

Printing Workflow Solutions

AIT Tape Library Configuration Procedure

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Revision History

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00	February 26, 2001	Keith Chan	First Draft
01	March 30, 2001	Keith Chan	Second Draft, Remove ADIC FastStor 215 and Replace it with Qualstar TLS-4222.
02	June 7, 2001	Keith Chan	Third updates.
03	August 10, 2001	Keith Chan	First Release, Add contents to section 7; Document P/N Assigned; Add PE2500, Data General Server diagrams.
A	October 12, 2001	Keith Chan	Add checking/updating Library FW section, Add P/N references. Remove FW version number from the FW procedure title, identifying Exec. Board steps.
B	December 18, 2001	Miranda Alldritt/ Keith Chan	Added information on the Sony TSL-SA500C autoloader. KC Reviewed and removed change tracking.
C	May 23, 2002	Miranda Alldritt	Added firmware upgrade procedure for the Sony TSL-SA500C autoloader.
D	July 3, 2002	Amy Chan	Added installation procedure for Single AIT tape drive.
E	July 30, 2002	Keith Chan	Added PE4600 and 6600 Server + minor updates on SCSI controllers/connectors.
F	March 27, 2003	Amy Chan	Updated AIT tape driver to 2.0.0.8 or higher Added more steps to install medium changer for Qualstar.
G	August 18, 2004	Philip Samaniego	Added information on logically partitioning Qualstar libraries. Took out info on PE6600 and libraries larger than TLS-4480. Referenced server SCSI setup to Dell Server Hardware Setup, 72-3572A.
H	December 9, 2004	Philip Samaniego	Added RLS-4221, TLS-412xxx and TLS-46120.
H	Dec 22, 2004	K. DeCarle	Proofread, edit as required, create ECO.
J	28 Aug, 2006	Philip Samaniego	Updated for ECO CA10536. Applied Kodak template and edits as per Doc Group Ed.

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1. SCOPE

This document describes how to pack, unpack, configure, and test Sony® AIT Tape drive-based Qualstar TLS and RLS libraries and the Sony TSL-SA500C autochanger, to be connected to the Kodak® Prinergy® servers.

1.1 Prerequisites and Items Required

This document assumes that:

- You will connect the tape library to a Prinergy primary or secondary server.
- You are running Microsoft® Windows® 2000 with Service Pack 4.
- You are running Prinergy 2.0.7.x (or later).
- You have Sony AIT-2/AIT-3 tape device driver version 3.0.0.9 (or a later qualified version). This driver is available on the Prinergy W2K Resource CD (Rev A-M or later). You can also download it from http://techplanet.creo.com/.
- You have the Sony TSL SA500C medium changer device driver version 1.00.1, which is available on the driver floppy disk included in the Sony autoloader kit (for the Sony autoloader only). This driver is also available on the Prinergy W2K Resource CD (Rev. A-C or later). You can also download it from http://techplanet.creo.com/.
- You have the Adaptec Ultra160 Low Voltage Differential (LVD) SCSI controller device driver, version 6.1.6300.100 (or a later qualified version) for the Dell® PE6400 onboard 7899 SCSI Controller or the Adaptec PCI-based dual-channel AHA39160 Ultra160 SCSI Controller. This driver is available on the Prinergy W2K Resource CD (Rev A-P or later). You can also download it from http://techplanet.creo.com/.

Ensure that you have the following items before you start:

- An available LVD SCSI port. If there is no available LVD SCSI port, order the appropriate LVD SCSI adapter for the Prinergy server, according to the following guideline:
  - Adaptec dual-channel AHA39160 Ultra160 LVD SCSI controller (part number 94-3220), if connecting to a Dell PowerEdge™-based Prinergy server
  - Adaptec AHA2940U2W SCSI controller (part number 94-3053), if connecting to a Data General® Aviion Prinergy server
- Cross-head and flat-head screwdrivers
- SCSI cable supplied with the tape library, as indicated below
  - For a Dell PowerEdge 6400 server (unless using an AHA39160 adapter) or a Data General Aviion server, use a HD68-to-HD68 SCSI cable (part number 16-4492).
  - For other Dell PowerEdge servers (except the PowerEdge 6400, if using an onboard Adaptec 7899 SCSI adapter), use a VHD68-to-HD68 SCSI cable (part number 16-4491) with the Adaptec dual-channel AHA39160 Ultra160 LVD SCSI controller (part number 94-3220).
- If a Qualstar library will be logically partitioned (two hosts), see *Appendix A - Configuring Qualstar Libraries Into Two Logical Partitions* on page 33.
  - You must have two LVD SCSI ports per host. One port is connected to the medium changer bus, and the other port is connected to the drive bus. If there are not enough LVD SCSI ports, verify

whether there is an available compatible slot, and order an AHA39160 (part number 94-3220) for Dell platforms or an Adaptec 2940U2W/Data General (part number 94-3053) for Data General platforms.

- Four external SCSI cables. Order the following additional SCSI cables as required to match the SCSI host adapter ports:
  - HD68 Male-to-HD68 Male (part number 16-4492), 6 feet long, for use with internal Adaptec 7899 in PowerEdge 6400 or SCSI host adapters in Data General platforms
  - VHD68 Male-to-HD68 Male (part number 16-4491), 6 feet long, for use with all Dell platforms except the PowerEdge 6400 (**Note**: An add-on AHA39160 adapter in a PowerEdge 6400 also uses this cable.)
- Logical partition kits:
  - TLS-42xx (part number 518-00841A)
  - TLS-44xx (part number 518-00852B)
  - RLS-4221: Order 1 x 16-4501, External LVD SCSI terminator
  - For larger libraries, contact Kodak GCC Product Development\Technology Infrastructure Solutions
- **RSMCONFG.exe** from the Windows 2000 Resource Kit
- A box of five blank AIT-2 or AIT-3 tapes with bar code labels

1.2 References

- *Dell Server Hardware Setup* (part number 72-3572A)
- *Qualstar TLS-4000 Library Installation and Operation Manual* (Qualstar part number 501370)
- *Qualstar RLS Library Installation and Operation Manual* (Qualstar part number 501500)
- *Qualstar TLS-412xxx Library Installation and Operation Manual* (Qualstar part number 501300)
- *Qualstar TLS-4000 Technical Service Manual* (Qualstar part number 501380)
- *Sony TSL SA500C User Guide*
- *AIT Tape Drive Installation and Operations Manual*

2. CONFIGURING THE PRINERGY SERVER

All tape libraries mentioned in this procedure use the LVD SCSI interface.

- If the customer uses a Dell PowerEdge 6400 or Data General AV3700 server, the dual-channel SCSI controller integrated into the server motherboard provides an LVD SCSI interface to the tape library. If a channel is available, you will supply the appropriate type of SCSI cable (HD68-to-HD68, part number 16-4492). Note that an additional LVD SCSI channel for each host is required when logically partitioning the tape library. If there are no available LVD SCSI channels, you should provide the appropriate SCSI adapter.
- On the Data General AV3700 server, one channel of the SCSI controller is used for the system internal disks. If the customer needs an additional SCSI channel for the tape library, you must add a PCI LVD SCSI controller. Because the Adaptec dual-channel AHA39160 Ultra160 PCI SCSI controller is *not* qualified on this server, use the Adaptec 2940U2W/DG (part number 94-3053).

- For all Dell servers except the PowerEdge 6400, use a Dell/Adaptec dual-channel AHA39160 Ultra160 PCI SCSI controller (part number 94-3220) to provide the appropriate SCSI interface.
  The AHA39160 adapter requires a VHD68-HD68 SCSI cable (part number 16-4491).

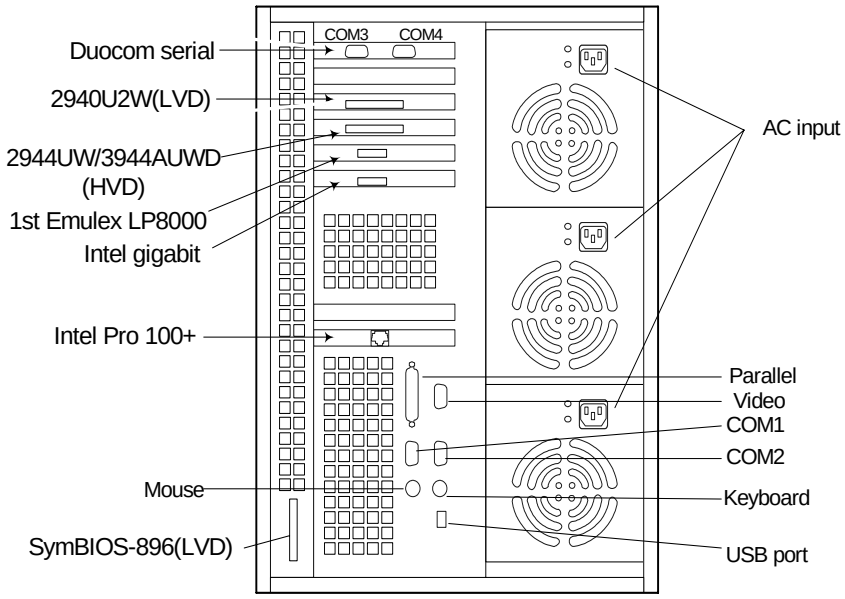
2.1 Installing an Adaptec AHA39160 SCSI Controller in Dell Servers

To install the SCSI adapters in Dell servers, use the procedures in *Dell Server Hardware Setup*, part number 72-3572A.

2.2 Installing an Adaptec AHA2940U2W SCSI Controller (Legacy Servers)

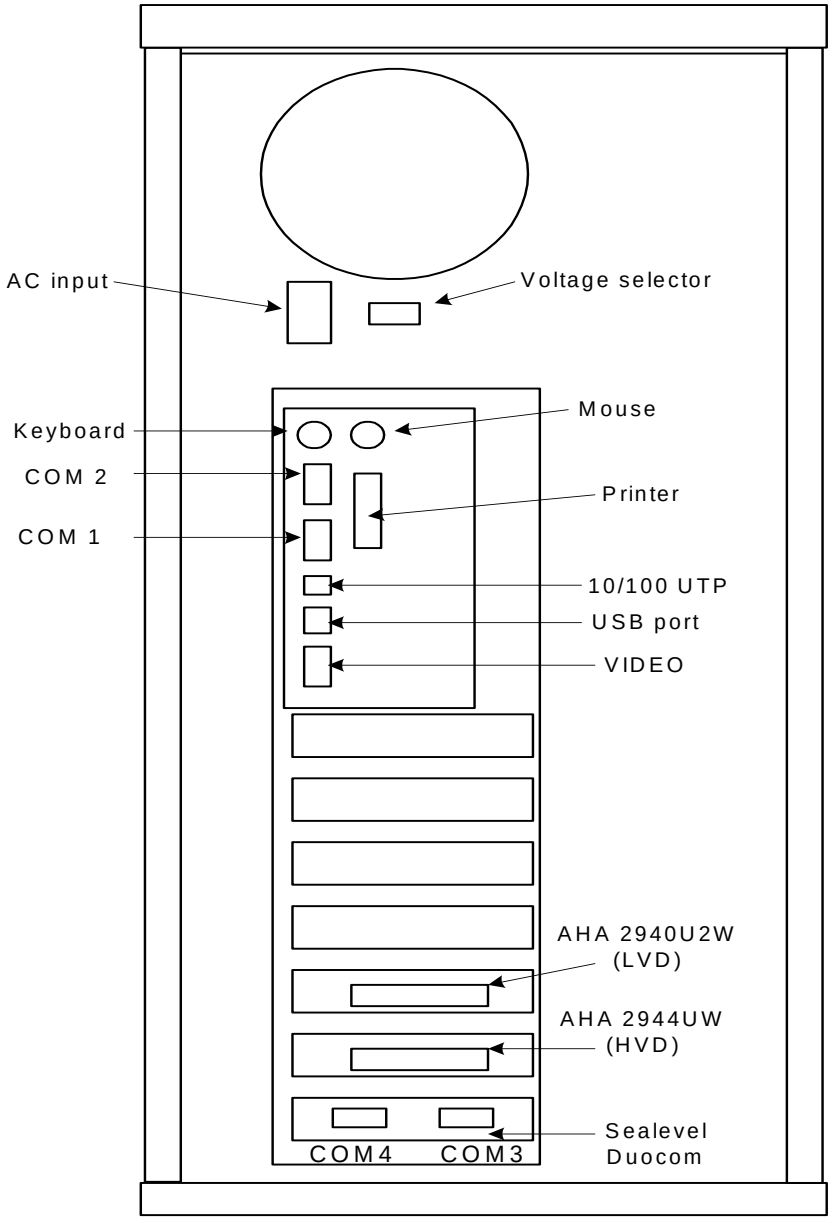
EMC/Data General AV3700 Server

If the SymBIOS-896 LVD port is not available, install the PCI SCSI controller in the slot labeled 2940U2W (LVD), as shown in the following server diagram.



