc\um_ACSetup.exe"
in the "Open" box and select (CL) [OK].
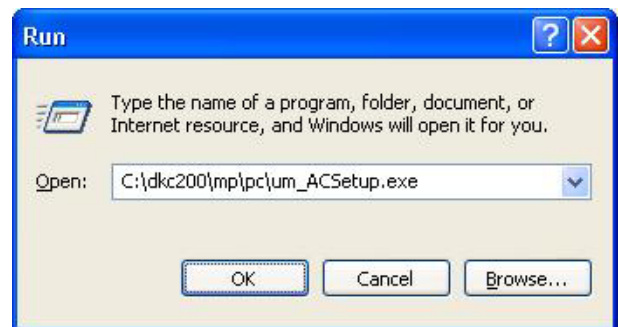
(3) <Starting dialog box>
Display the 'UserMaintenace Setup' dialog
box.
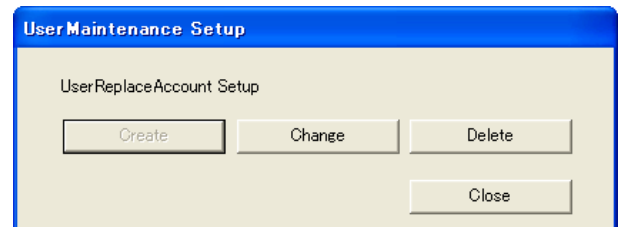
(4) <Execution>
Select (CL) [Delete] in the 'UserMaintenace
Setup' dialog box.

Note: When the account of UserReplace does
not exist, you cannot select (CL)
[Delete].
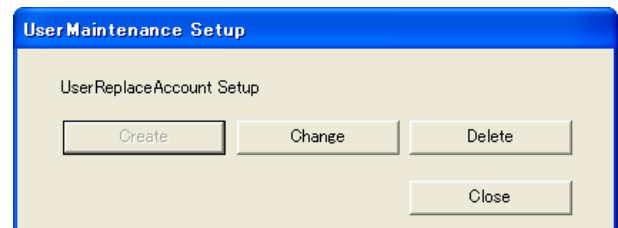
    (5) <Execution check>
        A message confirming the deletion appears.
        Select (CL) [OK].

    (6) <Completion check>
        A message indicating that the deletion was completed appears.
        Select (CL) [OK].

    (7) <Post-processing>
        Select (CL) [Close] to close the
        'UserMaintenace Setup' dialog box.
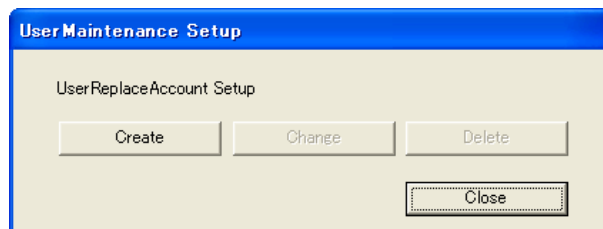
2.4 Initial settings of the account for user maintenance

This processing is performed automatically only when the user logs into the SVP (PC) with the account for user maintenance for the first time.

(1) <Connection to the SVP>
     Use the Remote Desktop Connection from the
     Console PC to connect to the SVP.
     See "1.3 Connection to the SVP".

     Enter the user name and password of the
     account of UserReplace and select (CL) [OK].


⚠ **CAUTION**

Perform the following <Start check> only when the OS of the SVP (PC) is Windows Vista.
In the case of Windows Vista, be sure to follow the procedure described in <Start check>.
When the following procedure is not performed, a serious problem, such as a system
down and data loss, could occur.

(2) <Start check>
     In the 'User Account Control' dialog box,
     select (CL) [Allow].

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⚠ **CAUTION**

When an SVP operation is performed while performing the initial settings of the account
for user maintenance after being connected to the SVP, a serious problem, such as a
system down and data loss, could occur.
Until you log off Windows at <Completion check> described below, do not perform any
SVP operation.

(3) <Completion check>
    A message indicating that the initial settings of the account for user maintenance were
    completed appears.
    Select (CL) [OK].

    Note: When you select (CL) [OK], the account for user maintenance is automatically logged
           off, and the SVP is disconnected.

2.5 Performing UserReplace

⚠ **CAUTION**

When ending operation of UserReplace, please close by invoking [Log off] button of 'RAID Maintenance Viewer' window without closing remote desktop connection.

(1) <Connection to the SVP>
Use the Remote Desktop Connection from the Console PC to connect to the SVP.
See "1.3 Connection to the SVP".

Enter the user name and password of the account of UserReplace and select (CL) [OK].
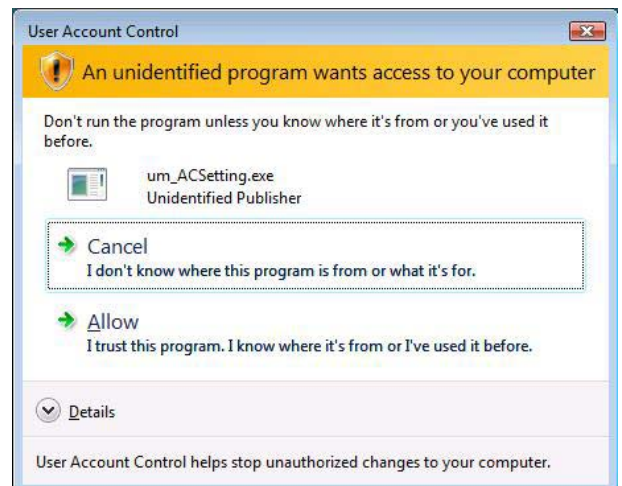
⚠ **CAUTION**

Perform the following <Start check> only when the OS of the SVP (PC) is Windows Vista.
In the case of Windows Vista, be sure to follow the procedure described in <Start check>.

(2) <Start check>
In the 'User Account Control' dialog box, select (CL) [Allow].
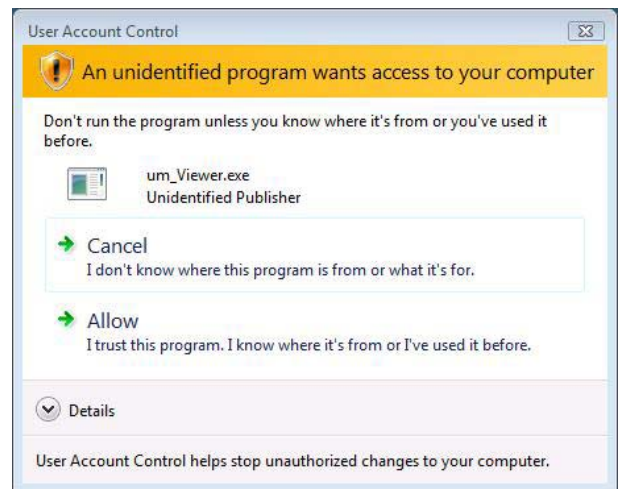
(3) <Start condition check>
The following message appears.
"Wait…"
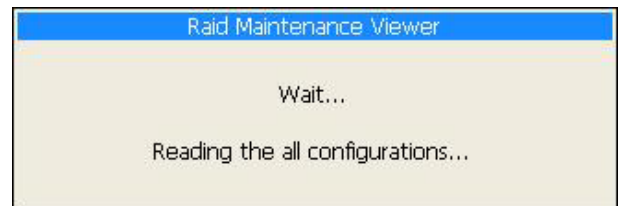
(4) <Start of window>
The 'RAID Maintenance Viewer' window is
displayed.

