StorageWorks One Button Disaster Recovery (OBDR) for ProLiant Servers User's Guide

GENERAL INFORMATION

Compatibility

HP StorageWorks One-Button Disaster Recovery (OBDR) for ProLiant servers is a standard feature on all HP tape drives and HP DAT autoloaders. However, it can only be used with specific configurations and will only recover your ProLiant server to which the HP tape device is directly connected.

To check whether your ProLiant system (hardware, operating system and backup software) is OBDR compatible, please refer to our World Wide Web site www.hp.com/go/connect.

If your system does not support OBDR, you can still use your HP tape device to back up and restore data. However, you must remember to create a separate set of emergency recovery disks for your operating system whenever you change your system configuration.

For more specific information concerning the benefits of OBDR and the latest new features please refer to our World Wide Web site www.hp.com/go/obdr.

What does OBDR do?

Using just the HP tape drive or DAT autoloader and the most recent backup cartridge, OBDR allows you to recover from the following types of system disaster:

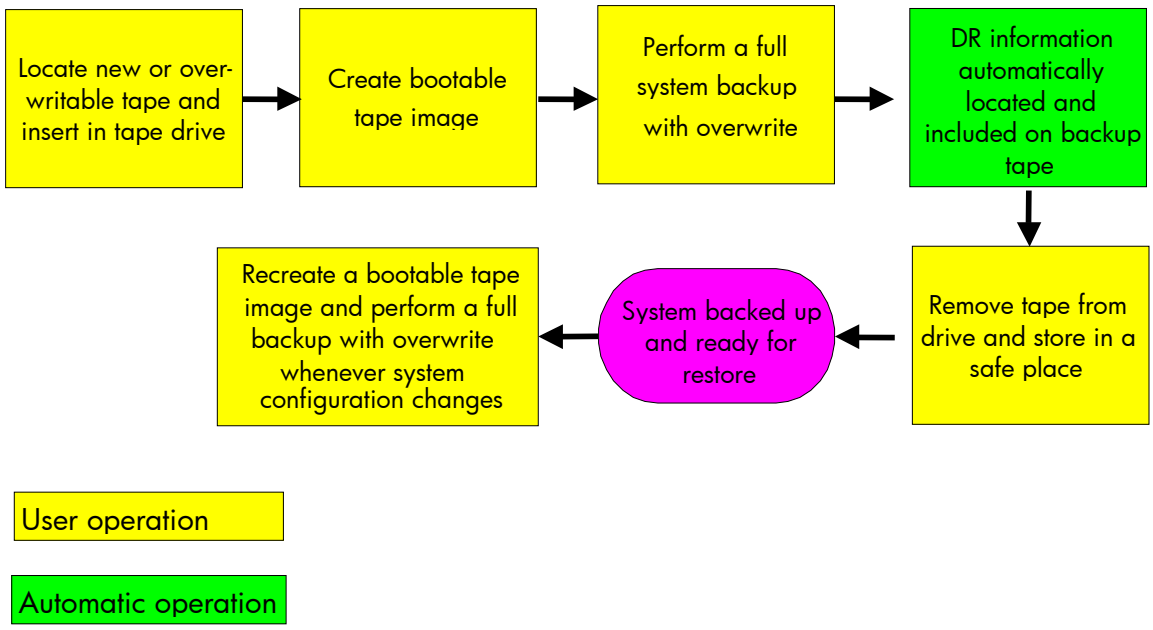
- Hard disk failures, as long as the replacement hard disk is the same size or larger than the original and uses the same interface (for example, replace a SCSI hard disk with another SCSI disk)
- Hardware failures where the server is replaced by an **identical** component
- File corruption because of an operating system error
- File corruption because of an application software error
- Viruses that prevent you from booting your system correctly
- User errors that stop you from booting your system correctly

When you run OBDR, your tape device goes through the following sequence:

1. It goes into a special disaster recovery mode that enables it to restore your operating system and reboot. It acts like a bootable CD-ROM. (Your system's ability to boot from CD-ROM is normally enabled by default. If you have changed this setting, you will need to enable it again. Refer to your system BIOS manual for further details.)
2. It returns to normal tape device mode and restores the data.

Creating the OBDR tape:

The procedure for creating an OBDR tape is simple. Once the ISV's Disaster Recovery option is installed (if required), every full backup with overwrite that is performed will create an OBDR disaster recovery tape. No additional work is required.

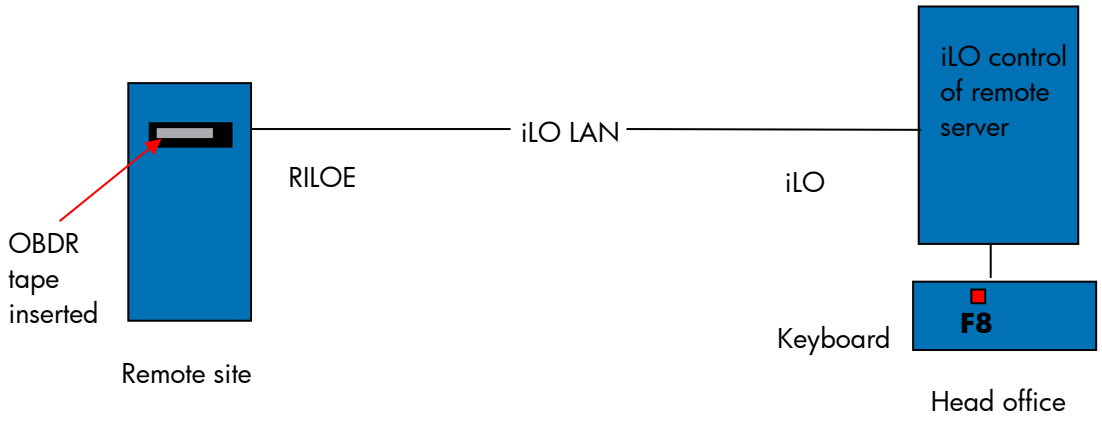


Running OBDR

1. Repair or replace the defective hardware
2. If hard disks are replaced, run Option ROM Configuration for Arrays (ORCA) Utility to recreate RAID on Smart Arrays
3. Insert OBDR tape into the tape drive
4. Power on the server
5. Invoke OBDR on tape drive
6. Tape drive boots the tape in CD-ROM mode
7. Bootable mini OS is loaded into memory
8. User must choose one of the following:
    - Proceed with the recovery
    - Exit process
9. Mini OS and backup application files are copied to hard disk
10. Server reboots into mini OS, and tape drive switches back to normal tape mode
11. ISV wizard performs recovery at tape speed (streaming)
12. System reboots and recovery is complete

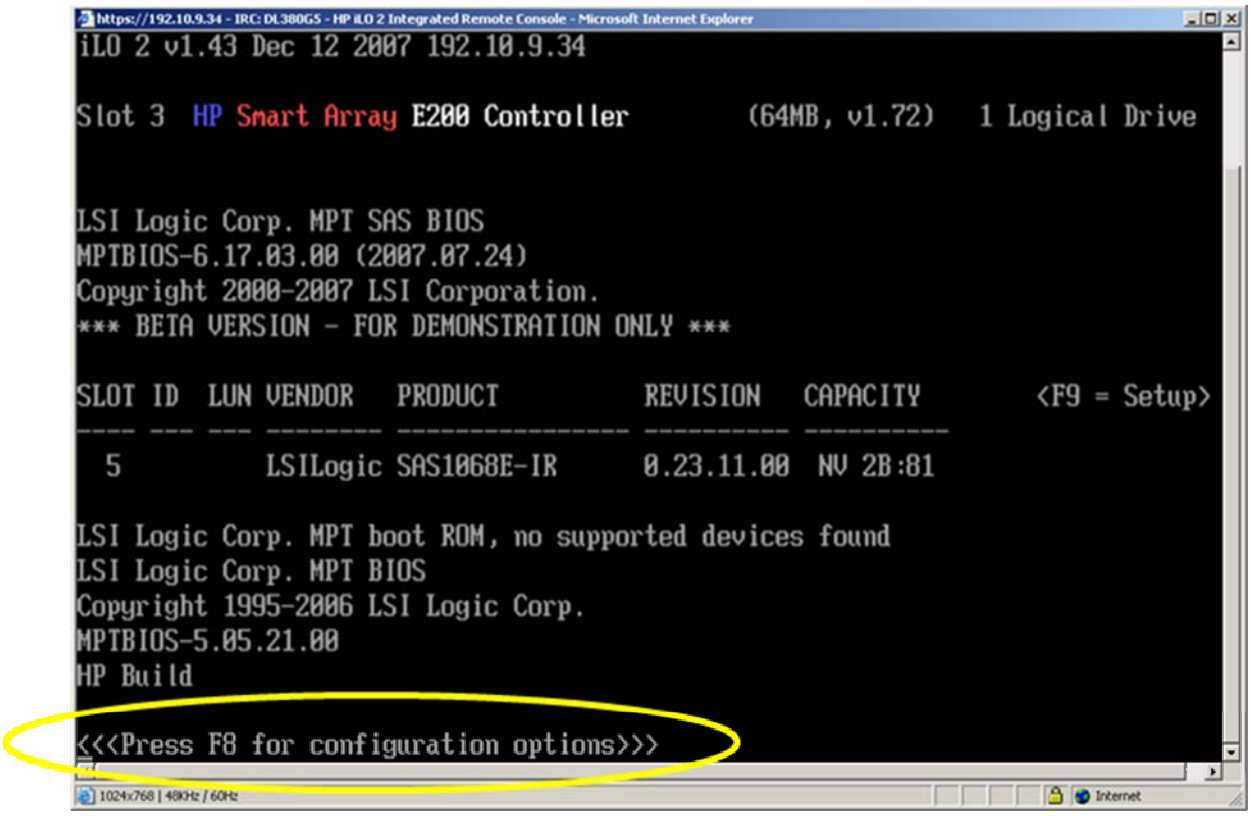
New simple keyboard shortcut for remotely located ProLiant servers:

- Insert the disaster recovery tape into the drive
- Restart the server and press the <F8> function key at the HP HBA BIOS prompt
- Follow the on-screen instructions to switch the tape drive into OBDR mode
- To perform this function remotely, it requires the HP Integrated Lights-Out (iLo) or Remote Insight Lights Out Edition (RILOE) board

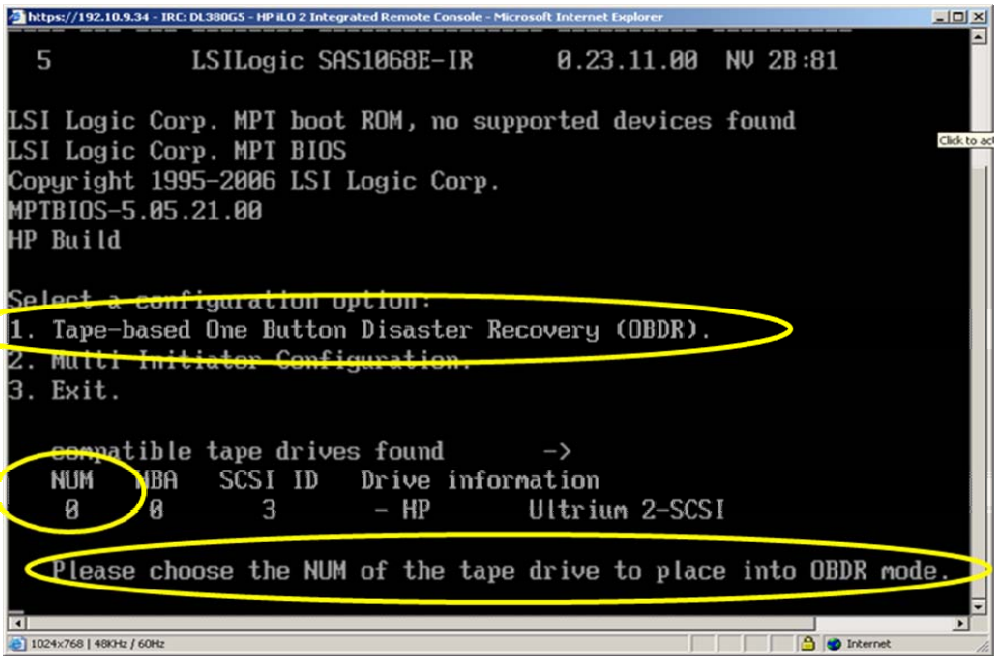


Initiating OBDR at POST; Tape device is connected to an U320 controller

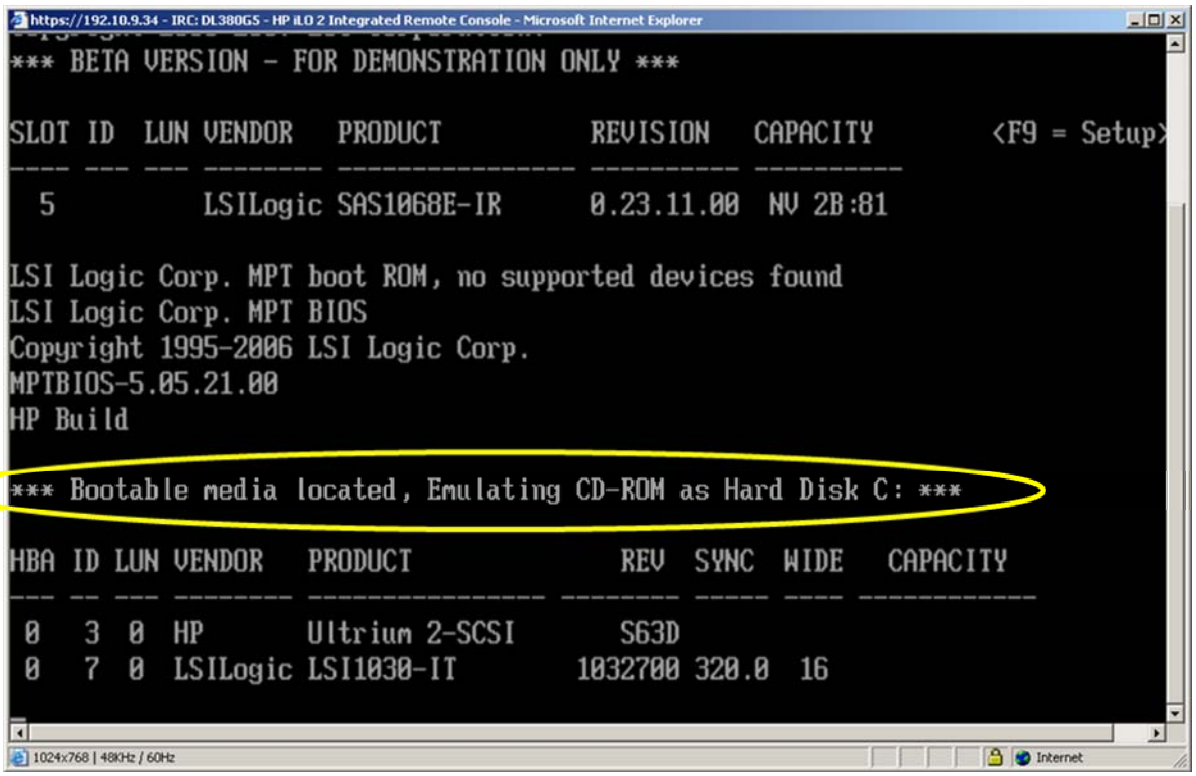
Insert the OBDR tape media into the tape device
Turn on the ProLiant Server
Press the <F8> function key when prompted during POST



