



**Hitachi Freedom Storage™
Thunder 9500™ V Series**

**Password Protection
User's Guide**

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- Added reference to additional documentation, updated installation instructions, and (section 2.1)
- Updated deinstallation instructions (section 2.2).
- Updated Password Protection enabling and disabling information and figures (section 2.3).
- Updated information and examples for using the Resource Manager for CLI (Appendix B).

Preface

The Hitachi Freedom Storage™ Thunder 9500™ V Series Password Protection User's Guide describes and provides instruction for performing Password Protection operations on the 9500V subsystem.

This user's guide assumes that:

- The user has a background in data processing and understands direct-access storage device subsystems and their basic functions,
- The user is familiar with the Hitachi Freedom Storage™ Thunder 9500™ V array subsystem, and
- The user is familiar with the Hitachi Resource Manager for (GUI) User's Guide and/or the Hitachi Resource Manager for CLI User's Guide.

Note: The term "9500V" refers to the entire Hitachi Freedom Storage™ Thunder 9500™ V Series subsystem family, unless otherwise noted. Please refer to the *Hitachi Thunder 9500™ V Series User and Reference Guide* (MK-92DF601) for further information on the 9500V disk array subsystems.

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Thank you!

Contents

Chapter 1	Overview of Password Protection 9500V	1
1.1	Specifications.....	1
Chapter 2	Installing and Uninstalling Password Protection 9500V Using Resource Manager (GUI)	3
2.1	Installation.....	3
2.2	Uninstalling Password Protection	6
2.3	Enabling and Disabling Password Protection using the GUI	7
Chapter 3	Setting Security Information (GUI)	9
3.1	Setting Protection Information	9
3.2	Changing the User ID	11
3.3	Deleting the User ID	12
3.4	Changing the Password.....	13
3.5	Logging In and Logging Out.....	14
3.5.1	Logging In	14
3.5.2	Logging Out	15
3.5.3	Logging Out a User and Logging in Another	15
Appendix A	Acronyms and Abbreviations	17
Appendix B	Operations using Resource Manager (CLI)	19
B.1	Uninstalling Password Protection	20
B.2	Enabling/disabling Password Protection	21
B.3	Setting Protection Information	22
B.4	Changing a User ID.....	23
B.5	Deleting a User ID.....	23
B.6	Changing a Password	23
B.7	Logging In and Logging Out.....	24
B.8	Logging In	24
B.9	Logging Out	24
B.10	Logging in Forcibly	25
B.11	Checking Login	25

List of Figures

Figure 2.1	Array System Viewer Screen.....	3
Figure 2.2	Parameter Dialog Box (no options enabled)	4
Figure 2.3	Parameter Dialog Box showing Password Protection Option Enabled.....	5
Figure 2.4	Parameter Dialog Box (with Password Protection Option Disabled)	8
Figure 3.1	Array System Viewer	9
Figure 3.2	Parameter Dialog Box (Password Protection tab).....	10
Figure 3.3	Parameter Dialog Box	11
Figure 3.4	Parameter Dialog Box	12

List of Tables

Table 1.1	Password Protection 9500V Specifications	1
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Chapter 1 Overview of Password Protection 9500V

Password Protection limits the number of Resource Manager users that are permitted to access a 9500V. Users can also be prevented from concurrently accessing a 9500V.

This manual explains how to use Password Protection with the Resource Manager GUI and the Resource Manager for CLI.

1.1 Specifications

The Password Protection specifications are listed and explained in Table 1.1.

Table 1.1 Password Protection 9500V Specifications

Function	Specifications
Registers user IDs and passwords to prevent unauthorized access.	Up to 20 sets of a user IDs and password can be registered for one 9500V from the Resource Manager. Login attempts by a user of Resource Manager whose user ID and password are not registered are rejected. (Note 1)
Rejects concurrent logins by users.	If a 9500V which has been logged into by a Resource Manager user whose user ID and password have been registered, the 9500V will reject any concurrent login attempted by another user. Even if the concurrent user's ID and password have been registered, that user will not be able to log in until the first user has logged out. An error message issued by Resource Manager will clarify whether the login is rejected due to non-registration of a user ID and password, or is due to a concurrent login attempt.

Note 1: Be sure to assign and register user IDs and passwords for any service personnel who may be working on the array units.

Chapter 2 Installing and Uninstalling Password Protection 9500V Using Resource Manager (GUI)

This chapter provides instructions for installing and uninstalling Password Protection using the GUI version of the Resource Manager. This section includes the following:

Note: Before installing and uninstalling, make sure that the array unit is in normal operating condition. If a failure such as a controller blockade has occurred, installation and uninstallation operations cannot be performed.

For information on installing and uninstalling Password Protection using Resource Manager (CLI), see Appendix A.

