



Quick Setup Guide

**RAID Array 8000/ESA12000 Fibre Channel
Storage Subsystem for Hewlett Packard HP-UX**

Before You Begin

In this Quick Setup Guide we tell you how to create an initial hardware configuration for both the *Compaq StorageWorks RAID Array 8000 Fibre Channel Storage Subsystem* and the *Compaq StorageWorks Enterprise Storage Array 12000 Fibre Channel Storage Subsystem* (the “RA8000/ESA12000 storage subsystem” or the “storage subsystem”).

To create this configuration you will:

- Install Storage Building Blocks (SBBs) and Program Cards in the RA8000/ESA12000 storage subsystem cabinet;
- Install a fibre channel adapter in the server;
- Connect the fibre channel adapter to the storage subsystem HSG80 controller via a fibre channel hub;
- Turn on the ac power to the storage subsystem;
- Install the StorageWorks software.
- Install the StorageWorks Command Console (SWCC) Client Graphical User Interface;
- Launch the Client

- Verify Controller Properties
- Configure a Storageset.

Before you start these steps follow the instructions on the shipping container to unpack the RA8000/ESA12000 storage subsystem. Then move the storage subsystem to the operating location you have selected. Refer to the *RA8000/ESA12000 Storage Subsystem User's Guide*, EK–SMCPR–UG. A01 (387404-001) for information about selecting a location.

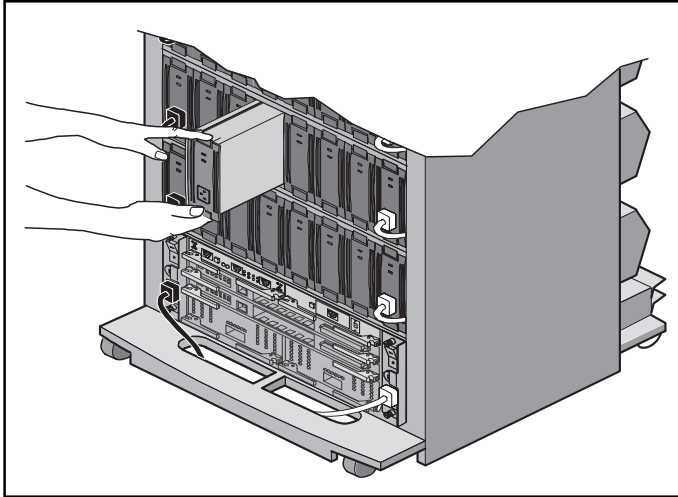
The instructions for installing and connecting storage subsystem components are given for the SW370 pedestal, but apply equally to other Compaq cabinet options. Depending on the storage subsystem you have ordered, you might have to install the storage subsystem in a cabinet and connect the cache module to a cache battery. Refer to the *User's Guide* for more information.

NOTE

You can find complete instructions for unpacking and installing the storage subsystem in the *User's Guide* and in the *RA8000/ESA12000 HSG80 Solution Software V8.3 for Hewlett Packard HP-UX Installation Reference Manual*, AA–RFBEA–TE (387374-001).

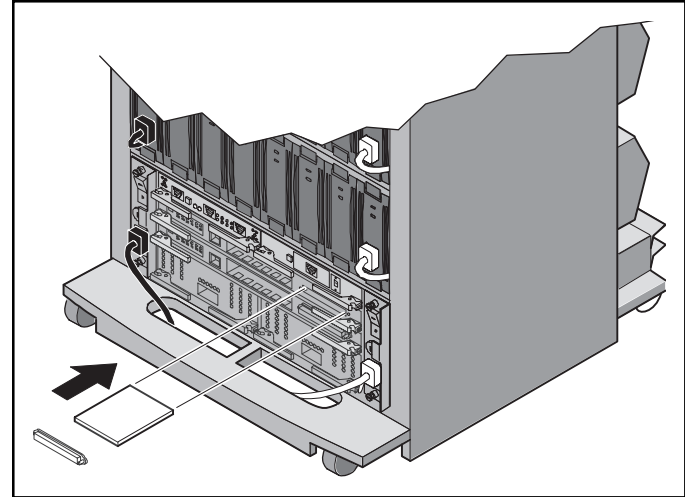
1

Install the SBBs and Program Cards



Install the SBBs in the RA8000/ESA12000 Storage Subsystem Cabinet

- Insert an SBB into the shelf guide slots and slide the SBB into the shelf until the mounting tabs snap into place.
- For optimum SCSI bus distribution, install the SBBs from left-to-right and from bottom-to-top.