For details of the 'RAID Maintenance
Viewer' window, see "4. Descriptions of
windows and dialog boxes".
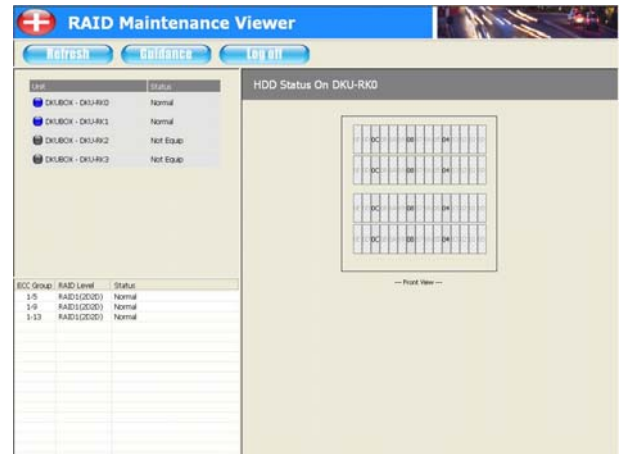
(5) <Displaying Guidance>
In the 'RAID Maintenance Viewer' window,
select (CL) [Guidance].
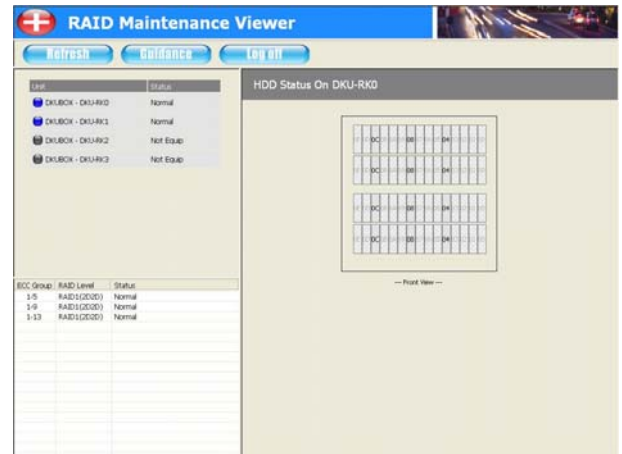
For the next operations, follow the 'Guidance'
dialog box to proceed with UserReplace.
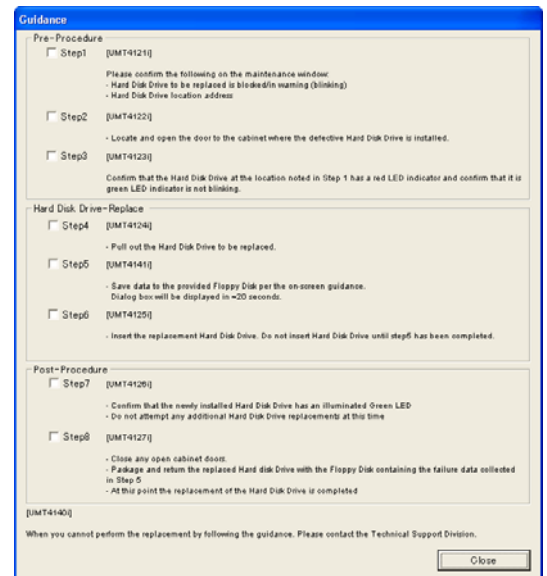
Notice:
(1) Be sure to wear your wrist strap and attach to ground prior to performing the
   following work. This will ensure that the IC and LSI on the package are protected
   from static electricity.
   For how to attach the wrist strap, see "3.1 Attaching the Wrist Strap".
(2) HDD is a precise component. Be careful in handling HDD to avoid vibration and
   impact.

(6) <Step1: Check the HDD to be replaced>
   Confirm in the 'RAID Maintenance Viewer'
   window that the HDD to be replaced is
   blinking.

   Confirm in the 'RAID Maintenance Viewer'
   window the installation location of the HDD
   to be replaced.

   When the operation is completed, select (CL)
   [Step1] in the 'Guidance' dialog box and
   proceed to "(7) <Step2: Open the DKU>".
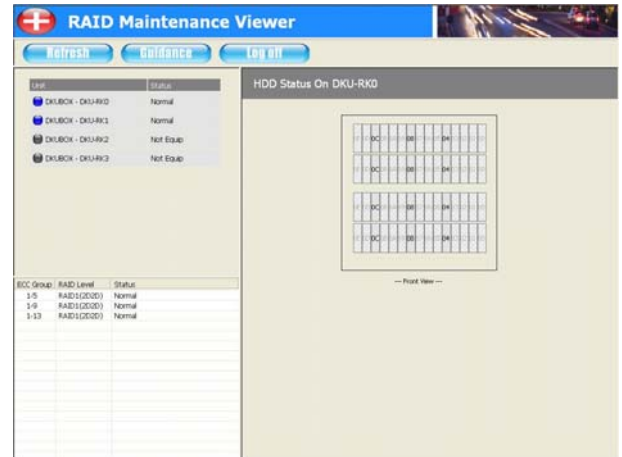
(7) <Step2: Open the DKU>
   Open the door of the DKU in which the HDD to be replaced is installed.
   For how to open and close the door, see "3.2 How to remove and attach the Bezel".

   When the operation is completed, select (CL) [Step2] in the 'Guidance' dialog box and proceed
   to " (8) <Step3: Check the lamp>".

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(8) <Step3: Check the lamp>
Confirm that the red lamp of the HDD to be replaced is lit and a green lamp is not blinking.
For how to check the lamp, see "3.3 Procedure of replacing HDD canister (1) (a)".

When the operation is completed, select (CL) [Step3] in the 'Guidance' dialog box and proceed
to "(9) <Step4: Remove HDD>".

(9) <Step4: Remove HDD>
Remove the HDD to be replaced.
For how to remove it, see "3.3 Procedure of replacing HDD canister (1) (b)".

When the operation is completed, select (CL) [Step4] in the 'Guidance' dialog box and proceed
to "(10) <Step5: Collect the log information>".

(10) <Step5: Collect the log information>
In approximately 20 seconds after HDD is removed, the FFI window appears. Collect the log
information by following the procedure.

⚠ **CAUTION**

Be sure to collect the log information before performing <Step6: Insert HDD>.
The log information collected here is necessary for investigating hardware problems.

Select (CL) [OK] without entering anything in
the FFI window.

Note: If the FFI window is not displayed,
hold down [ALT] and press [TAB] to
display the FFI window.

FFI (Field Failure Information)

Date Time : 02/02/2007 16:17:43
Failure parts name : HDD
Failure parts location : HDDR00-00
Serial Number : 64029

CSO# :

SIM/SSB :

Failure Description :

[Ok] [Cancel]

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In the A drive, insert a floppy disk for storing log information.
In the log information acquisition window, select (CL) [Client PC], 'A:' drive, and then [OK].

