



	Scalar i3
Product	Scalar i6
	Scalar i6H
Firmware Version	282G.GS011
Date	September 2022

Contents

About This Release	2
General Information	3
Security Scanners	5
Compatibility and Support	6
Resolved Issues	10
Known Issues	11
Documentation	12
Contacting Quantum	14

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September 2022 6-68531-36 RevB

About This Release

Scalar i3 Release

The Scalar i3 282G.GS011 release is a maintenance release that details bug fixes described in the Resolved Issues section. Refer to Known Issues for additional information.

Scalar i6 Release

The Scalar i6 282G.GS011 release is a maintenance release that details bug fixes described in the Resolved Issues section. Refer to Known Issues for additional information.

Scalar i6H Release

The Scalar i6H 282G.GS011 release is a maintenance release that details bug fixes described in the Resolved Issues section. Refer to Known Issues for additional information.

What's New in this Release?

This release supports the Scalar i3, i6, and i6H libraries. Fixes include:

- Robot GET failures from drives and magazine slots addressed.
- Bug fixes and enhancements (see Resolved Issues on page 10).

General Information

- The Scalar library Web UI application requires that the browser cache be cleared and the application re-loaded to ensure that all new functionality is implemented.
- (Scalar i3/i6 only) If an iBlade is present, Scalar systems with an Internet connection will automatically update and level the iBlade BaseOS FW during a library FW update.

If the Scalar system does not have an Internet connection, you can still update your iBlade BaseOS FW as described on our Documentation Center:

- Go to www.quantum.com/documentation and select your product.
- Go to Operate > User Guide > About Devices > Devices BaseOS. To will see detailed steps on updating iBlade BaseOS FW
- (Scalar i3/i6 only) Veeam Tape Server iBlades If Microsoft Hyper-V or any other hypervisor is
 installed on the Veeam Tape Server iBlade, the Virtual Machine (VM) Operating System (OS) will
 not be able to see the blade FC/SAS controller. This will cause the Scalar drives to no longer be
 visible to the VM OS.
- (Scalar i3/i6 only) Bridging and teaming interfaces on the Veeam Tape Server iBlade is not supported and can cause network card issues.
- Some snapshots, logs or RAS tickets are as large as 12 MBs. If you have automated notifications
 configured for RAS tickets and logs you may not receive them if your email does not allow
 attachments of this size.
- 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.
- Any application or browser connecting over https must support TLS v1.2.
- To help maintain system integrity and for marketing purposes, Quantum regularly collects system
 information through automatic emails and cloud based telemetric auto support. These emails and
 auto support telemetric data contain configuration and status information only, and do not contain
 any customer data stored on the system.

Email Support

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.

Auto Support

To disable this function:

- 1. Log on to your library.
- 2. Select **Notifications** from the **Navigation** menu.
- 3. Select the check box next to *Auto Support* in the **North Panel**.
- 4. To disable RAS tickets, select RAS Tickets From the Operation panel.
- 5. De-select the **Enable Auto Support Communication** check box.
- 6. Click Apply, then Close.
- 7. From the **Operation** panel, select **Reports**.
- 8. Click the trash can icon next to Scalar Telemetrics report.
- 9. Click Apply, then Close.

After a library firmware upgrade, Quantum recommends that you clear your web browser cache before logging back into the WebGUI.

WebGUI Default Settings

Scalar i3, i6, and i6H 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
User Access > Settings	Local User Interface (LUI) Access	Open Access
	Admin/User Access: Session Timeout	15 minutes
	Services Access: Enable Remote Access	Disabled
	Enable Local Service Port Login: Access Window	Indefinite
Notifications > RAS Tickets	Enable RAS Tickets	Enabled
	Severity	All options Enabled

