HP StorageWorks Library and Tape Tools FAQ

Other languages:

French, German, Spanish, Italian, Korean, Japanese, Chinese

This document: www.hp.com/support/lttfaq

Windows GUI version

This document is a brief, screenshot-based guide to help you follow instructions from HP support. For much more, and detailed information on L&TT, please see the <u>user guide</u>.

Where is the L&TT user guide?	2
How do I install L&TT?	<u>. 3</u>
How do I run L&TT?	4
How do I check my drive is installed correctly?	6
How do I use L&TT to find my drive serial number?	7
How do I verify that my drive's firmware is up to date?	.8
How do I check the health of my drive? 1	<u>L0</u>
How do I generate a support ticket?1	11
How do I run the Drive Assessment Test?1	<u>13</u>
Why is the Drive Assessment test recommended?1	<u>15</u>
How do I check the health of my data cartridge? (LTO only) 1	<u>16</u>
How do I check the health of my data cartridge? (Non-LTO) 1	<u>17</u>
Was my backup successful? (LTO only)1	<u>18</u>
How many more uses are left with this cleaning cartridge? (LTO only)1	<u>19</u>
How fast will my backups be? 2	<u>20</u>
How fast will my restores be? 2	<u>21</u>
How do I run the Device Performance test?	<u>22</u>
How do I run the System Performance Backup Pre-test? 2	<u>24</u>
How do I run the System Performance Restore Pre-test?2	<u>25</u>
How much data can I write to the tape?2	<u>26</u>
How do I send a support ticket by e-mail?2	<u>27</u>
How do I send an L&TT event log?2	<u>29</u>
How do I send the results of the assessment test to Support?	<u>31</u>
How do I turn on or off Prevent Media Removal or hardware Data	
Compression?	<u>33</u>

Where is the L&TT user guide?

The user guide is available from the L&TT web page at <u>http://www.hp.com/support/tapetools</u>. Follow the **Technical Support & Documentation** link.

Note The user guide is English only.

How do I install L&TT?

- L&TT is available for free download from <u>http://www.hp.com/support/tapetools</u> and on the CD that came with your tape drive. The download version is preferred as it is the latest version.
- Install L&TT on any server that can "see" your drive. This is most likely to be the backup server, but it could be another server if you are using a SAN.
- You will need the tape driver installed to run the performance tests.



How do I run L&TT?

- 1. Install L&TT
- 2. Turn off services that may lock the tape drive such as backup software services and Removable Storage Service (RSM)
- 3. Double click on the desktop icon
- 4. Use defaults in pop-ups
- 5. Wait for L&TT to scan and find your devices
- 6. Select the device you want to work with

HP StorageWorks Library and Tape Tools	s	
hp L&TT - Sta	artup	×
5	hp StorageWorks library and tape tools - Version 4.1 CAUTION: Running this application while other software is access the storage devices can cause unpredictable results and adverse affect the operation of the storage software.	sing Iy
	Please stop any storage applications before continuing, or exit thapplication.	lis
☐ I/O Options Select the on 'Help' fi then LTT	is is Scan mode and I/O mode. Use the default I/O mode unless you experience problems. I for more information. Note that ASPI is not supported on Windows 2003 but if already inst will be able to make use of it.	Click alled
Scan M	Hardware Scan O Saved/Manual Scan	
	ode NT Miniport C ASPI Help	
Skip this	s dialog in the future Exit now	



How do I check my drive is installed correctly?

- 1. Install and run L&TT
- 2. See if it finds your device during the scan
- 3. If it can, select that device and <u>run the device performance test</u> to verify the HBA, cabling and drive are not causing any bottlenecks
- 4. Any issues should be corrected before attempting to use the drive
- 5. Leave L&TT installed for future use it will be requested by support

How do I use L&TT to find my drive serial number?

- Install and run L&TT
- Select the device and click **Identity** on the toolbar.
- The serial number is displayed under the **Device Information** tab.
- It is also available from the support ticket.



How do I verify that my drive's firmware is up to date?

You will need internet access for this. If not please refer to the <u>user guide</u>.

- 1. Install and run L&TT
- 2. Select the device and click **Firmware** on the toolbar.
- 3. In the Local Firmware Files tab, click Get Firmware from Web.