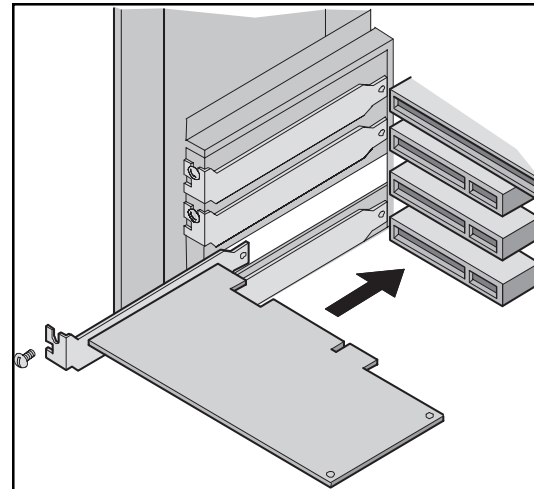
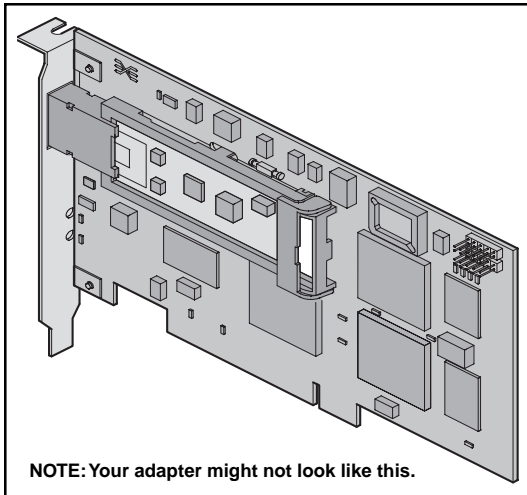


Install the PCMCIA Card in the HSG80 Controller

- Remove the ESD cover from the controller PCMCIA slot.
- Insert the PCMCIA card in the controller slot.
- Replace the ESD cover over the controller slot.
- Repeat the steps if you have two controllers.

2

Install the Fibre Channel Adapter



Turn Off the Server

- Shut down the operating system running on your server.
- Turn off the power to the server and all attached peripherals.
- Disconnect power cables from the server.

Insert the Adapter in the Server

- Open the server to gain access to the expansion slots.
- Insert the adapter in an empty HSC expansion slot.

NOTE

Refer to the HP Fibre Channel Mass Storage Adapters Service and User's Manual (HP A3636-90002) for more information.

- Secure the adapter in the slot with the screw provided.