EMC/Data General AV2300 Server

Install the PCI SCSI controller in the slot labeled 2940U2W (LVD), as shown in the following diagram.



2.3 Configuring SCSI Controller BIOS Settings

Use the following table to configure the SCSI channels used for the tape devices. At the SCSI BIOS prompt, press **CTRL+A** to start the Adaptec SCSI Select Utility.

Parameter	Value	Comments
Reset SCSI Bus at IC Initialization	Enabled or Disabled	Disable only for logically partitioned libraries. Disable the channel connected to the medium changer.
Host Adapter BIOS	Disabled	Set for all channels
Bus Scanning	Enabled	Set for all channels
Initiate Wide Negotiation	Yes	Set for all SCSI ID numbers
Enable Disconnection	Yes	Set for all SCSI ID numbers
Include in BIOS Scan	Yes	Set for all SCSI ID numbers
Send Start Unit Command	No	Set for all SCSI IDs

Retain all other default settings.

3. CONFIGURING THE QUALSTAR TLS-412XXX

The TLS-412xxx supplied by Kodak is available in two versions: the TLS-412180 (180 slots), and the TLS-412360 (360 slots). The TLS-412180 may come with four or six drives, and the TLS-412360 comes with six drives. You can upgrade either version to a maximum of twelve drives.

3.1 Unpacking

1. The tape library includes the following items. Set these items aside to be used later.
   - One power cord
   - Two door keys
   - *Qualstar Installation and Operation Manual* (part number 501300)
   - 18 or 36 magazines (TLS-412180 or TLS-412360, respectively)
   - Bar code tape labels
   - Four SCSI bridge cables (Qualstar part number 501087-01-9)
   - Four VHD68-HD68 SCSI cables (Qualstar part number 738-0127-6)
   - Five AIT-3 tapes
   - One AIT cleaning tape
2. For information on unpacking the tape library unit, see Section 2 of the *Qualstar Installation and Operation Manual*.

   Note: Keep all packing materials in case you need to re-pack the unit for shipping.
3. Section 3 of the *Qualstar Installation and Operation Manual* provides the product description. It contains information about identifying the Qualstar product model-numbering scheme and the names of all the major assemblies that make up the tape library. *Kodak strongly recommends that you read Section 3 of the Qualstar Installation and Operation Manual to understand the Qualstar product terminology.*

3.2 Configuration Setup

Mounting the Tape Cartridge Magazines

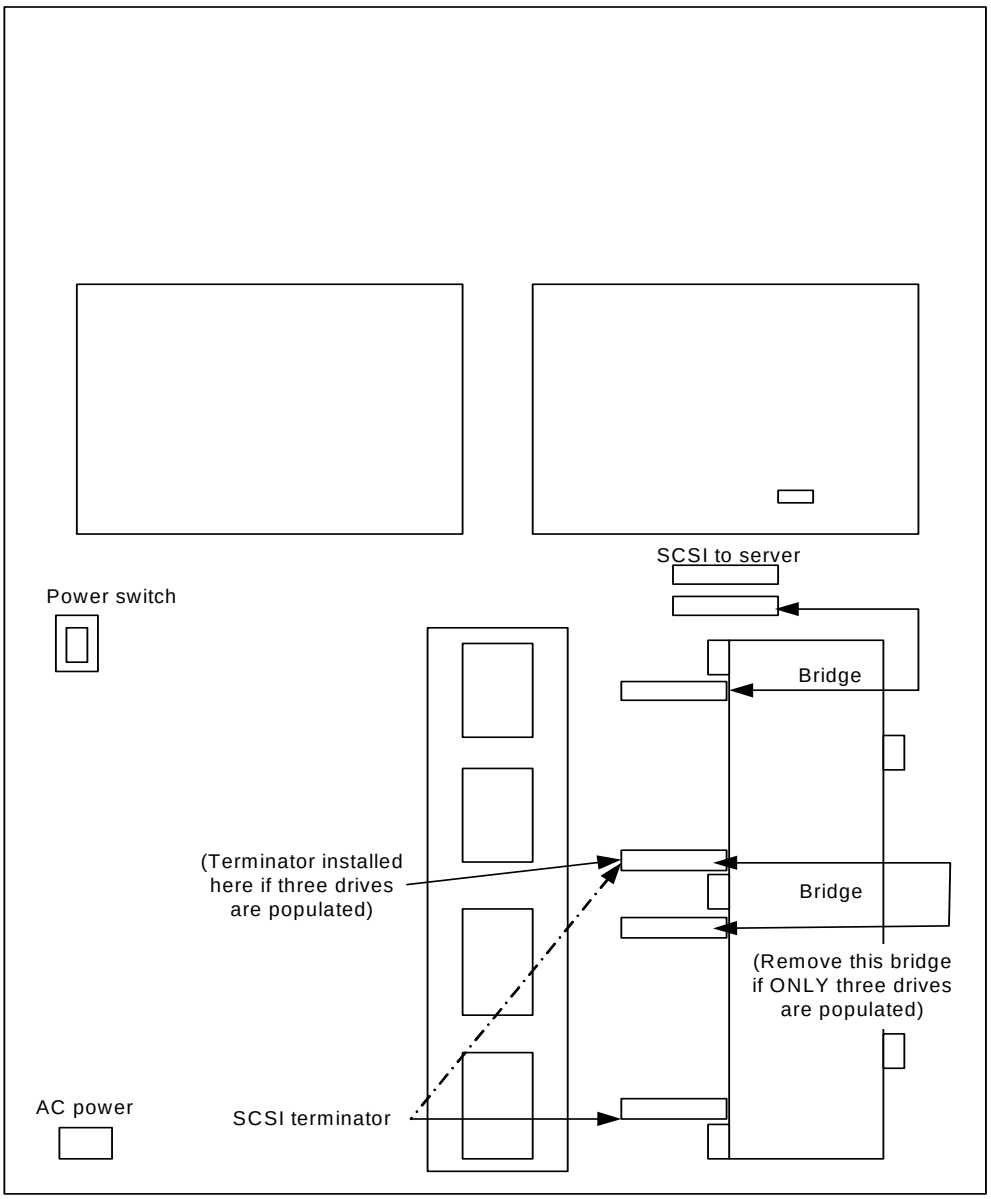
Section 5 of the *Qualstar Installation and Operation Manual* describes the magazine installation procedure. Depending on the model ordered, you may need to install up to 36 magazines.

Configuring the SCSI Bus

For library logical partitioning, contact Kodak GCC Product Development\Technology Infrastructure Solutions.

The tape library is shipped with two buses, which is the default SCSI bus configuration. Each bus has three drive connections.

Configure the unit (with up to six AIT tape drives installed) into a single SCSI bus configuration. To do this, install the two optional bridges (Qualstar part number 501087-01-9, 1-foot, black HD68-to-HD68 SCSI cable), as shown in the following illustration.



The single SCSI bus configuration, including the tape changer (robotic tape carrier) at SCSI ID 0 and six AIT tape drives with SCSI IDs numbers 1 to 6, is installed on the left side of the tape library. Because it uses a Wide Ultra2 SCSI (80 MBps) interface, there is sufficient data bandwidth for a single SCSI bus to simultaneously drive all six tape drives at full speed (approximately 11 MBps per drive).

If the customer orders a 12-drive configuration, the additional six tape drives are installed on the right side of the tape library. The drives are connected to the second channel of the dual-channel SCSI controller that is installed in the server.

3.3 Packing

Use the original packing materials when packing the tape library. For packing instructions, see the *Qualstar Installation and Operation Manual*.

4. CONFIGURING THE QUALSTAR TLS-46120

The four-drive TLS-46120 supplied by Kodak is expandable to six drives.

4.1 Unpacking

1. The tape library includes the following items. Set these items aside to be used later.
   - One power cord
   - Two door keys
   - *Qualstar Installation and Operation Manual* (part number 501370)
   - 12 magazines
   - Bar code tape labels
   - One SCSI bridge cable (Qualstar part number 501087-01-9, Kodak part number 16-4493))
   - Two VHD68-to-HD68 SCSI cables (Qualstar part number 738-0127-6, Kodak part number 16-4491)
   - Two LVD SCSI terminators (Qualstar part number 117-0011-9, Kodak part number 16-4501)
   - Five AIT-3 tapes
   - One AIT cleaning tape
2. For information on unpacking the tape library unit, see Section 2 of the *Qualstar Installation and Operation Manual*.

   Note: Keep all packing materials in case you need to re-pack the unit for shipping.
3. Section 3 of the *Qualstar Installation and Operation Manual* provides the product description. It contains information about identifying the Qualstar product model-numbering scheme and the names of all the major assemblies that make up the tape library. *Kodak strongly recommends that you read Section 3 of the Qualstar Installation and Operation Manual to understand the Qualstar product terminology.*

4.2 Configuration Setup

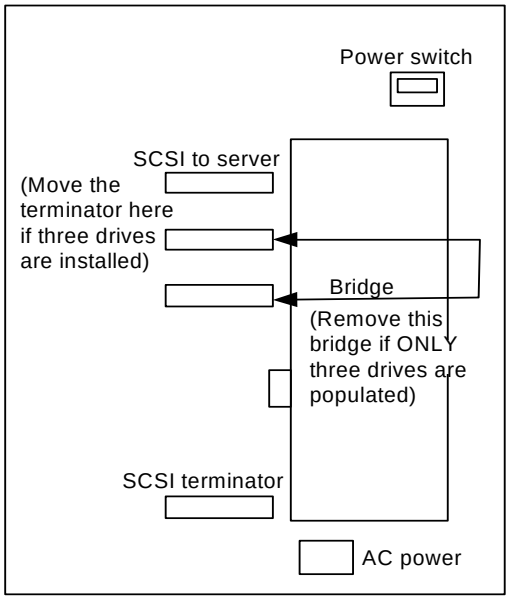
Mounting the Tape Cartridge Magazines

For magazine installation instructions, see the *Qualstar Installation and Operation Manual*. You may need to install up to 12 magazines.

Configuring the SCSI Bus

Note: For library logical partitioning, contact Kodak GCC Product Development\Technology Infrastructure Solutions.

The tape library is shipped with the two SCSI buses. Configure the unit into a single SCSI bus configuration. To do this, install the optional bridge (Qualstar part number 501087-01-9, 1-foot, black HD68-to-HD68 SCSI cable) as shown in the following illustration.



The single SCSI bus configuration includes the tape changer (robotic tape carrier) at SCSI ID 0 and the Sony AIT tape drives, starting at SCSI ID 1. Because it uses a Wide Ultra2 SCSI (80 MBps) interface, there is sufficient data bandwidth for a single SCSI bus to simultaneously drive all six tape drives at full speed (approximately 11 MBps per drive).

4.3 Packing

Use the original packing materials when packing the tape library. For packing instructions, see the *Qualstar Installation and Operation Manual*.

5. CONFIGURING THE QUALSTAR TLS-44XX

5.1 Unpacking

1. The tape library includes the following items. Set these items aside to be used later.
   - One power cord
   - Two door keys
   - *Qualstar Installation and Operation Manual* (part number 501370)
   - Eight magazines
   - Bar code tape labels
   - One SCSI bridge cable (Qualstar part number 501087-01-9, Kodak part number 16-4493))
   - Two VHD68-to-HD68 SCSI cables (Qualstar part number 738-0127-6, Kodak part number 16-4491)
   - Two LVD SCSI terminators (Qualstar part number 117-0011-9, Kodak part number 16-4501)
   - Five AIT-3 tapes
   - One AIT cleaning tape
2. For information on unpacking the tape library unit, see Section 2 of the *Qualstar Installation and Operation Manual*.