2.1 Installation

To install Password Protection using Resource Manager (GUI), complete the following steps:

1. Start Resource Manager and change the mode of operation to **Management Mode**. For details on this procedure, please refer to the *9500™ V Series Resource Manager User's Guide (GUI)*, MK-92DF605.
2. Register the array unit in which you will install Password Protection. Connect to this array unit to access the Array System Viewer panel as shown in Figure 2.1.

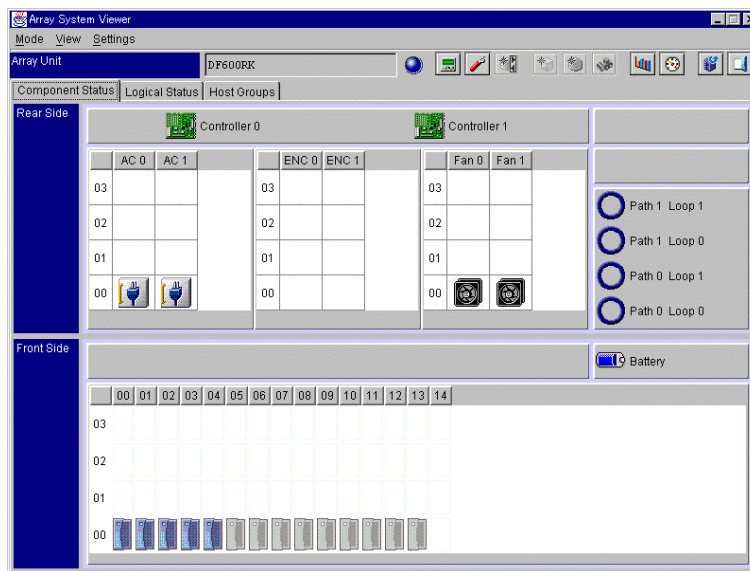


Figure 2.1 Array System Viewer Screen

3. From the **Settings** menu, select **Configuration Settings**.
Alternatively, select the **Configuration Settings** (🔧) button from the toolbar.
The Parameter dialog box is displayed as shown in Figure 2.2.

4. Click the **Options** tab.

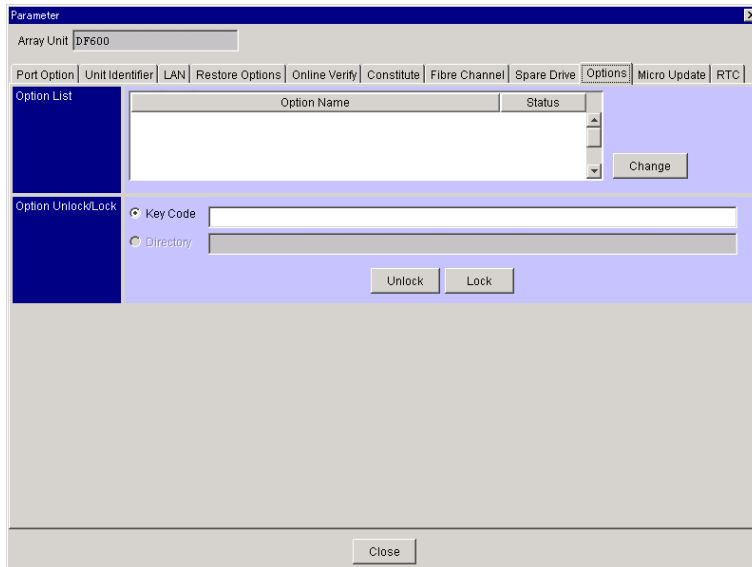
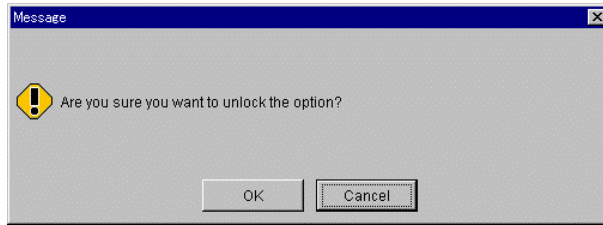


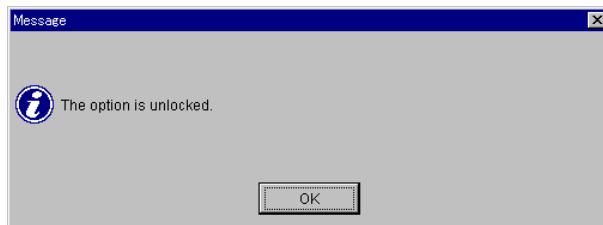
Figure 2.2 Parameter Dialog Box (no options enabled)

5. Unlock Password Protection by using the key code.
To use the key code:
 - a) Enter a key code in the text box.
 - b) Click **Unlock**.

