

#### **Application Notes**

Product: Seagate DAT DAT72-400 Firmware Revision: A060 Drive: Seagate DAT DAT72-400 Drive Firmware Revision: A060 Interface: SCSI LVD

# Automated Tape Subsystem: Certance DAT432 Autoloader

#### Key Features

- Tape Slots: 6
- Tape Drives: 1
- Tape Drives Supported
  - o DAT 72
- Supported Media
  - DDS-3 4mm Tape Cartridge
  - o DDS-4 4mm Tape Cartridge
  - DAT 72 4mm Tape Cartridge
  - DDS 4mm Cleaning Cartridge
- Bar Code Reader: Not Supported
- Tape Import/Export Slot: None (Front Door Only)
- Interfaces

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- $\circ \quad \text{Wide SCSI LVD} \\$
- **Additional Features** 
  - o None



## NetVault Software:

### Minimum Release Required

- Version 6 Release:
  - o V653\_R021217

#### Additional Software Required

- Device Template(s):
  - CDATL01.npk (sealdr.tpl)
  - SDAT721.npk (seadat.tpl)

Attention: Device Template Installation available through the use of standard package installation procedures. Refer to the following for details.		
<ol> <li>Open the NetVault Client Management window by clicking the Client Management button on the command toolbar or choosing the Administration Client Management command.</li> <li>Select the desired client in the Clients list.</li> <li>Choose Install Software from the pop-up menu, as shown in the following figure:</li> <li>With the select the appropriate installation software.</li> <li>Navigate to and select the appropriate installation software.</li> <li>Click Open to begin the installation process.</li> </ol>		
the Install Software dialog box, shown in the following example: Install Software Instaled Software Successfully Plugin for backing up from, and restoring to, pipes.		

### 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.
  - Power ON Unit, if required, and allow for the completion of the device's POST (Power-On Self-Test).
  - Ensure default configuration settings on the library front LCD panel. Refer to the Installation and Operation Manual.
  - ✓ Configure SCSI IDs via front panel as desired. This autoloader is a LUN 1 arm device, where the robotic arm changer shows up at LUN 1 under the SCSI ID of the tape drive. Ensure this device is set to unique SCSI ID. The default configuration is target ID 6:LUN 0 for the tape drive and target ID 6:LUN 1 for the robotic arm changer. For further details refer to the Installation and Operation Manual.
  - ✓ Power on and boot up host computer system.
- Selection of Device within NetVault
  - Library Robotic Arm Selection
    - ✓ Select the Device Management Facilities.
    - ✓ Select to Add a Library.
    - ✓ Select Server/Client machine and open it to view attached Robotic Libraries in "Library Selection" tab.
    - ✓ Select Library arm under Library Selection and verify the correct device is displayed in the Selected Library area on the right. (Figure 1.)

🔀 Add Library	
<u>File View Help</u>	
10 (N)	etVault
Server Selection : x342 Library Name x342: 4-0.6.1 (SEAGATE DAT DAT72-400)	
Charse Library	
Selected Libary Selected Libary Selected Libary Selected Libary Selected Libary Type Certance/Seagate DAT A Details Certance/Seagate DAT Autoloader	
	16:35

Figure 1. Library Addition Within NetVault

#### Drive Selection

- ✓ Select the Drive Selection tab. Select Server/Client machine and open it to view the attached tape drives.
- ✓ Add Drive 1 by selecting the drive and verify the correct device is displayed in the Selected Drives area on the right. (Figure 2.)
- ✓ If there are more drives in the library, add the remaining drives, mapping them to each drive bay. Ensure the Drive Bay number is correct before selecting.
- ✓ Change the Library Name if desired or leave as default.

🛛 Add Library		
<u>F</u> ile <u>V</u> iew <u>H</u> elp		
NetVault		
Server Selection : x342 Library Name x342: 4-0.6.1 (SEAGATE DAT DAT72-400) Library Selection Drive Selection Configure Choose Drives Selected Drives Select for drive bay 1 = of 1 Selected Drives Select for drive bay 1 = of 1 Type [Certance/Seagate DAT E] Details [Certance/Seagate DAT Tape Drive]		
Remove Drive		
16:36		

Figure 2. 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 3 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 3. Drive Performance Tuning

## Other information

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Device Notes:	Please note the following device idiosyncracies.
	1. This autoloader requires at least one tape cartridge installed in the autoloader to come ONLINE within NetVault. NetVault will not be able to bring this autoloader ONLINE with no tapes installed.
	2. Do not use the front LCD panel of the autoloader to move, load or unload tapes while NetVault has the device ONLINE. Such operations can cause errors with NetVault. If NetVault is ONLINE, use NetVault to move, load and unload tapes. To eject the magazine from the autoloader, first select "Open Door" in NetVault and then use the Eject Magazine button on the front of the autoloader.
	3. When using a cleaning cartridge, you must configure a CLEANING SLOT first in NetVault. Then install the cleaning cartridge in the pre- defined CLEANING SLOT.
	4. The autoloader and tape drive have the same exact INQUIRY and firmware revision.
Cleaning Tape Support:	NetVault 6.5.3 – Supported. Type: Standard Cleaning Method for Seagate DAT72. Cleaning cartridges must be placed in pre-defined Cleaning Slots only. NetVault will auto-discover unexpected cleaning tape cartridges however such operation will result in the cleaning cartridge being unusable. The remedy for this condition is to configure the slot with the cleaning cartridge installed as a CLEANING SLOT by modifying the library in NetVault.
Emulation Mode:	None.