Select the tape drive to place into OBDR mode

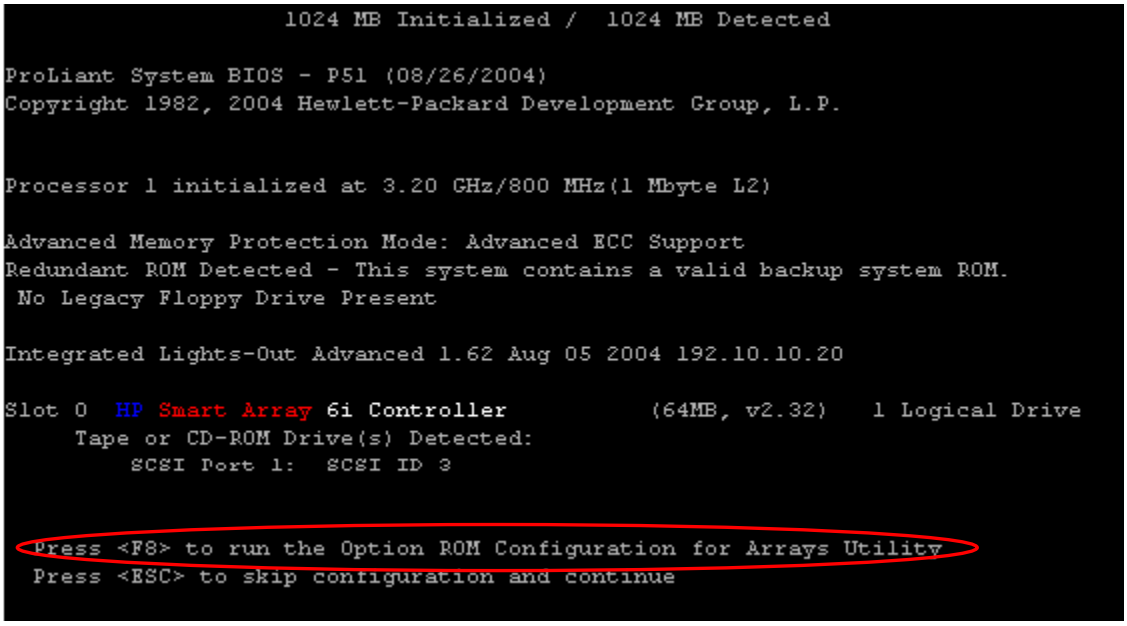


The ProLiant server will reboot to place the tape drive into OBDR mode.
The tape drive now becomes a bootable device

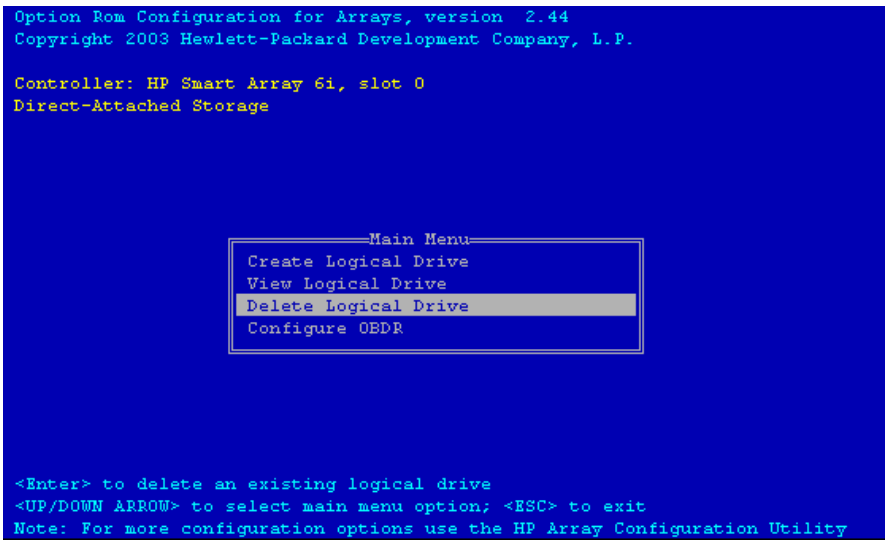


Initiating OBDR at POST; Tape device is connected to a Smart Array 6i controller

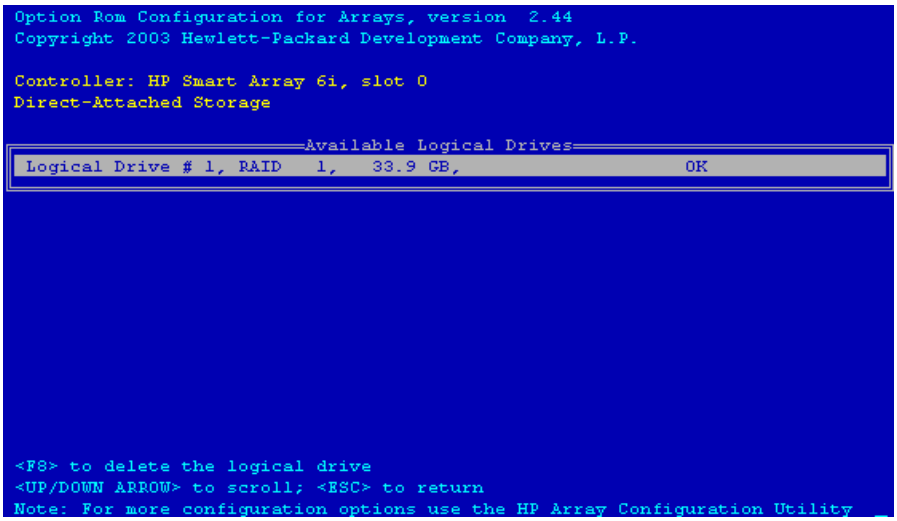
Insert the OBDR tape media into the tape device.
Turn on the ProLiant Server.
Press the <F8> function key at POST to run the Option ROM Configuration for Arrays Utility (ORCA).



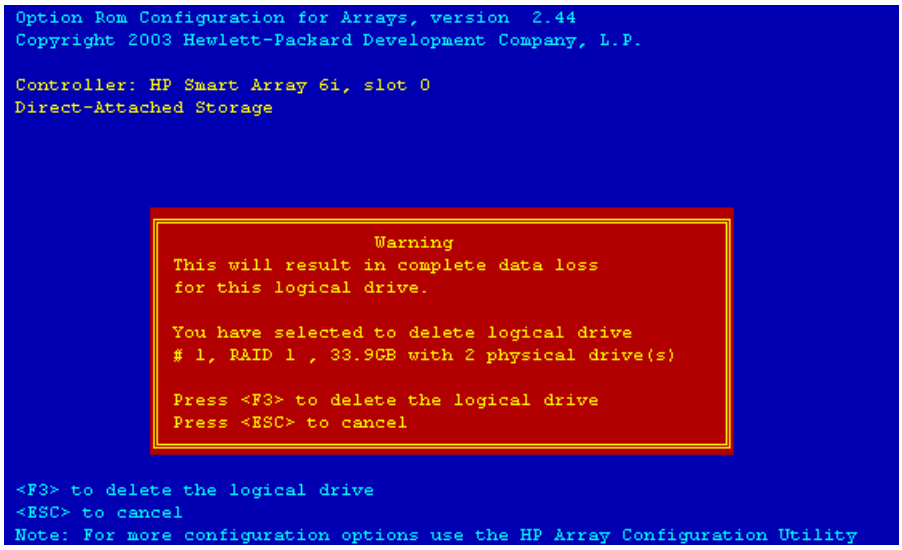
Select the “Delete Logical Drive” option



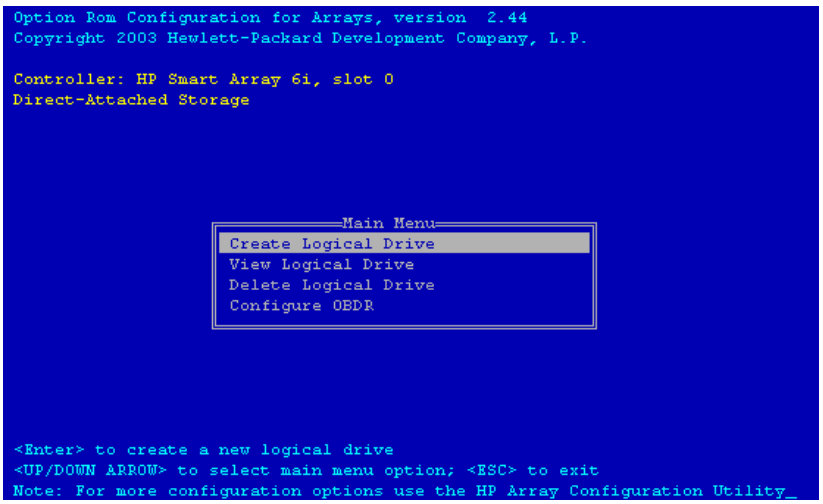
Press <F8> to delete the logical drive



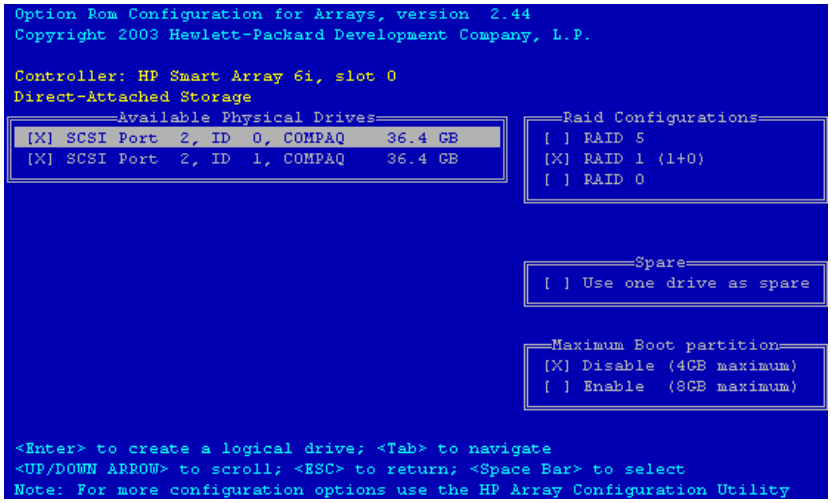
Press <F3> to continue



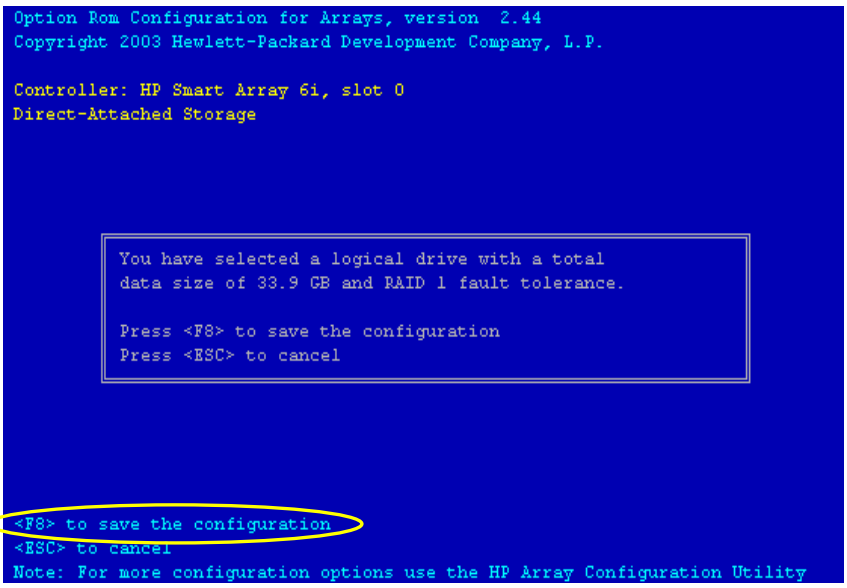
Create a new logical drive



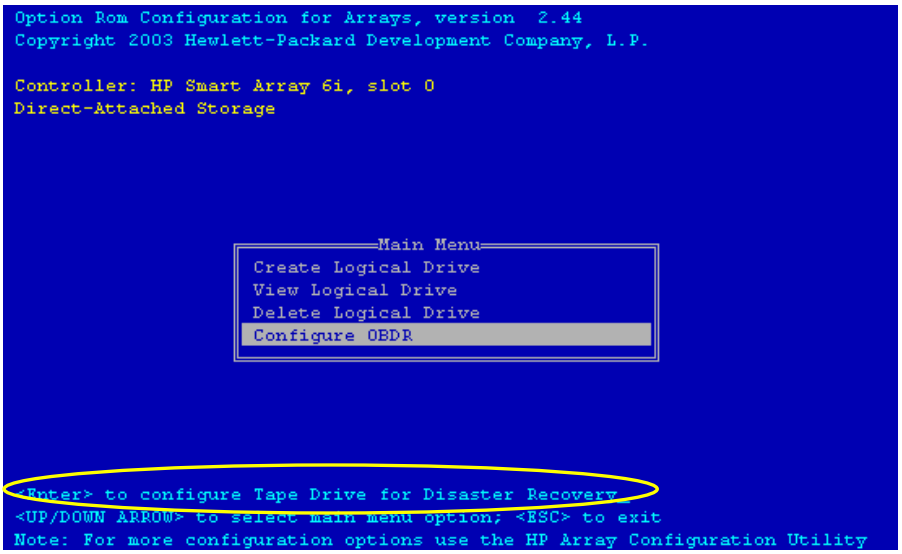
(Example)