6. A confirmation panel appears asking if you want to unlock the Password Protection option. Click **OK**.



7. Another confirmation panel appears. Click **OK**.



The Parameter window is updated and displayed as shown in Figure 2.3.

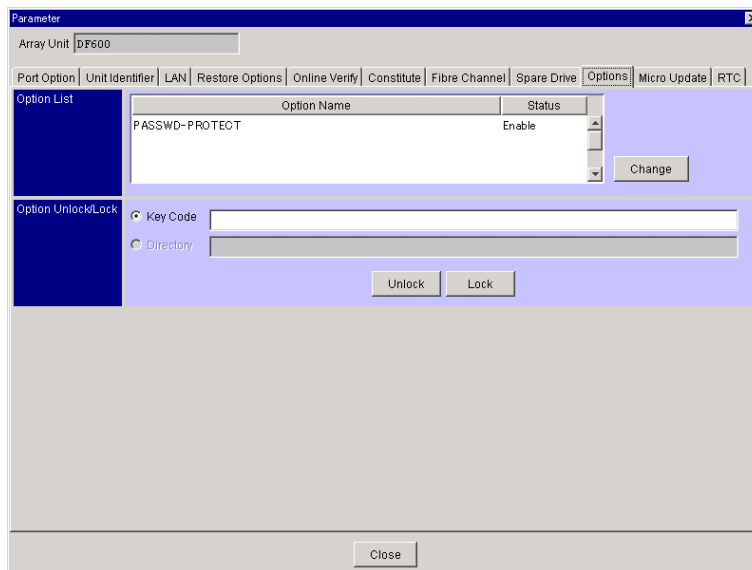


Figure 2.3 Parameter Dialog Box showing Password Protection Option Enabled

2.2 Uninstalling Password Protection

You will need the key code to uninstall Password Protection.

To uninstall Password Protection, complete the following steps:

1. Start Resource Manager and change the mode of operation to **Management Mode**.
2. Select the array unit you want to uninstall Password Protection on. Connect to this unit and the Array System Viewer window will display as shown in Figure 2.1.
3. From the **Settings** menu, select **Configuration Settings**.

Alternatively, select the **Configuration Settings**  button from the toolbar.

The Parameter dialog box is displayed as shown in Figure 2.2.


4. Click the **Options** tab as shown in Figure 2.3.
5. Close (lock) the Password Protection feature by using the key code.

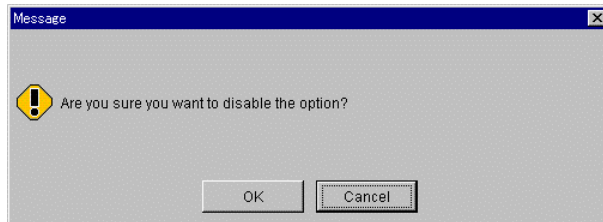
To use the key code:

- a) Enter a key code in the text box.
 - b) Click **Unlock**.
6. A screen appears, requesting a confirmation to lock the Password Protection option. Click **OK**.
 7. A message appears, confirming that this feature has been locked. Click the **OK** button. The Parameter window is updated and then displayed.

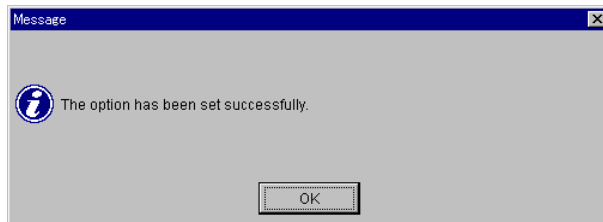
2.3 Enabling and Disabling Password Protection using the GUI

The following sections explain how to enable and disable Password Protection.

1. Start Resource Manager and change the mode of operating to **Management Mode**.
2. Select the array unit you want to set Password Protection on. Connect to this unit and the Array System Viewer window will display as shown in Figure 2.1.
3. From the **Settings** menu, select **Configuration Settings**.
4. Alternatively, select the **Configuration Settings**  button from the toolbar.
5. The Parameter dialog box is displayed.
6. Click the **Options** tab as shown in Figure 2.3.
7. Select **PASSWD-PROTECT** in the **Option List** text box to disable the option if it is already installed, or click **Change**.



A message appears, confirming that this option is set. Click **OK**.



The Parameter window is updated and then displayed as shown in Figure 2.4.