Note: The above instruction is for the case that the floppy disk of the console PC is 'A'. If the floppy disk drive is D, select (CL) 'D:'.

Note: Please use the floppy disk enclosed with the new HDD.
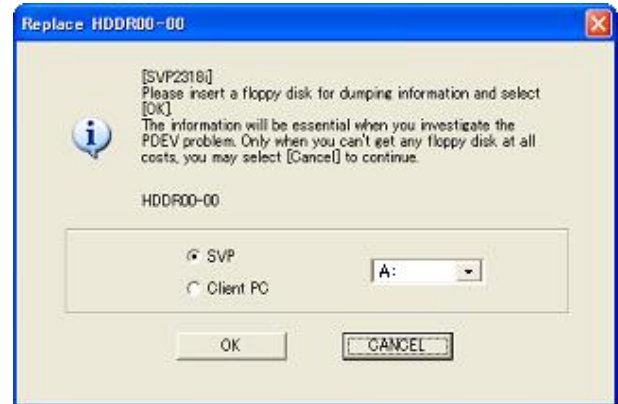
The progress of collecting log information is displayed.
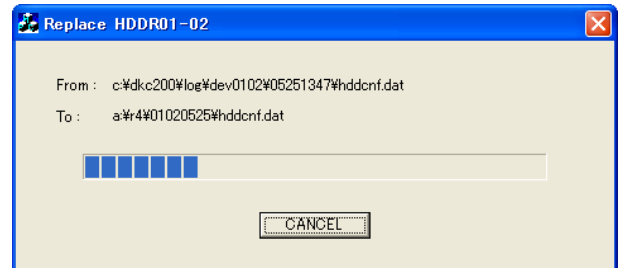
A message indicating that collecting log information is completed appears.
Remove the floppy disk from the floppy disk drive and select (CL) [OK].

When the operation is completed, select (CL) [Step5] in the 'Guidance' dialog box and proceed to "(11) <Step6: Insert HDD>".

(11) <Step6: Insert HDD>

Insert a new HDD to the location from which HDD was removed.
For how to insert it, see "3.3 Procedure of replacing HDD canister (2)" and "3.3 Procedure of replacing HDD canister (3)".

When the operation is completed, select (CL) [Step6] in the 'Guidance' dialog box and proceed to "(12) <Step7: Check the completion of replacement>".

(12) <Step7: Check the completion of replacement>
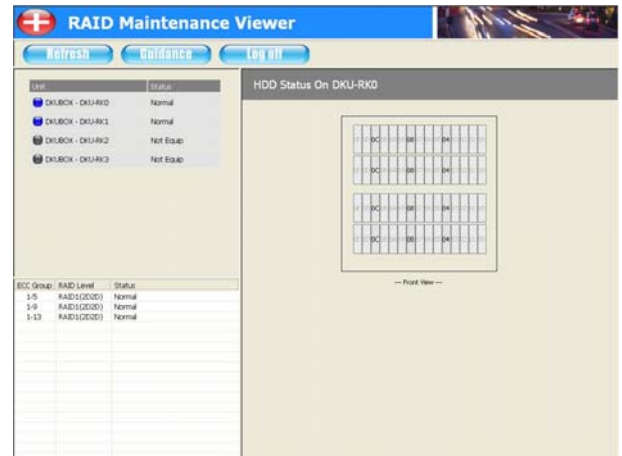In the 'RAID Maintenance Viewer' window, select (CL) [Refresh] and confirm in "HDU information view" that the replaced HDD is lit.
When it is not lit, select (CL) [Refresh] again after a few minutes and confirm that it is lit.

Note: Do not replace other HDD until all the operations through "(12) <Step7: Check the completion of replacement>" are completed.

When the operation is completed, select (CL) [Step7] in the 'Guidance' dialog box and proceed to "(13) <Step8: Post-processing of replacement>".

---

(13) <Step8: Post-processing of replacement>
Close the opened door of the DKU.
For how to open and close the door, see "3.2 How to remove and attach the Bezel".

Send the removed HDD and the floppy disk that contains the log information to the Technical Support Division.

When the operation is completed, select (CL) [Step8] in the 'Guidance' dialog box.

---

(14) <Confirm the completion>
Confirm that the check boxes of [Step1] to [Step8] in the 'Guidance' dialog box are checked. If not, perform the operations again from "(6) <Step1: Check the HDD to be replaced>".

(15) <Post-processing>
Select (CL) [Close] in the 'Guidance' dialog box to
close the 'Guidance' dialog box.
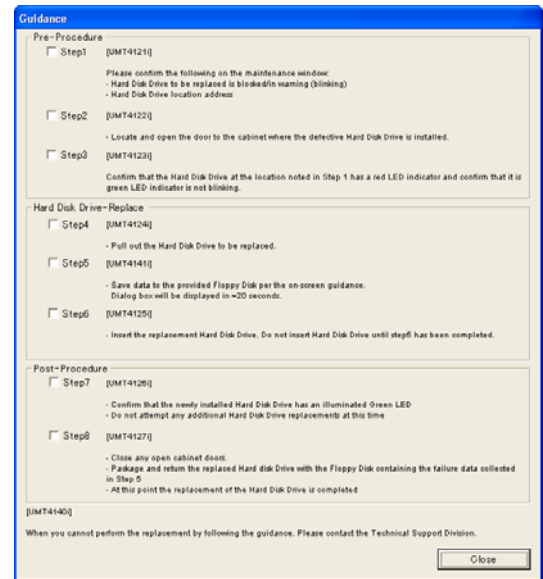
In the 'RAID Maintenance Viewer' window,
select (CL) [Log off].
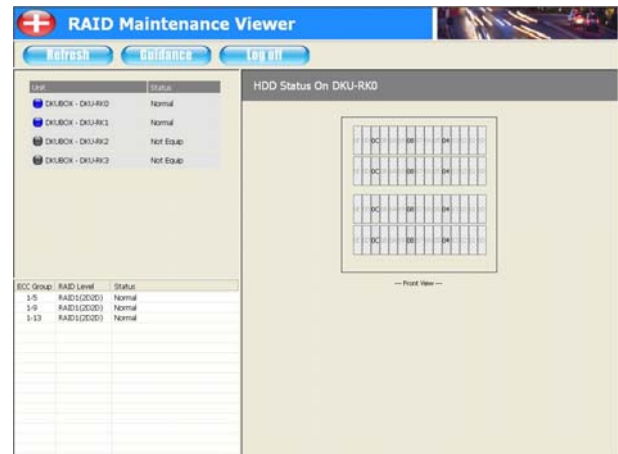
A message confirming the completion is displayed.
Select (CL) [OK].

Note: When you select (CL) [OK], the account for user maintenance is automatically logged
off, and the Console PC and the SVP are disconnected.

2.6 Actions in the case of error or failure

When a warning, failure, or other error status is displayed, report the displayed content to the Technical Support Division and follow the instructions from the Technical Support Division.