Save the configuration

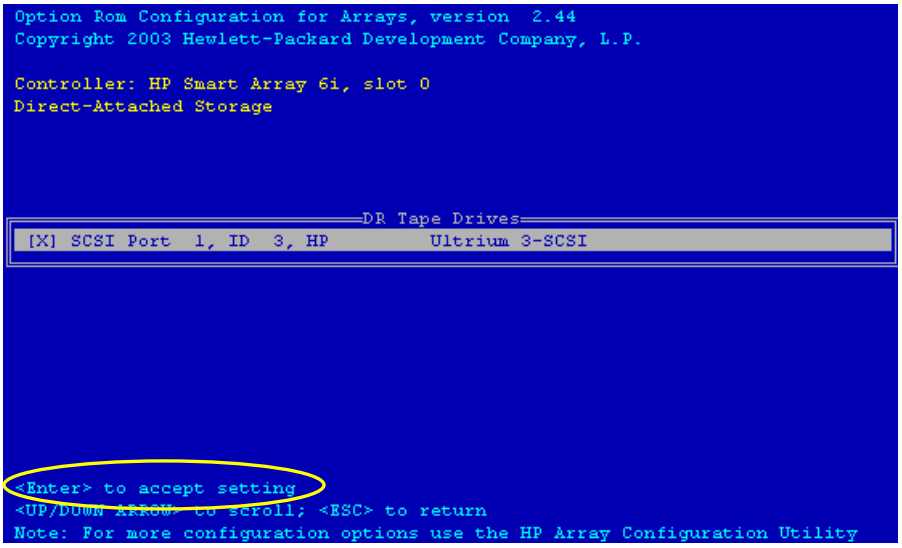


Select the “Configure OBDR” option

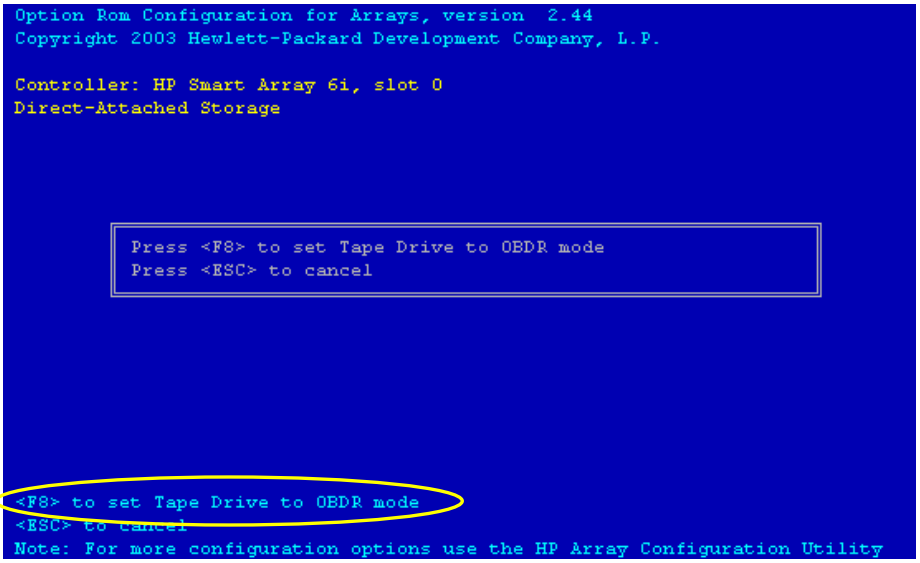


Accept the setting

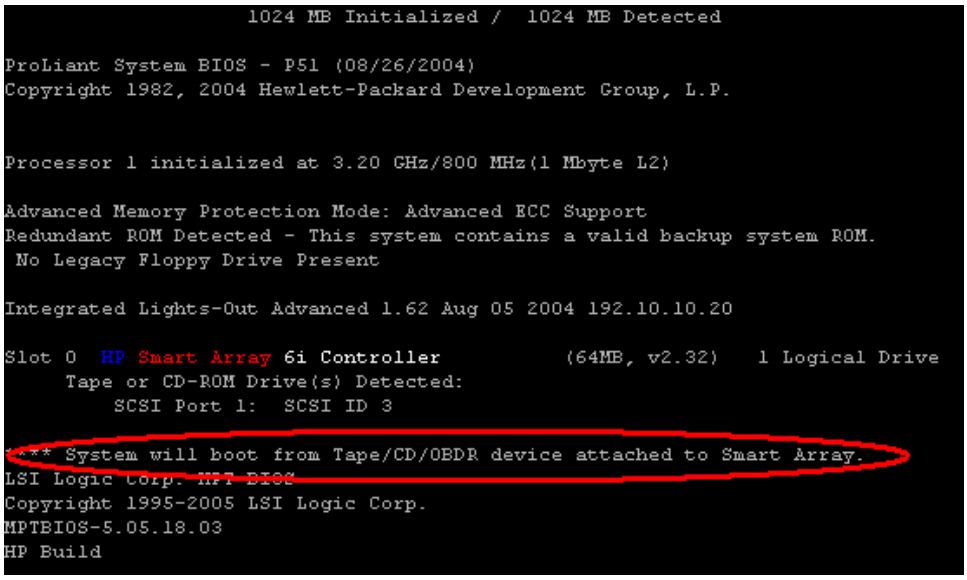
(Example)



Press <F8> to place the tape drive into OBDR mode



The tape drive is now in OBDR mode



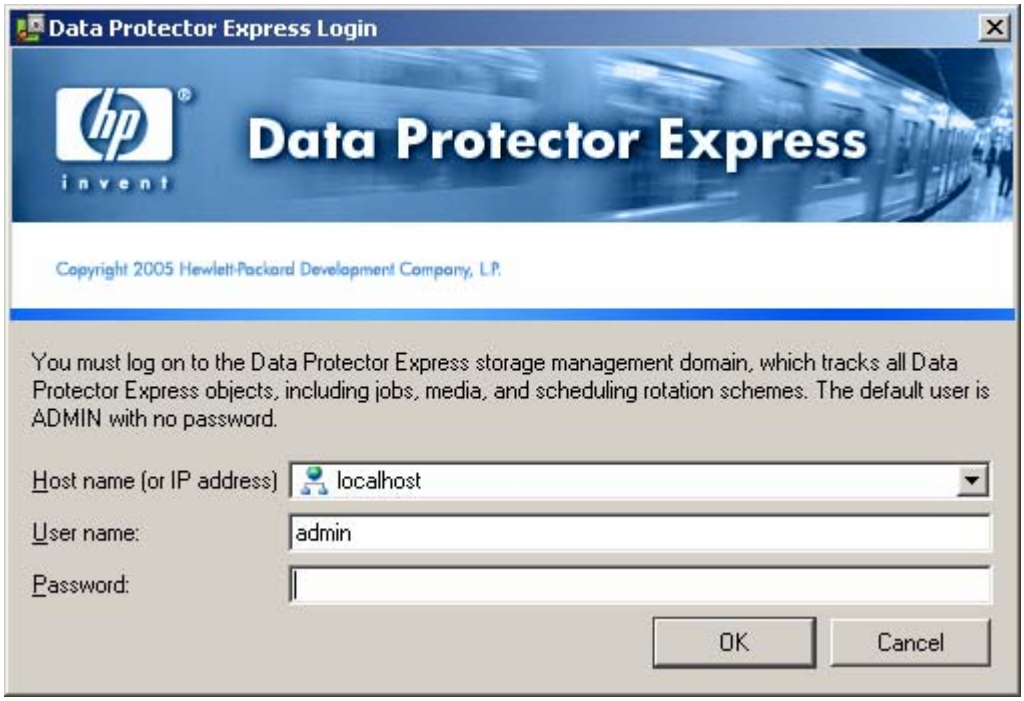
Using OBDR with HP StorageWorks Data Protector Express (DPX) Standard or Single Server Edition

General Information:

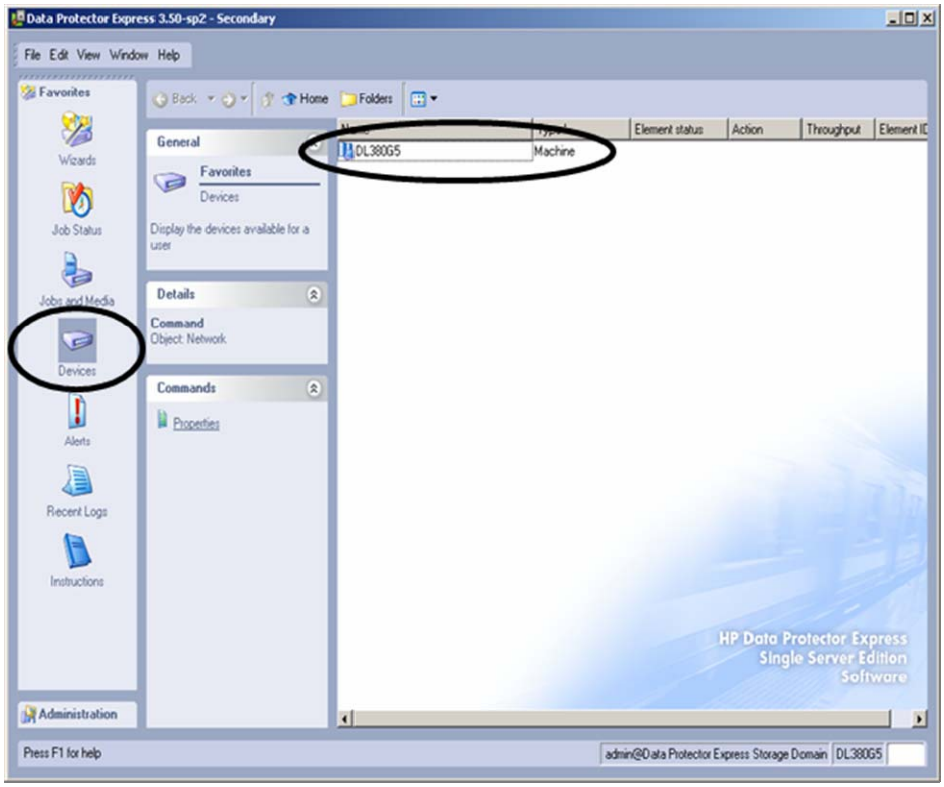
- DPX Standard Edition is available at www.hp.com/go/dataprotectorexpress
- DPX Single Server Edition ships free with all HP DAT and Ultrium tape drives and DAT autoloaders.
- Both editions have a free evaluation period of 60 days.
- A permanent license key can be obtained after registering DPX

Creating the OBDR Backup Tape

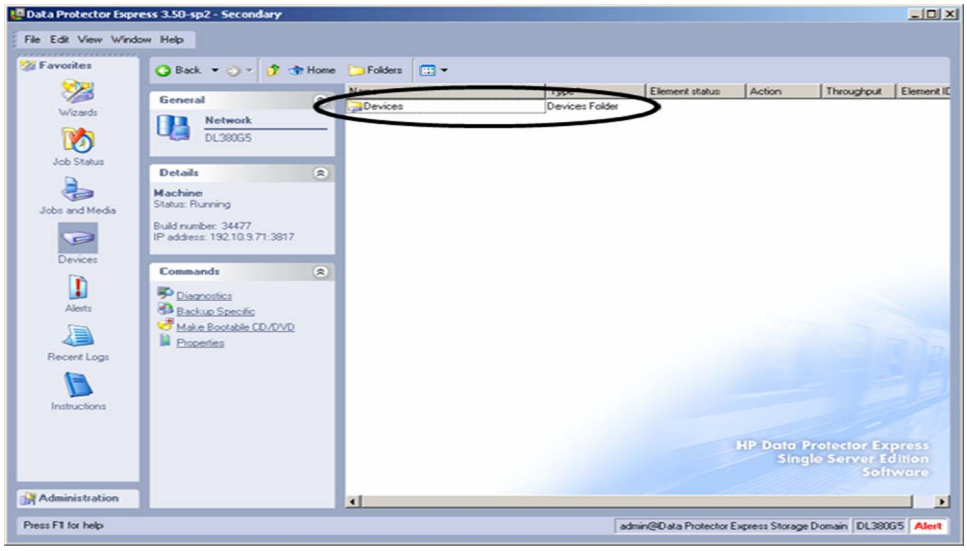
Log into the DPX Domain



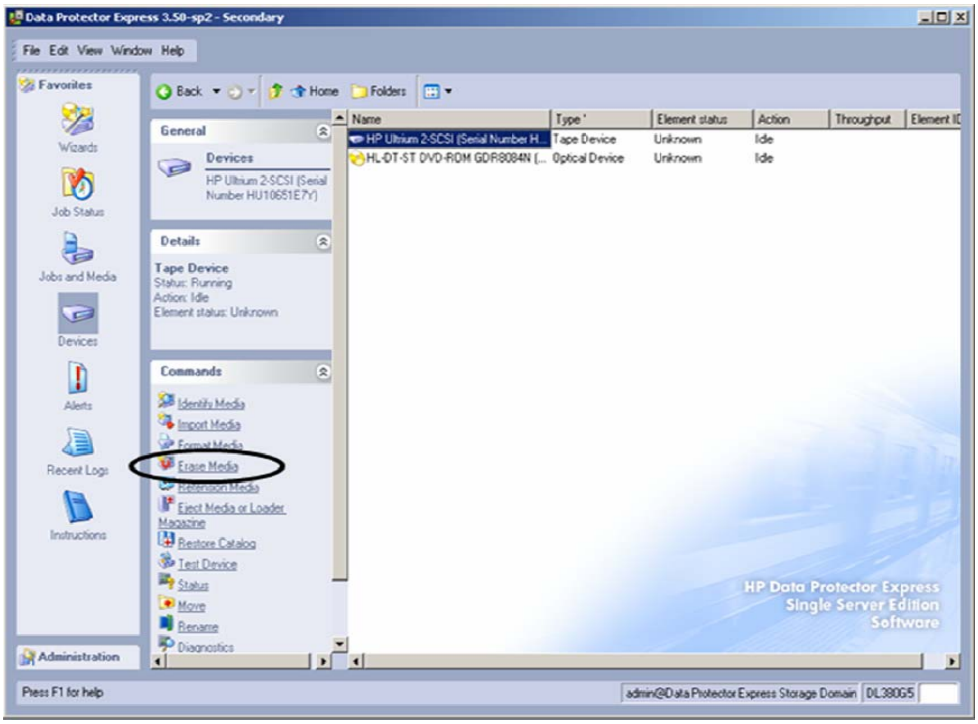
Select Devices and Double-click “Server”