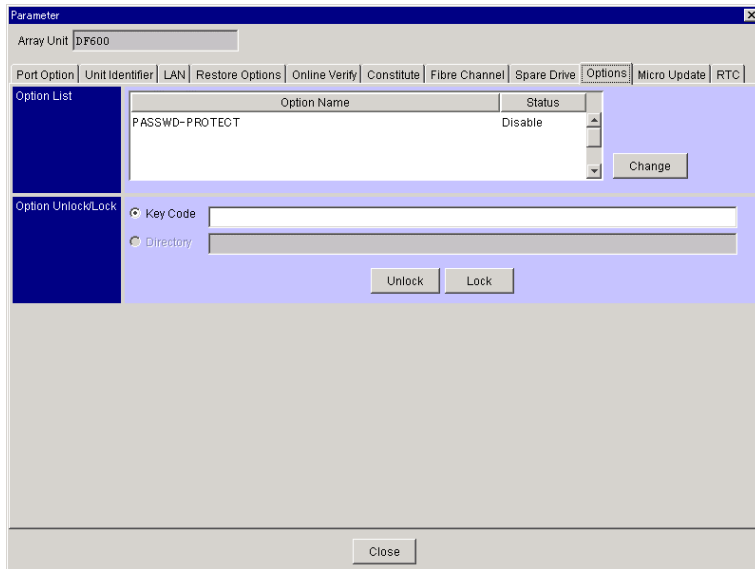


Figure 2.4 Parameter Dialog Box (with Password Protection Option Disabled)

Chapter 3 Setting Security Information (GUI)

This chapter describes how to change and delete user IDs, change passwords, and log in and out.

3.1 Setting Protection Information

To register user IDs and passwords, complete the following steps. For information on using the Command Line Interface (CLI) to set security information, please see Appendix B.

1. Start Resource Manager and change the mode of operating to **Management Mode**.
2. Register the array unit in which you will set Password Protection Information. Connect to this registered array unit; the corresponding window will be displayed. The Array System Viewer window appears as shown in Figure 3.1.

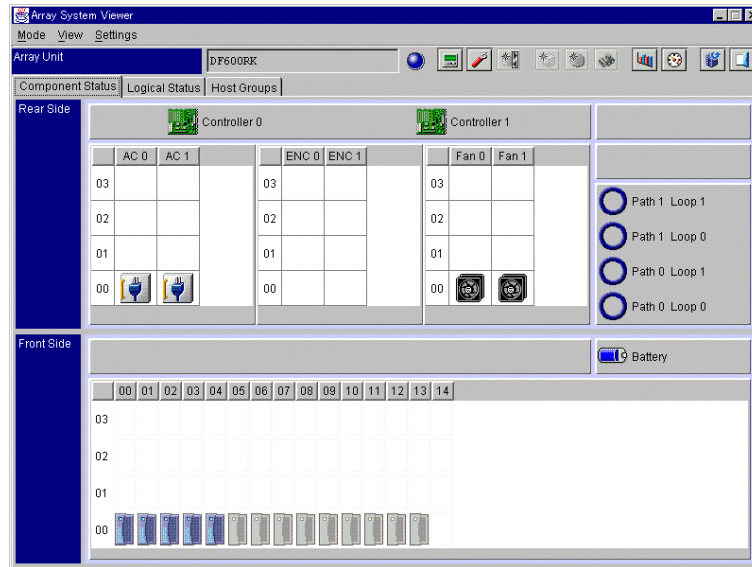



Figure 3.1 Array System Viewer

3. From the **Settings** menu, select **Configuration Settings**.
 - Alternatively, from the tool bar, select the Configuration Settings () button.
 - The Parameter dialog box is displayed.
4. Click the **Password Protection** tab.

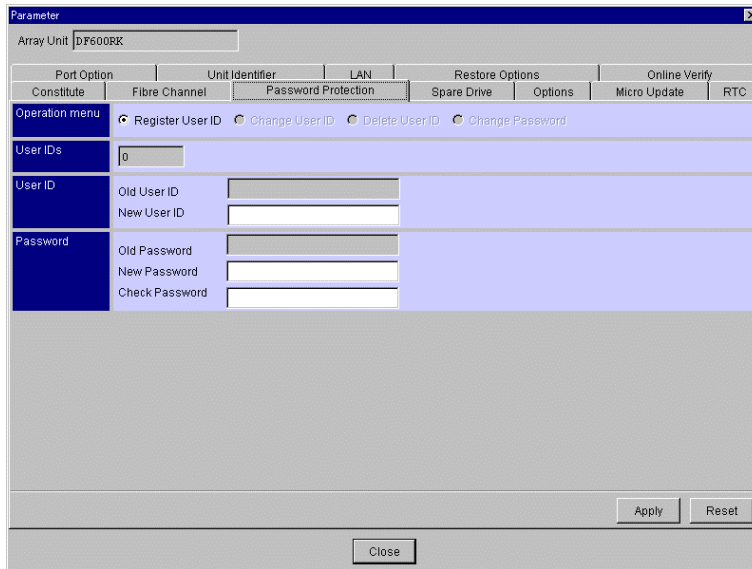
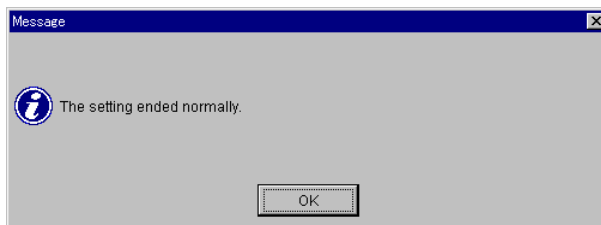