3

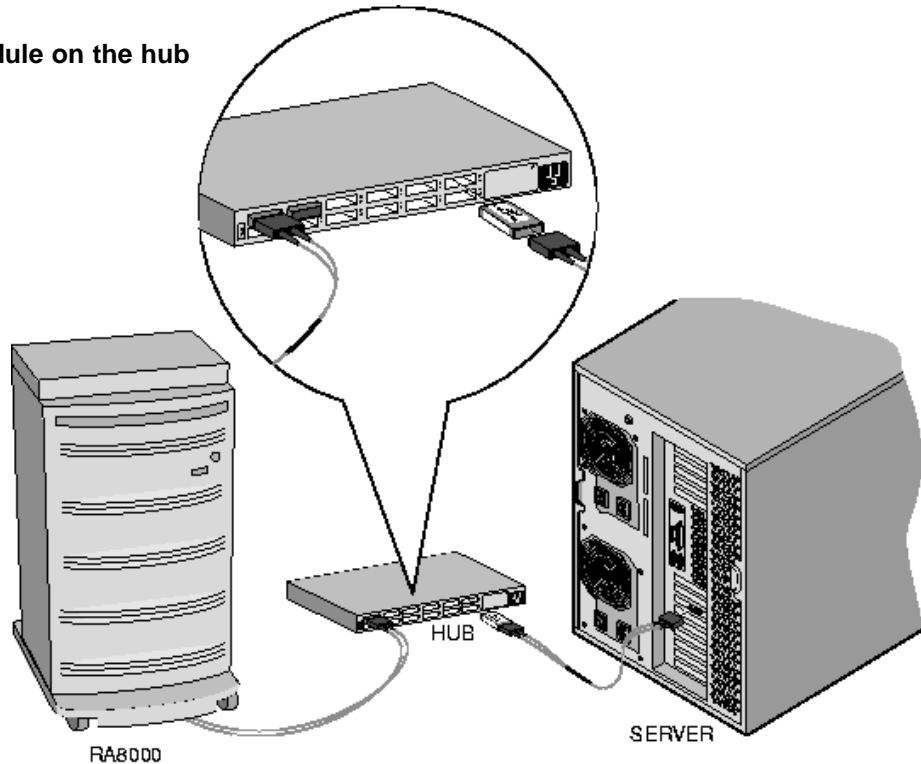
Connect the Fibre Channel Adapter to the Storage Subsystem Controller

Connect the fibre channel adapter to the hub and the hub to the storage subsystem controller with the fiber-optic cables supplied.

Be sure to install a GBIC-SW module on the hub end of each cable.

The following page illustrates the adapter-to-controller connections for the four possible configurations:

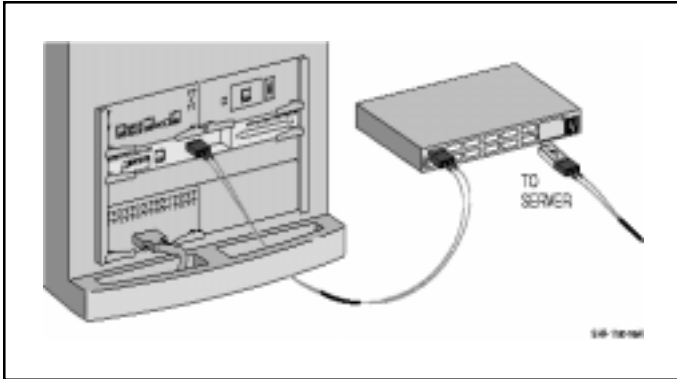
- single controller, one server
- single controller, two servers
- dual controller, one server
- dual controller, two servers



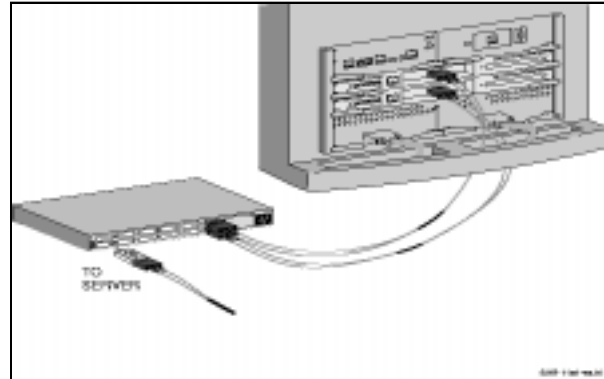
SHR-1179-98A1

3

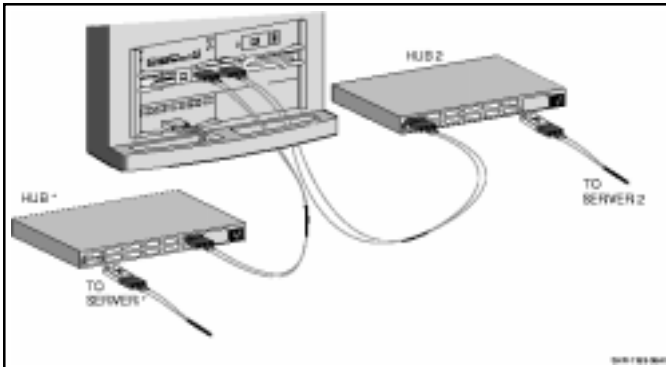
Connect the Fibre Channel Adapter to the Subsystem Controller (Cont'd)