   Note: Keep all packing materials in case you need to re-pack the unit for shipping.
3. Section 3 of the *Qualstar Installation and Operation Manual* provides the product description. It contains information about identifying the Qualstar product model-numbering scheme and the names of all the major assemblies that make up the tape library. *Kodak strongly recommends that you read Section 3 of the Qualstar Installation and Operation Manual to understand the Qualstar product terminology.*

5.2 Configuration Setup

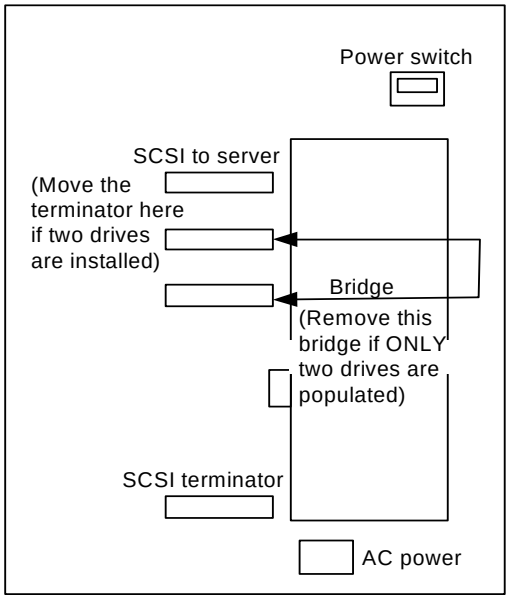
Mounting the Tape Cartridge Magazines

For magazine installation instructions, see the *Qualstar Installation and Operation Manual*. You may need to install up to eight magazines.

Configuring the SCSI Bus

Note: For information about library logical partitioning, see *Appendix A - Configuring Qualstar Libraries Into Two Logical Partitions* on page 33.

The tape library is shipped with two buses, which is the default SCSI bus configuration. Each bus has two drive connections. Configure the unit (with up to four AIT tape drives installed) into a single SCSI bus configuration. To do this, install the optional bridge (Qualstar part number 501087-01-9, 1-foot, black HD68-to-HD68 SCSI cable) as shown in the following illustration.



The single SCSI bus configuration includes the tape changer (robotic tape carrier) at SCSI ID 0 and four Sony AIT tape drives with SCSI IDs numbers 1 to 4 in the tape library. Because it uses a Wide Ultra2 SCSI (80 MBps) interface, there is sufficient data bandwidth for a single SCSI bus to simultaneously drive all four tape drives at full speed (approximately 11 MBps per drive).

5.3 Packing

Use the original packing materials when packing the tape library. For packing instructions, see the *Qualstar Installation and Operation Manual*.

6. CONFIGURING THE QUALSTAR TLS-42XX

6.1 Unpacking

1. The tape library includes the following items. Set these items aside to be used later.
   - One power cord
   - Two door keys
   - Bar code tape labels
   - *Qualstar Installation and Operation Manual* (part number 501370)
   - One or two magazines (depending on model)
   - One VHD68-to-HD68 SCSI cable (Qualstar part number 738-0127-6)
   - One LVD SCSI terminator (Qualstar part number 117-0011-9, Kodak part number 16-4501)
   - Five AIT-3 tapes
   - One AIT cleaning tape
2. For information on unpacking the tape library unit, see Section 2 of the *Qualstar Installation and Operation Manual*.

   Note: Keep all packing materials in case you need to re-pack the unit for shipping.

6.2 Configuration Setup

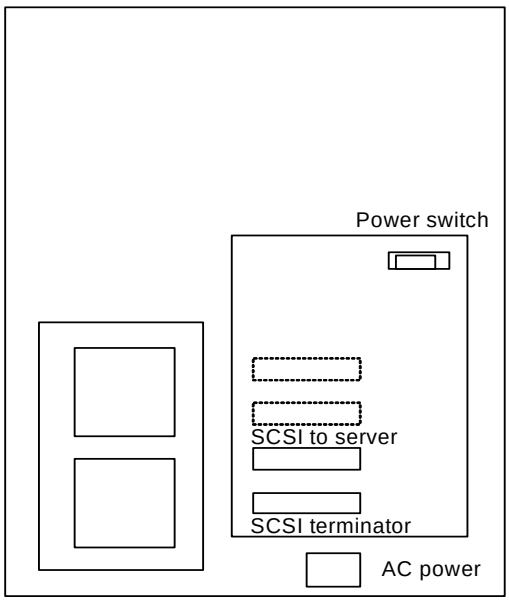
Mounting the Tape Cartridge Magazine

For magazine installation instructions, see the *Qualstar Installation and Operation Manual*. You may need to install two magazines.

Configuring the SCSI Bus

For information about library logical partitioning, see *Appendix A - Configuring Qualstar Libraries Into Two Logical Partitions* on page 33.

The tape library is shipped with one bus that includes one or two tape drives and the changer, which is the default SCSI bus configuration. This configuration is shown in the following illustration.



The single SCSI bus configuration includes the tape changer (robotic tape carrier) at SCSI ID 0 and one or two Sony AIT tape drives with SCSI IDs numbers 1 to 2 in the library. Because it uses a Wide Ultra2 SCSI (80 MBps) interface, there is sufficient data bandwidth for a single SCSI bus to simultaneously drive two tape drives at full speed (approximately 11 MBps per drive).

6.3 Packing

Use the original packing materials when packing the tape library. For packing instructions for the library, see the *Qualstar Installation and Operation Manual*.

7. CONFIGURING THE QUALSTAR RLS-4221

7.1 Unpacking

1. The tape library includes the following items. Set these items aside to be used later.
   - One power cord
   - Two door keys
   - Bar code tape labels
   - *Qualstar Installation and Operation Manual* (part number 501500)
   - Four magazines
   - One VHD68-to-HD68 SCSI cable (Qualstar part number 738-0127-6)
   - One LVD SCSI terminator (Qualstar part number 117-0011-9, Kodak part number 16-4501)
   - One SCSI cable, HD68M-to-HD68M, flat, for daisy-chaining the drives
   - One SCSI cable, HD68M-to-HD68M, round, for daisy-chaining the tape changer to the drives
   - One rack-mount kit
   - Five AIT-3 tapes
   - One AIT cleaning tape
2. For information on unpacking the tape library unit, see Section 2 of the *Qualstar Installation and Operation Manual*.

   Note: Keep all packing materials in case you need to re-pack the unit for shipping.

7.2 Configuration Setup

Rack Mounting the Library

For instructions on installing the tape library in a rack, see the *Qualstar Installation and Operation Manual*.

Mounting the Tape Drive and Cartridge Magazine

For instructions on installing the drives and magazines, see the *Qualstar Installation and Operation Manual*. You may need to mount up to four magazines and one or two tape drives.

Configuring the SCSI Bus

For information about library logical partitioning, see *Appendix A - Configuring Qualstar Libraries Into Two Logical Partitions* on page 33.

Daisy-chain the tape changer and drives into one SCSI bus. The SCSI that you need is included with the tape library. For details, see the *Qualstar Installation and Operation Manual*.

The single SCSI bus configuration includes the tape changer (robotic tape carrier) at SCSI ID 0 and two Sony AIT tape drives with SCSI IDs numbers 1 to 2 in the tape library. Because it uses a Wide Ultra2 SCSI (80 MBps) interface, there is sufficient data bandwidth for a single SCSI bus to simultaneously drive two tape drives at full speed (approximately 11 MBps per drive).

7.3 Packing

Use the original packing materials when packing the tape library. For packing instructions for the tape library, see the Qualstar *Installation and Operation Manual*.

8. CONFIGURING THE SONY TSL SA500C

8.1 Unpacking

1. The tape library includes the following items. Set these items aside to be used later.
   - One power cord
   - One *Sony AIT Autoloader Unit User Guide*
   - One magazine
   - One HD68-to-HD68 SCSI cable (Qualstar part number 738-0126-8) or VHD68-HD68 (Qualstar part number 738-0127-6)
2. See Chapter 2 of the *Sony AIT Autoloader User Guide* before you unpack the tape library unit.

   Note: Keep all packing materials in case you need to re-pack the unit for shipping.

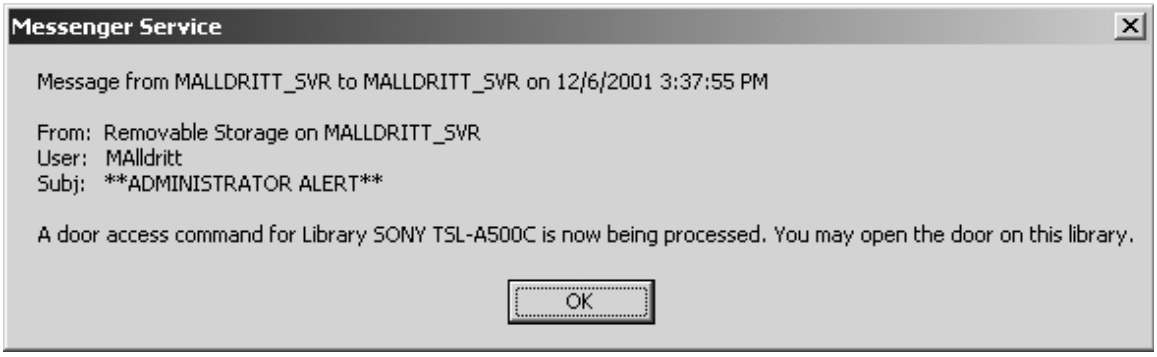
8.2 Considerations for Using the Sony TSL-SA500C Autoloader

Tape Magazine

Before you load the magazine, always ensure that is has four tapes installed. The autoloader rotates tapes within the magazine in order to mount a particular tape. If fewer than four tapes are loaded, the mechanism will not work correctly and the autoloader or tapes may be damaged.

Ejecting the Magazine

1. In the Removable Storage Media (RSM) Console, right-click the tape library.
2. From the **Context** menu, select **Door access**.
3. When the Messenger Service dialog box appears, click **OK**.



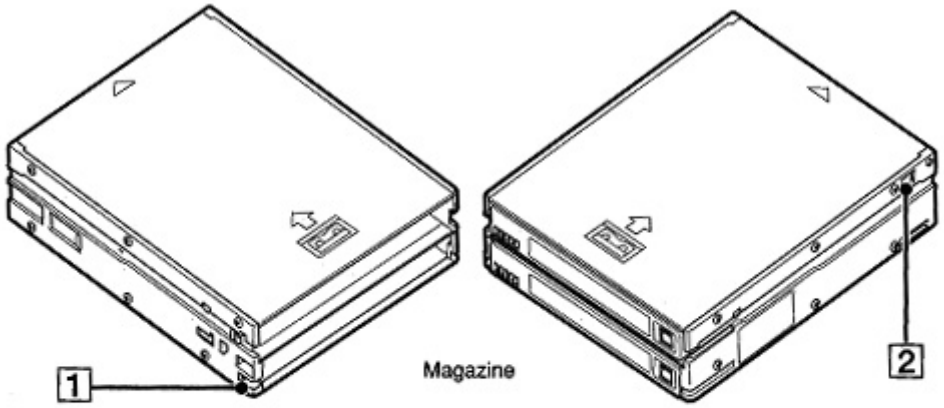
2. To remove the magazine, press the **Eject** button on the front of the autoloader.

   Note: If the busy light is on, pressing the **Eject** button on the front of the autoloader has no effect. The door access function verifies if the autoloader is ready to eject the magazine. If any tapes are currently in use in the drive, the door access command fails.

Removing Tapes From the Magazine

You remove tape cartridges from the lower-front slot of the magazine.

1. Push the button [1] that is located on the lower-left front side and tilt the magazine forward. The first tape slides out.
2. Remove the first tape, and then rotate the remaining tapes through the magazine, pushing the button to remove each tape.