(http://www.selibrary and tape tools) (http://www.selibrary.and.tape tools)				
Eile View Eurction Options Utilities Help				
Identity	Frontpanel Dev Perf	? Help		
Scan By Product By Connection Instructions	Update Firmware Local Firmware	Files Findware Update Re	sults]	
Firmware Upgrade This screen shows all the firmware files that are currently available on your local system. Make sure that you have selected the correct folder on your system. Only firmware that is compatible with your current device selection is listed as selectable. If no files are available locally that are compatible with your device(s), you can download them from the HP website.	Before continuing with the firmwa are available on your local maching Firmware files available in the Firmware File Folder: C:\Program	re update process, you need ne. See the list below for files ocal folder:	I to ensure that the cor already present on yo	rect firmware files ur local machine.
Please check the web regularly for firmware	Target Device	Revision Date	Selectable	Notes
updates.	DDS Drive (C1537A)	L111 04/24/2002	no matching dev	
	DDS Autoloader (C1557A)	U812 12/15/1998	no matching dev	
	LTO Ultrium Drive (Ultrium 2	F5CD/OE 09/02/2004	downgrading, pa	
	LTO Ultrium Drive (Ultrium 2	F60D/0E 05/23/2006	ves	
	LTO Ultrium Drive (Ultrium 3	G54D/Sta 04/25/2006	no matching dev	
	DDS Drive (DAT160)	WP63 n/a	no matching dev	_
	•			▶
	─ Download Files From Websit Use L&TT Firmw hp Websit	ite: ware Download Tot te for Firmware Files:	Get Firmware From http://www.hp.com/g	Web

hp L&TT - Get Files From Web				×	
Firmware Scripts					
- Select the desired files and th	Select the desired files and then click 'Download'				
For devices on this system:		For all supp	ported devices:	Download	
Show latest firmware only		C Show I	atest firmware onlu		
C Show all firmware		C Show all firmware			
Product ID	Revision	Release Date	Status	Select All	
HP C5713A	H910/0EM9	10/22/1999	in all local devices		
P Ultrium 2-SCSI	F60D/0EM9	05/23/2006	Selected for download	Clear All	
HP Ultrium 3-SCSI	G54D/Stand	04/25/2006	Local copy available		
				Detaile	
				_	
				_	
				_	
Firmuero Filo Foldor: [C\] Progr					
riilliwale riie roidei. ju. vriogi					
				Close	

How do I check the health of my drive?

- Quick check
 - 1. <u>Generate a support ticket</u> for the drive
 - 2. Look at the **Device Analysis** section. This section gives an assessment of their health along with appropriate recommendations.
 - 3. If you are still uncertain about the drive's health, <u>run the Drive</u> <u>Assessment test</u>.
- 15 minute assessment
 - 1. <u>Run the Drive Assessment test</u> with a known good (preferably new) tape. This test assesses the health of the drive and provides recommendations if issues are found.
 - 2. If the test passes, the drive is okay.
 - 3. If the test fails and you have used a good data tape, then the drive needs attention.

How do I generate a support ticket?

- 1. Install and run L&TT
- 2. Select the device and click **Support** on the toolbar.
- 3. In the Support ticket tab, click **Extract** or **Refresh Device Data**.
- 4. Click View Support Ticket.
- 5. The ticket viewer will appear. Use this to examine the ticket.

The support ticket contains a section called **Device Analysis**, which examines the logs within the drive and gives an assessment of their health along with appropriate recommendations.

File View Function Options Utilities Help	
Identity Firmware Health Test Support	t ronipanel Dev Perf Sys Perf Help
Scan By Product By Connection Instructions	Support Ticket
Support Ticket	Generate Support Tickets from Device
The support ticket is a detailed log of information for your storage product. The information provided by the support ticket can be used to diagnose problems and may be requested by HP support personnel.	Refresh Device Data
To generate a support ticket, you first need to extract the device data. After extracting the device data for the first time you will have the option to refresh the data. It is advised that you refresh this data only when needed (Hint: Refresh the device data if, between two support tickets, you ran a test or loaded/unloaded a cartridge	Save Support Ticket Send Support Ticket by Email
from the device).	Support Resources on the Web:
After a support ticket is generated, you can:	Media Supplies: http://www.hp.com/go/storagemedia
 View it. Save it. Send it via email to an HP support provider. 	HP Library & Tape Tools: http://www.hp.com/support/tapetools
The support ticket can be exported to HTML format so	Performance Troubleshooting: http://www.hp.com/support/pat
that it can be easily shared, viewed, and printed by others.	HP Services & Support: http://www.hp.com/go/support
For further information, see the L&TT user guide or online help.	

