



# Quantum Scalar i500 Tape Drive Firmware Upgrade

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These instructions describe how to upgrade Scalar i500 tape drive firmware via the library Web client using a firmware image file. For additional information on autoleveling, see the library user's guide or online help.

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**Note:** You must have an active contract to gain access to the firmware files.

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## Obtaining Tape Drive Firmware

Required item: Computer with Internet access

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**Caution:** You must upgrade the tape drive firmware before upgrading the library firmware.

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- 1 Using a Web browser on a computer, go to <http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/SI500/Index.aspx>.
- 2 Click the **Firmware** tab to display the latest version of tape drive firmware.



- 3 Select the appropriate drive firmware link.  
The **Quantum Downloads** screen displays.
- 4 Enter your library serial number in the field provided, accept the license agreement, and click **Accept**.  
The **Download** dialog box displays.
- 5 Click **Download** to open the Windows download screen. Save the file to your computer.
- 6 The firmware upgrade file is an **.fmr**, **.ro**, **.fmrz**, or **.zip** file containing **.e** and **.frm** files.  
If you receive this file zipped in a **.zip** file, extract the **.frm** and **.e**, or **.fmr** file from the **.zip** file.
- 7 Place the **.fmr**, **.ro**, **.fmrz**, or **.e** tape drive firmware download file in a known location on your computer. Do not open or unzip the **.fmr**, **.ro**, **.fmrz**, or **.e** tape drive firmware download file. You will upload the file onto the library.

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**Note:** For HP LTO tape drives, you may receive two versions of drive code in the same bundle: **.e** and **.frm**. **Make sure to use the .e version** for the upgrade process described here. (The **.frm** file is used by HP Library and Tape Tools, a host-based drive management application, and should NOT be used here.)

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- 8 Continue with [Upgrading Tape Drive Firmware](#).

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## Upgrading Tape Drive Firmware

To upgrade tape drive firmware, you can download an image file directly to a tape drive using the library Web client in one of two ways:

- If tape drives are not connected to the Fibre Channel I/O (FC I/O) blade or Ethernet Expansion Blade (EEB), upgrade firmware using an image file. Upgrading firmware using this method can take up to 125 minutes.
- If the library has an FC I/O blade, and the tape drives are connected to the FC I/O blade or EEB, upgrade firmware using autoleveling. The time to upgrade firmware using this method is less than upgrading using an image file.

Because tape drives can be updated in parallel, updating multiple tape drives does not require more time than updating a single tape drive. You can upgrade multiple tape drives at one time if they are of the same tape drive type (for example, LTO-5) and interface type (for example, Fibre Channel).

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**Note:** This operation must not be performed concurrently by multiple administrative users logged in from different locations. You can access the appropriate Web client screens, but you cannot upgrade tape drive firmware while another administrative user is performing the same operation

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## Upgrading Tape Drive Firmware Using an Image File

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Follow this procedure if the tape drives are not directly connected to the FC I/O blade or EEB.

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**Note:** If the library has an FC I/O blade and the tape drives are connected to the FC I/O blade or EEB, see [Upgrading Tape Drive Firmware Using Autoleveling](#) on page 4.

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- 1 Stop any processes on the host application that are communicating with the tape drive.

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**Caution:** Since tape drives restart after a firmware upgrade, make sure that tape drives are unloaded before upgrading firmware.

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- 2 Unload tape cartridges from all tape drives for which you are upgrading firmware.
- 3 Access the library using the Web client.
- 4 Resolve and close all open RAS tickets before updating firmware.
- 5 From the **Tools** menu, select **Drive Operations**.  
The **Tools - Drive Operations** screen displays.
- 6 Select **Update tape drive firmware using a firmware image file** and click **Next**.  
The **Update Drive Firmware By Image** screen displays.
- 7 Do one of the following:
  - If your library contains different drive types (for example, a combination of LTO-3, LTO-4, LTO-5, and/or LTO-6) and/or different interface types (for example, SCSI and Fibre Channel), continue with [Step 8](#).
  - If your library contains tape drives of the same drive and interface type (for example, LTO-4/SAS), continue with [Step 9](#).

