Quantum Scalar i6000
Release Notes

Product	Scalar® i6000, Firmware Version i13.1.1
Firmware Version	766Q.GS02800
Supported Web Browsers	Firefox Chrome Microsoft Edge Apple Safari
Date	August 2018

Contents

About This Release

The Scalar i6K i13.1.1 release is a maintenance release that details bug fixes described in the Resolved Issues - i13.1.1 section. It also includes all the bug fixes from the i13.1 release.

Visit http://www.quantum.com for additional information about the Scalar i6000 and prior releases.

General Information

- The Scalar library Web UI requires that the browser cache be cleared and the application re-loaded to ensure that all new functionality is implemented.

- To prevent any firmware upgrade failures when going from i12.x firmware to i13.x, make sure you are running either Java version 7 (1.7) or version 8 (1.8).

- Secure HTTPS communication protocols SSLv3, as well as TLS 1.0 and below, have been turned off due to identified security vulnerabilities such as *POODLE.* Supported browsers need to have TLSv1.1 or TLSv1.2 support enabled. TLS 1.3 is not currently supported.

- To help maintain system integrity and for marketing purposes, Quantum regularly collects system information through automatic emails. These emails contain configuration and status information only, and do not contain any customer data stored on the system. To disable this function:

    1 Log on to your library.

    2 Select **Notifications** from the **Navigation** menu.

    3 Select the check box next to *scalartelemetrics@quantum.com* in the **North Panel**.

    4 From the **Operation** panel, select **Reports**.

    5 Click the trash can icon next to **Scalar Telemetrics report.**

    6 Click **Apply**, then **Close**.

- The Web client places a cookie on the user's computer to provide the last user's credentials upon login. The cookie only collects the user's credentials to facilitate login, and does not collect any other user data.

Special Instructions - Access Legacy Java GUI

As of firmware release i13, Scalar i6000 no longer uses the Java GUI as the default interface. However, you can use **Java Web Start** to run the legacy remote Java GUI.

Note: The legacy Java GUI will be turned off in the next release (i13.2).

Note: To run the legacy **Java Web Start** you need to be using JRE version 7 (1.7) or version 8 (1.8) and a supported browser.

1 In your browser, type the libary IP address or library name in the address field followed by **/lmc.jnlp**.

2 Press **Return** to start downloading the **Library Management Console** (LMC) Java applet (some browsers will give a warning but accept the download).

3 Select **Show in Folder**.

4 Double-click the file to start the Java applet and connect to the library.

Library Default Settings

Scalar i6000 software is installed with certain default settings. This section outlines those default settings. Review this section to determine if any of the default settings need to be changed to make your library run more effectively.

WebGUI Path	Option	Default Setting
Library > Settings	Automatic Inventory	Disabled
	Library-Assisted Drive Unload	Enabled
	Logical Drive Serial Number Addressing	Enabled
	Robot Health Check Interval	Once Daily
	Tower Health Check Interval	Once Daily
	Rail Health Check Interval	Once Daily
System > Settings	Aisle Lights	Enabled (duration set to 1 hour)

Security Scanners

Quantum runs the following Security scanners against the library:

- Nessus Professional Version 7 - Version 7.0.2 (#110) WINDOWS
- insightVM 6.5.8

Compatibility and Support

Encryption Key Management Drive Support

While the Scalar i6000 library supports multiple partitions configured for encryption, only a single encryption type can be used.

Encryption Option	HP LTO-4	IBM LTO-4	HP LTO-5	IBM LTO-5	HP LTO-6	IBM LTO-6	IBM LTO-7	IBM LTO-8
Application Managed Encryption	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Q-EKM	No	Requires EKM License	No	Requires EKM License	No	Requires EKM License	No	No
TKLM/ SKLM	No	Requires EKM License	No	Requires EKM License	No	Requires EKM License	No	Requires EKM License
SKM	Requires EKM License	No	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License
KMIP Key Manager[1]	Requires EKM License	No	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License	Requires EKM License

[1] - Only SafeNet, IBM SKLM and Thales encryption key servers are supported KMIP configurations

Firmware Compatibility Matrix

The following table shows information on drive compatibility with this release of Scalar i6000. This information is current as of this product release. For the most up-to-date information on the latest qualified firmware, please visit: http://www.quantum.com.