File Options Current Detail Level: Normal Current Detail Level: Normal Tool Version : Version 4.1 System Time : Friday July 21 2006 - 16:42:22 Device Listing: By Connection : Device Listing: By Product : Detailed Device Information : Tape at address (5/0.2.0) : Increase the 'Current Detail Level' (at the top of the screen) for further inf For an explanation of the terms used in the report, please check the on-line I Drive Identity
Current Detail Level: Normal Current Detail Level: Normal Tool Version : Version 4.1 System Time : Friday July 21 2006 - 16:42:22 Device Listing: By Connection Device Listing: By Product Detailed Device Information Tape at address (5/0.2.0) Increase the 'Current Detail Level' (at the top of the screen) for further inf For an explanation of the terms used in the report, please check the on-line I Drive Identity
 Tool Version : Version 4.1 System Time : Friday July 21 2006 - 16:42:22 Device Listing: By Connection Device Listing: By Product Detailed Device Information Tape at address (5/0.2.0) Increase the 'Current Detail Level' (at the top of the screen) for further inf For an explanation of the terms used in the report, please check the on-line I Drive Identity
- Drive Health - Drive - Device Analysis - version: V05.06.2006
 Firmware rev FGUD is up-to-date for Oltrium 2-SUSI as of fue May 23 is Rule 19: A The current SCSI configuration is likely to be limiting the perform: A Please check that your HBA is the correct type for the drive and the A The SCSI configuration referenced is the one for which device analy: A If this is not via your backup server then you may not have an issue A Current SCSI transfer rate limited to: 80 MB/sec. Recommended: 160 There were 18 rules checked. A Device Analysis completed, and warnings have been reported.
Head life : Great margin, 99% life
Reposition life : Great margin, 99% life
Load/unload life : Great margin, 99% life
🗄 Drive Configuration

How do I run the Drive Assessment Test?

- 1. Install and run L&TT
- 2. Select the device and click **Test** on the toolbar.
- 3. In the **Test Execution** tab, select the drive
- 4. Select the **Drive Assessment test** from **Test Group**.
 - Leave the options as default.
 - Use a known good, preferably new, tape that can be overwritten.
- 5. Click **Start Test**. The test will take 10-15 minutes.
- 6. Open the **Test Results** tab to see the results of the test.
- 7. Red stop signs indicate failures. Warnings should be observed but are not critical.
- If the test fails with a known, good tape then the drive needs attention. Contact HP support and <u>send the results in the</u> <u>ResultLog.Itt file</u>.

Shp StorageWorks library and tape tools		×
File View Eunction Options Utilities Help		
Identity Firmware Health Test Support	t Frontpanel Dev Perf Sys Perf Help	
Scan By Product By Connection Instructions	Test Execution Test Results	
Diagnostic Tests	Status Current Operation	
These tests are useful for diagnosing problems with your storage device(s).	Vive (Ultrium 2-SCSI)	
 Select the device or devices that you want to test. Select the test to perform from the Test Group dropdown box. A description of the selected test is displayed in the Description textbox. Click Start Test to begin the testing process. Click the Test Results tab to view the results of the test. 	Configuration: Test Group: LTO Drive Assessment test	
	Description: This test will check the functionality of your LTO drive, and ensure that it is working correctly. Please have a media cartridge ready to load when requested.	
	Time Remaining: 0 secs	

Shp StorageWorks library and tape tools	
Eile View Eunction Options Utilities Help	
Identity Firmware Health Test Suppo	I IIII IIII IIIII IIIIIIIIIIIIIIIIIIII
Scan By Product By Connection Instructions	Test Execution Test Results
Diagnostic Test Results	Test
The Test section of the screen displays a summary of test results. The Test Operation Log shows a detailed breakdown of the test performed in a tree-view format. The amount of detail shown is determined by the Current Detail Level setting.	Test passed with warnings. See the analysis results in the test operations log.
	Test Operation Log: Current Detail Level: Normal 🔽 Clear Results
	Test 'LTO Drive Assessment test' started on device 'HP Ultrium 2-SCSI' at address Please confirm that a test cartridge is loaded into the drive (CAUTION: any data on the cartridg Tasting here completed and some warnings were reported. Analysis Results Operations Log Image: A start of the drive of the dri



Why is the Drive Assessment test recommended?

