



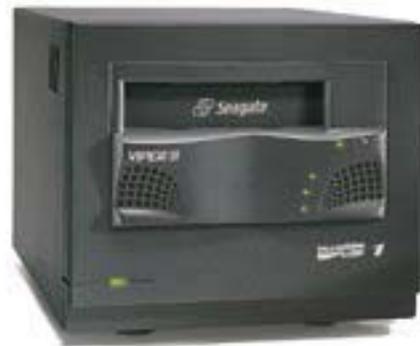
**Application Notes**

Product: CERTANCE ULTRIUM 2  
Firmware Revision: 153R  
Interface: SCSI LVD/HVD

**Tape Drive: CERTANCE Viper 400 LTO-2 Tape Drive**

**Key Features**

- **Supported Media**
  - LTO Ultrium 1 Tape Cartridge
  - LTO Ultrium 2 Tape Cartridge
  - Ultrium Cleaning Cartridge
- **Interfaces**
  - Wide SCSI LVD
  - Wide SCSI HVD
  - Fibre Channel
- **Additional Features**
  - 64 Mb on board cache
  - Dual internal cooling fans



## **NetVault Software:**

### Minimum Release Required

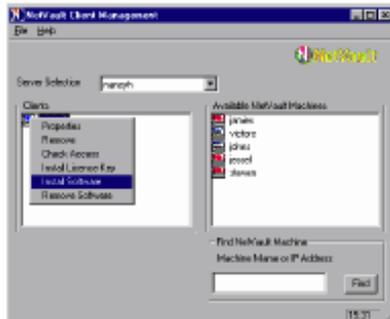
- Version 6 Release:
  - V653\_R021217

### Additional Software Required

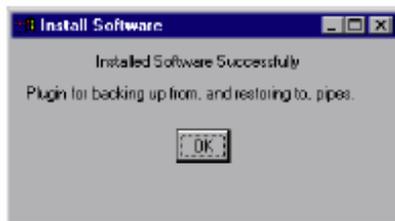
- Device Template(s):
  - SEALT00.npk (viper200.tpl)

**Attention:** Device Template Installation available through the use of standard package installation procedures. Refer to the following for details.

1. Open the NetVault Client Management window by clicking the **Client Management** button on the command toolbar or choosing the **Administration Client Management** command.
2. Select the desired client in the **Clients** list.
3. Choose **Install Software** from the pop-up menu, as shown in the following figure:



4. Navigate to and select the appropriate installation software.
  5. Click **Open** to begin the installation process.
- When the installation is complete, a successful installation message appears in the Install Software dialog box, shown in the following example:



**Installation:**

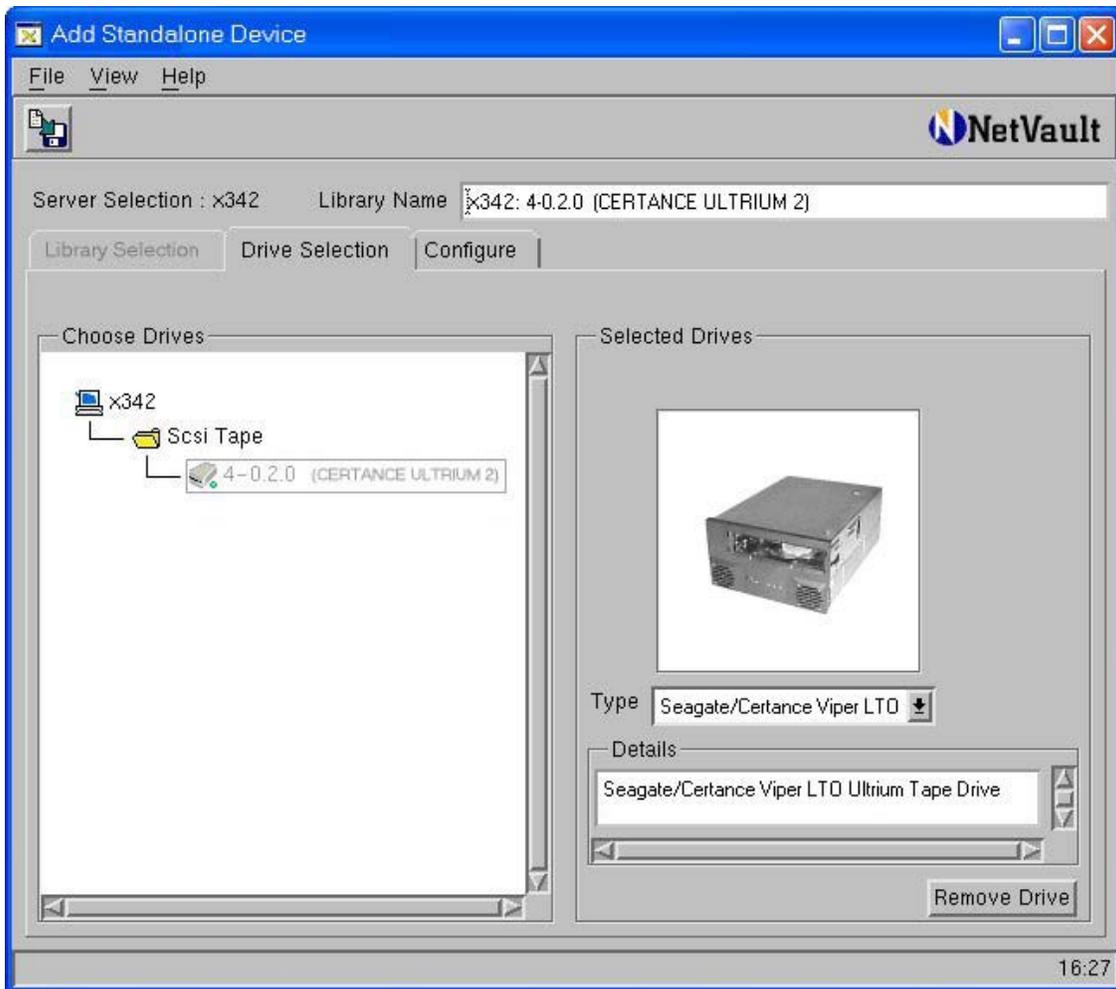
➤ Prerequisites

- ✓ Ensure cabling and termination is configured correctly by referring to the Manufacturer User's Guide.
- ✓ Attach Device to host system by referring to the Manufacturer's Installation Guide.
- ✓ Configure SCSI IDs. For further details refer to the Installation and Operation Manual.
- ✓ Power ON Unit, if required, and allow for the completion of the device's POST (Power-On Self-Test).
- ✓ Power on and boot up host computer system.

➤ Selection of Device within NetVault

❖ Drive Selection

- ✓ Select the Drive Selection tab. Select Server/Client machine and open it to view the attached tape drives.
- ✓ Add the drive by selecting the drive and verify the correct device is displayed in the Selected Drives area on the right. (Refer to Figure 1.)
- ✓ Change the Drive Name if desired or leave as default.



**Figure 1. Drive Addition Within NetVault**

➤ Configuration (for Optimum Performance)

- ✓ Select the Configure Tab, right-click the drive and select Configure, to display the Configure Device dialog box. (Refer to Figure 2 on next page.)
- ✓ Click the Configuration tab in the dialog box and increase the Media block size (Kb) from the default setting of 32 Kb. Ensure your operating system and drive can support the new value entered.
- ✓ Click the Performance tab in the dialog box and increase the default transfer memory buffer setting from the default setting of 257 Kb. Ensure your operating system can support the new value entered.

NOTE: The **Amount of memory to assign to transfer buffers (Kb)** is what is often referred to as the shared memory setting. The shared memory is allocated in 32Kb blocks, with one byte added. The optimum figure is dependent on the drive model, and will be stated in the relevant BakBone Software Benchmark document, but the minimum value to use is at least 4x the block size setting for the drive. Ensure there is sufficient RAM (Windows NT or 2000) or Kernel Memory (UNIX). Use more if available and as required.

- ✓ If there are more drives repeat the above steps for each drive as required.
- ✓ Save device configuration by selecting the "Save Details" button in the top left corner.
- ✓ Select OK for the "Device added successfully" window.
- ✓ Close the "Add Library" window.