Figure 3.2 Parameter Dialog Box (Password Protection tab)


5. From the **Operation menu**, click the **Register User ID** option button. Enter data as follows:
 - In the **New User ID** field, specify a user ID to register. The new user ID must consist of 4 - 12 alphanumeric characters and may include - (minus) or _ (underline) signs.
 - In the **New Password** field, specify the user ID password to register. The new user password must consist of 4 - 12 alphanumeric characters and may include - (minus) or _ (underline) signs.
 - In the **Check Password** field, specify the new password again to confirm.
 - Click **Apply** when done.
6. Verify the new information, and click **OK**. The new user ID information is updated and displayed. A confirmation window appears.



The number of registered user IDs is updated and displayed.

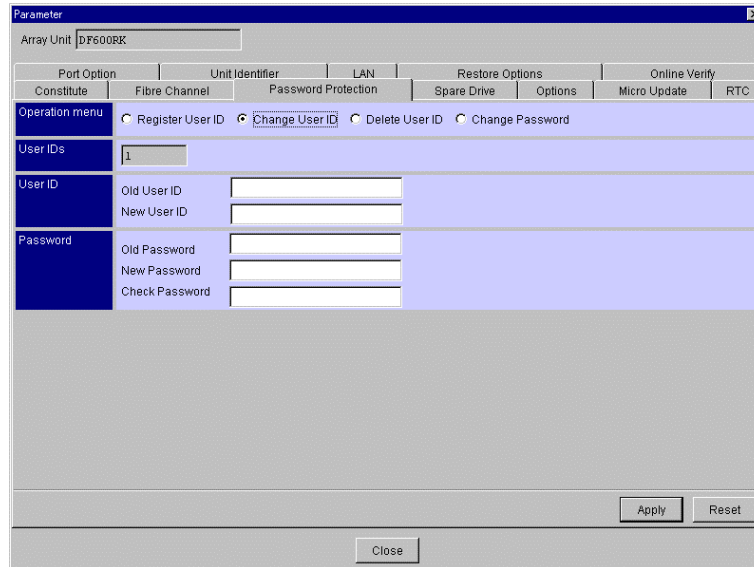
3.2 Changing the User ID

To change an existing user ID, complete the following steps:

1. From the **Settings** menu, select **Configuration Settings**. Alternatively, select the **Configuration Settings** () button from the toolbar.

The Parameter dialog box is displayed as shown in Figure 3.2.

2. Click the **Password Protection** tab.



The screenshot shows the 'Parameter' dialog box for Array Unit DP600BR. The 'Password Protection' tab is selected. The 'Operation menu' has radio buttons for 'Register User ID', 'Change User ID' (which is selected), 'Delete User ID', and 'Change Password'. Below this, there is a 'User IDs' field containing the number '1'. The 'User ID' section has fields for 'Old User ID', 'New User ID', 'Old Password', 'New Password', and 'Check Password'. At the bottom, there are 'Apply', 'Reset', and 'Close' buttons.

Figure 3.3 Parameter Dialog Box

3. From the **Operation** menu, click the **Register User ID** option button. Enter data as follows:
 - In the **Old User ID** field, specify a user ID to change.
 - In the **New User ID** field, specify a user ID to register. The new user ID must consist of 4 - 12 alphanumeric characters and may include - (minus) or _ (underline) signs.
 - **Old Password**: Specifies the password of a user ID to change.
 - **New Password**: Specifies the password of a user ID to register. The new password must consist of 4 - 12 alphanumeric characters and may include - (minus) or _ (underline) signs.
 - **Check Password**: Specifies the same password as that of a user ID to register. The new user ID must consist of 4 - 12 alphanumeric characters and may include - (minus) or _ (underline) signs.
 - Click **Apply** when done.
4. A message appears, confirming that the registration is complete. Click **OK**.

3.3 Deleting the User ID

To delete a User ID, complete the following steps:

1. From the **Settings** menu, select **Configuration Settings**. Alternatively, from the tool bar, select the **Configuration Settings** () button.

The **Parameter** dialog box is displayed as shown in Figure 3.4.