The Drive Assessment test automates HP engineering expertise to accurately determine the health of your drive. The test evaluates whether or not a specific drive/tape combination will perform backups and restores as expected.

HP recommends that you use a known good (preferably new) tape to ensure that the test is measuring the health of the drive rather than the quality of the tape.

If the test passes, the drive is fine. If the test fails using a good tape, this indicates a faulty drive. Contact support in this case.

If the drive is okay and a problem remains, examine other system components or the overall configuration to determine the location of the problem.

How do I check the health of my data cartridge? (LTO only)

- 1. Load the data cartridge into an LTO drive of known good health.
- 2. <u>Generate a support ticket</u> for that drive.
- 3. Go to **Detailed Device information > Tape at address > (loaded tape) > Cartridge Health** in the support ticket and examine the margins. Check the following information:
 - a. **Data on tape** measures the quality of the data written on the tape.
 - b. **Drive measurements** measures the quality of the data as viewed by the drives that wrote it.
 - c. **Write/read life** shows the age of the tape from a data volume perspective.
 - d. **Load/unload life** shows the age of the tape from a load/unload perspective.

If any of these categories display questionable information, there may be an issue with the tape. Repeat the procedure with a trusted, good quality tape to compare results.

(S) h	p L&TT - Report Viewer	×
File	Options	
	Current Detail Level: Normal <- This setting determines the level of detail displayed	
	Device Listing: By Product	-
	- Detailed Device Information	
	⊡ Tape at address (5/0.2.0)	
	Increase the 'Current Detail Level' (at the top of the screen) for further information.	
	For an explanation of the terms used in the report, please check the on-line LATT user documentatic	
	• Drive Identity	
	🕒 Drive Health	
	🗈 Drive Configuration	-
	• Drive Environment	
	Drive Performance	
	ter Drive Usage	
	ter Drive History	
	How Cartridge Identity	
	Creat Party Action	
	Data on tape . Great margin (average 100%, worst 100%)	
	Write/read life - Good margin 40% life remaining (155 full)	
	Load/unload life · Great margin 99% life remaining (37 load/u	
	+ Cartridge Configuration	
	- Cartridge Environment	
	-Cartridge Performance	
	+ Cartridge Vsage	1
•		-

How do I check the health of my data cartridge? (Non-LTO)

- 1. Load the data cartridge into a drive of known good health.
- 2. Install and run L&TT
- 3. Select the device and click **Test** on the toolbar.
- 4. In the **Test Execution** tab, select the drive
- 5. Select the **Media Validation test** from **Test Group**.
- 6. Click **Start Test**. The test will read the whole tape so may take a long time.
- 7. Open the **Test Results** tab to see the results of the test.

⑤hp StorageWorks library and tape tools		. 🗆 🗙
File View Function Options Utilities Help		
Identity Firmware Health Test Suppor	Frontpanel Dev Perf Sys Perf Help	
Scan By Product By Connection Instructions	Test Execution Test Results	
Diagnostic Tests		
These tests are useful for diagnosing problems with your storage device(s).	Vice Status Current Operation	
 Select the device or devices that you want to test. Select the test to perform from the Test Group dropdown box. A description of the selected test is displayed in the Description textbox. Click Start Test to begin the testing process. Click the Test Results tab to view the results 		
of the test.	Configuration:	- 11
	Test Group: Media Analysis Test Options	
	Description: This test reads all valid data on the cartridge, verifies the readability and quality of the cartridge and displays statistics about the data present on the cartridge.	
	Time Remaining: 0 secs	

Was my backup successful? (LTO only)

- 1. After the backup, <u>generate a support ticket</u> for the drive on which the backup was performed.
- Go to Detailed Device information > Tape at address > (loaded tape) > Cartridge Health in the support ticket and examine the margins. Check the following information:
 - **Data on tape** measures the quality of the data written on the tape.
 - **Drive measurements** measures the quality of the data as viewed by the drives that wrote it.
- 3. If any of these categories display warnings, the backup may be suspect. Repeat the backup using a different drive and tape combination.