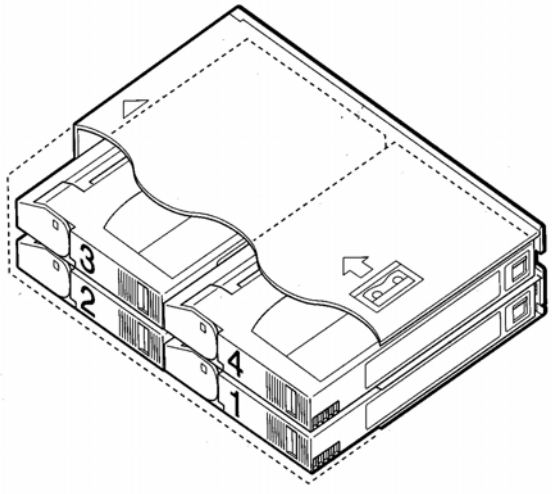


1 Button
Press the button to remove cartridges from the magazine. Refer to page 33 to load cartridges, and to page 35 to remove cartridges.

2 Write protect tab
Used to inhibit writes to data cartridges. Sliding this tab to the right write-protects all data cartridges, whether or not write protection is set on the individual data cartridges.

Loading Tapes Into the Magazine

You can load tapes from the top or bottom of the magazine. Push the first tape into the back slot of the magazine, leaving room for additional tapes at the front. Tape cartridges are numbered as shown in the following illustration. Always load tape cartridges with the label facing you.



For more information on loading and unloading the magazine and how to use and read the front panel of the autoloader, see the *Sony AIT Autoloader Unit User Guide*.

8.3 Configuration Setup

Mounting the Tape Cartridge Magazine

The autoloader magazine is removed when tapes are ejected from the tape library. For instructions on loading the magazine and inserting it into the tape library, see Chapter 3 of the *Sony AIT Autoloader Unit User Guide*, pages 33 to 37,.

Configuring the SCSI Bus

The autochanger uses one SCSI ID with distinct LUNs (logical unit numbers) for the changer and one SCSI ID for the drive. No special cabling is required. The autochanger can be treated as a single SCSI device. However, ensure that you follow the proper procedures for SCSI bus termination and cabling.

8.4 Sony TSL SA500C Firmware Upgrade Procedure

1. Ensure that the autoloader is connected to the bus, turned on, and has no tape cartridge or tape magazine loaded in it. Press the **Eject** button to eject the tape magazine, if necessary.
2. In the computer management software, stop the RSM service.
3. On the Resource CD, locate **fwtools_TSLA500C_<version>** and double-click the **.exe** file.

   A welcome screen and license agreement appear in the Sony upgrade utility window.
4. Click **Agree** to accept the terms of the license agreement.
5. Click **Continue**.

   A dialog box appears, showing a list of the AIT autoloader devices that are attached to the system.

   The model and current firmware revision for each device appears at the bottom of the dialog box,.
6. Select the device to upgrade and click **Upgrade firmware**.

   A confirmation dialog box appears.
7. Click **Yes** to start the firmware upgrade. The upgrade will take approximately 1–2 minutes.

   Do not turn the drive off and back on during the upgrade process—doing this may damage the drive so that it is inoperable.

   A completion notice appears in the upgrade window at the end of the firmware upgrade process.
8. In the computer management software, restart the RSM service.
9. Insert the tape magazine and check whether all devices are functioning correctly.

9. CONFIGURING THE QUALSTAR SINGLE AIT TAPE DRIVE

9.1 Unpacking

The single AIT-2 tape drive includes the following items. Set these items aside to be used later.

- One power cord
- *AIT Tape Drive Installation and Operations Manual*
- One VHD68-to-HD68 (Qualstar part number 738-0127-6)

9.2 Configuration Setup

See *Configuring Windows 2000 Single Tape Drive/Library Device Drivers.*

Ensure that you follow the proper SCSI bus termination and cabling procedures.

10. CONFIGURATION TESTS

This section describes how to configure Windows 2000 RSM Console on the Prinergy server to establish the interface between Windows 2000 software (such as Windows 2000 Backup Utility and Prinergy Archiver) and the single tape drive/library. After successful completion of the configuration, the single tape drive/library unit will be ready for normal operation.

10.1 Connecting the Tape Device to the Server

WARNING: The two VHD-68 SCSI ports (PCI slot 5) on the PE 6400 server are for the PERC 2/DC internal RAID Controller. Never connect external SCSI devices to these ports.

Connecting to a Dell PowerEdge 6400 or Data General AV3700 Server

1. Connect one end of the HD68-to-HD68 (high-density male 68-pin) connector of the supplied SCSI cable to the appropriate SCSI port on the server's Adaptec dual-channel 7899 Ultra160 SCSI controller port A (one of the two vertical 68-pin SCSI connectors).
2. Connect the other end (HD68) of the SCSI cable to the tape library SCSI port A.

Connecting to Other Dell PowerEdge Servers

1. Connect the VHD68 (very high-density male 68-pin) connector of the supplied VHD68-to-HD68 SCSI cable to the appropriate SCSI port on the server (port A of the Adaptec dual-channel AHA39160 Ultra160 SCSI controller).
2. Connect the other end (HD68) of the SCSI cable to the tape library SCSI port A.

Turning On the Devices

1. Plug the power cord of the tape library into the wall power outlet.
2. Turn on the tape library unit and wait for the library to complete its inventory.
3. Turn on the server and check that the tape library's robotic picker and all tape drive devices are listed on the appropriate SCSI controller channel.

10.2 Windows 2000 RSM

Validating the Qualstar Changer Firmware Version (Qualstar libraries only)

Kodak qualification tests have confirmed that Qualstar AIT tape library units with firmware versions earlier than 2.11D will experience a problem. The IO port will extend and then retract prematurely after a `tape inject` command is issued from the RSM Console. This action can cause tapes that are being injected to fall off of or get stuck in the IO port. This section describes procedures to verify the firmware version and to upgrade it if necessary.

Sony has replaced the AIT-3C tape drive with the AIT-3V tape drive. To support the AIT-3V drive, Qualstar libraries must have firmware version 2.23 or later installed. AIT-3V drives have a seven-digit serial number that starts with 135 (for example, 135xxxx). AIT-3V drives have green LED lights, and AIT-3C drives have blue LED lights.

Verifying Library Executive Board and Firmware Version (Qualstar libraries only)

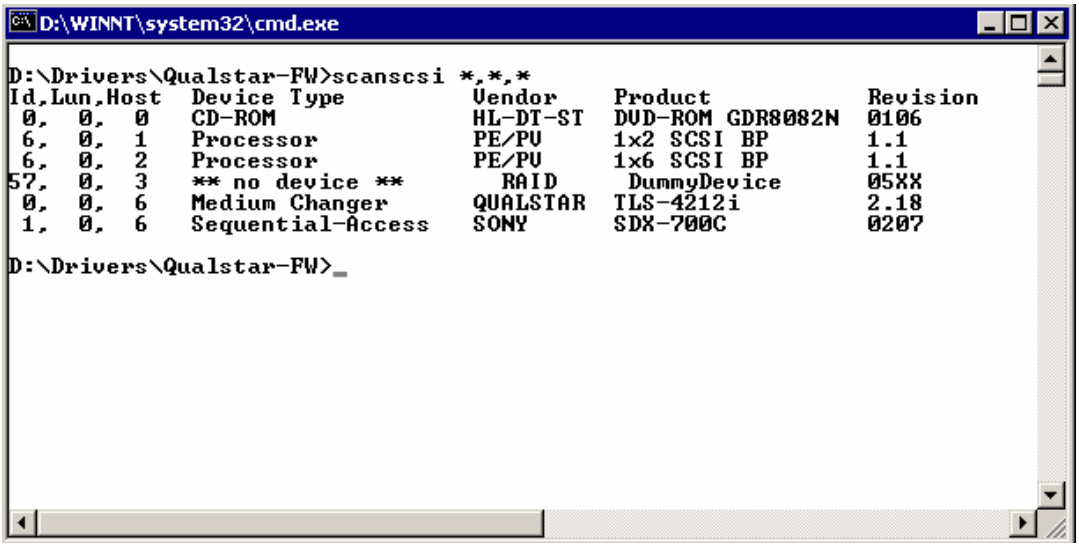
1. With the tape library running and fully initialized, on the Operator panel, press the **MENU** key, and select **Maintenance > Display Revision**.
2. Verify that **Revision** indicates firmware version 2.11D or later (2.23 for a library with an AIT-3V drive). If the firmware is not 2.11D or later, you must upgrade the firmware.
3. If a firmware upgrade is required, verify that the **Part number** indicates version **700115** or **700105**. Use the firmware file name that matches the indicated part number to perform the upgrade procedure.
4. Press the **EXIT** key three times to exit all menu screens.

Upgrading the Library Firmware (Qualstar libraries only)

The Library Firmware Update Utility is included in the W2K Resources CD, or you can download it from http://techplanet.creo.com/.

Verifying the Changer SCSI Bus ID (Qualstar libraries only)

Type: `SCANSCSI *,*,* >` and press `ENTER`. The output will be similar to:



This system has a Qualstar library with an ID, LUN, Host identification of 0, 0, 6.
You will use this ID, LUN, and Host identification in the following update procedure.

Uploading and Installing the New Firmware (Qualstar libraries only)

1. To begin the tape library firmware update, type: `upload <ID,LUN,HOST> f:<firmware filename>` and press ENTER. Ensure that power to the server and tape library is not interrupted during this stage or the library will become inoperative.

   Note: The device ID, LUN, and Host numbers are different for different servers, depending on which SCSI controller the tape library is connected to. Do not assume or use the same ID numbers shown in this example. The file name of the firmware has a 700115.218 format, where 700115 refers to the Executive Board type (IV in this case) and 223 refers to the firmware version (2.23).

2. When the Library Firmware Update Utility indicates a successful upload and the library is fully initialized after the firmware update, you can resume normal system operations.

Configuring Windows 2000 Single Tape Drive/Library Device Drivers

IMPORTANT: You *must* use the Windows 2000 Resource Kit's **RSMCONFG.exe** utility to configure the RSM when the library's changer and tape drive(s) are *not* on the same SCSI bus. See *Using the RSMCONFG.exe Utility*.

When you start the server, Windows 2000 auto-detects the tape device, using the W2K default AIT tape device and changer drivers. You must update both device drivers, using the following three procedures. The AIT tape drive device driver, is usually shown as **? Other devices**. You must update it to the Sony-supplied version 3.0.0.9 or later AIT tape device driver. The driver is available on the Prinergy W2K Resources CD or from http://techplanet.creo.com/ (on the Kodak intranet).

To Update the AIT Tape Device Driver:

1. On the desktop, right-click **My Computer** and select **Manage**.

   The Computer Management window appears.

2. In the left pane, select **Device Manager**.

   The Sony AIT tape drive device appears as **? Other devices**. (It will appear multiple times, if a multiple tape drive library is installed.)

3. Right-click a device and select **Properties** to update the device driver.

4. On the **Driver** tab, click **Update Driver**.

5. On the wizard screen, click **Next**.

6. Select **Display a list of known drivers for this device so that I can choose a specific driver** and click **Next**.

7. In the **Hardware Tape** dialog box, select **Tape drives** and click **Next**.

8. Select **Have Disk**, click **Browse**, and select the device driver folder on the Prinergy W2K Resources CD (or on the hard drive). The device driver file set is **SW2AIT.INF** and **SW2AIT.SYS**).

9. Click **Open** and select one of the following options:
   - **Sony AIT 50GB Drive**, if the driver is for an AIT-2 tape drive
   - **Sony AIT 100Gb Drive**, if the driver is for an AIT-3 tape drive

- **Sony AIT 50GB autoloader Drive**, if the driver is for the Sony autoloader

10. Click **Next**.
11. At the warning prompt, click **Yes**.
12. Click **Next > Finish > Close**. The stand-alone or library device is listed as a Sony SDX/500C SCSI sequential device, and the autoloader drive is listed as a Sony TSL-A500C SCSI sequential device.
13. Repeat steps 3-12 for each device in the **? Other devices** list.