Drive Types	Minimum Firmware Version[1]
IBM LTO-3 (FC) 2 Gb	93GM
IBM LTO-3 (FC) 4 Gb	93GM
IBM LTO-4 (FC) 4 Gb	C7QH
IBM LTO-5 (FC) 8 Gb	H970
IBM LTO-6 (FC) 8 Gb	J450
IBM LTO-6 (FC) 8 Gb (FIPS)	J450
IBM LTO-7 (FC) 8 Gb	J4D0
IBM LTO-7 (FC) 8 Gb (FIPS)	J4D0
IBM LTO-8 (FC) 8 Gb	J4D0
IBM LTO-8 (FC) 8 Gb (FIPS)	J4D0
HP LTO-3 (FC) 2 Gb	L67Z
HP LTO-3 (FC) 4 Gb	M69Z
HP LTO-4 (FC) 4 Gb	H64Z
HP LTO-5 (FC) 8 Gb	I6RZ
HP LTO-6 (FC) 8 Gb	J5KZ
1. Check with Quantum Support for the latest firmware.	

Backup Software Compatibility

To view a list of backup software packages that have been tested for interoperability with the Scalar i6000, refer to the *Quantum Software Compatibility Guide* at http://www.quantum.com/swcompguide.aspx.

Resolved Issues - i13.1.1

This release of Scalar i6000 i13.1.1 firmware resolved the following issues:

Change Request Number	Service Request Number	Description	Resolution
67753		TKLM/SKLM when configured using the WEBGUI results in not encrypting the media and when testing the interface from the library to the server will always complete with success for the encryption path diagnostic.	Fixed.
67827		Q-EKM always completes a successful encryption path diagnostic regardless of any issues that may exist.	Fixed.
67882	0419043	Delays when moving imported media into partitions.	Fixed.
67991		No RAS ticket occurs after aisle door opened unexpectedly.	Fixed.
68134	0426181	Magazine missing errors occur during inventory.	Fixed.
68337		LMC returns incorrect/bad drive data.	Fixed.
68511	438775	LMC disables http/https services.	Fixed.

Resolved Issues - i13.1.1

This release of Scalar i6000 i13.1.1 firmware resolved the following issues:

Change Request Number	Service Request Number	Description	Resolution
63671		Drive cleaning operation for configured I/E slot fails.	Fixed.
64775		Lost tape causing issues when taking the library down.	Fixed.
65114		Duplicate bar code labels.	Fixed.
65221		Incorrect ASC/ASCQ custom code and error message when drive is failing to unload.766Q.GS02800	Fixed.
66623		In a dual-robot library where one robot is in a failed state, you cannot use the remaining robot to perform a single frame calibration.	Fixed.
66610		Unable to create new EDLM partition with an EDLM drive assigned via **Partition > Add** screen.	Fixed.
66628		Drive does not allow for unload when part of a partition.	Fixed.
66986	392659	RCU sends calibrate preparation to a failed tower.	Fixed.
66772		If EDLM Quick Scan was set in the Java GUI, it cannot be seen or edited in the WebGUI.	Fixed.
66809 67062		Web service data issues.	Fixed.
67093		FC I/O blade incorrectly shows not ready warning.	Fixed.
67120		Media cleaning dismount issue.	Fixed.
67299		EDLM issues when Ethernet is lost or drive loses power.	Fixed.
67306		Hot swap drives with front door open does not work.	Fixed.
67332	403979	LLM and PLM core issues.	Fixed.
67433		Firmware file name length issue.	Fixed.

Change Request Number	Service Request Number	Description	Resolution
67486		Library incorrectly reports top sensor assembly missing in module 15.	Fixed.

Known Issues

This release of Scalar i6000 i13.1.1 firmware has the following known issues:

Change Request Number	Service Request Number	Description	Workaround
41568	1483916	Oops in sock_common_recvmsg in iadt driver context	If this occurred during the last reboot: **1** Close ticket and ignore. In any other case: **1** Pull a snapshot and report issue to Quantum Service. **2** Close the ticket and reboot.
42325		If a SafeNet key server(s) in a cluster is not reachable during key requests, encryption keys issued by other key servers in the cluster will not automatically replicate to the unreachable server(s) afterwards.	Users need to sync the key server cluster manually.
43012		When the library has an issue importing encryption keys, an error message erroneously informs users that there was a communication issue with the key server.	If communication with the key server is not impacted, the issue is that the keys cannot be imported due to being wrapped with a certificate (public key) that does not match the server's private key.
43019	297622	Local UI is missing all menu's other than Operations.	Use the **Restart LMC** option in the **Operations** tab.
43149		In some instances, during a drive firmware update and associated drive reboot, a diagnostic ticket reporting the drive has been removed may be generated.	The drive should come back online after the firmware update is complete and the diagnostic ticket will auto close. If not, follow the directions on the diagnostic ticket to troubleshoot.
51721		When canceling an IVT during an Alignment sub-test, the test result shows an Unknown SCSI error.	Ignore, no action needed.