3. Hardware operations

3.1 Attaching the Wrist Strap

- In order to protect parts from the electrostatic discharge, every worker must put a wrist strap on his/her wrist before starting installation or maintenance work and start the work after connecting the grounding clip to a metallic portion of the frame. (The wrist strap must be put on when connecting the LAN or RS232C cable.)
- When handling a part, hold it in the way that fingertips of the hand putting the wrist strap on touch a metallic portion of the part.
  (The above is necessary in order to discharge the charged static electricity and prevent a charge caused by handling.)
- Be sure to keep the wrist strap close to the subsystem.
- Be sure to touch the subsystem with the wrist strap put on. If you touch the subsystem without putting on the wrist strap, the static electricity charged on your body flows to the subsystem in an instant because no resistance exists between your body and the subsystem causing a subsystem trouble.
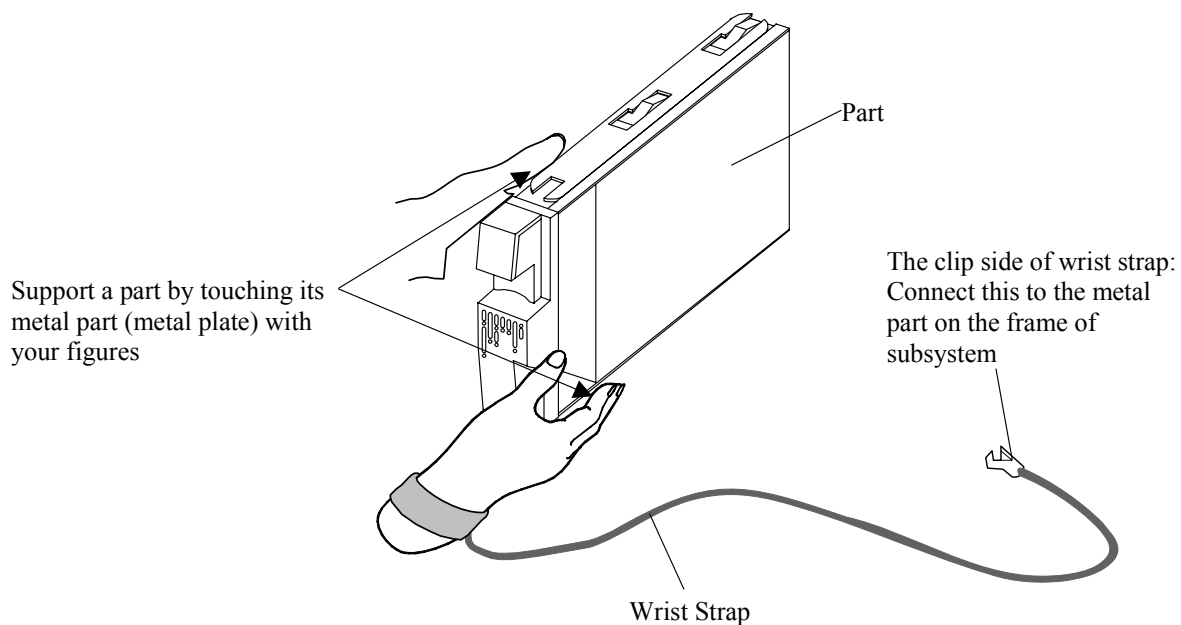
Part

Support a part by touching its metal part (metal plate) with your figures

The clip side of wrist strap: Connect this to the metal part on the frame of subsystem

Wrist Strap

Fig. 3.1-1   Attachment of Wrist Strap

3.2 How to remove and attach the Bezel

> ⚠ **CAUTION**
>
> The stopper of Bezel is unlocked and released easily at the 60 degree rotation, stop point, of the hexagon socket head screw Latch toward clockwise, and Bezel can remove by pull in to front.
> Over force/torque to the Latch might become the cause of Latch damage.

(1) Removal of HDDBOX Bezel
    (a) The wrench is put in the access hole of the HDDBOX Bezel. Afterwards, the wrench is rotated.
    (b) The HDDBOX Bezel is removed.

HDDBOX Bezel

Access hole

Direction of
Rotation

Wrench

Front View of
Primary Rack
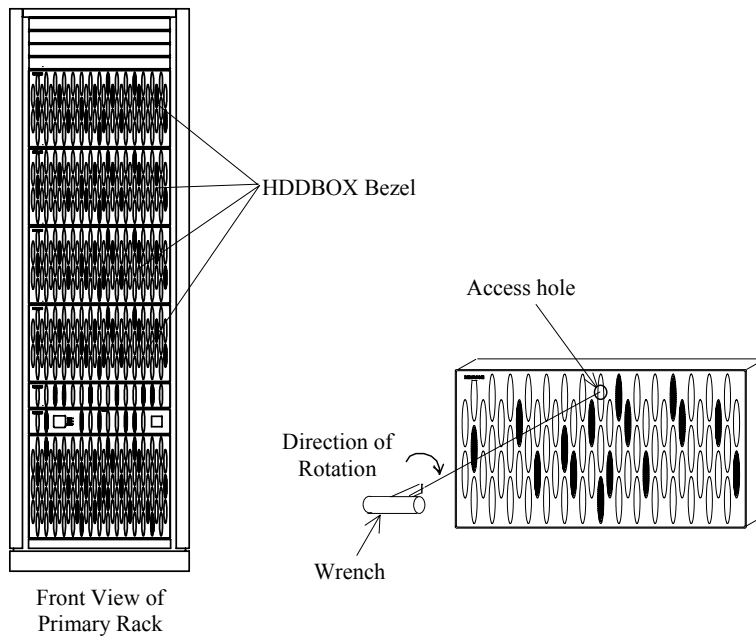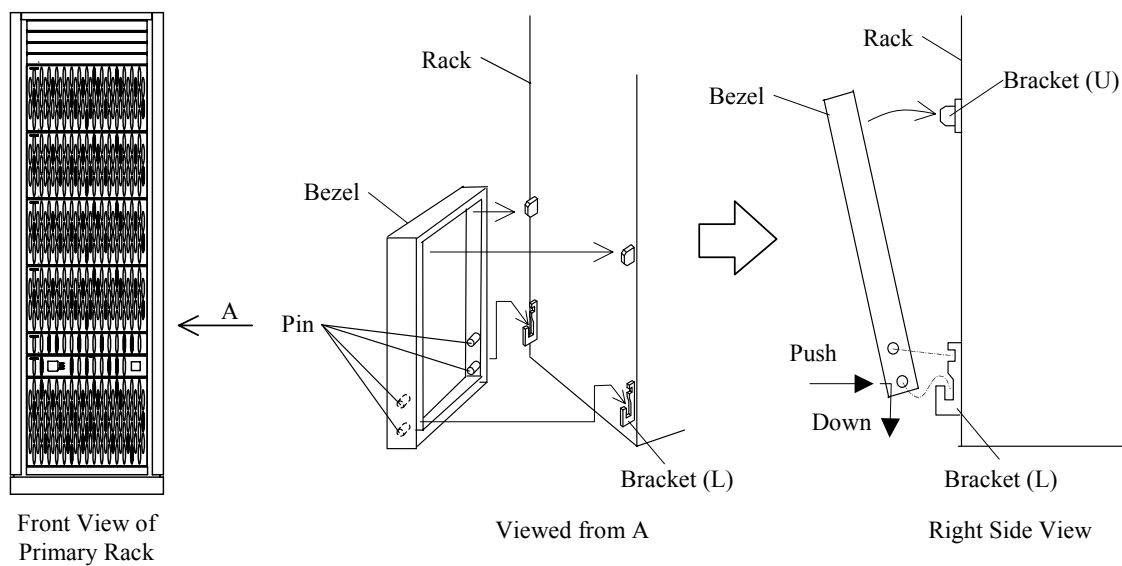
Fig. 3.2-1   Removal of HDD BOX Bezel

(2) Attachment of HDDBOX Bezel
   (a) Put the pin of the HDDBOX Bezel in the ditch of Rack.
   (b) Push the HDDBOX Bezel downward after it puts it in the ditch of Rack.