⑤hp L&TT - Report Viewer	
File Options	
Current Detail Level: Normal 💽 <- This setting determines the	e level of detail displayed
Device Listing: By Product Detailed Device Information Tape at address (5/0.2.0) Increase the 'Current Detail Level' (at the top For an explanation of the terms used in the rep Drive Health Drive Kalth Drive Environment Drive Environment Drive Vsage Drive History (loaded tage)	• of the screen) for further information. Nort, please check the on-line LGTT user documentatic
- Cartridge Health	
Data on tape Drive measurements	: Great margin (average 100%, worst 100%) : Great margin (average 100%, worst 100%)
Write/read life Load/unload life	: Good margin, 40% life remaining (155 full) : Great margin, 99% life remaining (37 load/)
Cartridge Configuration Cartridge Environment Cartridge Performance Cartridge Verge	_

How many more uses are left with this cleaning cartridge? (LTO only)

- 1. Perform a clean as you normally would.
- 2. After the clean is finished, <u>generate a support ticket</u> for the drive that was just cleaned.
- 3. Go to **Detailed Device information > Tape at address > Ejected Tape > Cartridge Usage** section of the support ticket to see the number of cleans performed and the estimated number of cleans remaining.

(چ)	np L&TT - Report Viewer	_ 🗆 🗵
Eile	Options	
	Current Detail Level: Normal <- This setting determines the level of detail displayed	
ΙГ	🛨 Drive Health	
	🗄 Drive Configuration	
	🗄 Drive Environment	
	🗄 Drive Performance	
	🛨 Drive Vsage	
	🗄 Drive History	
	🖻 (ejected tape)	
	🗄 Cartridge Identity	
	🖻 Cartridge Vsage	
	Cleans performed : 11	
	Estimated cleans remaining : 54 (this drive)	
ΓĽ		

How fast will my backups be?

To determine backup performance, you must measure how fast the disks can deliver data and how fast data can be written to the tape. Backup performance will be the slower of these two measurements.

- Use the <u>Device Performance test</u> to measure the speed of the tape drive.
- Use the <u>System Performance Backup Pre-test</u> to measure the speed of the disk subsystem.

Note this test is independent of the backup application. Please check with your backup vendor if actual backup performance is significantly slower.

How fast will my restores be?

To determine restore performance, you must measure how fast data can be read reads from tape and how fast data can be written to disk. Restore performance will be the slower of these two measurements.

- Use the <u>Device Performance test</u> to measure the speed of the tape drive.
- Use the **System Performance Restore Pre-test** to measure the speed of the disk subsystem.

Note this test is independent of the backup application and uses test restore data. Please check with your backup vendor if actual backup performance is significantly slower.

How do I run the Device Performance test?

- 1. Install and run L&TT
- 2. Select the device and click **Dev Perf** on the toolbar.
- 3. Set parameters as shown or as preferred and start
- 4. See Drive Performance Results tab for results

ြက် hp StorageWorks library and tape tools	
File View Eunction Options Utilities Help	
Identity Firmware Health Test Support	t Frontpane Dev Perf Help
Scan By Product By Connection Instructions	Tape Drive Performance Drive Performance Results
Tape Performance The purpose of this test is to measure the tape drive performance by checking how fast the server can access the tape drive independent of the disk subsystem. It works by transferring pre-loaded data with different compression ratios directly from the memory of the server to the tape drive.	Test Logic Test Parameters Step 1 2:1 Compression Step 2 No Test Step 3 No Test Step 4 No Test
	Rate Limiting File Mark Mode No FileMarks Enable 10MB/s Head After Write
	Start



How do I run the System Performance Backup Pre-test?