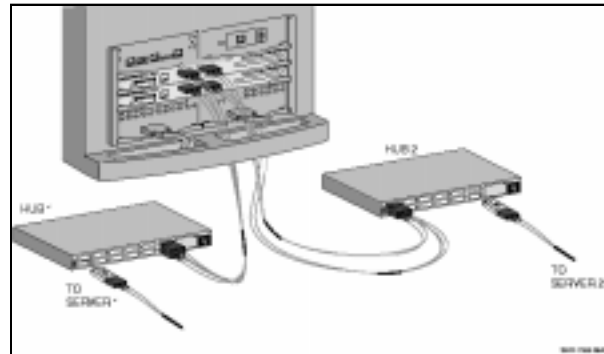
Single Controller, One Server



Dual Controller, One Server



Single Controller, Two Servers



Dual controller, Two Servers

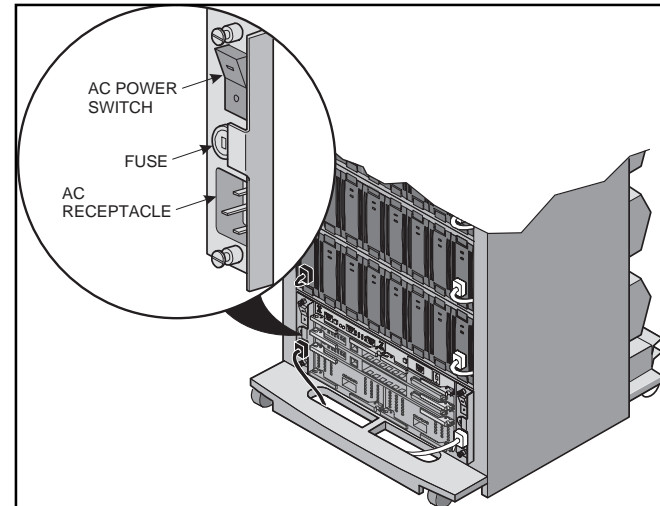
4 Turn on the Subsystem Power

Connect the Hub to an AC Power Outlet

- Connect one end of the hub ac power cord to the hub.
- Connect the other end of the ac power cord to an ac outlet.

Turn on the Storage Subsystem Power

- Connect one end of the storage subsystem cabinet ac power cord to the cabinet ac receptacle.
- Connect the other end of the power cord to an ac outlet.
- Push in the “1” side of the cabinet ac power switch.
- When the RESET LED on the HSG80 controller blinks at a rate of once per second the storage subsystem is ready to operate.



Turn on the Server

5

Install the StorageWorks Software on the HP Host Machine

Install the StorageWorks Software

- Insert the storage subsystem CD-ROM in the CD-ROM drive.

- Mount the CD-ROM with the command

```
mount /dev/dsk/clt2d0 /directory
```

- Change to the directory

```
cd /tmp
```

- Extract the file archive with the command

```
tar xvf /directory/SWCC/AGENT/STM83_HP.TAR
```

- Execute the installation script

```
./install.sh
```

```
*****
*      Enterprise Storage Management (steam)      *
*      Agent and SCSI pass-through driver        *
*      Installation Script                        *
*****
1. For StorageWorks SCSI subsystems connected to a
   28696A FWD SCSI Adapter, install the SCSI pass-
   through driver and re-boot the system.

2. Install Agent for all HP-UX systems.

3. Exit
```

NOTE

If you are using HP MC/ServiceGuard software and want to install it automatically into a MC/ServiceGuard package and configure the Command Console, refer to Section 2.5 of the *RA8000/ESA12000 HSG80 Solution Software V8.3 for HP-UX Installation Reference Manual*.