Front View of
Primary Rack   Viewed from A   Right Side View

How to attach the HDDBOX Bezel

Fig. 3.2-2 Attachment of Bezel

3.3 Procedure of replacing HDD canister

Replace the HDD canister by following the procedure.

Note: Replace the HDD canister in the subsystem power on status.

(1) Procedure of replacing the HDD canister
   (a) Confirm that the Shut Down LED on the SVR package corresponding to the HDD canister
        is lit.

Front View of DKUBOX

Shut Down LED (RED)

(Note) LEDPNLxn-L/R
   → HDU Box Location: 0, 1, 2, 3
   → DKUBOX Location: 0, 1, 2, 3

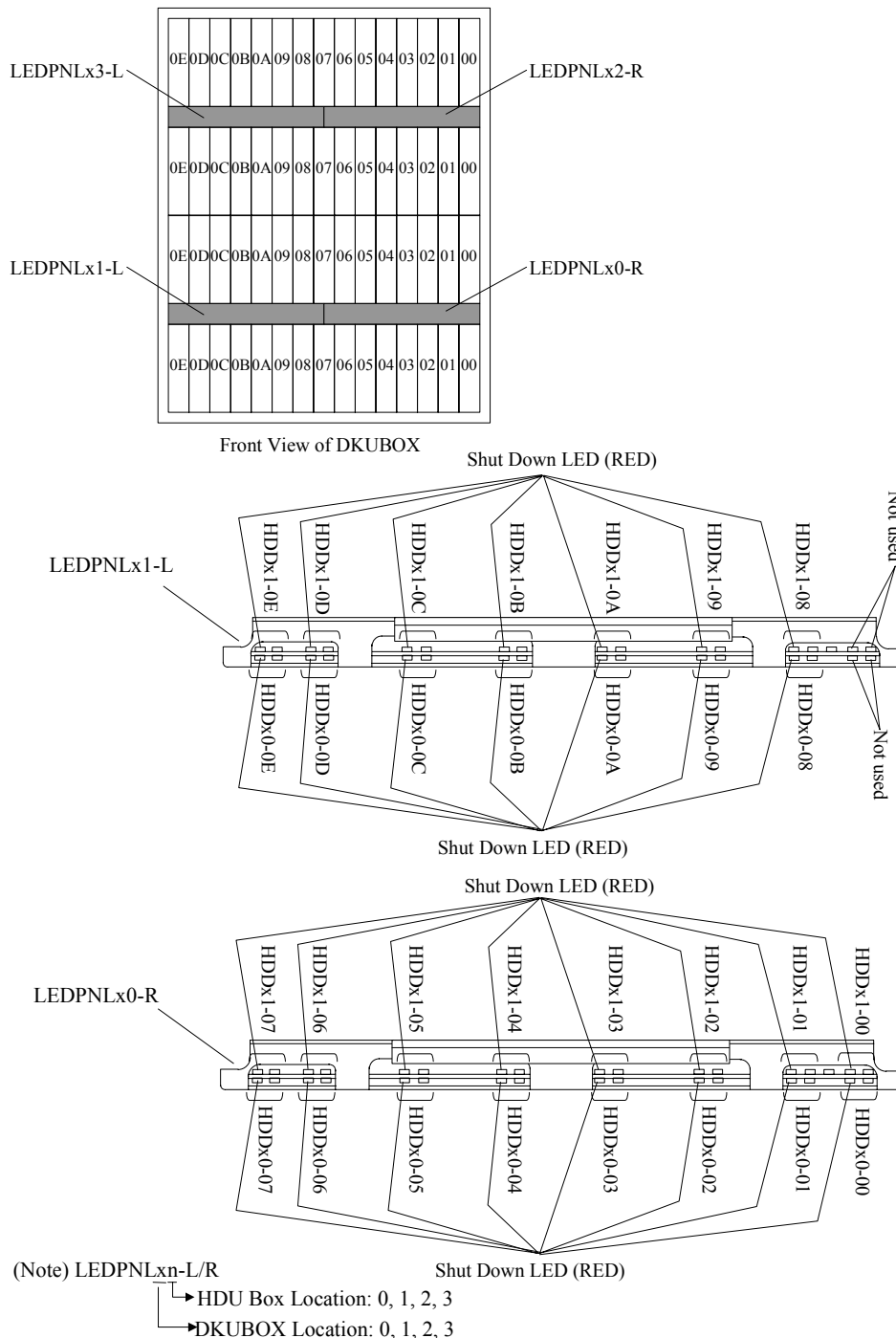Fig. 3.3-1   Checking of Shut Down LED

(b) After pushing up the stopper on the front side of the HDD canister, pull the handle toward you to remove the HDD canister.
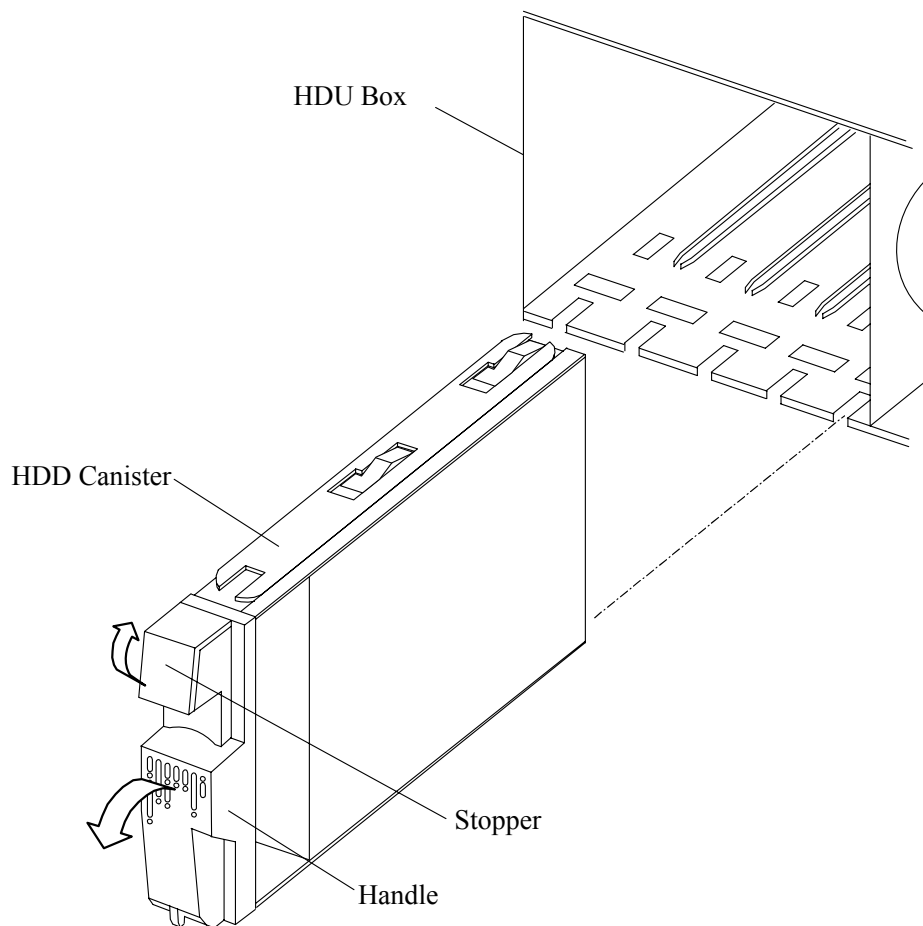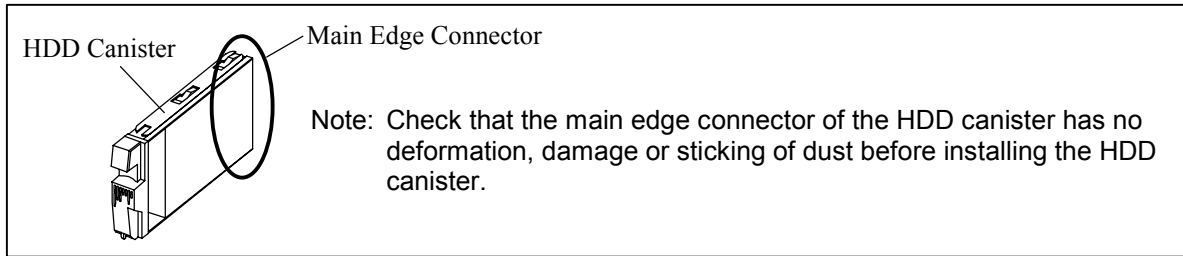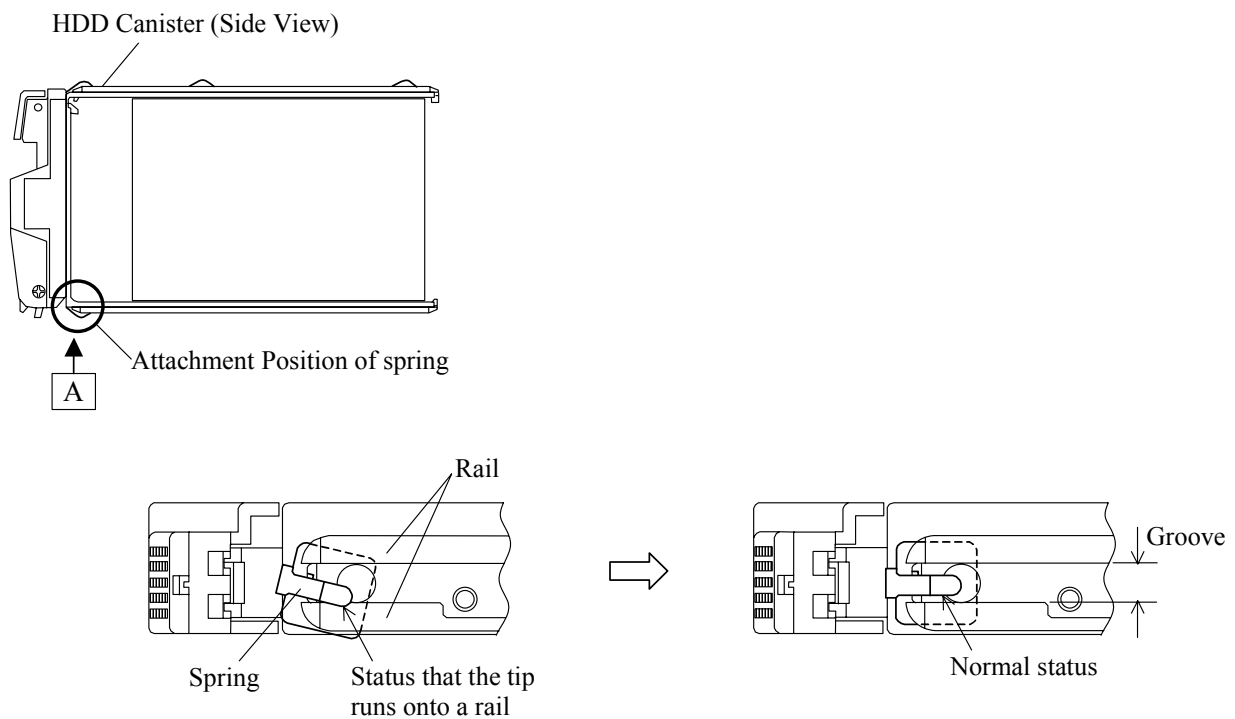
HDU Box

HDD Canister

Stopper

Handle

Fig. 3.3-2   Removal of HDD Canister

(2) Check the condition of the HDD canister before installing it.