- 1. Install and run L&TT
- 2. Select the device and click **Sys Perf** on the toolbar.
- 3. Select the **Backup Pre-test** tab
- 4. Set parameters as shown or as preferred and start
- 5. See **System Performance Results tab** for results

⑤hp StorageWorks library and tape tools		
<u>File View Eunction Options Utilities Help</u>	\frown	
Identity Itemware Health Test Support	rt Frontpanel Dev Perf Sys Perf Help	
Scan By Product By Connection Instructions	Restore Pre-Tet Backup Pre-Test System Performance Results	
Backup Pre-Test The purpose of this test is to measure actual read begins rate from the disk subsystem by file by file or	Read Size	
sequential method.	Directory Traverse Depth 💌 Method	
	Stop After All Readers Complet	
	Reader 1 C	
	Reader 2 C:\ Browse >>>	
	Reader 3 C:\ Browse>>>	
	Reader 4 C:\ Browse >>>	
	Start Read Files 🔽	

How do I run the System Performance Restore Pre-test?

- Install and run L&TT
- Select the device and click **Sys Perf** on the toolbar.
- Select the **Restore Pre-test** tab
- Set parameters as shown or as preferred and start
- See System Performance Results tab for results

Shp StorageWorks library and tape tools	
Eile View Eunction Options Utilities Help	
Identity Image: Support	t Frontpanel Dev Perf Sys Perf Help
Scan By Product By Connection Instructions	Restore Pre-Test Rackup Pre-Test Sustem Performance Results
Restore Pre-Test	
The purpose of this test is to measure the performance of the disk subsystem. It creates a directory structure	Test Path Browse>>>
based on file size, directory depth, block size and compression ratio and measures the data rates achieved.	Test Data 2:1 Compression Ratio Type Test Size Filesystem 2.2 GB 14.2 GB
	File Size 4KB To 512KB
	File Tree 1
	File Tree Breadth
	Files Per Directory
	Start 1020 KB 12.0

How much data can I write to the tape?

The amount of data written that can be written to a tape is impacted by the compression ratio of the data and the error rate performance of the tape/drive combination. It may not be the same as the capacity marked on the cartridge which assumes 2:1 compression ratio and reasonably good error rate.

Use the Device Performance test to measure a specific tape/drive combination.

Note - This test will **take a long time** and **overwrite any data** on the tape.

- 1. Install and run L&TT
- 2. Insert the tape in the appropriate drive.
- 3. Select the device and click **Dev Perf** on the toolbar.
- 4. Set parameters as shown or choose a different compression ratio and start. Note the **Test Size** is set to **Full Tape**
- 5. See Drive Performance Results tab for results

(b) hp StorageWorks library and tape tools	
Eile <u>V</u> iew Eunction Options Utilities Help	
Identity Firmware Health Test Support Frontpane Dev Perf Sys Perf Help	
Scan By Product By Connection Instructions Tape Drive Performance Drive Performance Results	
Tape Performance The purpose of this test is to measure the tape drive performance by checking how fast the server can access the tape drive independent of the disk subsystem. It works by transferring pre-loaded data with different compression ratios directly from the memory of the server to the tape drive. Test Logic Step 1 21 Compression Blow Step 2 No Test Blow Step 3 No Test Step 4 No Test File Rate Limiting Enable 10MB/s	est Parameters book Mode Fixed Variable book Size Size Full Tape e Mark Mode No FileMarks ead After Write

How do I send a support ticket by e-mail?

- If you have e-mail set up on your server then
 - 1. Click on Send Support Ticket by Email
 - 2. Fill out the pop-up form with your details
 - 3. Click on Send
- If not then
 - 1. Use **Save Support Ticket** to save the ticket files (one header file and one data file for each device) into a directory.
 - 2. Archive the files (to compress them) and e-mail the archive file via another computer.
- Use the email address given by HP support

⑤hp StorageWorks library and tape tools	
File View Function Options Utilities Help	
Identity Firmware Health Test Support	t Prontpanel Dev Perf Sys Perf Help
Scan By Product By Connection Instructions	Support Ticket
Support Ticket	Generate Support Tickets from Device
The support ticket is a detailed log of information for your storage product. The information provided by the support ticket can be used to diagnose problems and may be requested by HP support personnel.	Refresh Device Data View Support Ticket
To generate a support ticket, you first need to extract the device data. After extracting the device data for the first time you will have the option to refresh the data. It is advised that you refresh this data only when needed (Hint: Refresh the device data if, between two support tickets, you ran a test or loaded/unloaded a cartridge	Save Support Ticket
from the device).	Support Resources on the Web:
After a support ticket is generated, you can:	Media Supplies: http://www.hp.com/go/storagemedia
 Save it. Save it. Send it via email to an HP support provider. 	HP Library & Tape Tools: http://www.hp.com/support/tapetools
The support ticket can be exported to HTML format so	Performance Troubleshooting: http://www.hp.com/support/pat
that it can be easily shared, viewed, and printed by others.	HP Services & Support: http://www.hp.com/go/support
For further information, see the L&TT user guide or online help.	