Change Request Number	Service Request Number	Description	Workaround
54220		Failing control path during import with media in picker fails with TSM on AIX.	Run checkin libvolume search=yes to pickup missing media Then rerun the checkin libvolume search=bulk to import remaining media in I/E.
54220		If the control path drive fails over during an import, any media in the picker will not be discovered by TSM on AIX.	From the TSM/AIX console: 1 Run checkin libvolume search=yes to pickup missing media 2 Then rerun the checkin libvolume search=bulk to import remaining media in I/E.
54580		A single frame Series 3 control module may show the presence of two CMBs even though there is only one.	There is no negative effect to library functionality. The second CMB listed is actually the MCB.
55197		EDLM scan on import shows media is in an EDLM partition when it should be in a standard partition.	No workaround. Once the EDLM scan is complete, the media will display in it's correct partition.
60636	3603548	Email requires secure configuration/ authentication that Quantum does not support.	No workaround.
61255	3702952 3726084	In a dual robot system, in some rare cases when a robot fails, the library doesn't correctly fail over to the other robot.	Open/close the door, check for obstructions or stuck tapes.
63564	323683	Library is reporting a failure for a non-existent drive.	Confirm coordinates with the physical drive presence. If no physical drive is present, disregard failure and close ticket.
64753	346454	RAS ticket is issued for an incorrect firmware image on drives when file name uses lower case version number.	1 Delete the drive firmware file (System > Drive Firmware). 2 Rename the drive firmware file on your workstation to have the version number in uppercase. 3 Upload that file.
64854	351347	Kernel Oops in Freescale display driver.	Oops occurred on shutdown and the library came back up without issue. Take snapshot, report issue and close ticket.
65649	355679	Drives are not set to the configured values after a system restore.	Reconfigure the incorrectly restored drives to the correct settings.
66370		**Company Name** field does not save when the name contains an apostrophe.	Do not use an apostrophe in the **Company Name** field on the **Contact** screen.

Change Request Number	Service Request Number	Description	Workaround
66624		Drive firmware auto-leveling does not happen after a drive power-cycled.	Vary-off and then Vary-on the drive. to force the auto-level.
67105		Drives automatically get varied off if taken from LME/FIPS partition to just LME partition.	This is a race condition, Wait a few minutes after removing the drives before adding them to another partition.
67287		RAS ticket report notification is in .csv file format, but uses "!" separators instead of "," separators. This causes readability issues when opening the file in Excel.	Change the separator format in Windows: 1 In Microsoft Windows, click the **Start** button, and then click **Control Panel**. 2 Open the dialog box for changing Regional and Language settings. 3 Click **Additional Settings**. 4 Enter **!** in the List separator field. 5 Click **OK** twice.
67761 67762	419228	Kernel Oops issue during or after library firmware upgrade.	Additional logging has been implemented to gather more information on this issue. If the issue occurs, reboot the library and report the issue to Quantum.
67514		Library calibration and code roll backs.	A manual full library calibration is required for the following code roll back scenarios: • Pre-i13 code from i13.0.x code. • Library has i13.0.x code, a roll back to pre-i13 code occurs, and i13.0.x code is re-installed.

Documentation

The following documents are currently available for the Scalar i6000.

Document Number	Document Title
Documentation Center	*Scalar i6000 User's Guide*
Documentation Center	*Scalar i6000 Planning Guide*

Document Number	Document Title
6-01847-xx	*Quantum Encryption Key Manager User's Guide*
6-01884-xx	*Quantum Encryption Key Manager Release Notes*
6-66532-xx	*Scalar Key Manager Quick Start Guide*
6-66531-xx	*Scalar Key Manager User's Guide*
6-66572-xx	*Scalar Key Manager Safety Information by IBM*
6-66535-xx	*Scalar Key Manager Open Source License Agreement*
6-68185-xx	*RESTful Web Services API Guide*
6-00423-xx	*Scalar Intelligent Libraries SCSI Reference Guide*
6-01159-xx	*Scalar i6000 Basic SNMP Reference Guide*

Contacting Quantum

More information about this product is available on the Service and Support website at www.quantum.com/support. The Service and Support Website contains a collection of information, including answers to frequently asked questions (FAQs). You can also access software, firmware, and drivers through this site.

For further assistance, or if training is desired, contact Quantum:

Quantum Technical Assistance Center in the USA:	+1 800-284-5101
For additional contact information:	www.quantum.com/support
To open a Service Request:	www.quantum.com/osr

For the most updated information on Quantum Global Services, please visit: www.quantum.com/support