HDD Canister —— ⎯ Main Edge Connector

Note: Check that the main edge connector of the HDD canister has no
deformation, damage or sticking of dust before installing the HDD
canister.

(a) Confirm that a spring of the lower part of the HDD canister does not run onto a rail.
If it runs onto a rail, correct the position so that it may fit in a groove.

HDD Canister (Side View)

Attachment Position of spring

A

Rail

Groove

Spring   Status that the tip
runs onto a rail

Normal status

Viewed form A

Fig. 3.3-3   Confirmation of Spring Condition
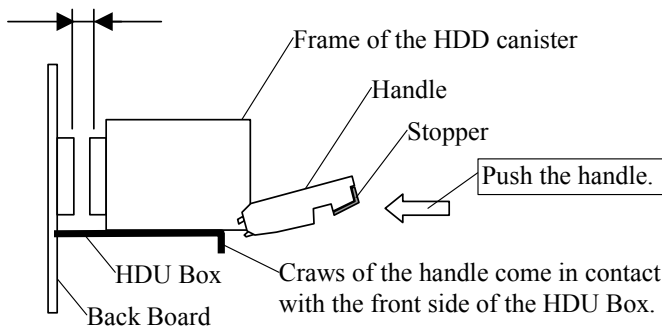
(3) Procedure of installing HDD canister

Note on the installation: Do not insert the HDD canister by pushing its frame.

(a) Insert the HDD canister into the HDU Box holding its handle.
(Insert the canister until the claws that are located at the bottom of the handle come in contact with the front side of the HDU Box.)

(b) Turn the handle at a stroke by pushing its top with your thumb.
(Turn the handle until it latches with the stopper. Do not stop the handle on its way of turning.)