2. Click the **Password Protection** tab.

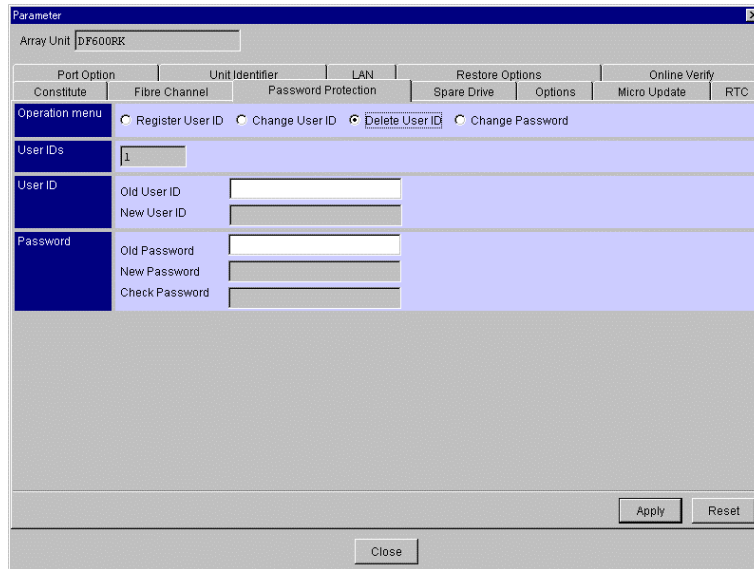



Figure 3.4 Parameter Dialog Box

3. From the Operation menu, click the **Delete User ID** option button. Enter data as follows:
 - In the **Old User ID** field, specify a user ID to delete.
 - In the **Old Password** field, specify the password of a user ID to delete.
 - Click **Apply**.
4. A message appears, confirming that the registration is complete. Click **OK**. The number of registered user IDs is updated, then displayed.

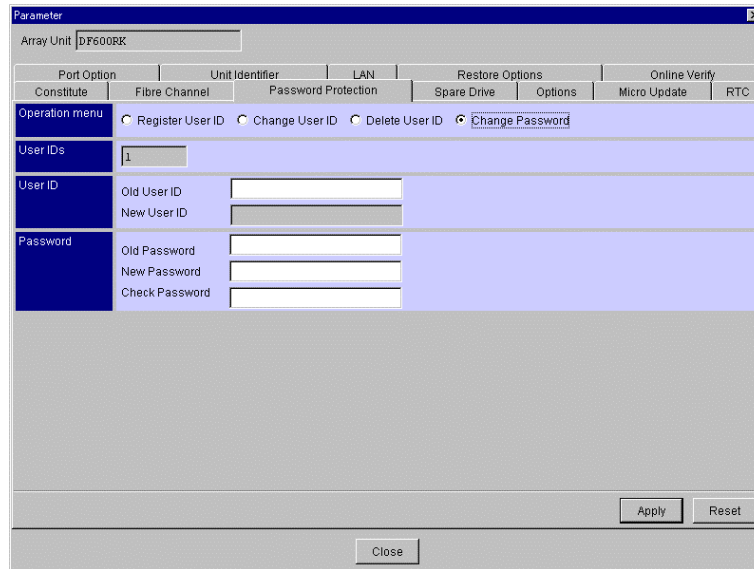
3.4 Changing the Password

To change the password of a user, complete the following steps:

1. From the **Settings** menu, select **Configuration Settings**. Alternatively, select the **Configuration Settings** () button from the toolbar.

The Parameter dialog box is displayed.

2. Click the **Password Protection** tab.



The screenshot shows the 'Parameter' dialog box for Array Unit DF600RK. The 'Password Protection' tab is selected. The 'Operation menu' has radio buttons for 'Register User ID', 'Change User ID', 'Delete User ID', and 'Change Password', with 'Change Password' selected. The 'User IDs' field contains '1'. The 'User ID' section has fields for 'Old User ID', 'New User ID', 'Old Password', 'New Password', and 'Check Password'. The 'Apply', 'Reset', and 'Close' buttons are visible at the bottom.

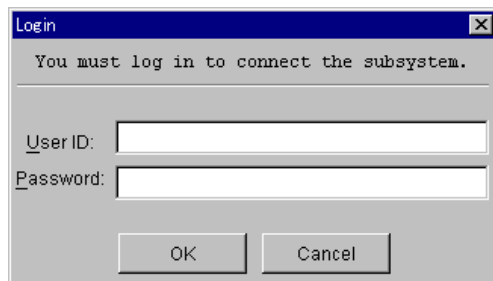
3. From the **Operation** menu, click the **Change Password** option button. Enter the data as follows:
 - In the **Old User ID** field, specify a user ID to change.
 - In the **Old Password** field, specify the password of a user ID to change.
 - **New Password:** Specifies the password of a user ID to register. The new password must consist of 4 - 12 alphanumeric characters and may include - (minus) or _ (underline) signs.
 - **Check Password:** Specifies the same password as that of a user ID to register.
 - Click **Apply**.
4. A message appears, confirming that the registration is complete. Click **OK**.

