Hewlett Packard Enterprise HPE Support Center

HPE Library and Tape Tools - Troubleshooting

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Troubleshooting Library and Tape Tools (L&TT)

On encountering a software issue with the L&TT program itself, send an email to LTT.team@hpe.com. Be sure, as much as possible, that it is an L&TT issue rather than a product issue. When sending the email, include the following:

- A description of the issue
  - What was being done. How it failed. Symptoms.
  - Try to include the exact wording of any error messages received. This makes it much easier for the developers to find in the code.
- The configuration of the system
  - System type, OS type and variant, patch status.
  - HBA type, drivers used, revisions
  - Device type, firmware revisions
  - Connectivity - FC/SCSI, SAN or direct connect.
- Key L&TT logging data
  - The event log with I/O history enabled. The I/O history enabled event log contains critical information that HPE programmers can use to debug problems with the application itself. In the event of a device detection issue, support ticket generation issue, firmware update issue or other problem, enable I/O history in the event log. Restart L&TT and perform the operation that failed previously. The event log will capture critical I/O information.
  - A Tool Status Report (TSR). See **Using the Tool Status Report** section below.

    Be prepared to provide additional information if requested by the L&TT support team. User can also send comments, feedback, suggestions and questions to LTT.team@hpe.com.

Using the TSR

The TSR is a feature of L&TT to help understand and debug problems with the L&TT tool. Contents of the TSR include configuration information, stack trace, other system information and so on. It is automatically generated any time the L&TT application is unexpectedly close, but can also be manually generated to get more information about system configuration.

The only difference in the contents of manually generated and automatically generated reports is that the manually generated report contains no stack trace (At the time of generation) or register values. The TSR feature is supported on Windows and non-Windows platforms.

If L&TT stops unexpectedly, user will be prompted with the option to send a TSR to the L&TT support team.

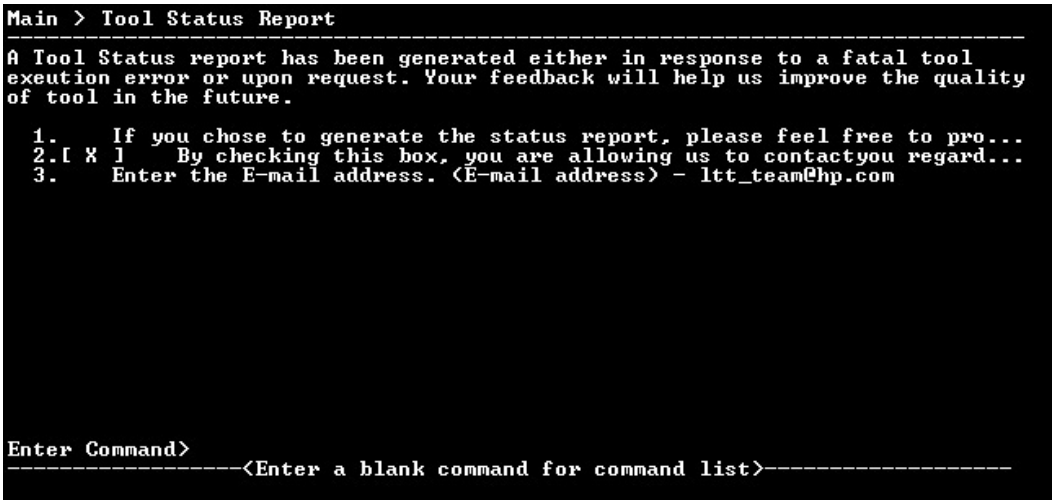
To generate a TSR from the Windows version of L&TT manually:

1. Select **TSR** from the **Help** menu for displaying the TSR screen.

2. Follow the steps outlined on the **TSR** screen.
3. Click one of the following buttons:
   - Send as E-Mail - Click this button to send the TSR in an email. Use the default address(ltt.team@hpe.com) to send the TSR to the L&TT support team or change the email address as needed. This option does not show the TSR, so if wants to view it, click **Preview** before clicking **Send** as E-Mail.
   - Preview - Click this button to view the TSR in a text editor.
   - Cancel - Click this button to close the **TSR** screen and return to the L&TT main screen.

To generate a TSR from the CSI version of L&TT manually:

1. From the main screen (And certain other screens), enter the report command to display the **TSR** screen.



2. From the TSR screen, enter one of the following commands:
   - **Preview** - Displays the TSR in a text editor.
   - **Send-email** - Prompts for an email address (ltt.team@hpe.com is the default) and sends the TSR to the specified email address.
   - **Up** - Exits the current command level.
   - **Exit** - Exits L&TT

NOTE: Before L&TT can email a TSR, user must either have a MAPI-compliant email program (Such as Microsoft Outlook or Outlook Express) or user must set up an email account through the Windows Control Panel or Internet Explorer.