Handling of the canister
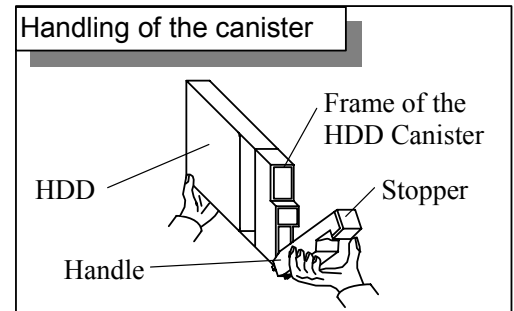
(a) Insert the HDD canister into the HDU Box holding its handle.

A gap exists between the connectors.

(b) Turn the handle at a stroke by pushing its top with your thumb.
(Do not stop the handle on its way of turning.)

The connectors have been coupled.
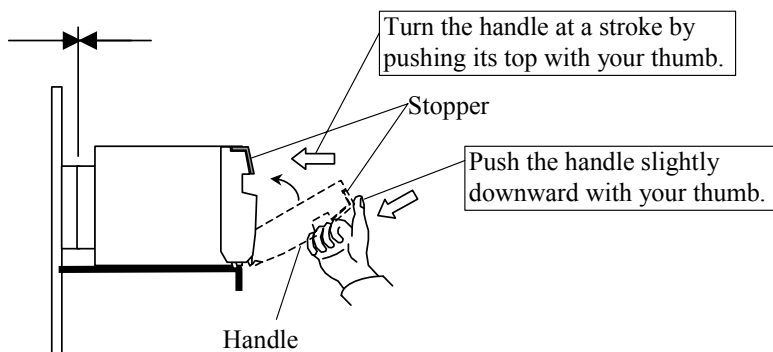
Fig. 3.3-4   Method of Installing HDD Canister

4. Descriptions of windows and dialog boxes

4.1 Main window
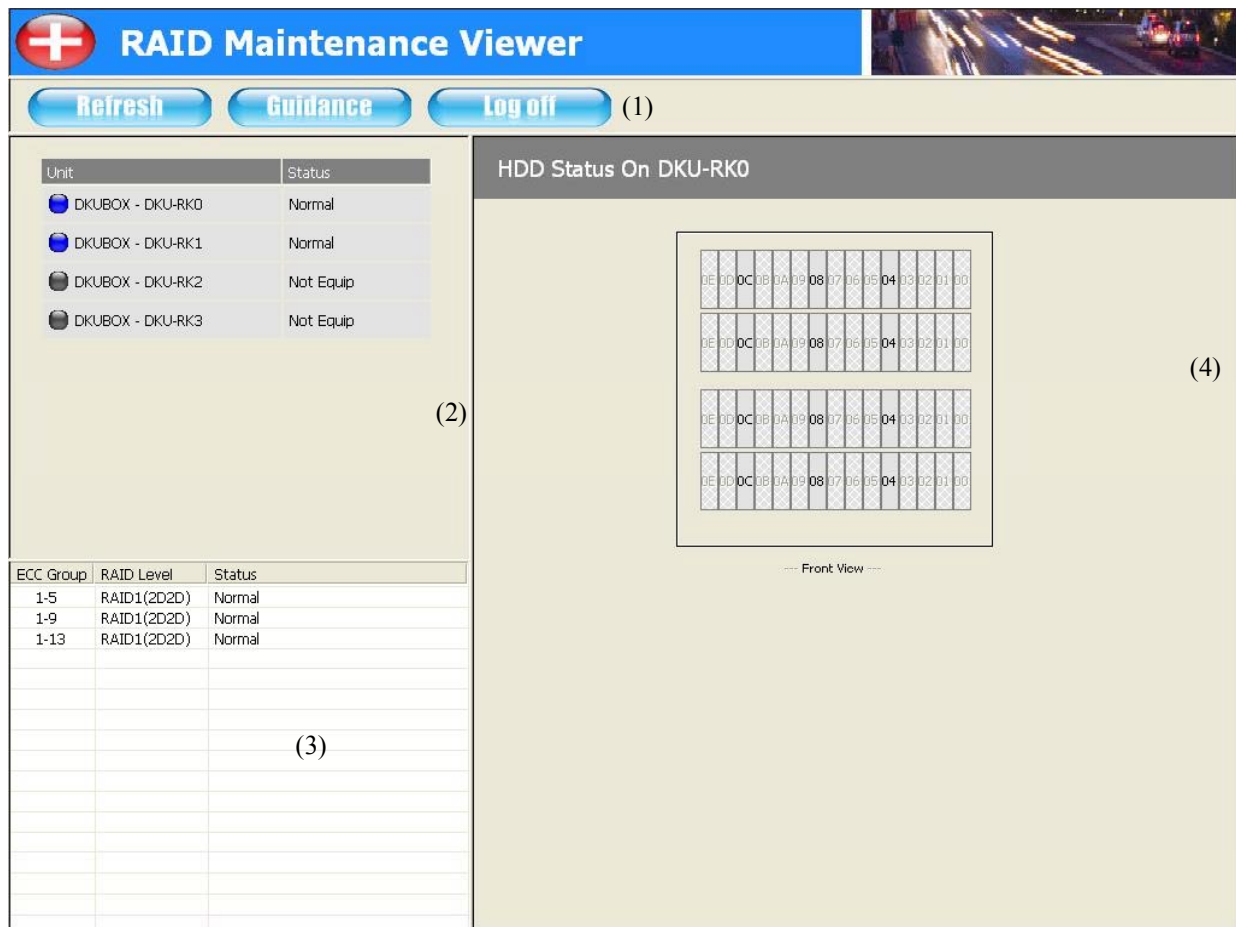
Table 4.1-1   Parts of Main window

#	Item	Content
(1)	Button bar	Button items that can be operated with this feature
(2)	Subsystem information view	Displays the state of each part
(3)	List	Displays the ECC group status
(4)	HDU information view	Displays the HDU status

(1) Button bar

Table 4.1-2 Button bar

Button	Processing
Refresh	Updates the information displayed in 'RAID Maintenance Viewer'.
Guidance	Displays the 'Guidance' dialog box.
Log off	Exits 'RAID Maintenance Viewer' and logs off the account for user maintenance.

(2) Subsystem information view

Table 4.1-3 Subsystem information view

#	Item	Content
①	List	Displayed information: Each DKU status is displayed in the list. 　　　"Normal"　　: Normal status 　　　"Warning"　: Error status 　　　"Not equip" : Not installed
		Selecting an item: The detailed information on the target DKU is displayed in the HDU information view.

(3) List
    ECC group statuses are listed.