- Choose option 2 in the Installation Script menu to install the StorageWorks software.
- Follow the text-based prompts and enter appropriate information.

NOTE

For detailed installation information refer to *Section 2, Installing the Command Console Agent On Your Host*, in the *RA8000/ESA12000 HSG80 Solution Software V8.3 for HP-UX Installation Reference Manual*.

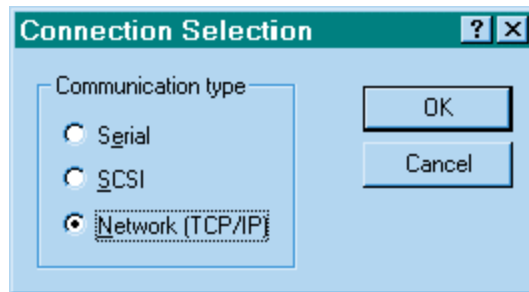
6 Install and Launch the StorageWorks Command Console (SWCC) Client on the PC

Install the SWCC Client

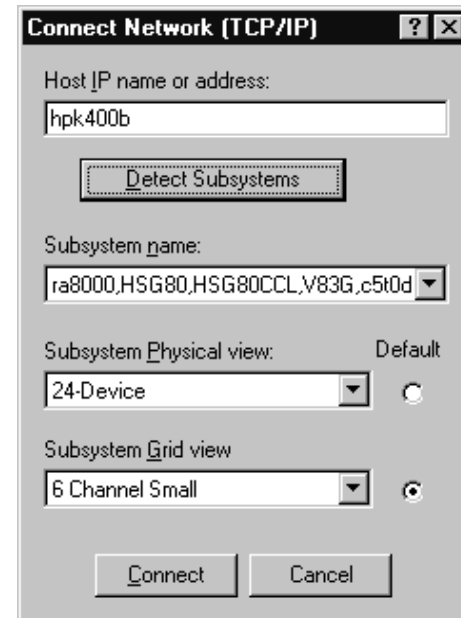
- Insert the storage subsystem CD-ROM in the CD-ROM drive.
- Run *File Manager* or *Windows Explorer*.
- Navigate to the folder *drive_letter:\SWCC\Client*
- Choose *Intel client*; then double-click on *Setup*.
- When the setup wizard appears follow the instructions to complete the installation.

Launch the Client

- Click on the Windows taskbar *Start* button.
- Move the pointer to *Programs* → *Command Console* → *HSG80 Storage Window*; click on *HSG80 Storage Window* to display the *Connection Selection* dialog box.



- Click on the *Network (TCP/IP)* button and *OK* to display the *Connect Network (TCP/IP)* dialog box.

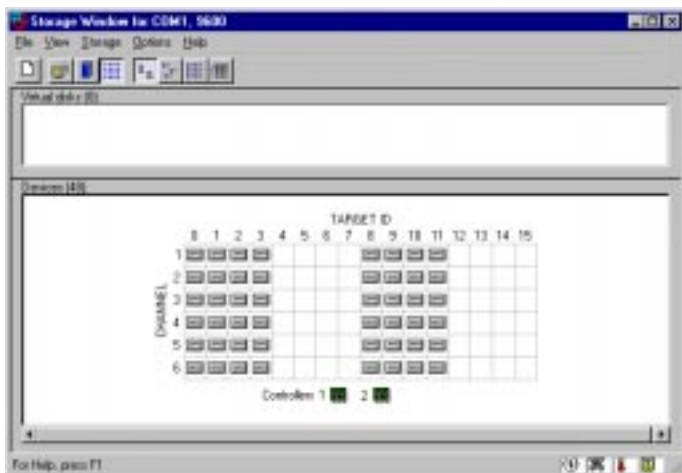


- Enter the HP host IP name; then click *Detect Subsystems*. Client searches and finds the storage subsystems connected to your HP host and displays them in the *Subsystem Name* text box.
- Select a storage subsystem and click the *Connect* button; after two to three minutes the *Storage Window* is displayed.