WebGUI Path	Option	Default Setting
Notifications > Reports	Scalar Telemetrics	Once you have an email server configured, telemetrics is enabled for monthly automatic emails. To disable, click the Trash icon.
Library > IE Area	I/E Slots	0 (zero)
Library > Settings	Operational Parameters: Automatic Inventory	Enabled
	Operational Parameters: LibraryAssisted Drive Unload	Disabled
	Operational Parameters: Logical Drive Serial Number Addressing	Enabled
	Operational Parameters: Logical System Addressing	Disabled
	IE Assignment Mode: Local UI Assignment	Enabled
System > Network	Connectivity / SSH	Disabled
System > Notifications	Email Reports / Auto Support	Enabled
System > Settings	Library-Initiated Website Access	Enabled

Security Scanners

Quantum tests with the following Security scanners against the library:

• Tenable Nessus Professional Version 10 - Version 10.1.1 (#61)

No high/critical vulnerabilities found against this release using Nessus Profession Security Scanner.

Compatibility and Support

Encryption Key Management Drive Support

The following table provides the encryption key management drive support.

Full-Height Drives

Encryption Option	IBM LTO-6 (FH)	IBM LTO-7 (FH)	IBM LTO-8 (FH)	IBM LTO-9 (FH)
Application Managed Encryption	Supported	Supported	Supported	Supported
SKM	Requires SKM	Requires SKM	Requires SKM	Requires SKM
	License	License	License	License
TKLM/SKLM ²	Requires EKM	Requires EKM	Requires EKM	Requires EKM
	License	License	License	License
KMIP Key Manager¹	Requires EKM	Requires EKM	Requires EKM	Requires EKM
	License	License	License	License

^{1.}Only SafeNet/Thales encryption key servers are supported/tested KMIP configurations.

Half-Height Drives

Encryption Option	IBM LTO-6 (HH)	IBM LTO-7 (HH)	IBM LTO-8 (HH)	IBM LTO-9 (HH)
Application ManagedEncryption	Supported	Supported	Supported	Supported
SKM	Requires SKM	Requires SKM	Requires SKM	Requires
	License	License	License	SKM License
TKLM/SKLM ²	Requires EKM	Requires EKM	Requires EKM	Requires
	License	License	License	EKM License
KMIP Key Manager ¹	Requires EKM	Requires EKM	Requires EKM	Requires
	License	License	License	EKM License

^{1.}Only SafeNet/Thales encryption key servers are supported/tested KMIP configurations.

^{2.}Applies to TKLM/SKLM and SGKLM (GKLM) for IPP communication protocol only.

^{2.}Applies to TKLM/SKLM and SGKLM (GKLM) for IPP communication protocol only.

Web Browser Support

The Scalar i3, i6, and i6H WebGUI supports the following web browsers. Quantum recommends upgrading to the latest version of the browser.

Web Browser	Versions Supported
Internet Explorer	Not supported.
Google Chrome	Version 51 and above.
Mozilla Firefox	Version 55 and above.
Apple Safari	Recommend latest version.
Microsoft Edge	Recommend using Edge version 79 or greater, using the Chromium engine. This resolves issues of slowness found in the older versions of Edge.

Firmware Compatibility

For the most up-to-date information on the latest qualified library and drive firmware, please visit:

Scalar i3 Firmware

 $\frac{\text{https://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si3/index.asp}{x}$

Scalar i6 Firmware

 $\frac{\text{https://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si6/index.asp}{x}$

Drive Firmware

Scalar i3 Drives

SAS Half High (HH) Drive Types	Latest Firmware Version
IBM LTO-6 (SAS) (HH) 6 Gb ¹	KAJ9
IBM LTO-7 (SAS) (HH) 6 Gb ¹	P381
IBM LTO-8 (SAS) (HH) 6 Gb ¹	P381

SAS Half High (HH) Drive Types	Latest Firmware Version
IBM LTO-9 (SAS) (HH) 12 Gb ¹	P373
¹ Bundled with library firmware.	