Table 4.1-4   Subsystem information view

Item	Content	
RAID Level	"RAID1(2D2D)"	: RAID level 1 2D2D
	"RAID5(3D1P)"	: RAID level 5 3D1P
	"RAID5(7D1P)"	: RAID level 5 7D1P
	"RAID6(6D2P)"	: RAID level 6 6D2P
	"Unknown"	: Unused level
Status	"Normal"	: Normal
	"Failed"	: Blocked due to a failure
	"Blocked"	: Blocked due to maintenance
	"Warning"	: Mixed states
	"Copying"	: Copy is in progress
	"CorrectionAccess"	: Correction access
	"Unknown"	: Unknown state
	"Not equip"	: Not installed

(4) HDU information view
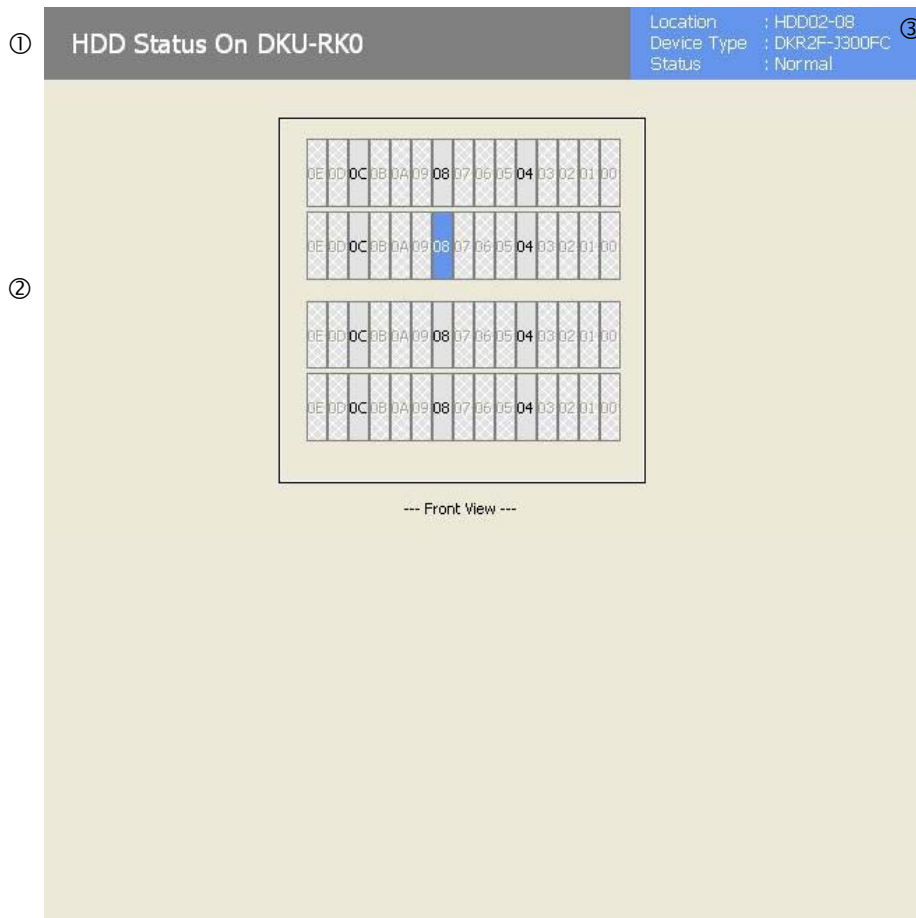   Select (CL) the subsystem information view to display this view.

① HDD Status On DKU-RK0

Location : HDD02-08 ③
Device Type : DKR2F-J300FC
Status : Normal

②

--- Front View ---

Table 4.1-5   HDU information view

#	Item	Content
①	Title	Displayed information: The title of the view is displayed.
②	Image	Displayed information: An installation image of each part status is displayed. Lit : Normal status Blinking : Error status OFF : Not installed
		Selecting an item: The detailed information on the target HDU is displayed in the HDD Detail.
③	HDD Detail	Displayed information: The Location Name and Device Type and following Status of the HDD is displayed. Normal : Normal Failed : Blocked due to a failure Blocked : Blocked due to maintenance Unknown : Unknown state

4.2 Guidance dialog box

Select (CL) [Guidance] to display the dialog box in 'RAID Maintenance Viewer'.
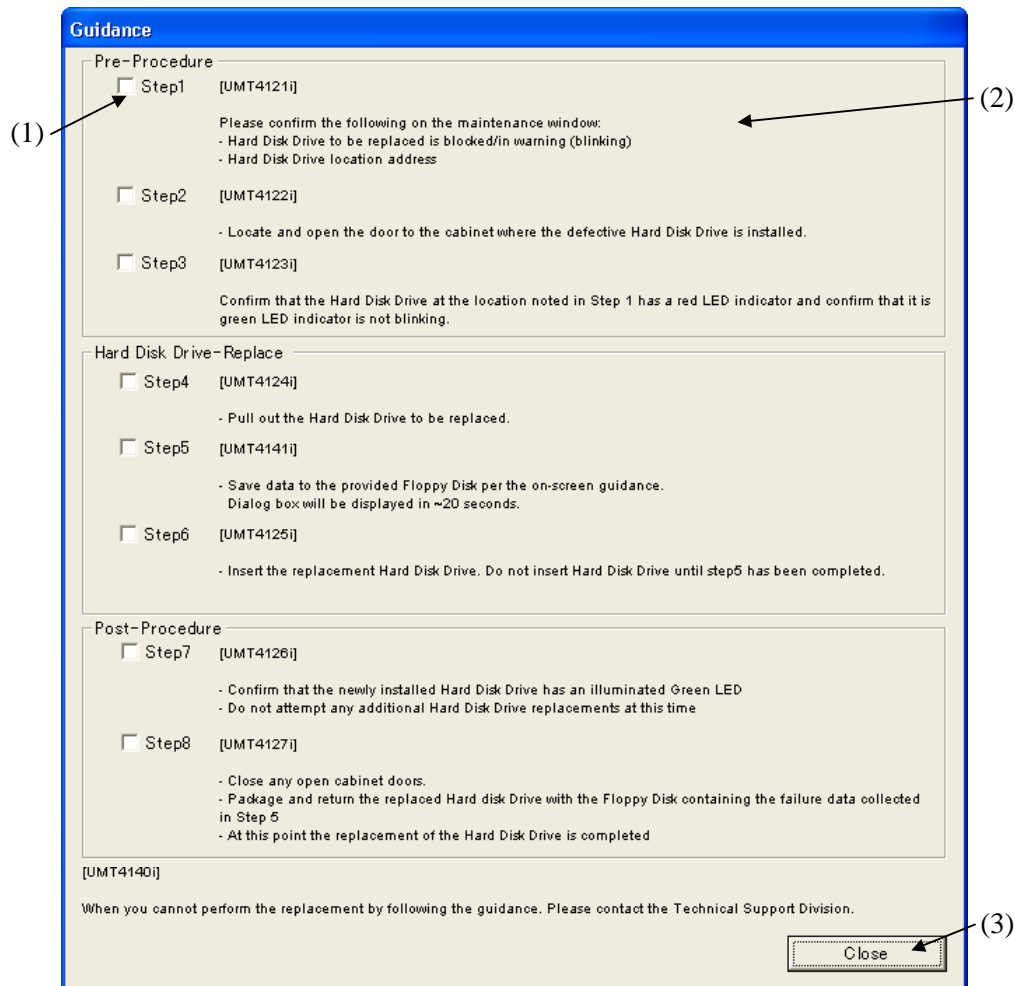
(1) Check
The step numbers and check boxes are displayed. When you select (CL) a check box, the box is checked. After completing a step, select (CL) the check box of the step.

(2) Execution content
The description of UserReplace is displayed.

(3) [Close] button
The 'Guidance' dialog box is closed.