- 8 Select the tape drive and interface type you need to upgrade and click **Next**.  
The **Update Drive Firmware By Image** screen displays. This screen lists the location, installed firmware, and status of each tape drive of the selected interface type.

- 9 Select the tape drive(s) you want to upgrade and click **Next**. (You can update multiple drives of the same make at the same time.)

The **Update Drive Firmware By Image** screen displays.

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**Note:** If there is more than one page of tape drives, use the **Page 1 of x** arrows to view the additional tape drives.

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**Note:** Bold column headings in the table can be sorted. For example, selecting the **Firmware** column heading will sort by firmware version.

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- 10 Click **Browse**.

The **Choose File** dialog box displays.

- 11 Locate the correct firmware file that you downloaded in [Step 5](#) on page 2 and click **Open**.
- 12 Click **Apply**.

A caution dialog box displays, noting that the affected partition will be taken offline.
- 13 Click **OK**.
- 14 To verify that the tape drive firmware update was successful, do the following:
  - a Log on to the Web client.
  - b From the Reports menu, select **Reports > System Information**.

The **System Information** screen displays. Scroll down to the **Drives** section to see a listing of tape drives and the **Firmware Level** of each tape drive
  - c Verify the correct firmware version displays on the screen.
- 15 If the upgrade fails or a RAS ticket associated with any of the upgraded drives is generated, contact Quantum support.

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### Upgrading Tape Drive Firmware Using Autoleveling

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Follow this procedure if the library has an FC I/O blade or EEB and the tape drives are connected to the FC I/O blade or EEB.

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**Note:** If the tape drives are not directly connected to the FC I/O blade or EEB, see [Upgrading Tape Drive Firmware Using an Image File](#) on page 3.

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- 1 Stop any processes on the host application that are communicating with the tape drive.

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**Caution:** Since tape drives restart after a firmware upgrade, make sure that tape drives are unloaded before upgrading firmware.

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- 2 Unload tape cartridges from all tape drives for which you are upgrading firmware.
- 3 Access the library using the Web client.
- 4 Resolve and close all open RAS tickets before updating firmware.
- 5 From the **Tools** menu, select **Drive Operations**.

The **Tools - Drive Operations** screen displays.
- 6 Select **Upload/remove tape drive firmware for autoleveling** and click **Next**.

The **Tape Drive Firmware Autolevel** screen displays.
- 7 Click **Upload**.

The **Upload Tape Drive Images** screen displays, The screen lists the vendor, type, and interface type of tape drives in the library.

**8 Click Browse.**

The **File Upload** dialog box displays.

**9** Locate and select the correct firmware file that you downloaded in [Step 5](#) on page 2 and click **Open**.

**10 Click Apply.**

A status dialog box displays, showing the progress of the upload.

**11 Click Close.**

**12** Repeat [Step 4](#) on page 3 through [Step 11](#) for each drive firmware file you want to upload.

**13** To begin the firmware update process, do one of the following:

- Reboot the FC I/O blade. Select **Setup > FC I/O Blades** and click **Cycle** next to the appropriate FC I/O Blade.
- Reset the tape drive. Select **Operations > Drives**. Click **Online** next to the appropriate drive, then click **Offline** next to the same drive.
- Reboot the library if you are updating multiple drives at once. Select **Operations > System Shutdown**. Select **Restart** and click **Apply**.

The firmware upgrade will take several minutes to complete. After beginning the firmware update process, wait 5 minutes and watch the operator panel for a success message before proceeding.

**14** To verify that the tape drive firmware update was successful, do the following:

a Log on to the Web client.

b From the Reports menu, select **Reports > System Information**.

The **System Information** screen displays. Scroll down to the **Drives** section to see a listing of tape drives and the **Firmware Level** of each tape drive

c Verify the correct firmware version displays on the screen.

**15** If the upgrade fails or a RAS ticket associated with any of the upgraded drives is generated, contact Quantum support.

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## Resources

For additional information, visit <http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/SI500/Index.aspx> to access the most recent Release Notes and Knowledge Base articles.

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