To Update the Qualstar Libraries Changer Device Driver:

1. Select **Medium Changer**. The tape library entry appears as an "unknown medium changer".
2. Right-click **unknown medium changer** and select **Properties** to update the driver.
3. On the **Driver** tab, click **Update Driver**.
4. On the wizard screen, click **Next**.
5. Select **Display a list of known drivers for this device so that I can choose a specific driver** and click **Next**.
6. In the manufacturers list, select **Show all hardware**.
7. Select **Qualstar TLS and ADIC QLS Medium Changers**.
8. Click **Next** to complete the driver update.

To Update the Sony TSL –SA500C Autochanger Device Driver:

1. Select **Medium Changer**. The tape library entry appears as an "unknown medium changer".
2. Right-click **unknown medium changer** and select **Properties** to update the driver.
3. On the **Driver** tab, click **Update Driver.**
4. Click the **Have Disk** button, click **Browse**, and locate the device driver folder on the Prinergy W2K Resources CD (or on the hard drive). The device driver file set is **SW2AITMC.INF** and **SW2AITMC.SYS**).
5. Click **Open**.
6. Select **Sony 50GB Autoloader (TSL-A500C)** and click **Next**.
7. At the warning prompt, click **Yes**.
8. Click **Next > Finish > Close**.

Note: When installing drivers for the autochanger, you must configure the tape drive before loading the device driver for the medium changer. Otherwise, RSM will detect a changer with no associated drives and auto-configuration will fail. To recover from a failure, use the **RSMCONFG.exe** utility as described in *Using the RSMCONFG.exe Utility*.

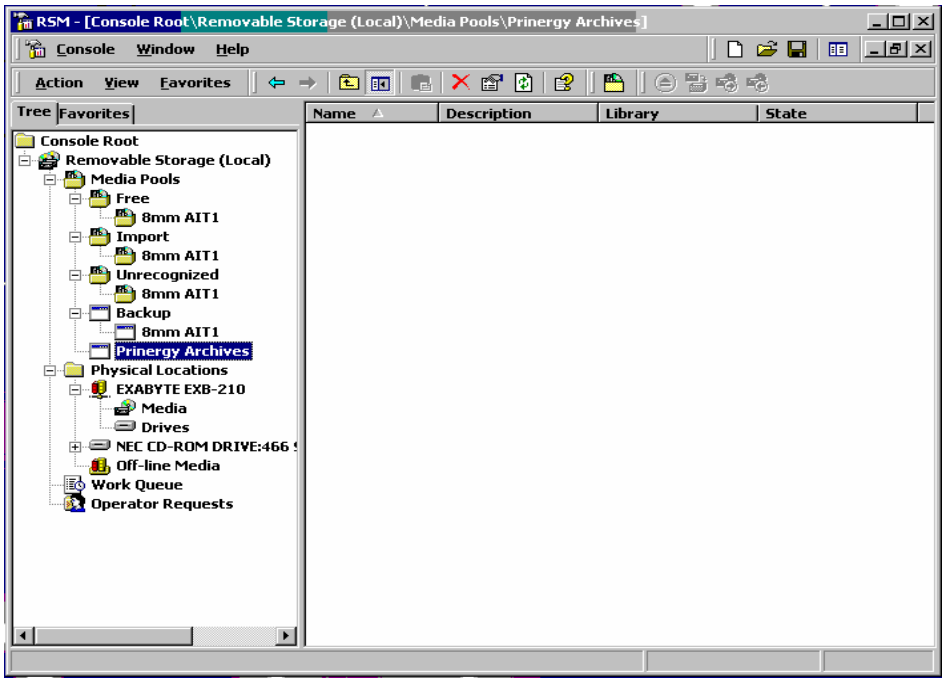
Creating the RSM Console

1. On the desktop, select **Start > Run**.
2. Type MMC and press ENTER. The Microsoft Management Console (MMC) window appears.

3. Select **Console > Add/Remove Snap-in**.
4. In the window that appears, click **Add**.
5. In the **Snap-ins** list, select **Removable Storage Management**, and click **Add**.
6. Select **Local Computer**.
7. Click **Finish**, click **Close**, and click **OK**. The RSM snap-in is added to the base MMC console.
8. Save the newly created snap-in as **RSM.msc**.

Creating the RSM Media

The **Removable Storage (Local)** tree appears in the left pane of the RSM window. Double-click the + sign to expand the tree, as indicated in the following example.



There are three default media pools under **Media Pools**: **Free**, **Import**, and **Unrecognized**. Backup utility and Prinergy Archiver software draw the new media from the **Free** pool if no media is in its own unique pool, which is usually defined as **Backup** for the Backup utility and **Prinergy Archives** for Prinergy Archiver. If a new tape media is dropped in the **Free** pool, the tape is automatically prepared to accept data.

De-allocating Media for Reuse

Allocated media in any unique pool must be “de-allocated” before being moved to the **Free** pool for reuse. To de-allocate media for reuse:

1. Right-click the media, and select **All Tasks > De-allocate**.
2. At the confirmation prompt, click **Yes**. When the **State** column indicates **Idle, Available**, the media has been de-allocated.
3. Drag the de-allocated media to the **Free** pool to prepare it for reuse.

10.3 Windows 2000 Backup Tests

1. Ensure that there is a new prepared tape (or tapes) available in the **Free** pool.
2. Select **Start > Programs > Accessories > System Tools> Backup** to start the Windows 2000 Backup Utility. The Backup window appears.
3. Click the **Backup** tab. A wizard screen appears.
4. Click **Cancel** to select manual dataset backup.
5. Select the desired dataset, such as **<SystemDrive>\drivers*.***, and select the **System State** check box to back up system registry information.
6. In the **Backup Destination** list, select **8mm AIT1**.
7. In the **Backup media or file name** area, select **New media**. A tape will be drawn from the **Free** pool for the backup.
8. Click **Start Backup**. The Backup Job Information dialog box appears.
9. Select **Replace the data on the media with this backup**, and type tape identification information (if desired) in the **Backup Description** box and the **If the media is overwritten, use this label to identify the media** box.
10. Click **Start Backup**. You can monitor the Work Queue branch in the RSM console window for changer movement activity in the library.
11. When the backup is complete, click **Report** in the Backup Job Information dialog box to check the results. Verify that the backup was successful. If the backup failed or the throughput rate was slower than 6.5 MBps, troubleshoot the system to determine if the cause was a hardware or software problem.
12. Perform a restore test to an alternate location. For information on performing a restore operation, see the Windows NTBackup Help.

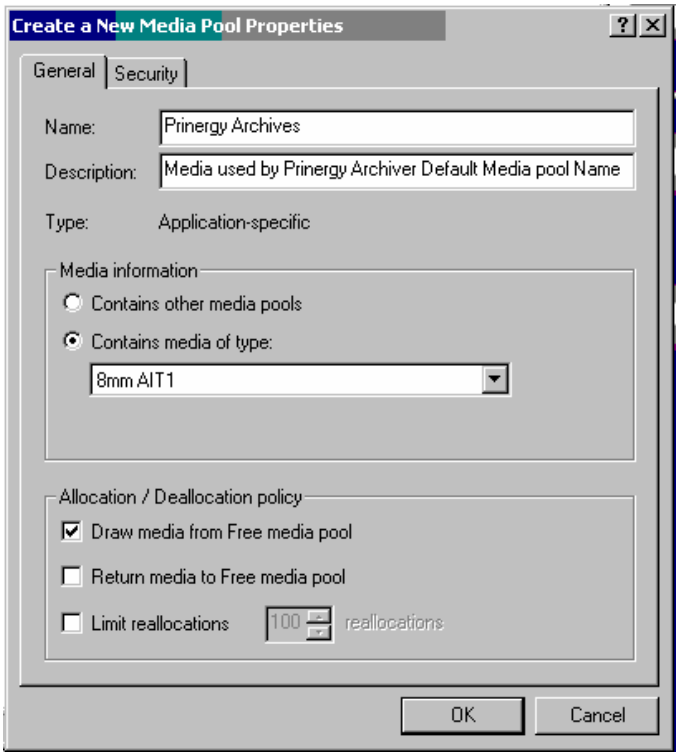
10.4 Prinergy Archiver Tests

Configuring the Prinergy Archiver JTP

1. Start the Prinergy Administrator software (if it is not already started) and verify that Prinergy is functioning normally. If Prinergy is not functioning normally, contact a service representative.
2. In the Prinergy Administrator window, click the **JTPs** tab.
3. On the **JTPs** tab, click **JTP > Add JTP > Archive**. Wait for the Archive JTP to appear with a `Ready` status in the Prinergy Administrator window.
4. On the **JTPs** tab, create a Disk Purge (or Purge) JTP.

Performing Prinergy Job Archive/Retrieve Tests

1. Create a **Prinergy Archives** media pool in the **Media** pool, using the options shown in the following dialog box.



2. Start the Prinergy Workshop software and create a new test job.
3. Add new input PostScript® files, refine the input files, and wait for all processes to finish, without errors.
   If problems occur, contact a service representative.
4. Configure the archive and restore process plan to use the Prinergy Archive media pool.
5. On the Prinergy User Toolbar, click **Storage** to perform an archive task. Ensure that all files related to the job (PostScript, PDF, Imposition Plan, and so on) appear in the middle pane.
6. From the Storage menu, select **Archive All** and click **OK** to start archiving the job.
7. Verify that the archive completed successfully. If archiving fails, contact a service representative.
8. Purge the contents of the test job.
9. Retrieve all files for the test job. Verify that the retrieve was successful. If errors occur, contact a service representative.

10.5 Cleaner Management

Inserting Cleaning Cartridge

1. In the RSM console folder, expand the **Physical Locations** branch.
2. Right-click **Qualstar TLS and ADIC QLS Medium Changers** and select **Cleaner Management**.

3. On the Cleaner Management wizard screen, click **Next**.
4. Select **Add a cleaning cartridge** and click **Next**.
5. In the **Number of cleans left** box, type the appropriate number (typically ~70 consecutive cleanings for a new cartridge) and click **Next**.

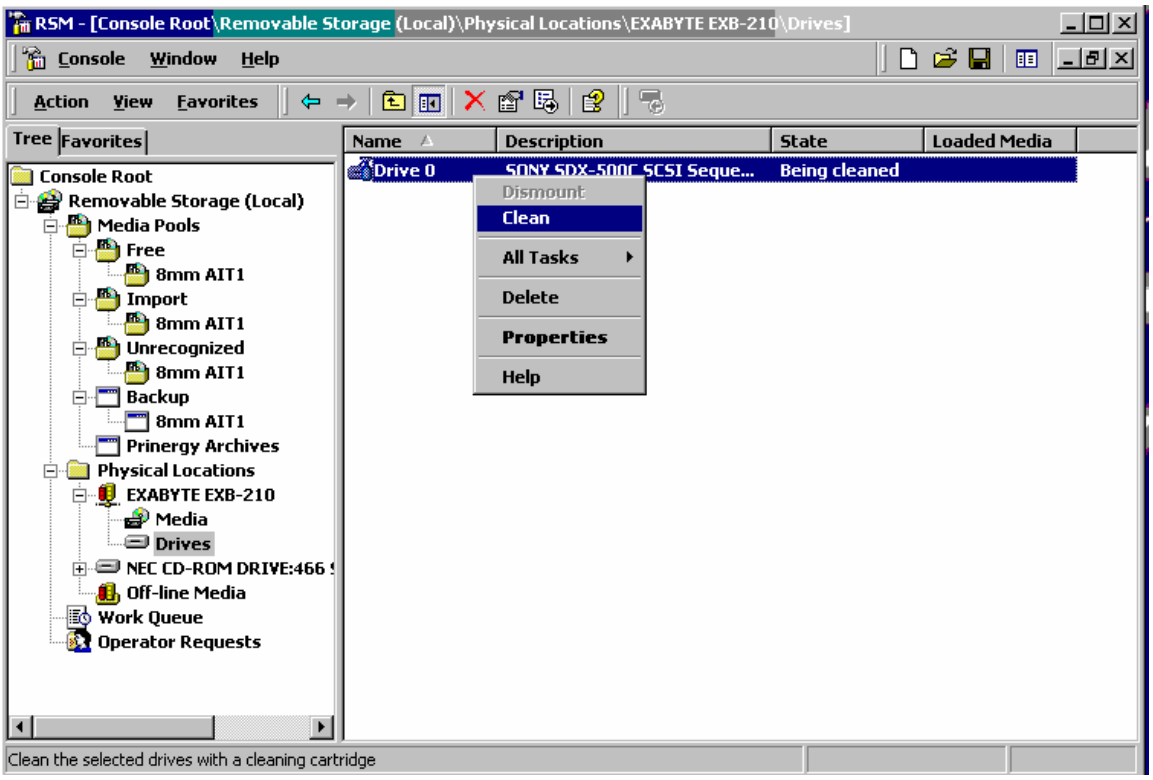
   Note: The **Clean one or more drives** and **Remove a cleaning cartridge** options are not available because there is currently no cleaning cartridge in the tape library.