Save Ticket in Folder		? ×
Savejn: 🔁 logs	▼ ← 🗈 💣 Ⅲ•	
DAT40x6 ticket	📓 EventLog_backup_2.ltt	
Full tape write LTO 2	📓 EventLog_backup_3.ltt	[
LTO 2 assessment test demo	📓 EventLog_backup_4.ltt	[
i st_20060619_135145_G200002336	📓 EventLog_backup_5.ltt	[
📓 EventLog.ltt	📓 EventLog_backup_6.ltt	
EventLog_backup_1.ltt	📓 EventLog_backup_7.ltt	
•		F
File name: My ticket	<u>S</u> av	e
Save as type: hp L&TT Log Files (*.ltt)	▼ Canc	el /

🚔 C:\Program Files\HP StorageWo	rks Library and Tape Tools\logs\M	y ticket		ſ	- O ×
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools	Help				
🗢 Back 👻 🤿 👻 🔂 Search	🖥 Folders 🛞 📴 👫 💥 හා 🛛				
Address 🔄 C:\Program Files\HP Storag	geWorks Library and Tape Tools\logs\My	ticket		▼ 🖗 😡	Links »
	Name 🛆	Size	Туре	Modified	
	HPUltrium_2-SCSI_1153915871.dat	514 KB	DAT File	26/07/2006 13	21
	sticket_header_1153916494.ltt	13 KB	HP L&TT File	26/07/2006 13	21
My ticket	🗐 My ticket.zip	191 KB	WinZip File	26/07/2006 13	24
Select an item to view its description. See also:					
My Documents					
My Network Places					
My Computer					
3 object(s)		716 KB	3 🔛	My Computer	

How do I send an L&TT event log?

You may be asked for the L&TT event log by the L&TT support team. This log records L&TT activity and is useful for troubleshooting L&TT issues. The most useful event logs have I/O history enabled.

- 1. Open the **Preferences** menu.
- 2. Check Add I/O History to Event Log.
- 3. Recreate the issue so that is recorded.
- 4. Locate the <L&TT install dir>/logs directory.
- Archive all the files that begin with EventLog and mail them to L&TT Support (<u>LTT team@hp.com</u>). The most recent file is EventLog.ltt; the rest are backups of previous EventLogs.

hp L&TT - Preferences	×
Device Map: Show Scan Details Show Instructions	OK Cancel
Folder Settings:	Defaults
Log Files: C:\Program Files\HP StorageWorks Lib Browse	Help
Script Files: C:\Program Files\HP StorageWorks Lib Browse	
Other Settings:	
Display splash screen at startup	
Check for updates on Web	
Display dialogs for I/Os pending more than 2 minutes	
Check for redundant devices after scan	
Add I/O History to Event Log (Uses large amounts of disk space)	
Data Phase Limit: 16 (in bytes, or 'unlimited')	
Enter Maximum E-Mail size	
E-Mail Size Limit: 10 (in MB's)	

🚔 C:\Program Files\HP StorageWorks Library and Tape Tools\logs					
<u>File Edit View Favorites Tool</u>	s <u>H</u> elp				
🗢 Back 🔹 🔿 👻 🔂 🔯 Search	🔁 Folders - 🎯 🛛 😤 🧏	$\times \infty$	*		
Address 🔄 C:\Program Files\HP Stora	Address 🔄 C:\Program Files\HP StorageWorks Library and Tape Tools\logs 💽 🔗 Go 🛛 Links 🎽				
	Name 🛆	Size	Туре	Modified	
Iogs Select an item to view its description. See also: My Documents My Network Places My Computer	 EventLog.ltt EventLog_backup_1.ltt EventLog_backup_2.ltt EventLog_backup_3.ltt EventLog_backup_4.ltt EventLog_backup_5.ltt EventLog_backup_6.ltt EventLog_backup_7.ltt EventLog_backup_8.ltt EventLog_backup_9.ltt ResultLog.ltt ResultLog.ltt ResultLog_backup_1.ltt temp tracefile.txt EventLog_sin 	10,901 KB 36 KB 25 KB 42 KB 1,008 KB 1,023 KB 2,958 KB 1,423 KB 93 KB 15 KB 7 KB 214 KB 1,025 KB 49 KB 1 KB 2,440 KB	HP L&TT File HP L&TT File File Text Document WinZin File	26/07/2006 13:21 05/07/2006 13:00 05/07/2006 10:03 30/06/2006 16:19 29/06/2006 10:58 27/06/2006 15:33 27/06/2006 11:28 27/06/2006 11:13 26/06/2006 10:51 25/07/2006 12:59 21/07/2006 16:53 24/06/2006 10:51 16/06/2006 10:51 26/07/2006 13:58	
		2,1010		2010112000 10101	
16 object(s)		20.7	MB 📙 My	y Computer //	