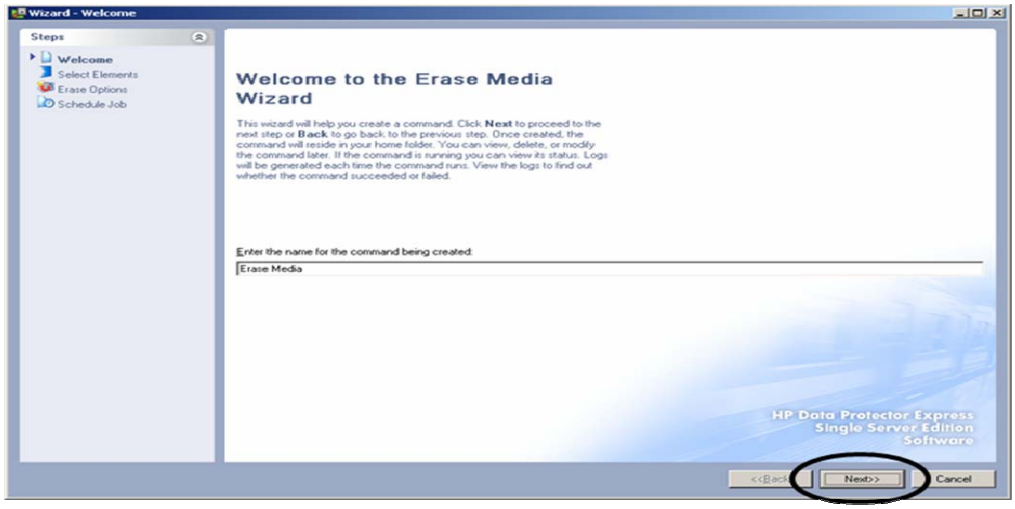
Double-Click “Devices”



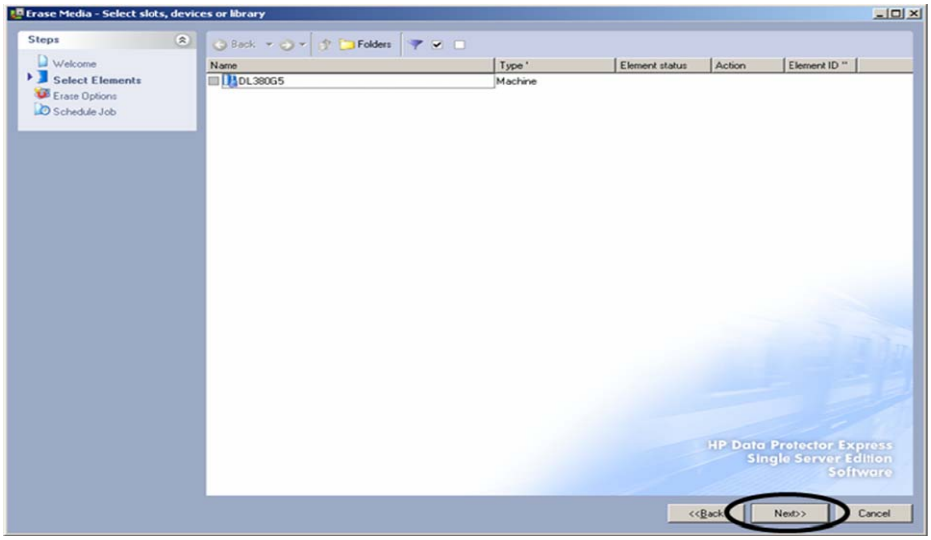
Select the tape drive you want to create the OBDR tape with and Erase Media



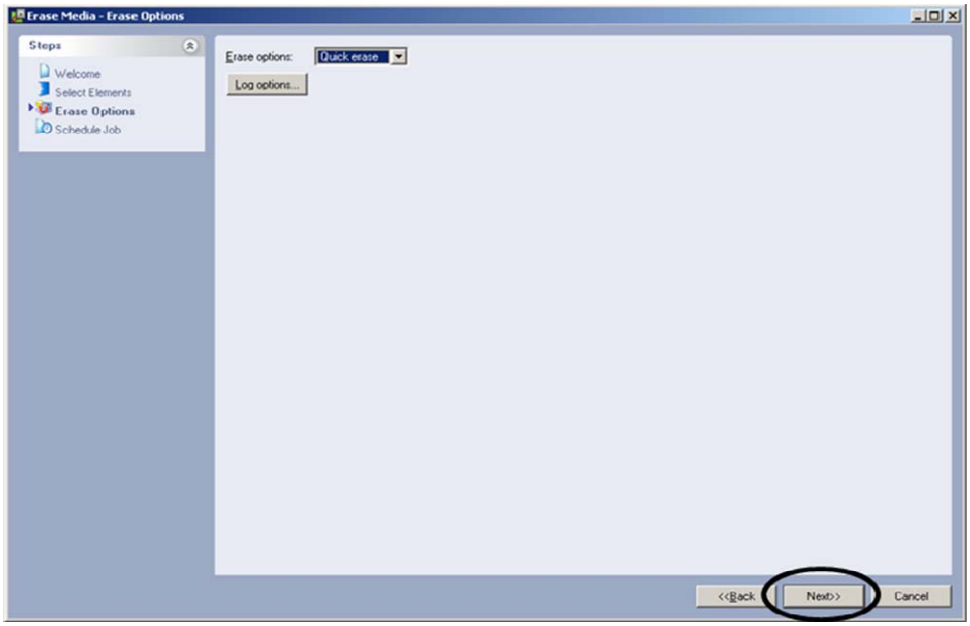
Click “Next”



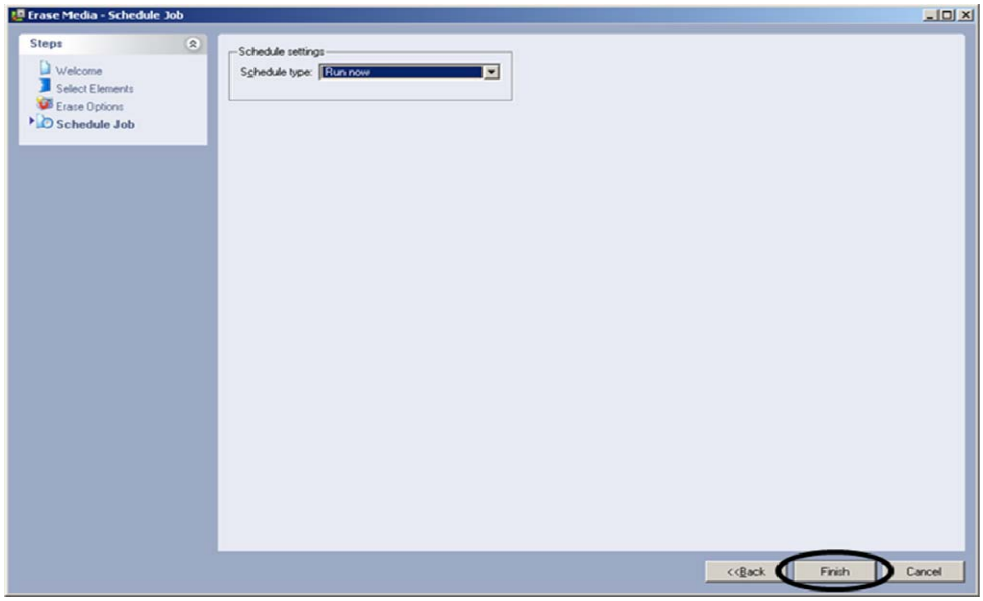
Select Elements, Click “Next”



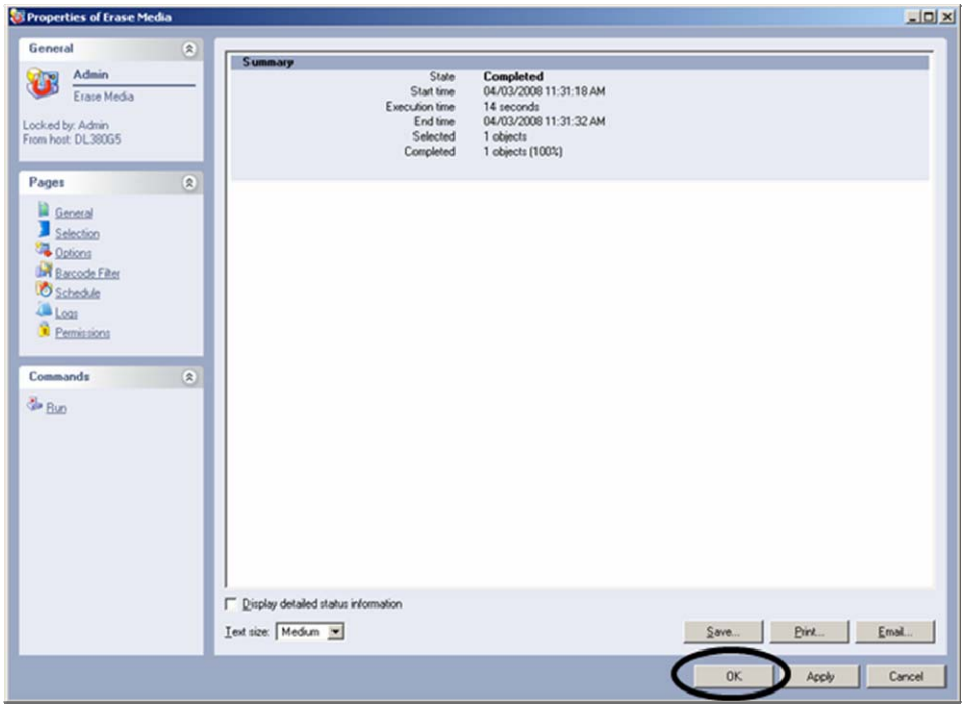
Erase Options, Click “Next”



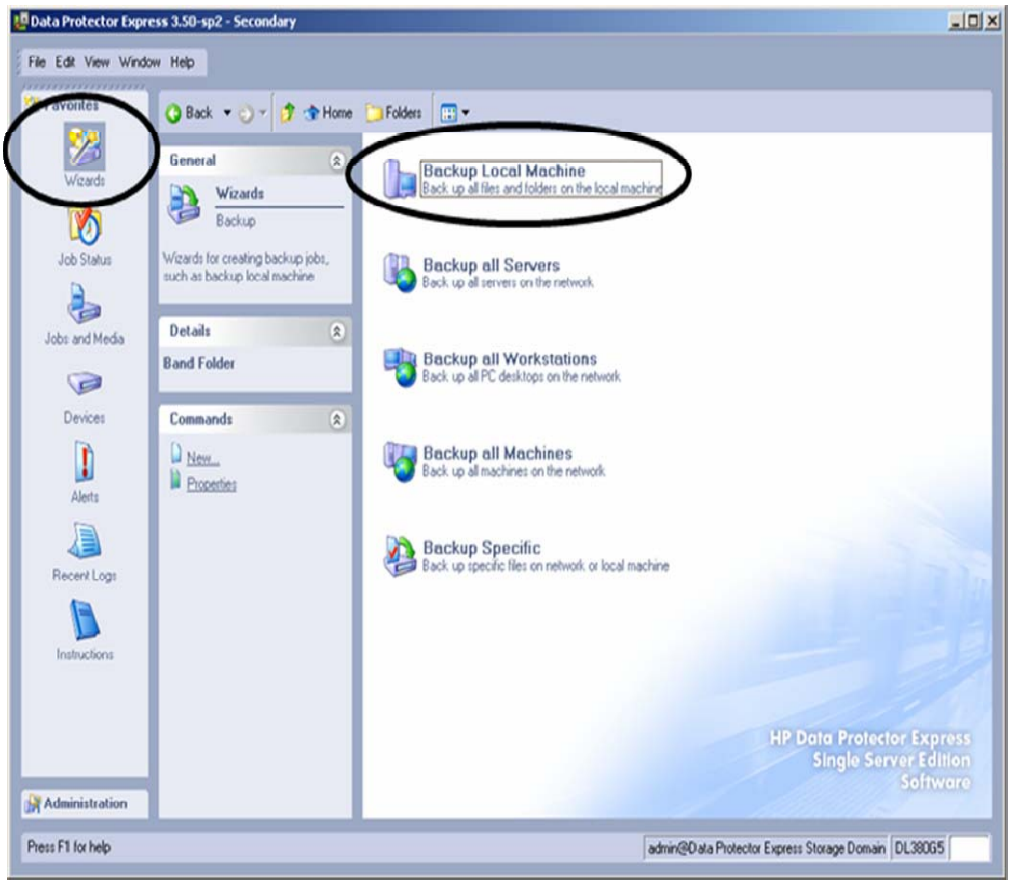
Schedule Job, Click “Next”