   The tape library reserves a slot for the cleaning cartridge, as indicated on the next screen.
6. Click **Next** to open the slot.
7. Insert the cleaning cartridge and click **OK**.
8. At the **Add a cleaning cartridge operation is complete** message, click **Next**.
9. At the **I'm done; return to other tasks** message, click **Next**.
10. Click **Finish**.

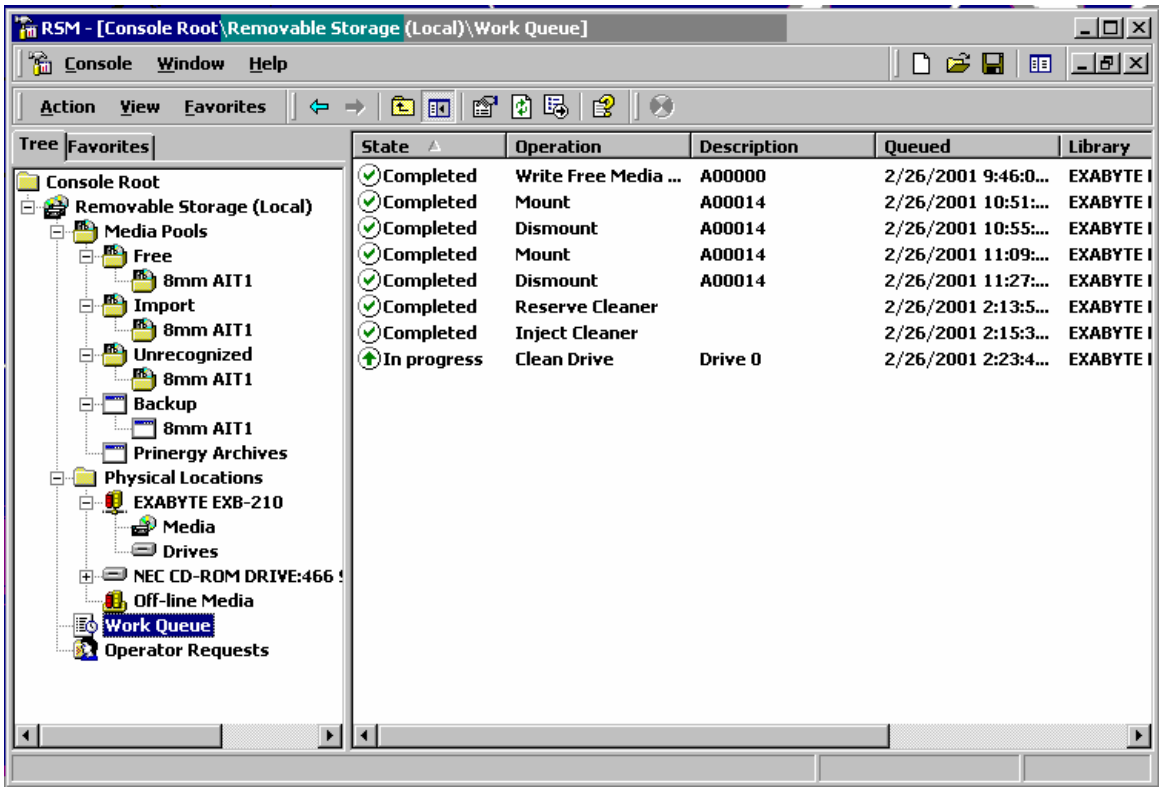
Cleaning Tape Drive(s)

1. To initiate the cleaning of a tape drive, select **Drive** branch in the right pane.
2. To start cleaning, right-click the drive and select **Clean**, as shown in the following window.

   Note: In RSM, to clean multiple drives at one time, select **Clean one or more drives** and select the drives on the Cleaner Management wizard screen.



You can monitor the drive cleaning status in the **Work Queue** window.



Removing the Cleaning Cartridge

1. In the **Physical Locations** tree, right-click the library and select **Cleaner Management**.
2. On the Cleaner Management wizard screen, click **Next**.
3. Select **Remove a cleaning cartridge** and click **Next**. The cleaner slot is unreserved, and the cleaning cartridge is moved to the front slot of the magazine.
4. Remove the cleaning cartridge from the slot.
5. At the **I'm done; return to other tasks** message, click **Next > Next**.
6. Click **Finish**.

11. LIBRARY OFFLINE MAINTENANCE OPERATIONS

All Qualstar tape libraries have configuration parameters in NVRAM that operators can access and modify via the front panel.

Normally, the default Qualstar factory parameters work with the Prinergy server without modification. This section describes the main tape library configuration parameters to check whenever it is necessary. For example, you must access the PRIVATE menu from the Operator panel when upgrading the number of tape drives or slots to maximum capacity, such as upgrading a two-drive, 40-slot TLS-44xx to a four-drive, 80-slot configuration.

If you need information about other configuration changes, see the *Qualstar Installation and Operation Manual*.

11.1 Changing Library Model Name Display

This procedure describes how to change the library name on the Operator panel.

1. On the Operator panel, press the **MENU** key.
2. Select **Configuration > Advanced > Control Panel > Display**.
3. Use the **DOWN ARROW** key to locate line 1-10.
4. Using the **UP ARROW** or **DOWN ARROW** and **ENTER** keys to locate the desired letters, and change the text line from **Qualstar** to **Creo**.
5. Use the **DOWN ARROW** key to locate **COPY TO SAVED**.
6. Press **ENTER** to save the name change.

11.2 Upgrading the Tape Library Configurations

Accessing the Private Menu

1. Open the tape library front door.
2. On the Operator panel, press the **MENU** key.
3. Select **Maintenance > Test LC Display**.
4. Press the **DOWN ARROW** key until **PQRSTUVWXYZ[** appears on the second line of the LCD display. Immediately (within five seconds), simultaneously press the **DOWN ARROW**, **ENTER**, and **MENU** keys. A block cursor prompt for a password appears after **Access**.
5. Type **Update** as the password. The PRIVATE menu is activated, as indicated on the first line of the LCD display. In the menu list, locate the **CLEAR ACCESS** option.
6. Modify the library configurations, such as the updated number of tape drives installed, number of slots, and so on.
7. After the modifications are completed, return to the **Maintenance > Test LC Display** menu and initiate the **CLEAR ACCESS** command to prevent unauthorized access to the menu.

Modifying the Tape Library Configurations

1. Open the front door of the tape library.
2. On the Operator panel, press the **MENU** key.
3. Select **Configuration > Advanced > Library > .a ENABLED** and press **ENTER**.
   - To modify the total number of tape drives installed, select **Drives**. The **Drive Last** number follows the number of tape drives modified.
   - To modify the total number of slots, select **Slots**. The **Slot Last** number follows the number of tape drives modified.
   - To disable or enable a tape drive, select **Configuration > Drive > T1 to Tn**, and set the **Enabled** option to **YES** or **NO**.
4. After you finish making modifications, select **Maintenance > Test LC Display** and initiate the **CLEAR ACCESS** command to prevent unauthorized access to the menu.
5. When installing additional hardware, such as drives or magazines, you may need to perform a **Calibrate** command. For instructions, see the *Qualstar Technical Service Manual*.

APPENDIX A - CONFIGURING QUALSTAR LIBRARIES INTO TWO LOGICAL PARTITIONS

BACKGROUND

Qualstar libraries support logical partitions in which you can allocate resources (drives, slots, and I/O ports) to different hosts. Each logical library acts as a smaller, individual library.

This procedure describes how to set up sharing of Qualstar RLS-4221, TLS-4222, and TLS-44xx libraries between two Windows 2000 hosts. For larger libraries, contact Kodak GCC Product Development\ Technology Infrastructure Solutions. The procedure normally takes about two hours.

1. REQUIREMENTS

1.1 Host Requirements

- Windows 2000 with Service Pack 4
- Each host should have two LVD SCSI ports for library connections. If required, order one of the following:
  - Adaptec 39160 SCSI Adaptor, dual-channel, for Dell servers (Kodak part number 94-3220)
  - Adaptec 2940 SCSI Adaptor, for Data General Aviion servers (Kodak part number 94-3053)
- Each host should have two external SCSI cables. If required, order the required quantity of the following:
  - External SCSI cable, HD68 Male-to-VHDCI Male, for Adaptec 39160 (Kodak part number 16-4491)
  - External SCSI cable, HD68 Male-to-HD68 Male, for all host adapters except Adaptec 39160 (Kodak part number 14-4492)

1.2 TLS-42xx

- Conversion Kit (Kodak part number 518-00841A)
- External SCSI cable, HD68 Male-to-VHDCI Male or HD68 Male-to-HD68Male (as required)

1.3 TLS-44xx

- Conversion Kit, (Kodak part number 518-00852B)
- External SCSI cable, HD68 Male-to-VHDCI Male or HD68 Male-to-HD68Male (as required)
- You will reuse some of the supplied SCSI cables and terminator with the TLS-44xx library.

1.4 RLS-4221

- External LVD SCSI terminator (Kodak part number 16-4501)
- External SCSI cable, HD69Male-to-VHDCI Male or HD68 Male-to-HD68 Male (as required)

1.5 Others

- Latest drivers for the Sony drives and SCSI host adapter, available from the Prinergy W2K Resource CD or http://techplanet.creo.com/.
- **RSMCONFG.exe** utility from the Windows 2000 Resource Kit.

2. LIBRARY SCSI CABLING

2.1 TLS-42xx

Kodak Kit (part number 518-00841A) is required to allow partitioning of the TLS-42xx library. A total of four external SCSI cables are also required to connect the library and drives to both hosts. The type of external SCSI cable required depends on the host server platform. See the bill of materials lists (BOM) and cabling diagram for details.

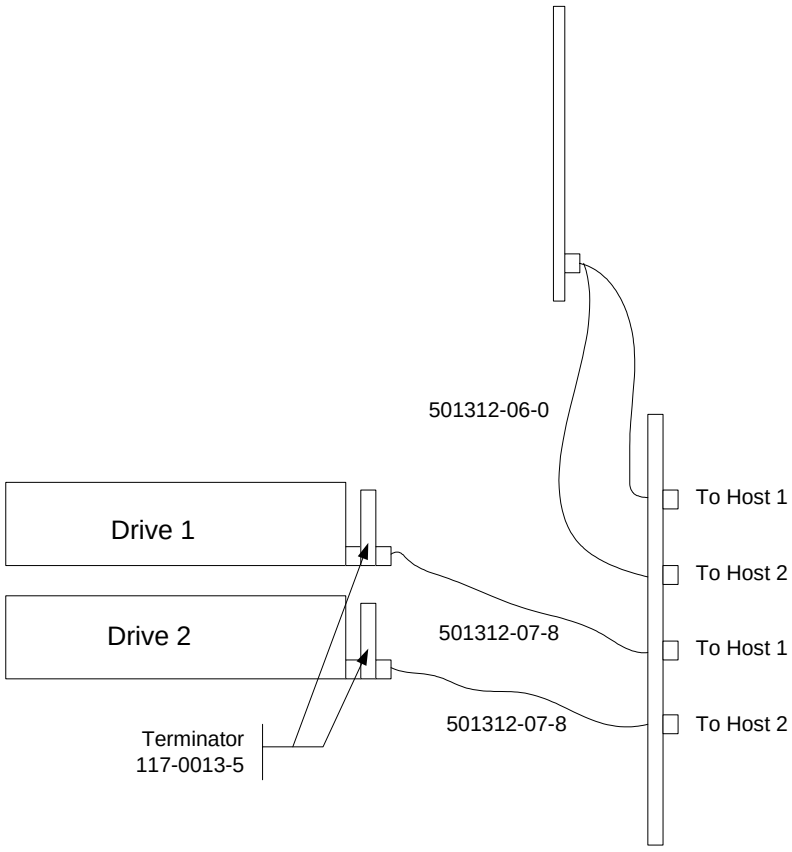
Kodak Kit Number 518-00841A

Kodak P N	Manufacturer P N	Quantity	Description
216-00108	Qualstar 501312-06-0	1	SCSI cable, HD, internal, single drop pass-through
216-00109	Qualstar 501312-07-8	2	SCSI cable, HD, internal, single drop
192-00006	Qualstar 117-0013-5	2	SCSI terminator, LVD, internal
73-3672A-H	N/A	1	AIT Tape Library Configuration Procedure

Other Parts (to be ordered if not available on site)

Kodak P N	Manufacturer P N	Quantity	Description
94-3220	Adaptec 39160	As needed (not in kit)	SCSI card, dual-channel, SE/LVD for use on Dell servers.
94-3053	Adaptec 2940	As needed (not in kit)	SCSI card, SE, for use on Data General Aviion servers
16-4491	Qualstar 738-0127-6	As needed (not in kit)	SCSI cable, external, HD68-VHD68, 6 feet
16-4492	Qualstar 738-0126-8	As needed (not in kit)	SCSI cable, external, HD68-HD68, 6 feet

Note: Two SCSI channels are needed per host (39160 has VHD68 connector, 2940 has HD68 connector).