How do I send the results of the assessment test to Support?

The results of all L&TT tests are automatically saved to the **ResultLog.Itt** file in the <L&TT install dir>/logs directory.

Archive and e-mail this file to Support.

The file can be viewed using L&TT. Just double-click on it. Scroll to the end to see the results summary.



```
🔊 hp L&TT - Report Yiewer - Test Result Log - ResultLog.ltt
                                                                                      _ 🗆 🗵
File Options
        Current Detail Level: Normal
                                         <- This setting determines the level of detail displayed</p>
        analyzing device data ...
                                                                                         ٠
        updating device writeback data ...
       version: V05.06.2006
       Firmware rev F60D is up-to-date for Ultrium 2-SCSI as of Tue May 23 19:00:00
      -Rule 19:
        ⚠ The current SCSI configuration is likely to be limiting the performance o
       \Delta Please check that your HBA is the correct type for the drive and that the
       ^{\rm A} The SCSI configuration referenced is the one for which device analysis was
       \cdot \underline{\mathbf{A}} If this is not via your backup server then you may not have an issue.
       🕂 Current SCSI transfer rate limited to: 80 MB/sec. 🛛 Recommended: 160 MB/se
       There were 17 rules checked.
       \underline{\mathbf{A}} Device Analysis has checked the historical information and warnings have 1
     Please confirm that a test cartridge is loaded into the drive (CAUTION: any
       checking for tape loaded...
       writing ...
       writing block 10400 of 104000...
       writing block 20800 of 104000...
       writing block 31200 of 104000...
       writing block 41600 of 104000...
       writing block 52000 of 104000...
       writing block 62400 of 104000...
       writing block 72800 of 104000...
       writing block 83200 of 104000...
       writing block 93600 of 104000...
       writing block 104000 of 104000...
        rewinding ...
        SCSI parity check ...
     - Testing has completed and some warnings were reported.
       \underline{\mathbf{M}} Testing has completed and some warnings were reported.
       Test passed with warnings. See the analysis results in the test operations
       LTO Drive Assessment Test Finished...
        Test passed with warnings
```

How do I turn on or off Prevent Media Removal or hardware Data Compression?

- 1. Install and run L&TT
- 2. Select the device and click **Test** on the toolbar.
- 3. Select **Drive Configuration Utility** from **Test Group**.
- 4. Click **Options...** to configure **Prevent Media Removal** and **Data Compression**.
- 5. Start the test

Shp StorageWorks library and tape tools	
File View Function Options Utilities Help	
Identity Firmware Health Test Support	Frontpanel Dev Perf Sys Perf Help
Scan By Product By Connection Instructions	Test Execution Test Results
Diagnostic Tests	
These tests are useful for diagnosing problems with	Device Status Current Operation
 Select the device or devices that you want to test. Select the test to perform from the Test Group dropdown box. A description of the selected test is displayed in the Description textbox. Click Start Test to begin the testing process. Click the Test Results tab to view the results of the test. 	Configuration: Test Group: Drive Configuration Utility Dptions Description: This utility can be run only on the drives. This helps to configure the drives for enable/disable the data compression and prevent media removal.

Options
Double click on an item to modify the settings for the selected operation.
Drive Configuration Utility Options Enable/Disable Data Compression : leave unchanged Select a new value for 'Prevent/Allow Media Removal' leave unchanged allow prevent
OK