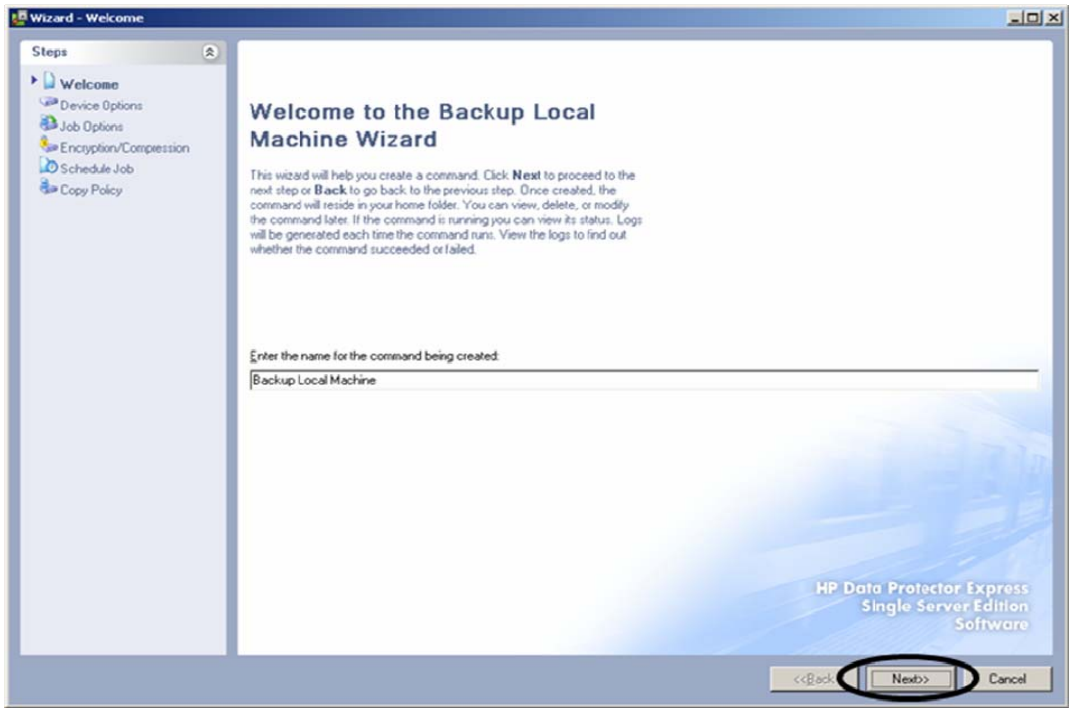
Job Completed, Click “OK”



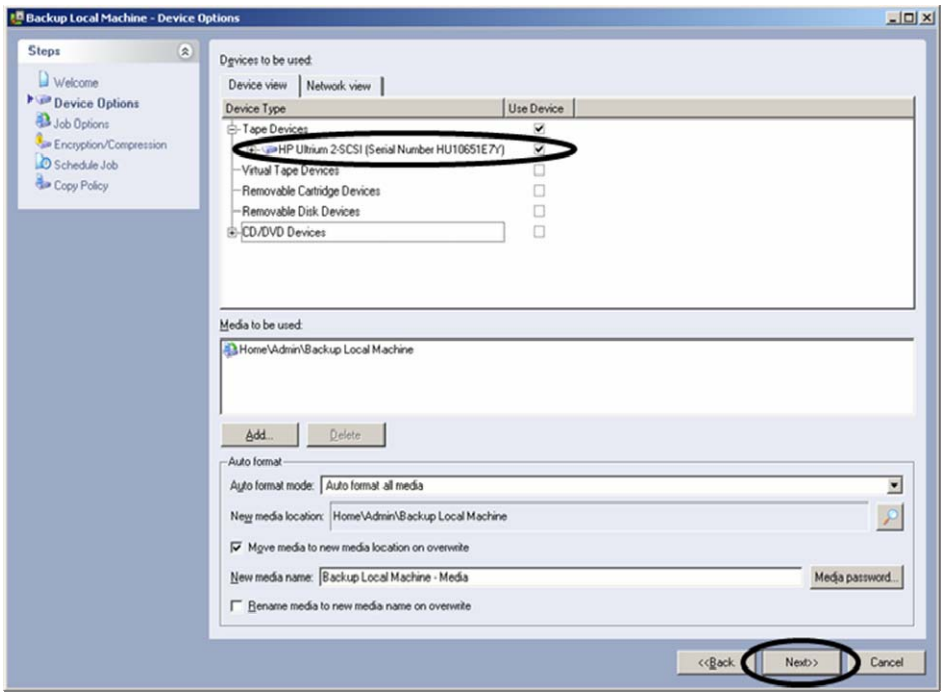
Select the “Backup” wizard, Double-Click “Backup Local Machine”



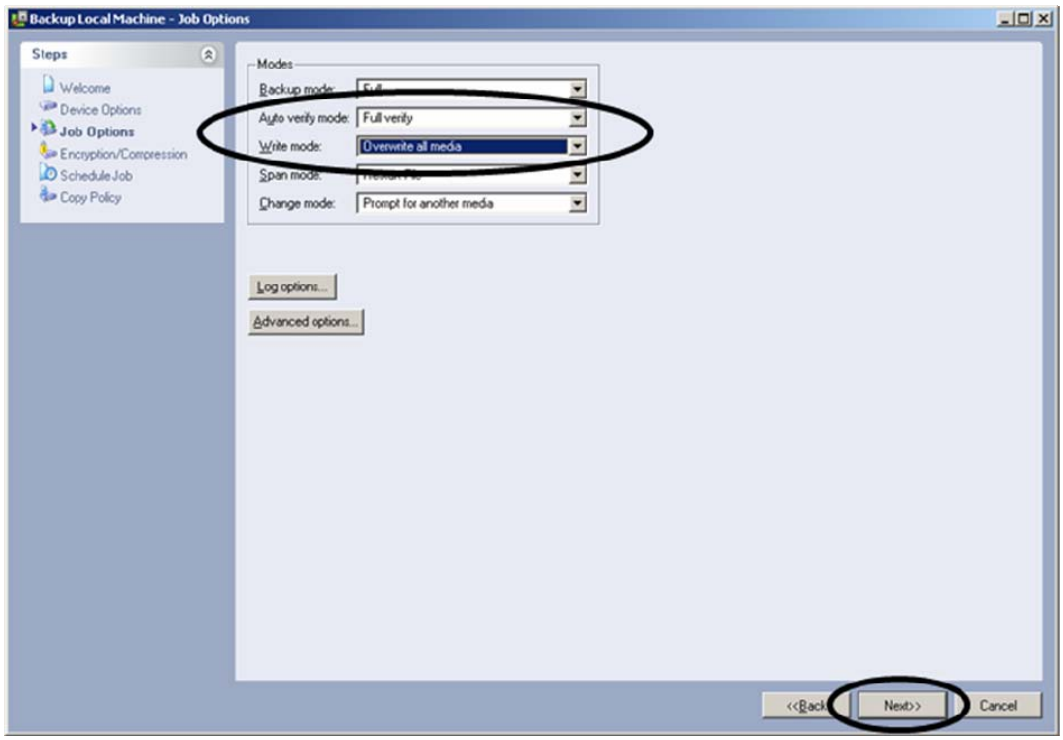
“Backup Local Machine Wizard” appears



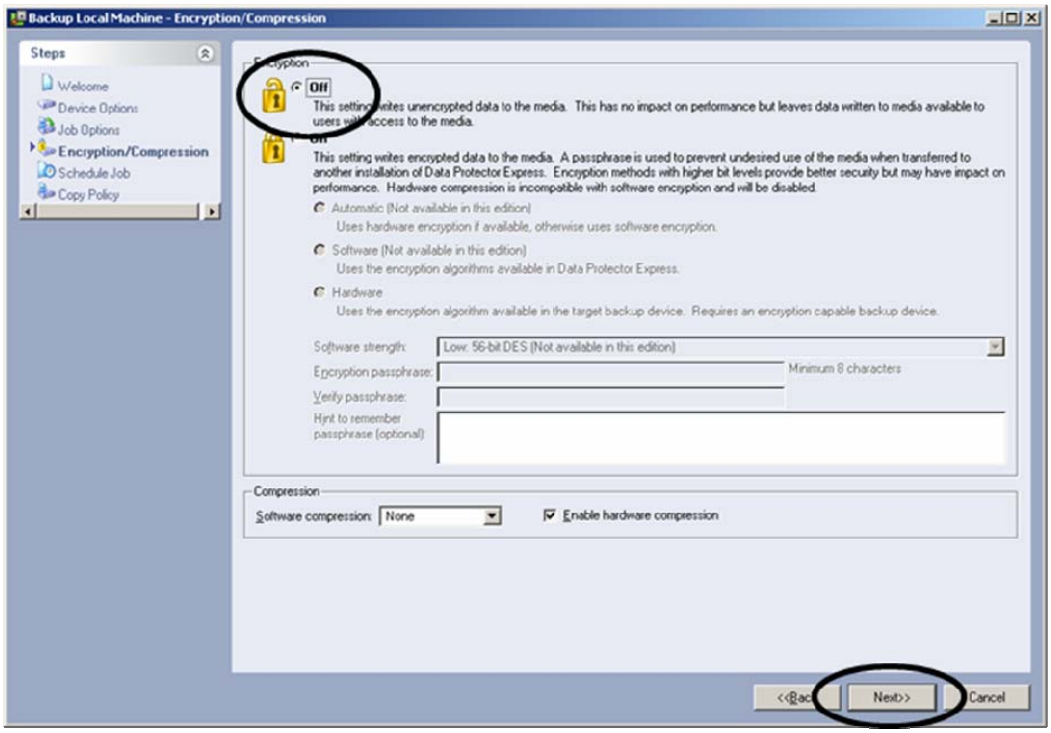
“Device Options” (Ensure tape device is checked), Click “Next”



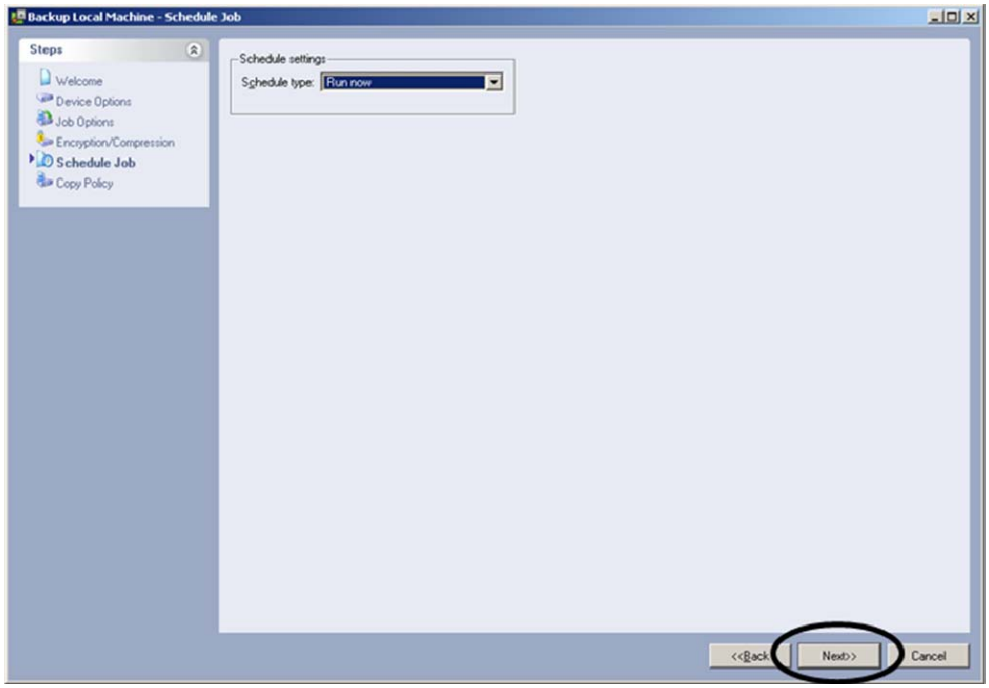
Make sure the Backup mode is “full” and the Write mode is “Overwrite all media”



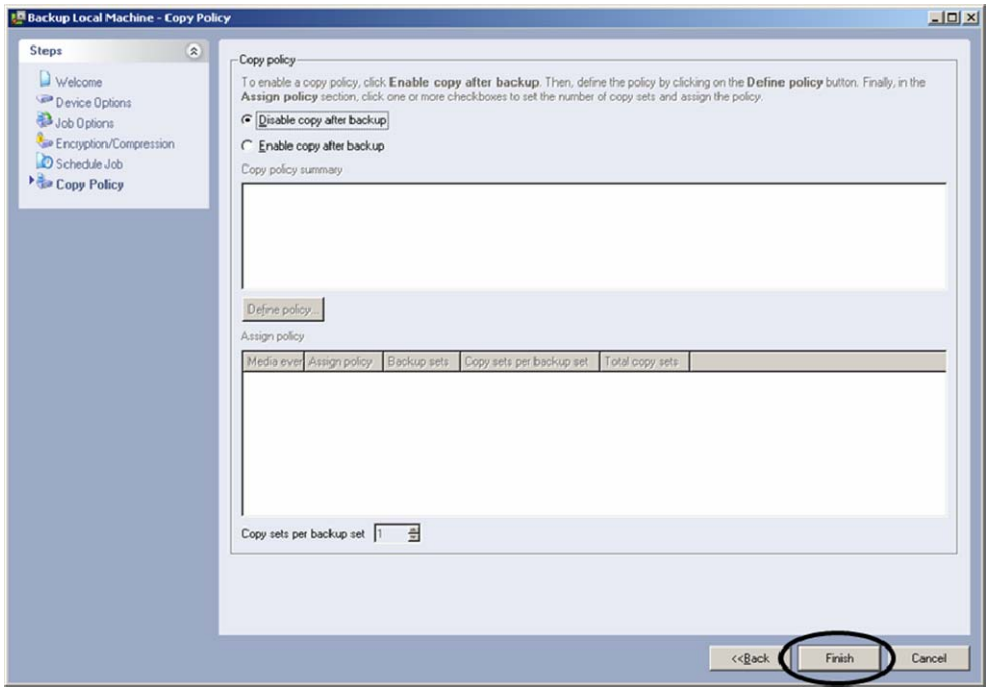
Encyrption/Decryption (Select “Off” and Click “Next”)



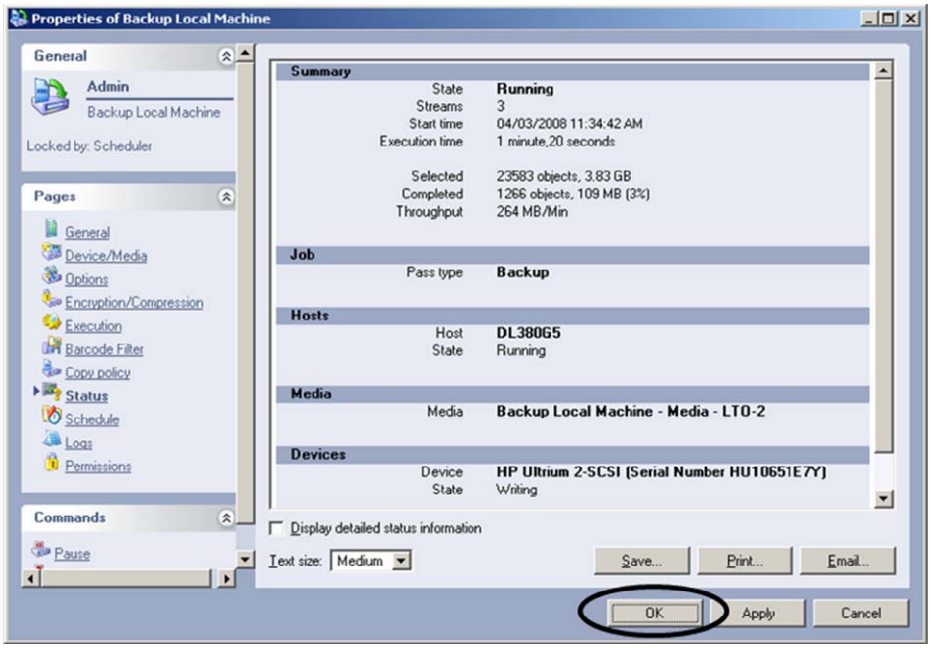
Schedule Job to Run Now and Click “Next”



Copy Policy (Leave as Default, Click “Finish)



Job Status (Once State shows Completed, Click OK then Shutdown server to prepare for OBDR recovery.