TLS-4222 Library
Cabling for logical partitioning

2.2 TLS-44xx

You can partition the TLS-44xx in a 3+1 or 2+2 drive configuration. Order Kodak Kit part number 518-00852B for TLS-44xx partitioning.

A total of four external SCSI cables are also required to connect the library and drives to both hosts. The type of external SCSI cable needed depends on the host server platform. The following tables provide the bill of materials lists and the cabling diagrams for both configurations.

Kodak Kit Number 518-00852B

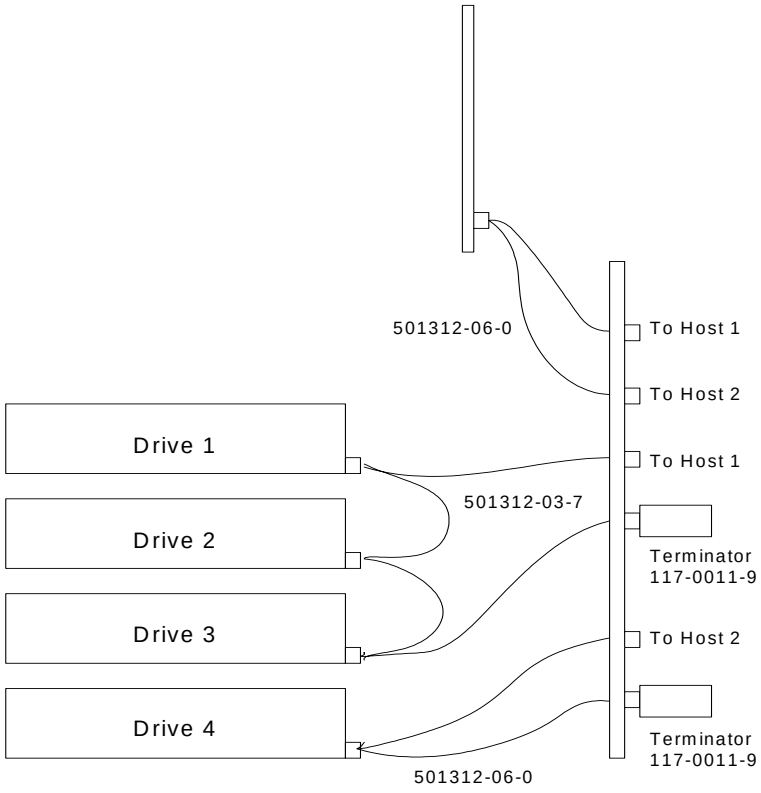
Kodak P N	Manufacturer P N	Quantity	Description
216-00108	Qualstar 501312-06-0	2	SCSI cable, HD, internal, single drop pass-through
73-3672A-H	N/A	1	AIT Tape Library Configuration Procedure

Other Parts (to be ordered if not available on site)

Kodak P N	Manufacturer P N	Quantity	Description
607S00813	Qualstar 501312-03-7	1 (not in kit—reuse existing)	SCSI cable, HD, internal, triple drop pass-through
94-3220	Adaptec 39160	As needed (not in kit)	SCSI card, dual-channel, SE/LVD for use on Dell servers.
94-3053	Adaptec 2940	As needed (not in kit)	SCSI card, SE, for use on Data General Aviion servers
16-4491	Qualstar 738-0127-6	As needed (not in kit)	SCSI cable, external, HD68-VHD68, 6 feet
16-4492	Qualstar 738-0126-8	As needed (not in kit)	SCSI cable, external, HD68-HD68, 6 feet
16-4501	Qualstar 117-0011-9	2 (reuse existing)	SCSI terminator, external LVD

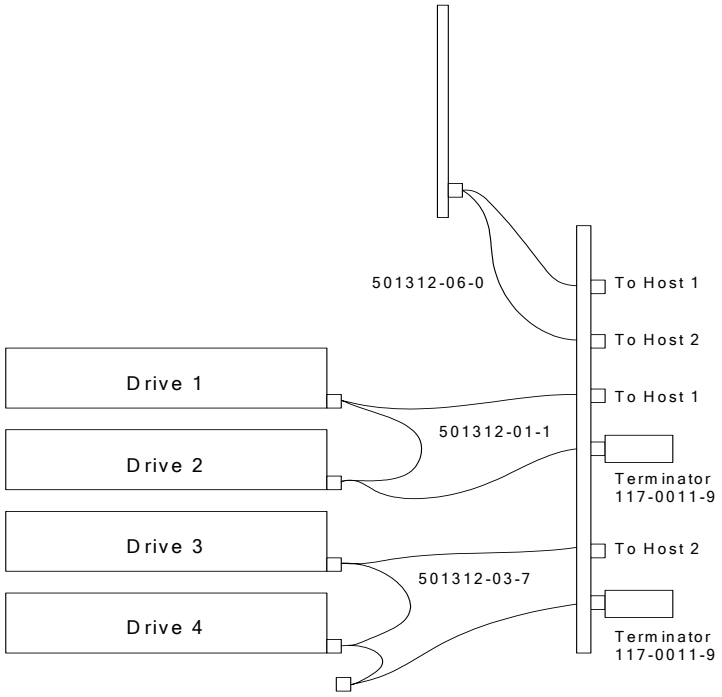
Note: Two SCSI channels are needed per host (39160 has VHD68 connector, 2940 has HD68 connector).

TLS-44xx 3+1 Drive Configuration



TLS-44xx Library (3+1)
Cabling for logical partitioning

TLS-44xx 2+2 Drive Configuration



TLS-44xx Library (2+2)
Cabling for logical partitioning

2.3 RLS-4221

An additional external LVD terminator (Kodak part number 16-4501) is required to allow partitioning of the RLS-4221 library. A total of four external SCSI cables are also required to connect the library and drives to both hosts. The type of external SCSI cable needed depends on the host server platform. One SCSI bus connects the tape library's controller to one SCSI port in each host. A separate SCSI bus connects each host to its assigned tape drive. An external LVD terminator is installed on each tape drive.

Parts to be ordered if not available on site

Kodak P N	Manufacturer P N	Quantity	Description
94-3220	Adaptec 39160	As needed (not in kit)	SCSI card, dual-channel, SE/LVD for use on Dell servers
94-3053	Adaptec 2940	As needed (not in kit)	SCSI card, SE, for use on Data General Aviion servers
16-4491	Qualstar 738-0127-6	As needed (not in kit)	SCSI cable, external, HD68-VHD68, 6 feet
16-4492	Qualstar 738-0126-8	As needed (not in kit)	SCSI cable, external, HD68-HD68, 6 feet

Note: Two SCSI channels are needed per host (39160 has VHD68 connector, 2940 has HD68 connector).

3. PRE-INSTALLATION TASKS

1. Pre-plan how to divide the library's resources between the two hosts. Note that you can assign the I/O port to only one host (the RLS-4221 does not have an I/O port). Tapes for a logical library without an I/O port must be manually inserted through the library door. Use the procedure in the Resource Inventory section in the *Qualstar TLS-4000 Installation and Operation* manual (Qualstar document 501370) to record resource allocation.

2. For each host, verify how many LVD SCSI ports can be used for the library connection. Two SCSI ports are required. If an additional SCSI adapter is required, verify that there is an available PCI slot for the Adaptec 39160 (for Dell servers) or Adaptec 2940 (for Data General Aviion servers). Order the necessary SCSI adapters.

3. Order the necessary kits and extra hardware for the library. See *TLS-42xx* on page 28.

4. CONFIGURATION PROCEDURE

4.1 Library and SCSI Configuration

1. Shut down the Qualstar library, the host connected to it, and the other host, if a SCSI card is to be installed in it.

2. Install SCSI cards in hosts if required (see *Configuring the Prinergy Server* on page 2). Use the latest approved driver (download from http://techplanet.creo.com/).

3. Modify internal SCSI cabling according to the diagrams in *Pre-Installation Tasks*. One SCSI bus connects the library controller to one SCSI port in each host. A separate SCSI bus connects each host to its assigned tape drive(s). An RLS-4221 library has no internal cabling that needs to be modified. All device SCSI connections are accessible from the backplane.

4. In each host, modify the SCSI host adapter configuration from the SCSI BIOS setup program (see

Configuring SCSI Controller BIOS Settings on page 5).

5. In Host A, configure the SCSI host adapter connected to the library controller bus to use SCSI ID 6, using the SCSI BIOS setup program.

   Host B SCSI host adapter connected to the library controller bus will use default SCSI ID 7.

6. From the library control panel, configure logical library a (controlled by Host A) and logical library b (controlled by Host B) to assign library resources. See the resource allocation completed in Task 1 in *Pre-Installation Tasks*.

   The resources allocated to each library are assigned in **\Configuration\Advanced\Library x** (where x is either a or b). Note that the I/O port can only be assigned to one host. Ideally, the I/O port should be assigned to the host with the most slots assigned. For details, see the *Qualstar Library Installation and Operation Manual*.

7. Modify the SCSI initiator for library b to match the SCSI ID of Host B SCSI host adapter (7). This is set in **\Configuration\Advanced\SCSI\Library** from the library control panel. Set Initiator 7 to "b".

The library is now partitioned as two logical libraries.

Configuring the Libraries in Windows 2000

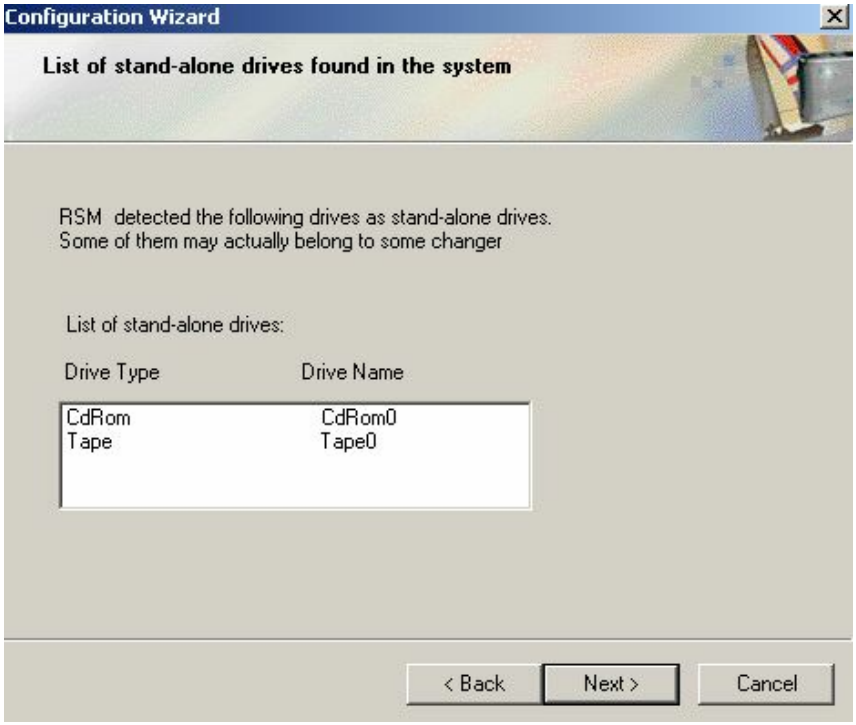
To load the tape device drivers for each host, see *Configuring Windows 2000 Single Tape Drive/Library Device Drivers* on page 19.