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Troubleshooting devices

View the appropriate topic:

- Using to troubleshoot tape devices
- Troubleshooting third-party software

Using L&TT to troubleshoot tape devices

HPE requests that users perform diagnostics on their drive before requesting a replacement. This section tells how, why and when to run these diagnostics so that user can identify and potentially fix problems without the need to contact HPE support. If L&TT determines that tape drive is not functioning correctly and does need to be exchanged, then the accompanying failure information provides a faster response from HPE support. This section starts with the most common questions that may have concerning the health of tape drive. User can work through each of them in turn or pick one that is most appropriate to the problem. Additional pointers are provided if the problem is not found in the tape drive. This section currently only covers standalone drives.

View the appropriate topic:

- Is regular maintenance been performed?
- Is the drive connected properly?
- Is the drive working as expected?
- Is the drive firmware up to date?
- Is the drive performing as expected?
- Is the media in good condition?

Is regular maintenance been performed?

The health of tape drive and media are highly influenced by the way they are treated. Good maintenance will help prevent many problems.

- Perform maintenance
  - Keep firmware up to date
  - Use the drive in a clean and controlled environment.
  - Clean the drive when indicated to do so.
- Perform periodic health checks
  - Run the **L&TT Drive Assessment** test
  - Run the **L&TT Media Analysis** test on tapes holding key data
- Follow good practice

- Take care of media
- Make frequent backups
- Make redundant backups for critical data

Is the drive connected properly?

If application does not recognize the drive, do the following:

- Check all physical connections and cable integrity.
- Verify that the proper HBA and tape drivers are installed.
- Verify that the operating system and backup application are configured properly.

If the problem persists, try the following:

- Run L&TT in install check mode. Install check mode performs several checks to determine if hardware is connected properly. Click here to view the section Using the installation check feature for more information .
- Run the Assessment test for drive. If the drive passes the Assessment test, then user should look elsewhere for the problem. If the drive fails, the test may provide enough information to help resolving the problem. Otherwise, contact HPE support.

Is the drive working as expected?

If the drive is not working properly, run the **Assessment test** for the drive. If the drive passes the **Assessment test**, then it is considered to be working well with the tape provided. If the drive fails the Assessment test, the problem might be caused by:

- Poor media. Run the test again with a different tape.
- Dirty heads. Use a cleaning tape

If the drive still fails after trying both of the above then the issue is most likely with the drive. In this case, contact HPE support and have the results of the test ready.

For more information about the Assessment test, click here to view drive assessment in Command Line Functionality page .

Is the drive firmware up to date?

It is important to keep the drive firmware up to date. Firmware updates include improvements to resolve known field issues. For more information about using L&TT to update firmware, click here to view uploading firmware to devices in Installing: Using L&TT on Windows page or click here to view uploading the firmware devices in Installing: Using L&TT on Non-Windows Systems page .

Is the drive working as expected?

If the drive is not performing to specification, L&TT has three tests to measure performance:

- Drive Performance test - Measures the transfer rate of the drive, HBA and cabling. Click here to view the section Using the Drive Performance test for more information .
- System Performance test - Consists of two separate tests:
  - **Backup Performance test** - Measures the data source transfer rate from the disks or network for backup.
  - **Restore Performance test** - Measures the data restore transfer rate to the disks or across the network for restores.

For more information about using these tests, see Performing the System Performance Tests.

Is the media in good condition?

If suspecting a problem with media, L&TT provides several tests that check media integrity. Click the following link for detailed information about each test:

- Click here to view LTO media assessment full tape test in Testing: Diagnostic Tests page

  If the media fails one or more of the above tests and the drive is considered to be in good condition then it is likely that the media is bad. In this case, user can:
  - Make a backup of that data to another tape if the data is still available on system.
  - Perform the **Media Analysis** test in a different drive. It is possible that the drive that wrote the data was also suspect, but a different drive might be able to read the data.
  - Contact HPE support for assistance.

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Troubleshooting third-party software

Backup failed - If a backup application reports that a backup failed and it is suspected that the problem lies with the tape device or media, then click here to view troubleshooting procedures outlined in Using to troubleshoot tape devices . If the issue is found to be with the tape device or media, take the appropriate corrective action. If the device is healthy and the media is good, then the issue is likely to be with another component in the system or with the configuration of the backup application. Refer to the documentation shipped with the backup application for verifying correct configuration.

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Using the installation check feature

Install check mode is a feature of the Windows version of L&TT. When run in Install check mode, L&TT can be used to check the installation of selected devices. L&TT performs several tests on each selected device to determine whether the device is configured optimally. In addition, L&TT performs connectivity and configuration tests on all supported devices that are configured on the system. These tests cannot be overridden. All the tests performed during the installation check can also be run manually with L&TT. L&TT displays the results of each test with recommendations based on that test. Some tests do not provide recommendations.