3.5 Logging In and Logging Out

This section explains how to log in and log out using the GUI version of Resource Manager. Management of operators by user ID is effective when operating Resource Manager in Management mode. When operating Resource Manager in **Monitor Mode**, Resource Manager may be operated regardless of whether a user ID has been registered or not.

3.5.1 Logging In

1. Set the mode of operation to **Management Mode**.
2. In the Main screen, double-click the icon for the array unit to be connected to.
3. In the Login panel, enter a registered user ID and corresponding password. Click **OK**.




4. Log in with the registered user ID. The Array System Viewer screen is displayed. (Refer to Figure 3.1)
5. Double-click the icon of an array unit to which a user has already logged in. A message appears, confirming that a user has already logged in.
The message indicates the user ID of the logged-in user and connection information.
6. Click **OK**, and then login again. The following message appears:



7. Click **OK**.

3.5.2 Logging Out

From the Mode pulldown menu, select Exit. Alternatively, select the Exit () button on the Array System Viewer screen. (Refer to Figure 3.1).

3.5.3 Logging Out a User and Logging in Another

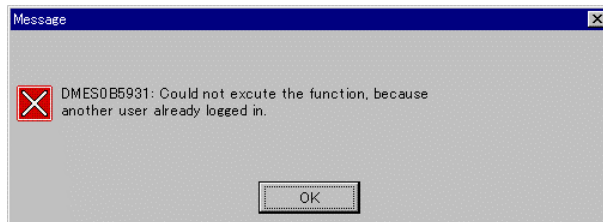
This section describes how to log out a user from an array unit and replace that user with another registered one.

1. Double-click the icon of an array unit to which a user has already logged in. A message appears, confirming that a user has already logged in.

The message indicates the user ID of the logged-in user and connection information.



Message while operating in the Array System Viewer screen:



A user ID with which a user has logged in and connection information are not displayed.

2. Close the Array System Viewer screen, then open it again. Check the user ID of the user who has logged in.

3. Terminate Resource Manager, and then restart it by appending the **-discon** as illustrated in the following examples.
 - If using Windows, Add the **-discon** option by editing the description contents of startmgr.bat2 (a batch file used to start the Resource Manager).

Example:

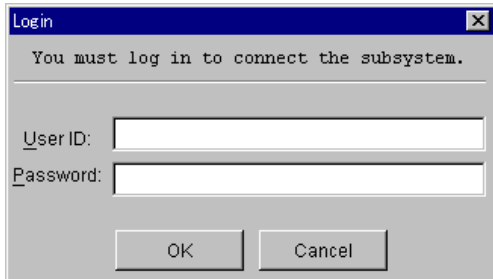
```
java -classpath .\CONFMNG2.JAR jp.co.hitachi.str.diskarray.gui.ConmanFrame -discon
```

- If using Solaris, start the Resource Manager by appending the **-discon** option when starting.

Example:

```
./startmgr2 -discon
```

4. Next, log in by completing the following steps:
 - Restart the Resource Manager, and set the mode of operation to Management Mode.
 - Double-click the icon of the array unit to be connected on the Main screen.
 - Enter a registered user ID and their password. Click **OK**.



5. A user ID and a related password are displayed. When logging in forcibly, click the **OK** button.



Logging in with the entered user ID is completed. The Unit screen is displayed.

Appendix A Acronyms and Abbreviations

CLI	command line interface
DF600	Hitachi Data Systems 9500V
GUI	graphical user interface
HDS	Hitachi Data Systems

Appendix B Operations using Resource Manager (CLI)

In addition to performing Password Protection operations using the GUI, you may also perform these operations using the Command Line Interface (CLI). Installing Password Protection

To use the Password Protection feature, you must first install it make its functions selectable (unlocked). To install this function, the key code is required.

Note: Before installing and uninstalling, make sure that the array unit is in **Normal** operating condition. If a failure such as a controller blockade has occurred, installation and uninstallation operations cannot be performed.

To install Password Protection using the CLI version of Resource Manager, complete the following steps:

1. From the command prompt, register the subsystem (array unit) in which you will install the Password Protection feature. Connect to the selected subsystem.
2. Register the array unit in which you will install Password Protection. Connect to this array unit.
3. Unlock the optional features by using the Key code as shown in the following examples:

To install (unlock) with the key code, see the following examples:

Example 1:

```
% auopt -unit df600 -lock off -keycode Key code
Password:
Option was opened.
%
```

Example 2:

```
% auopt -unit df600 -refer
Password:
Option name      Status
PASSWD-PROTECT  Enable
%
```

B.1 Uninstalling Password Protection

To uninstall Password Protection, complete the following steps:

1. From the command prompt, register the subsystem (array unit) in which you will uninstall the Password Protection feature. Connect to the selected subsystem.
2. To uninstall (lock) with the key code, see the following examples:

Example 1:

```
% auopt -unit df600 -lock on -keycode Key code
Password:
Option was closed.
%
```

Example 2:

```
% auopt -unit df600 -refer
Password:
DMEC002015: No information displayed.
%
```

B.2 Enabling/disabling Password Protection

Password Protection can be enabled or disabled without uninstalling it. To enable or disable Password Protection, complete the following steps:

1. From the command prompt, register the subsystem (array unit) in which you want to change the status of the Password Protection feature. Connect to the selected subsystem.
2. Execute the **auopt** command to change the status (enable or disable). See the following examples:

Example 1:

```
% auopt -unit df600 -option PASSWD-PROTECT -st disable
Password:
Option setting ended normally.
%
```

Example 2:

```
% auopt -unit df600 -refer
Password:
Option name      Status
PASSWD -PROTECT  Disable
%
```

B.3 Setting Protection Information

To set the User ID and Password, complete the following steps:

1. From the command prompt, register the subsystem (array unit) in which you want to set Password Protection information. Connect to the selected subsystem.
2. Execute the **auuidadd** command to specify the subsystem. See the following examples:

Example:

```
% auuidadd -unit df600
Password:
User ID for array unit : (User ID to set)
Password for array unit : (Password of a user ID to set)
Retype Password for array unit : (Same password as that of a user ID to set)
Number of registered User ID : n
%
```

- **User ID:** Specifies a user ID to register. Specified with alphanumeric, special symbols - (minus) or _ (underline) of 4 to 12 characters long.
 - **Password:** Specifies the password of a user ID to register. Specified with alphanumeric, special symbols - (minus) or _ (underline) of 4 to 12 characters long.
 - **Retype Password:** Specifies the same password as that of a user ID to register. Specified with alphanumeric, special symbols - (minus) or _ (underline) of 4 to 12 characters long.
3. Specify the number of the registered users to be displayed as shown in this example:

Example:

```
% auuidadd -unit df600 -num
Password:
Number of registered User ID : n
%
```

B.4 Changing a User ID

To change a registered user ID, type the following:

Example:

```
% auuidchg -unit df600
Password:
Old User ID for array unit : (Already-set user ID)
Old Password for array unit : (Password of an already-set user ID)
New User ID for array unit : (User ID to set)
New Password for array unit : (Password of a user ID to set)
Retype New Password for array unit : (Same password as that of a user ID to set)
Number of registered User ID : n
%
```

B.5 Deleting a User ID

To delete a registered User ID, type the following:

Example:

```
% auuiddel -unit df600
Password:
User ID for array unit : (Already-set user ID)
Password for array unit : (Password of an already-set user ID)
Number of registered User ID : n
%
```

B.6 Changing a Password

To change a user password, type the following:

Example:

```
% aupwdchg -unit df600
Password:
User ID for array unit : (Already-set user ID)
Old Password for array unit : (Password of an already-set user ID)
New Password for array unit : (Password of a user ID to set)
Retype New Password for array unit : (Same password as that of a user ID to set)
Number of registered User ID : n
%
```

B.7 Logging In and Logging Out

This section explains how to log in and log out. The user must log into an array unit with a user ID that is presently registered in that array unit. Once a registered user is logged in, other user IDs are disabled when they attempt to log in.

When a user forcibly logs into an array unit in which another user is presently logged into, the `-discon` option must be specified. The previous user is logged out.

B.8 Logging In

1. From the command prompt, register the subsystem (array unit) in which you want to set Password Protection information. Connect to the selected subsystem.
2. Execute the `aulogin` command to specify the subsystem. See the following example:

Example:

```
% aulogin -unit df600
Password:
User ID for array unit : (Already-set user ID)
Password for array unit : (Password of an already-set user ID)
%
```

B.9 Logging Out

To log out, enter the following:

Example:

```
% aulogout -unit df600
Password:
%
```

B.10 Logging in Forcibly

This section describes how to log out a current user ID, then log in with another registered user ID.

Example:

```
% aulogin -unit df600 -discon
Password:
User ID for array unit : (Already-set user ID)
Password for array unit : (Password of an already-set user ID)
User ID (xxxxxxxxxxxx) has been logged in.
Connected with (xxx.xxx.xxx.xxx).
Do you want to forcibly log in? (y/n[n]): y
%
```

B.11 Checking Login

This section describes how to check the user ID and the connected unit of a user who has already logged into an array unit. This command checks the following information about the connected unit:

Note: This command can only be used with a user ID of a user not currently logged in.

Example:

```
% auchkuid -unit df600
Password:
User ID (xxxxxxxxxxxx)has been logged in.
Connected with (xxx.xxx.xxx.xxx).
%
```