Note: A warning may appear that RSM was not able to configure the device. You must use **RSMConfg.exe** from the Windows 2000 Resource Kit to configure the library in RSM.

Using the RSMCONFG.exe Utility

1. If RSM does not automatically configure the tape library, use **RSMCONFG.exe** from the Windows2000 Resource Kit.
2. Run **RSMCONFG.exe**.
3. On the RSM Configuration wizard welcome screen, click **Next**.

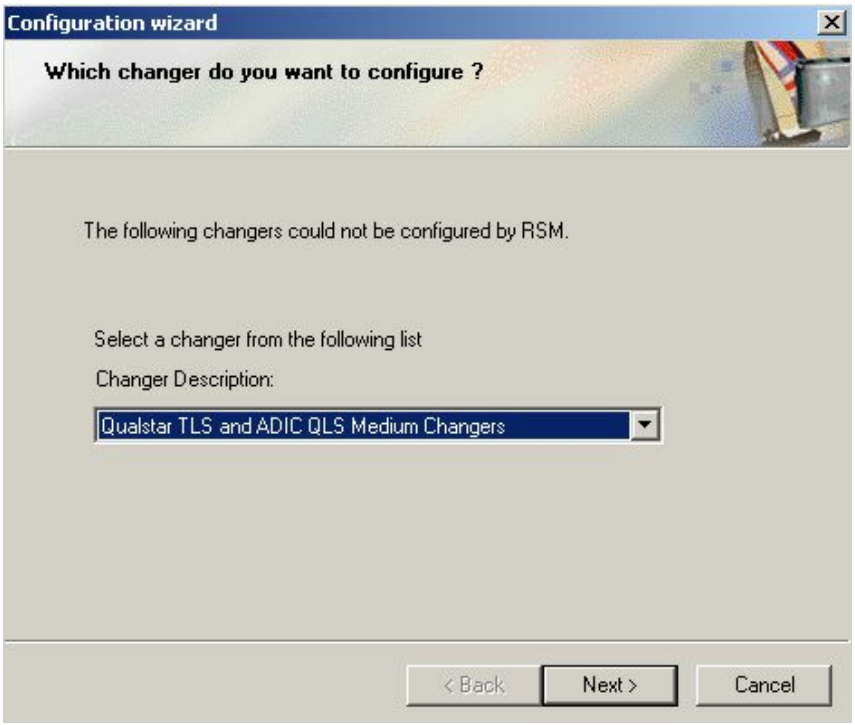
   The List of stand-alone drives found in the system screen lists the detected drives:



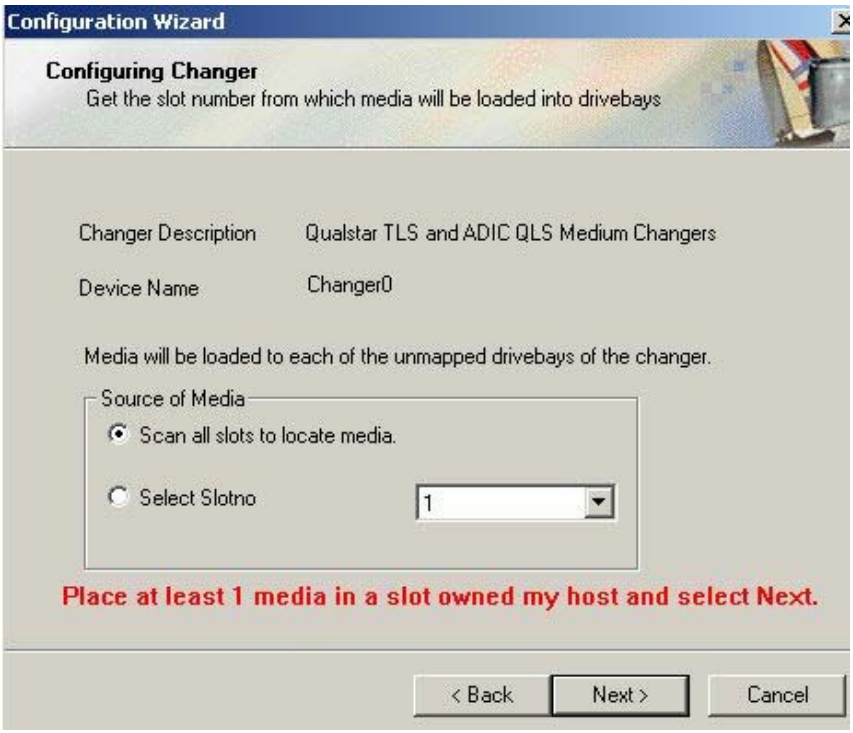
4. Click **Next**.

   The Which changer do you want to configure screen appears.

5. Select the Qualstar library, and click **Next.**

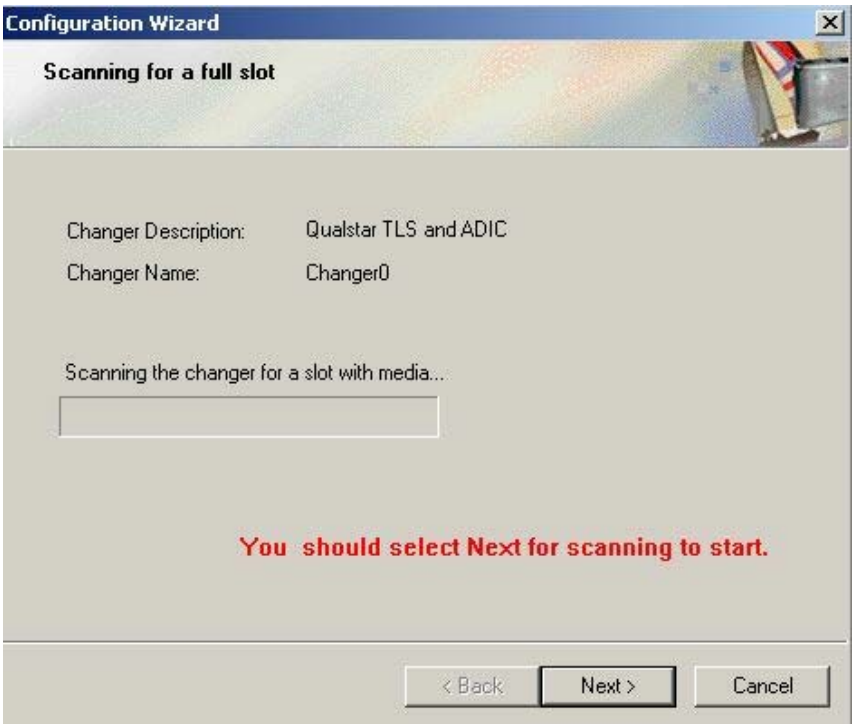


   The Configuring Changer screen appears.



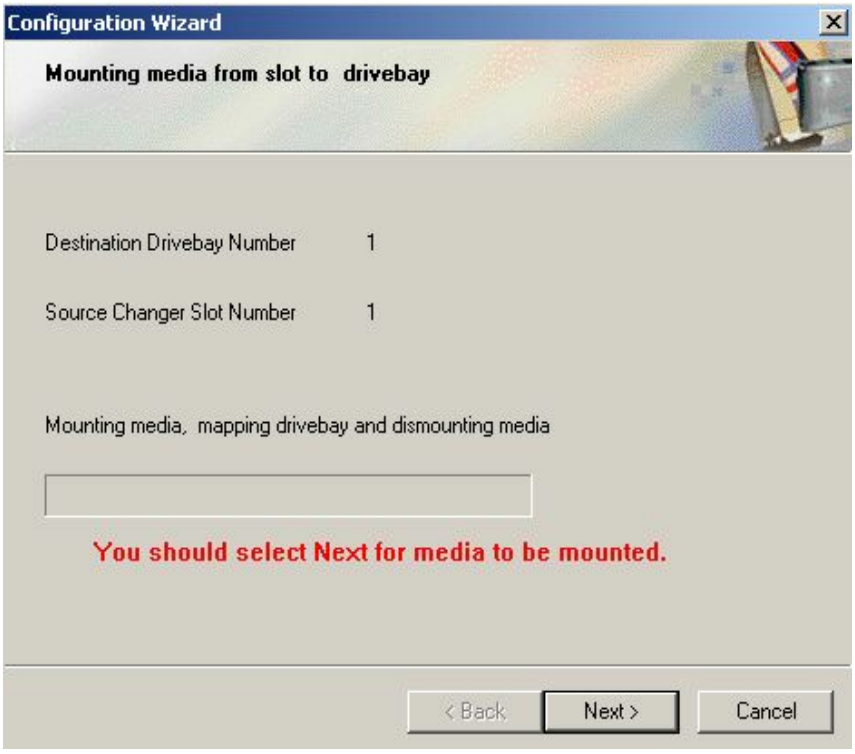
6. Place at least one media in a slot owned by the host.
7. In the Configuring Changer screen, click **Next**.

The Scanning for a full slot screen appears.



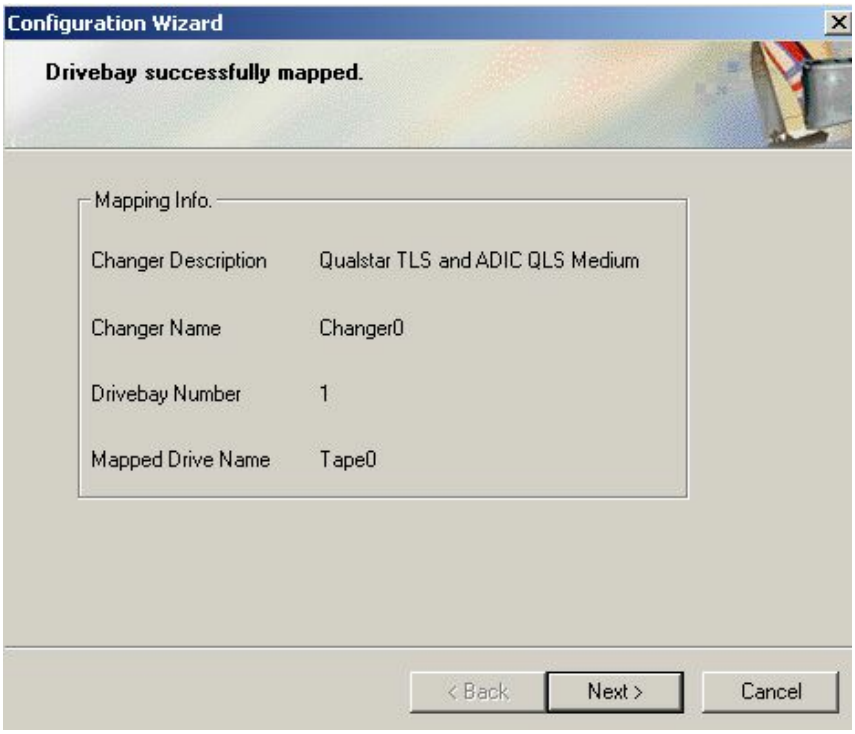
8. Click **Next** to start scanning.

The Mounting media from slot to drive bay screen appears.



9. Click **Next** to mount the media. You may need to repeat this step for each unmapped drive.

A Drivebay successfully mapped message appears.



10. Click **Next**.

5. TESTING AND COMMISSIONING

The logical partitioning of the library is complete. The library will now function as two separate libraries, with each logical library controlled by a separate host.

Test the library as described in *Windows 2000 Backup* Tests and *Prinergy Archiver Tests*.

After the library is successfully tested, it can be put into regular production.