7 Verify Controller Properties

Display Devices in the Devices Windowpane **Verify Properties**

- Click on *Storage* in the *Storage Window* menu line. SWCC finds installed drives and displays them in a grid by CHANNEL and SCSI TARGET ID number.



- Double-click on a controller icon in the *Storage Window*; the *Controller Properties* screen is displayed.
- Click on the tabs of the *Controller Properties* screen successively and confirm that the following values are set:

General tab Allocation class: 0
SCSI version: SCSI-2

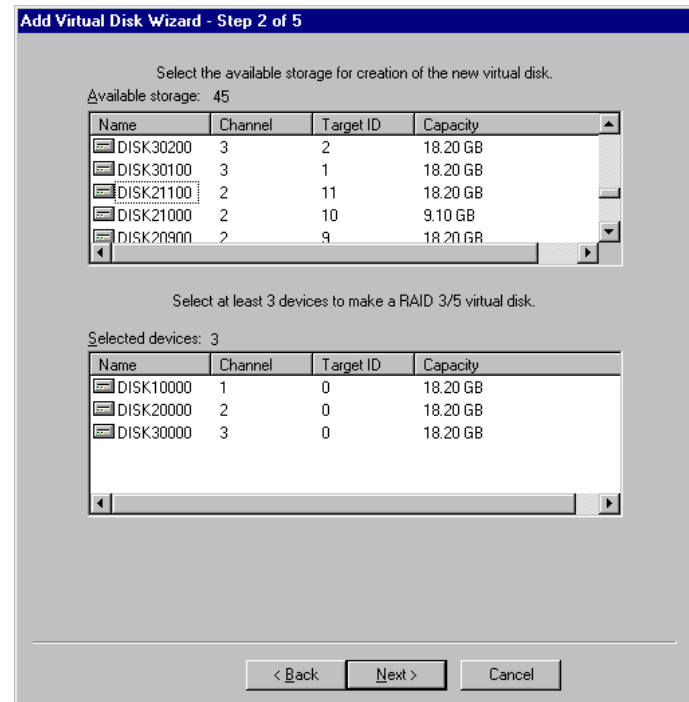
Cache tab Cache flush time (seconds): 10
Respond to internal cache
battery condition: selected

Communications LUN tab Confirm that the SWCC virtual LUN is enabled.

8

Configure a StorageSet

- Click on *Storage* in the *Storage Window* menu selection line and select *Add Virtual Disk* to begin Step 1 of the *Add Virtual Disk Wizard*.
- Click the *Striped parity device group (RAID 3/5)* radio button; click *Next>* for Step 2.
- Select the devices you want to include in the virtual disk by clicking on the disks listed in the *Available storage* windowpane; as you select a disk it is added in the *Selected devices* windowpane.
- Click *Next>* for Step 3.



8

Configure a StorageSet (Cont'd)

- Select the capacity for the virtual disk. You can select the maximum capacity or create partitions by selecting only a portion of the available maximum. If you create partitions, complete all steps for this partition; then access the Wizard again, make the same choices and create another partition.
- Click *Next>* for Step 4.
- Click on the box *Save controller configuration to virtual disk*.
- Click *Next>* for Step 5.

Add Virtual Disk Wizard - Step 3 of 5

Set the capacity for the new virtual disk.

Based on the RAID level and devices you have selected, the capacity available for the new virtual disk is displayed below.

Selected RAID level: 3TS (striped parity device)

Set virtual disk capacity

Specify a capacity within this range:

Minimum capacity: 1 MB
Maximum capacity: 36409.74 MB

Capacity for virtual disk: 36409.74 MB

< Back Next > Cancel

Add Virtual Disk Wizard - Step 4 of 5

Set the options to be used when creating this new virtual disk.