Once the OBDR tape has been created, it should be stored in a safe and secure location in case it is needed to restore your ProLiant server

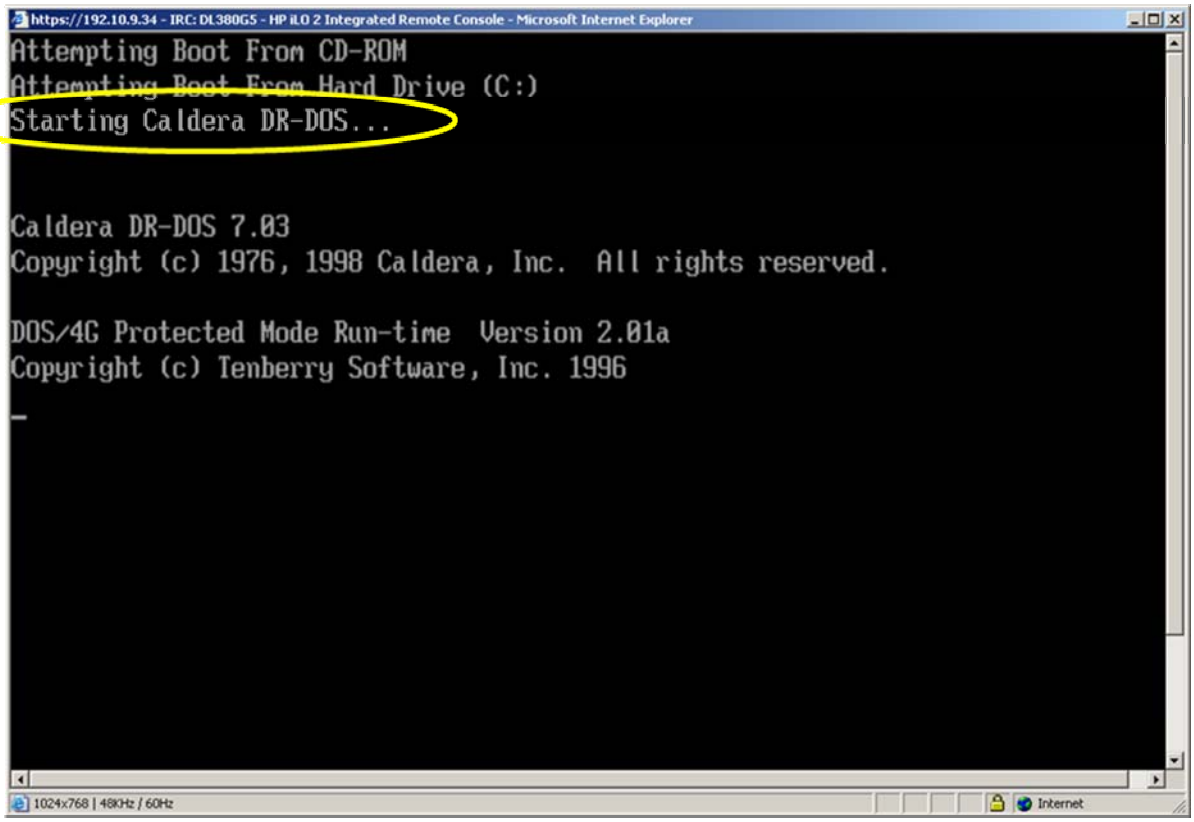
Performing an OBDR restore

Insert the OBDR tape media into the HP tape drive or DAT autoloader

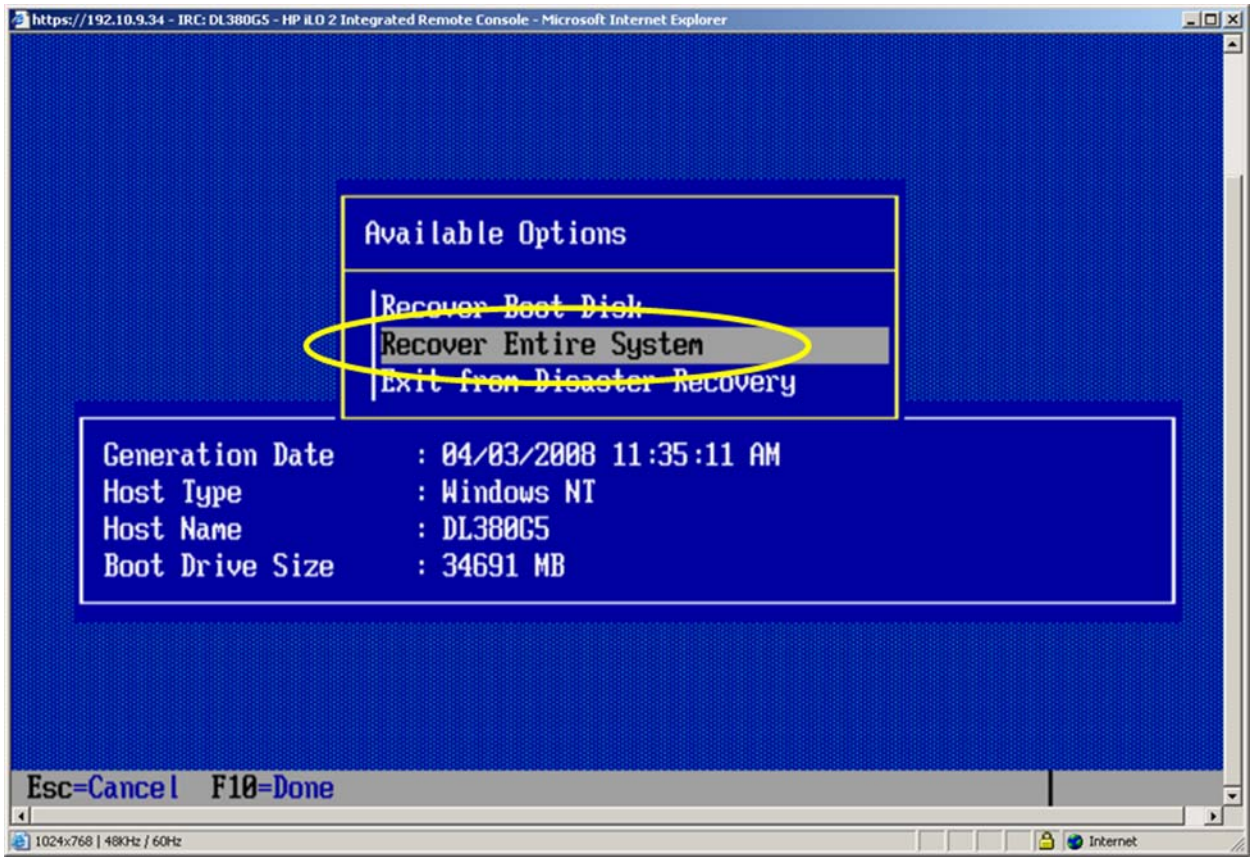
Place the HP tape drive or DAT autoloader into OBDR mode using one of the following methods:

1. Hold the eject button and power cycle the tape device if it is externally connected to your ProLiant server
2. Hold the eject button and power cycle the ProLiant server if the tape device is internally connected
3. Press the <F8> function key at POST and follow the on-screen prompts

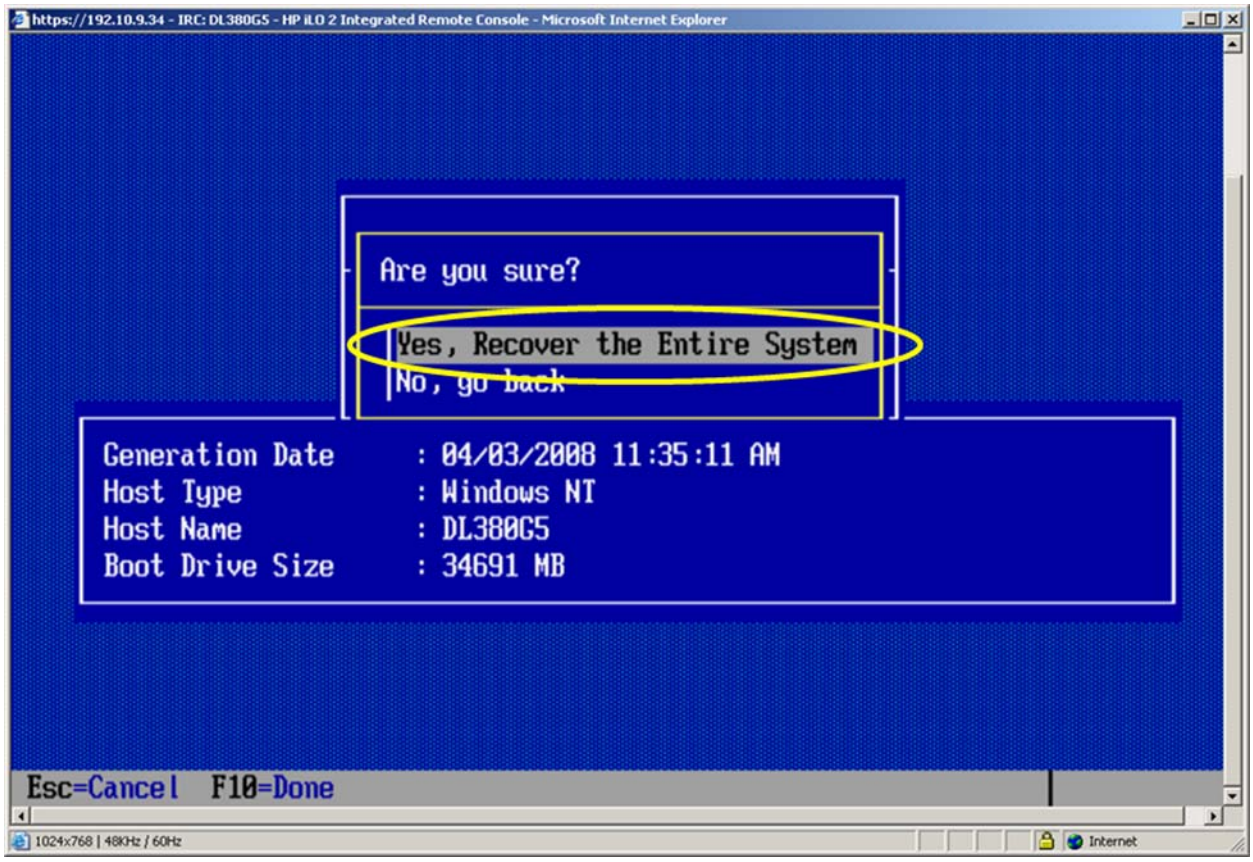
The tape device has been successfully placed into OBDR mode, and the restore process started when the following screen appears:



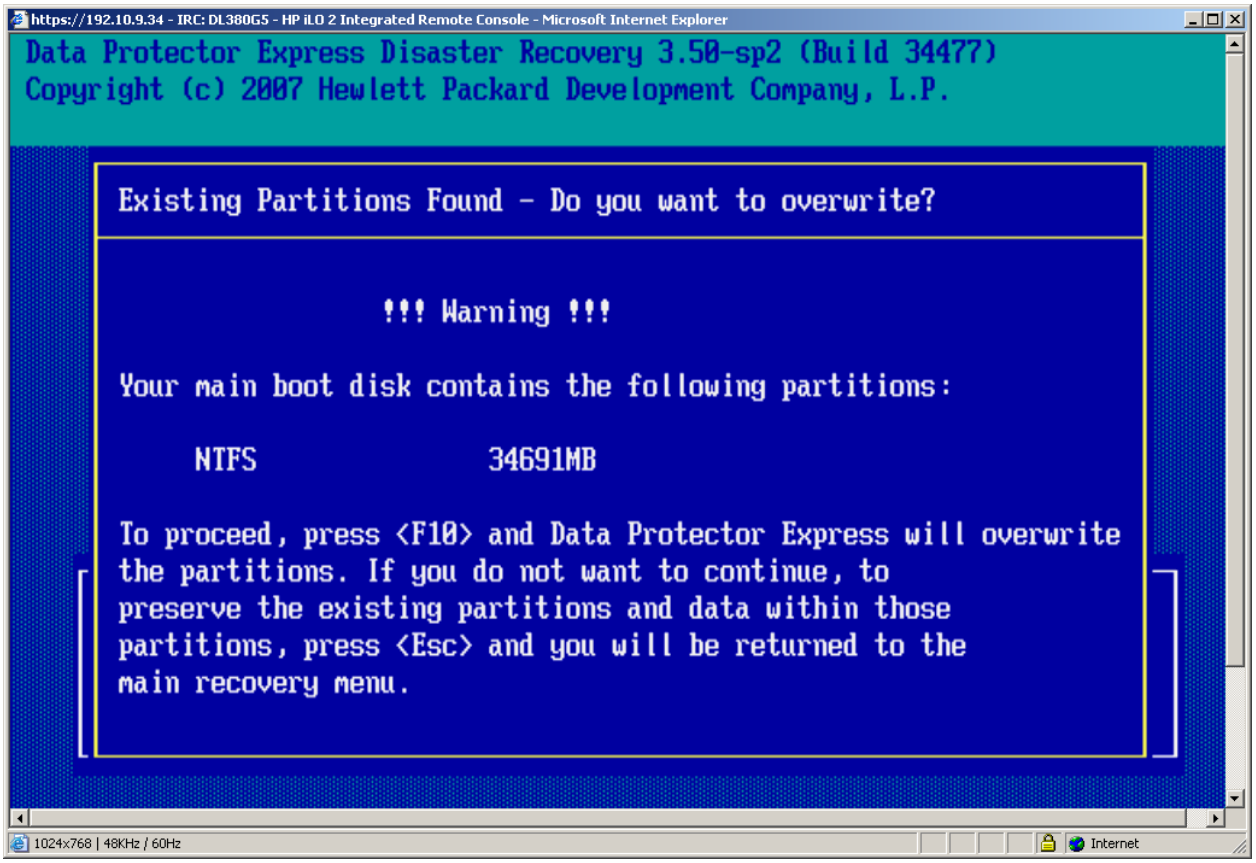
Recover Entire System



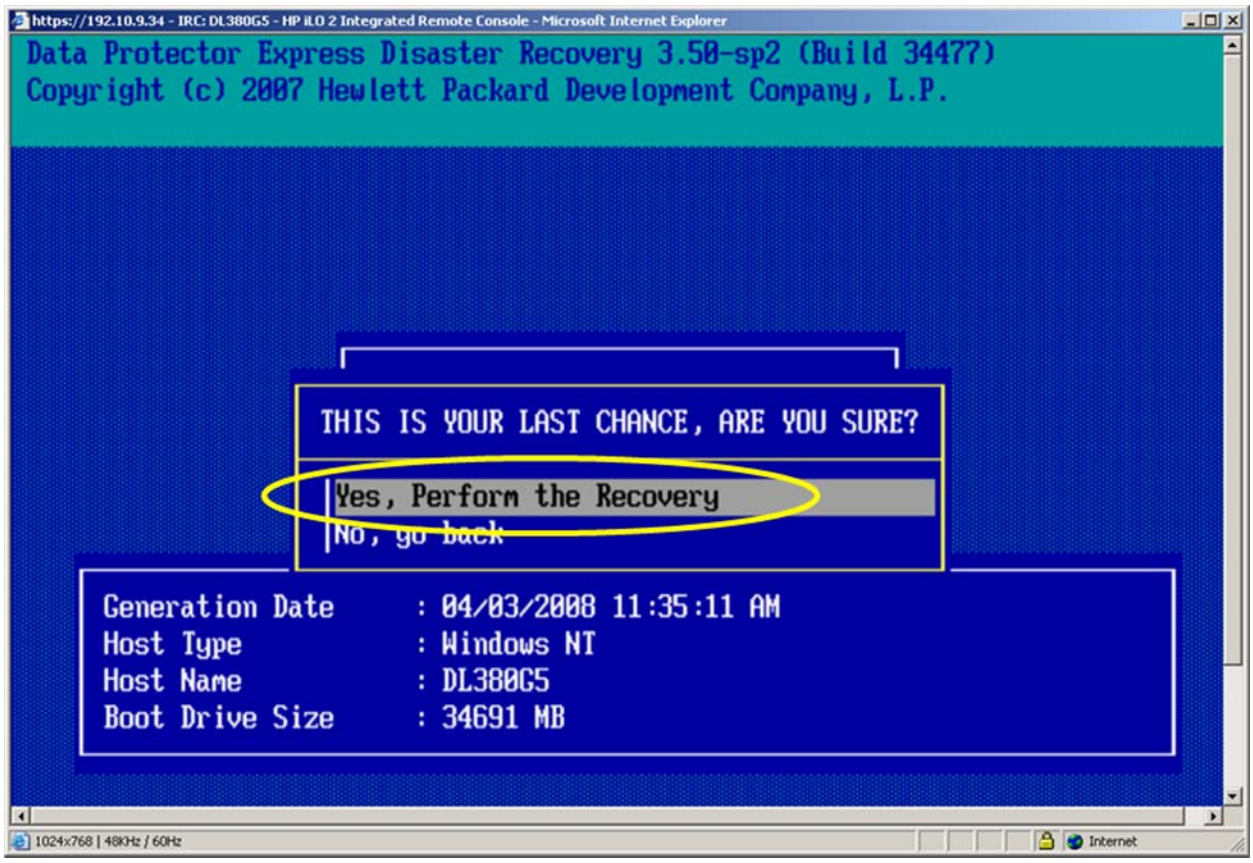
Yes, Recover the Entire System



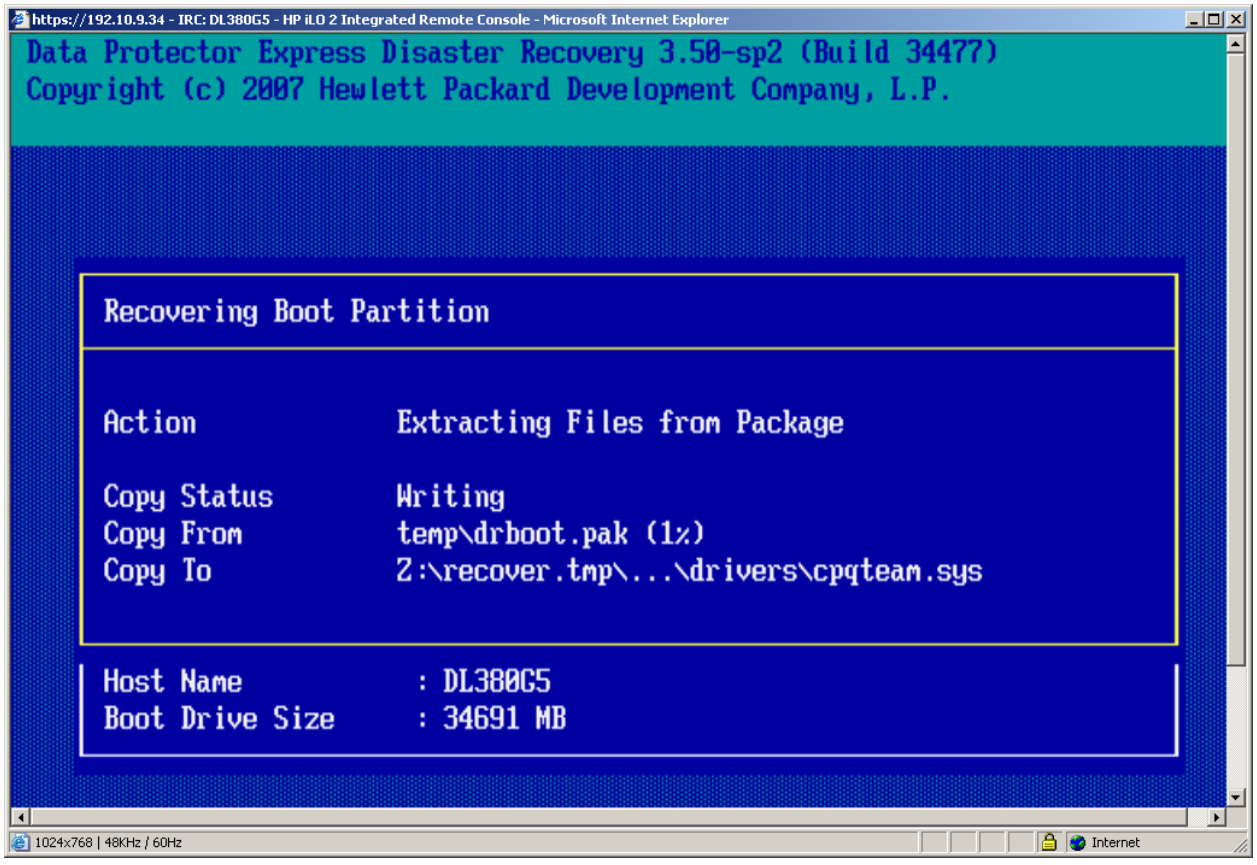
Overwrite Partitions, Click “F10”



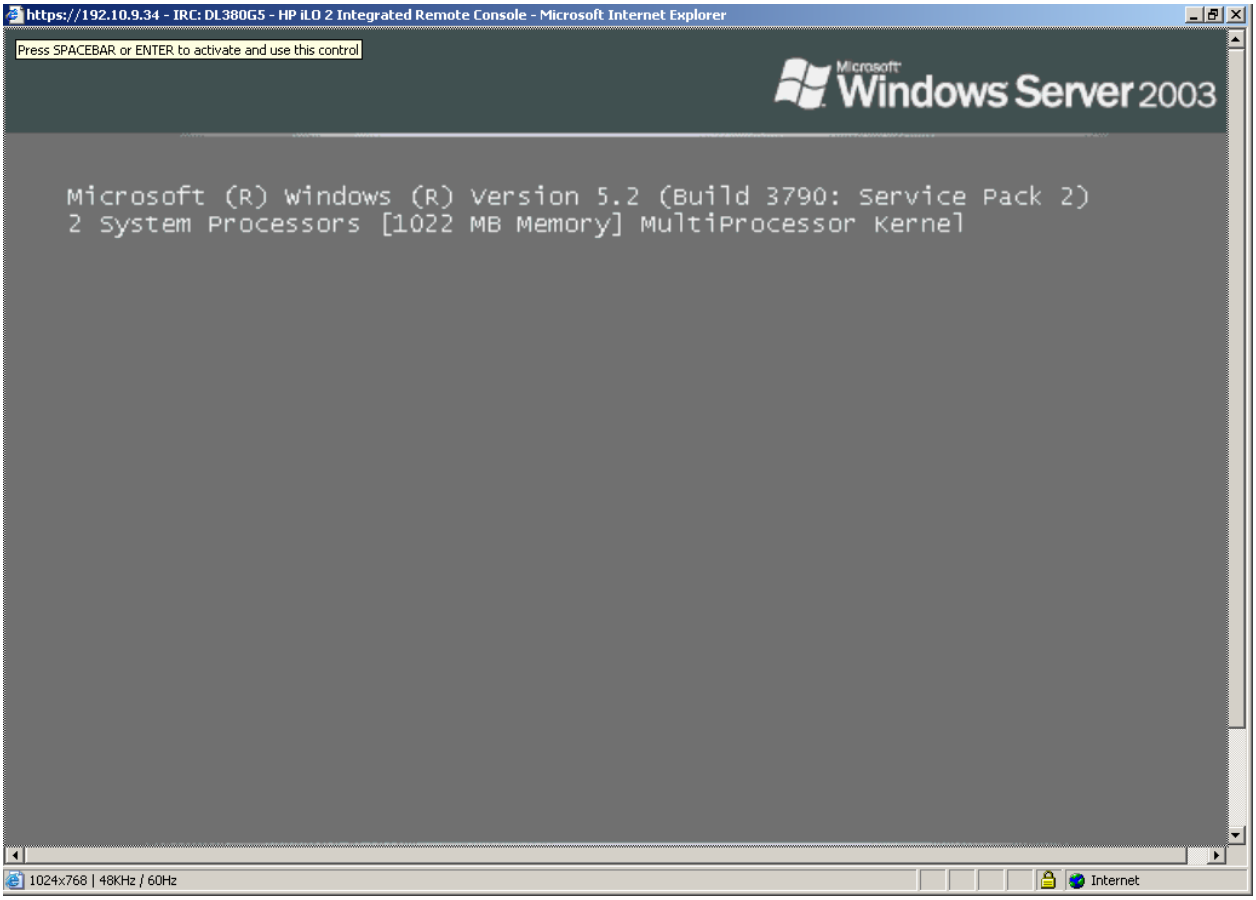
Last Chance, Are you Sure?