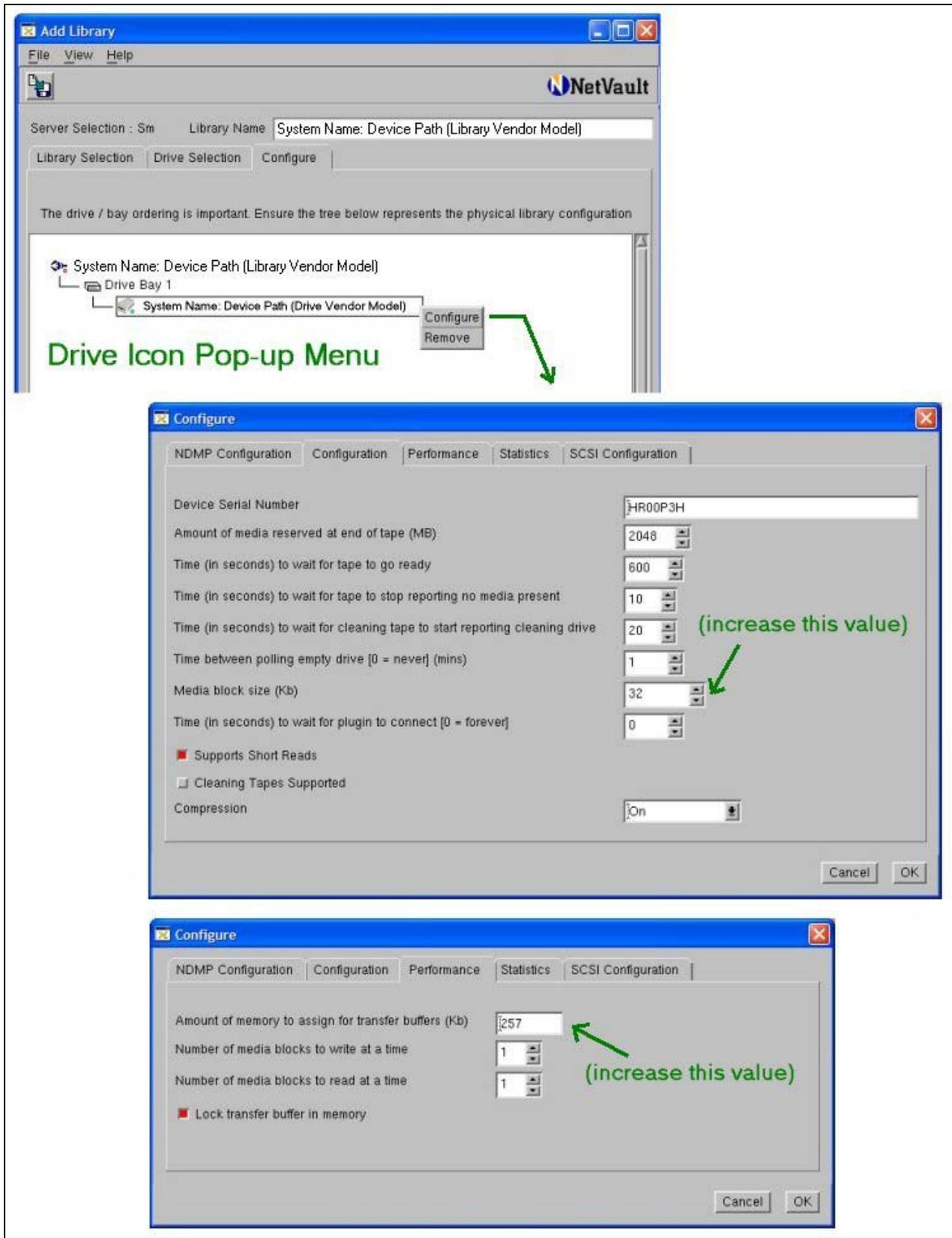


Figure 2. Drive Performance Tuning

**Other information**

**Known Firmware Issues:** Firmware revisions prior to 153R may report back incorrect capacities for tape capacity remaining.

**Device Notes:** The LTO U28 specification (re)defines 1 Gb as 1,000,000,000 bytes instead of the standard 1024 x 1024 x 1024 bytes (1,073,741,824 bytes). Due to this calculation and since NetVault calculates 1 Gb using the 1024 x 1024 x 1024 method, NetVault will see less than 200 Gb per tape natively. Using the U28 spec, 200 Gb = 200,000,000,000 bytes and when NetVault calculates space remaining on an 200 Gb tape, NetVault will only see 186 Gb – 2 Gb (reserve) = 184 Gb. This is correct and normal as full capacities are being attained.

For optimal performance, Certance recommends a block size of 64 Kb and a shared memory setting of 64 Mb (65536 Kb). Note your operating system must be able to support this when configured.

**Cleaning Tape Support:** *NetVault 6.5.3* – Not supported at this time.

**Emulation Mode:** None.