The installation check feature is supported on the following devices:

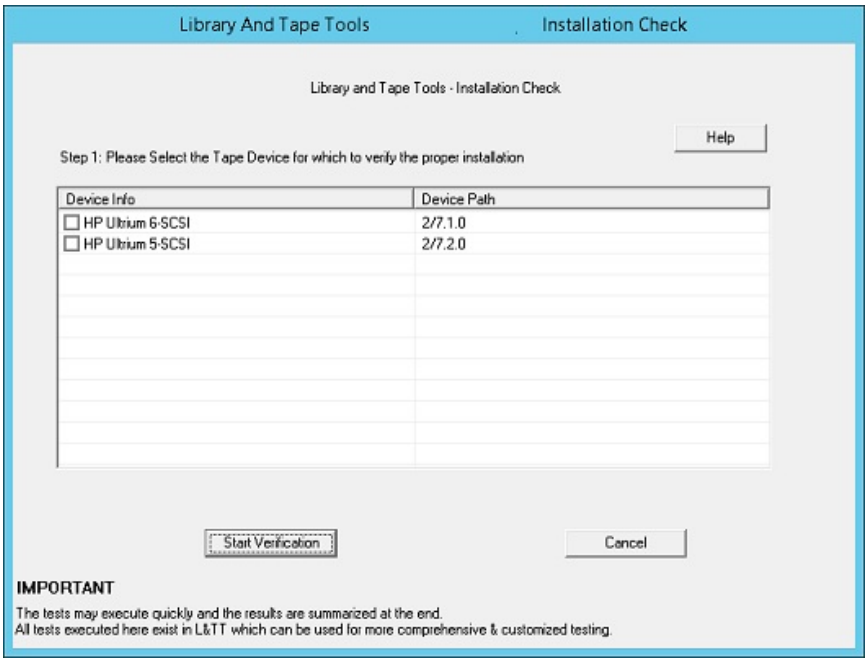
- HPE Ultrium drive
- HPE SDLT 320 drive
- HPE VS80 drive
- DDS tape drives

The installation check feature can be run from the **Start** menu or launched from a command prompt using the **mode=Install check** argument.

To launch L&TT in Install check mode:

1. Select **Start**, **Programs**, **HPE L&TT**, **HPE L&TT Installation Check**.

   The Installation Check wizard appears.

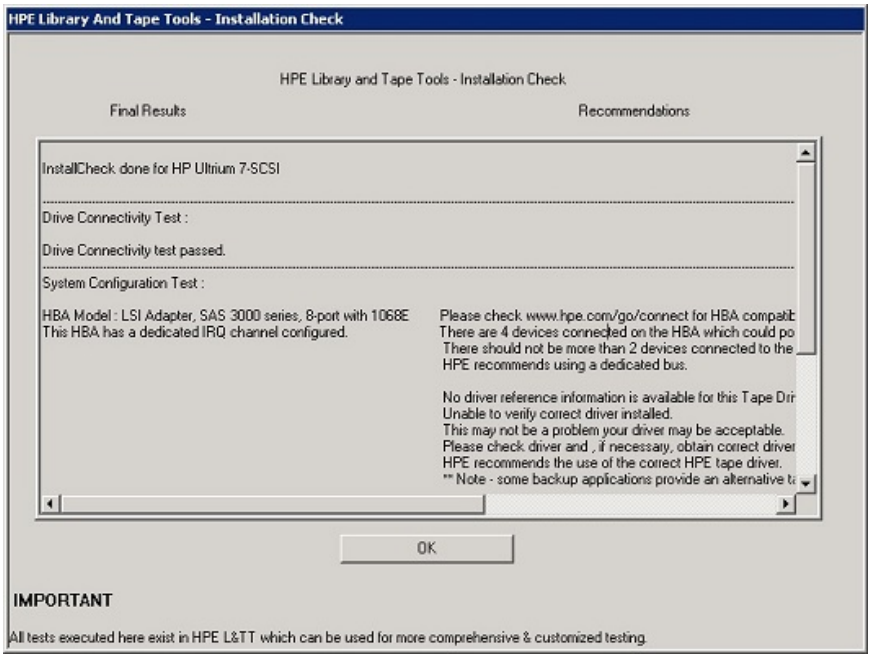


2. Select the device on which to run the installation check and click **Start Verification** to display the next screen of the Installation Check wizard.
3. Select any optional tests that user want L&TT to perform. Some tests may not be available for user's configuration.
4. Click **Continue Verification** for beginning the installation check. The third screen of the Installation Check wizard indicates the progress of the installation check. Selected tests are executed sequentially and the progress of each test is displayed.

   The final screen of the Installation Check wizard displays the results and any recommendations from running each test.

NOTE: Stopping the installation check, click **Abort Installation Check**. The test is aborted after completing the current phase of the test.

Figure 1: Installation Check wizard results



5. Click **OK** for closing the **Installation Check wizard**. Closing the wizard also closes L&TT. If user wants to restart L&TT launch it normally, without the **mode=install check** argument.

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Link to product related documents

Click here to view a list of product related documents .

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