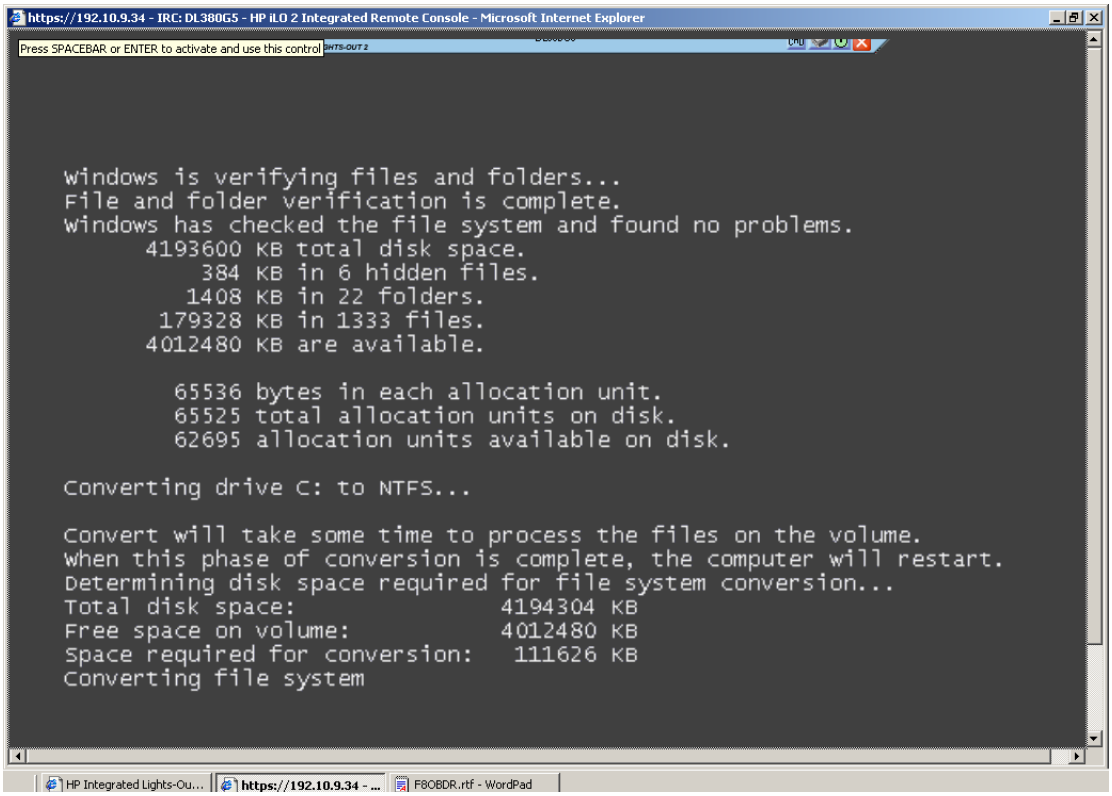
Mini-OS Installation from Tape (No user intervention required)



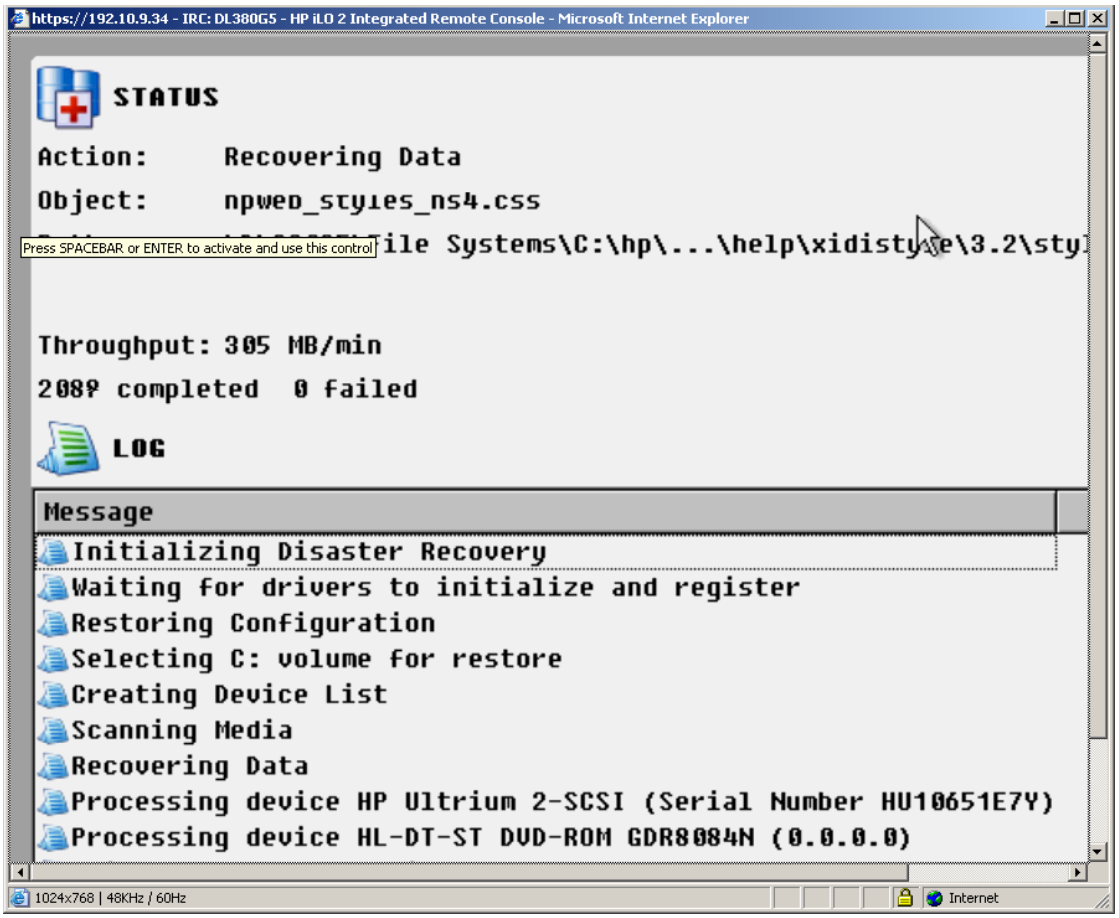
No user intervention required



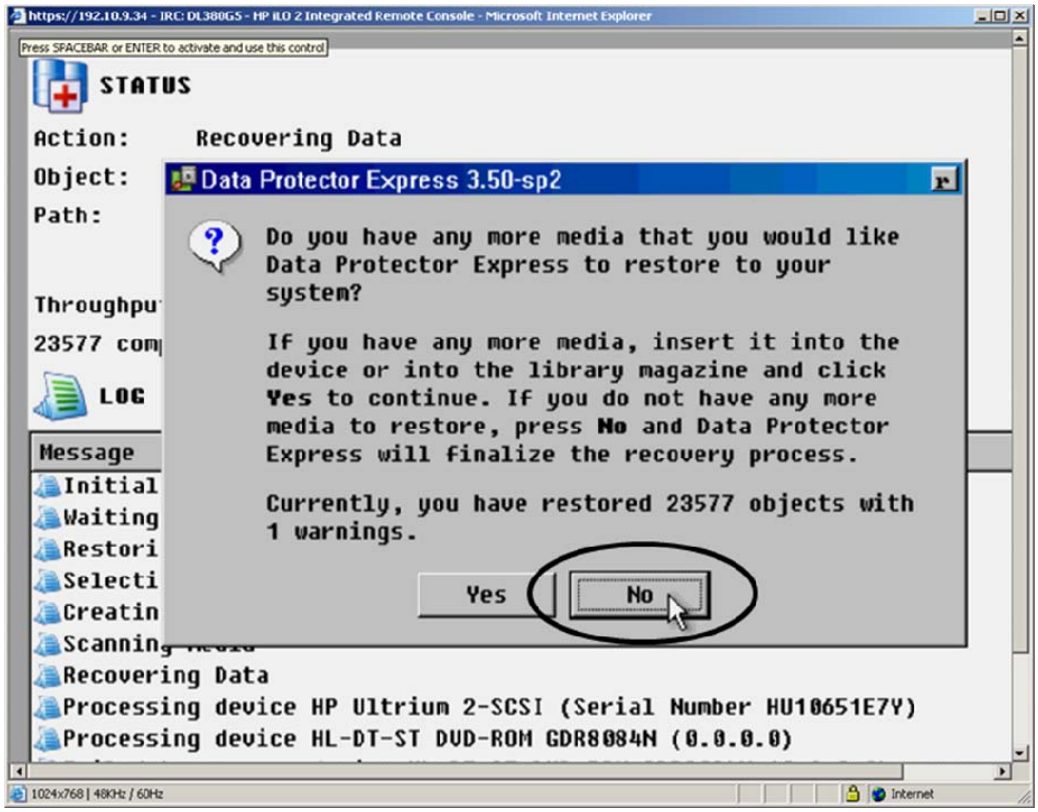
No user intervention required



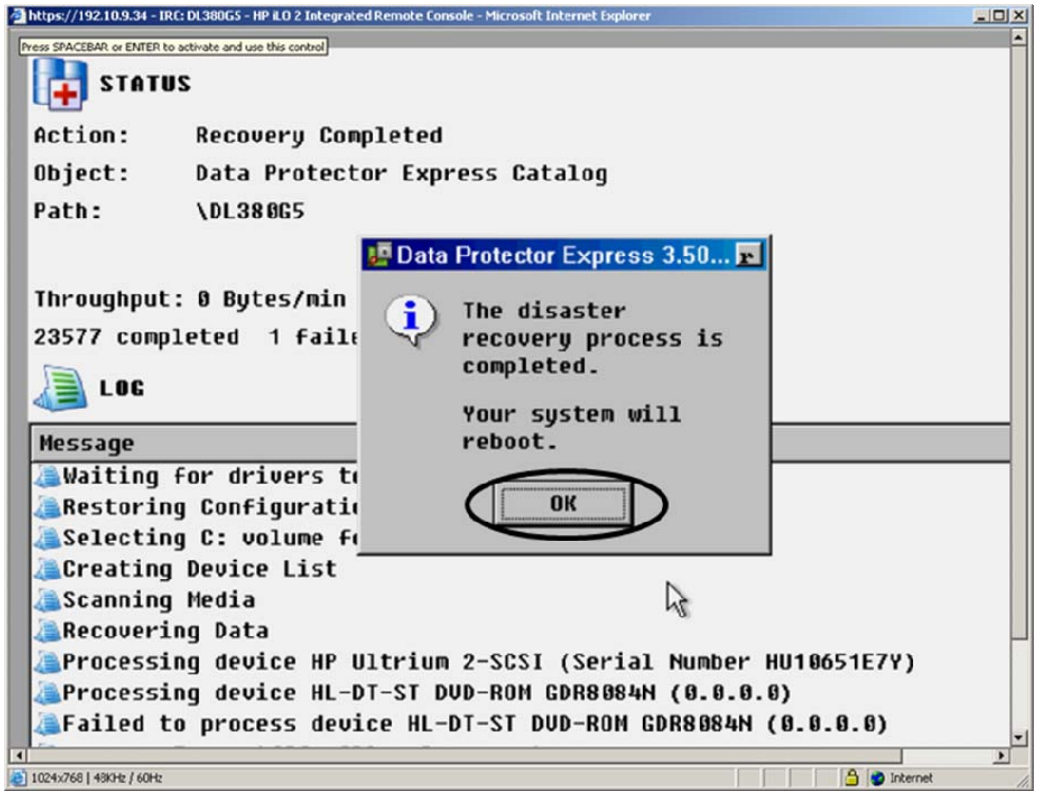
No user intervention required



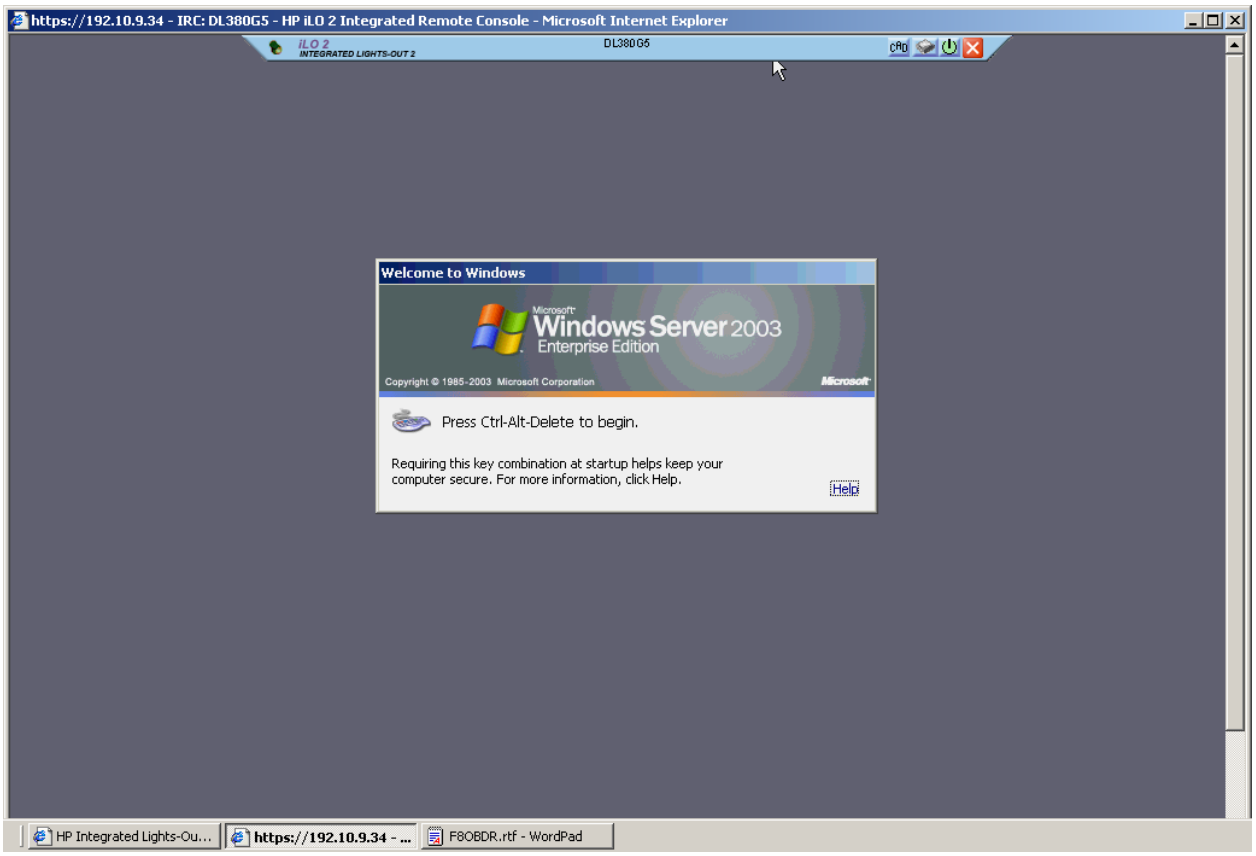
More Media to Recover? Click “No”



OBDR Completed, Click “OK.” Server will automatically reboot.



Server has now been recovered.


https://192.10.9.34 - IRC: DL380G5 - HP iLO 2 Integrated Remote Console - Microsoft Internet Explorer
iLO 2
INTEGRATED LIGHTS-OUT 2
DL380G5
Welcome to Windows
Microsoft
Windows Server 2003
Enterprise Edition
Copyright © 1985-2003 Microsoft Corporation
Microsoft
Press Ctrl-Alt-Delete to begin.
Requiring this key combination at startup helps keep your computer secure. For more information, click Help.
Help
HP Integrated Lights-Ou...
https://192.10.9.34 - ...
F8OBDR.rtf - WordPad