Virtual Disk Name
Name (i.e. DD - D100): 00

Enable writeback cache Enable read cache
 Enable writeahead cache Enable writeprotect

Maximum cached transfer: 32 blocks

Host access:
NEWCOMB

Save controller configuration to virtual disk

Read course: _____

Copy speed: _____

Replacement policy:
BEST_PERFORMANCE

Strip size (in blocks):
DEFAULT

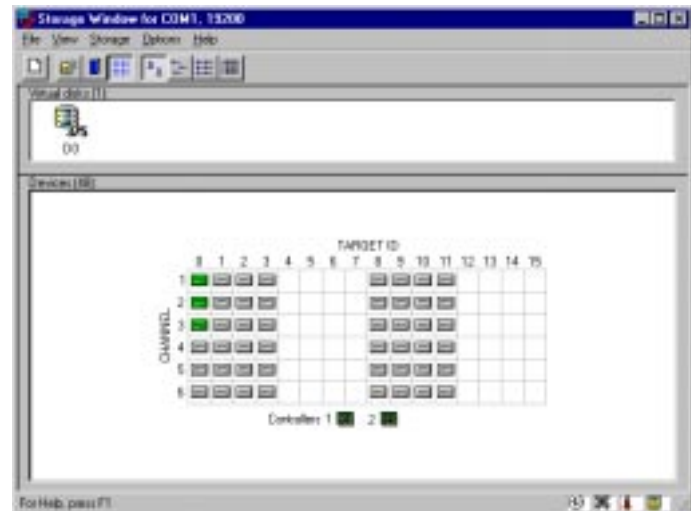
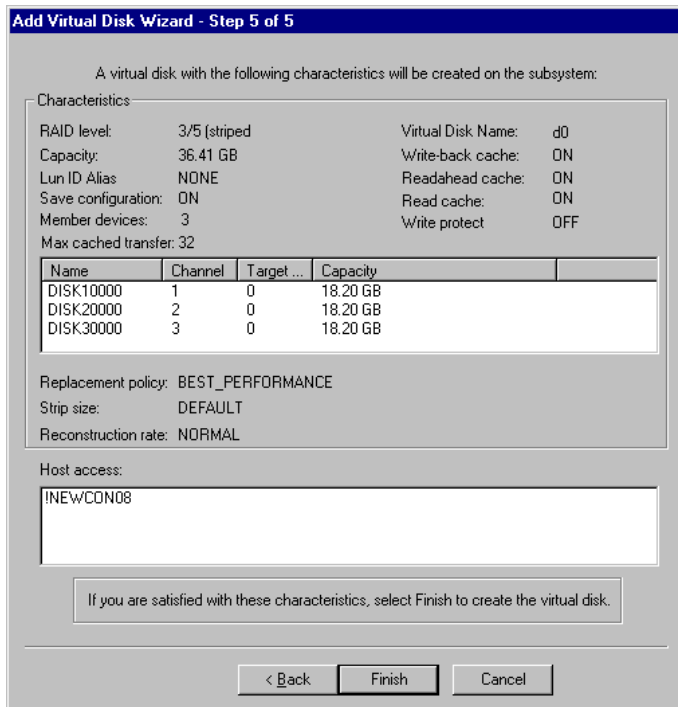
Reconstruction rate:
NORMAL

< Back Next > Cancel

8

Configure a Storageset (Cont'd)

- Step 5 recaps your choices; if you are not satisfied, you can return to the applicable Wizard step using the Back button. When you are satisfied with your choices click *Finish*.
- When you return to the Storage Window you see the virtual disk you created illustrated in the *Virtual disks* windowpane. The hourglass on the disk icon indicates the Storageset is being initialized. The drives you used to create the RAIDset are highlighted in the *Devices* windowpane.





Congratulations!

You have now completed all the steps required to create an initial hardware configuration for your controller. For more information about using the SWCC software on the HP-UX host refer to *RA8000/ESA12000 HSG80 Solution Software V8.3 for HP-UX Software Installation Guide*. For more information about using the SWCC software on the Windows host refer to the *Command Console User's Guide*.

COMPAQ recommends that you verify and record your configuration for future reference.

Copyright © Compaq Computer Corporation, 1998
All Rights Reserved

StorageWorks is a trademark of Compaq Computer Corporation
Windows is a registered trademark of Microsoft Corporation

All other trademarks and registered trademarks are the property of their respective holders.

PRINTED IN USA