FC Half High (HH) Drive Types	Latest Firmware Version
IBM LTO-6 (FC) (HH) 8 Gb ¹	KAJ9
IBM LTO-6 (FC) (HH) 8 Gb (FIPS)	KAJ9
IBM LTO-7 (FC) (HH) 8 Gb ¹	P381
IBM LTO-7 (FC) (HH) 8 Gb (FIPS)	P381
IBM LTO-8 (FC) (HH) 8 Gb ¹	P381
IBM LTO-8 (FC) (HH) 8 Gb (FIPS)	P381
IBM LTO-9 (FC) (HH) 8 Gb ¹	P373
IBM LTO-9 (FC) (HH) 8 Gb (FIPS)	P373
¹ Bundled with library firmware.	

Scalar i6 Drives

FC Full High (FH) Drive Types	Latest Firmware Version
IBM LTO-6 (FC) (FH) 8 Gb ¹	KAJ8
IBM LTO-6 (FC) (FH) 8 Gb (FIPS)	KAJ8
IBM LTO-7 (FC) (FH) 8 Gb ¹	P380
IBM LTO-7 (FC) (FH) 8 Gb (FIPS)	P380
IBM LTO-8 (FC) (FH) 8 Gb ¹	P380
IBM LTO-8 (FC) (FH) 8 Gb (FIPS)	P370
IBM LTO-9 (FC) (FH) 8 Gb ¹	P372
IBM LTO-9 (FC) (FH) 8 Gb (FIPS)	P372
IBM LTO-9 (SAS) (FH) 12 Gb ¹	P372
IBM LTO-9 (SAS) (FH) 12 Gb (FIPS)	P372
¹ Bundled with library firmware.	

Scalar i6H Drives

FC Full High (FH) Drive Types	Latest Firmware Version
IBM LTO-7 (FC) (FH) 8 Gb ¹	P380
IBM LTO-7 (FC) (FH) 8 Gb (FIPS)	P380
IBM LTO-8 (FC) (FH) 8 Gb ¹	P380
IBM LTO-8 (FC) (FH) 8 Gb (FIPS)	P380
IBM LTO-9 (FC) (FH) 8 Gb ¹	P372
IBM LTO-9 (FC) (FH) 8 Gb (FIPS)	P372
IBM LTO-9 (SAS) (FH) 12 Gb ¹	P372
IBM LTO-9 (SAS) (FH) 12 Gb (FIPS)	P372
¹ Bundled with library firmware.	

iBlade BaseOS Versions for Library Code

The following table provides the iBlade BaseOS versions for the 282G.GS011 library code.

iBlade OS	Customer BaseOS Download From Web	iBlade SLFTS Application
Linux	1.3.0-6	2.10.0-40
Windows	1.3.0-4	N/A

The latest tape driver versions are located at:

Scalar i6

 $\frac{\text{https://www.quantum.com/serviceandsupport/softwareanddocumentationdownloads/si6/index.asp}{\underline{x}}$

Scalar i3

 $\frac{\text{https://www.quantum.com/service} and support/software and documentation downloads/si3/index.asp}{x}$

Resolved Issues

This release of Scalar 282G.GS011 firmware resolved the following issues (bug fixes).

Change Request Number	Service Request Number	Description	Resolution
SQ-2715		Robot GET failures occur from drives and magazine slots.	Fixed.
SQ-2744		Host communications to control path drives lost during library restarts and firmware updates. This causes an interruption in library I/O operations.	Fixed. Library I/O operations will now continue on all drives during a firmware upgrade and not be interrupted.

In addition to the resolved issues in 282G.GS011, this release also contains the following resolved issues from the previous 281 library firmware release.

Change Request Number	Service Request Number	Description	Resolution
SQ-2641		Drive sled connection issue causes the drive to lose communication with the library. Additional logging support added when RAS tickets ET085 (Drive Sled Connection Problem) and ET096 (Drive Control Path Loss) are generated by the library.	Enhancement.
		The additional logging is present in the net_diag.log file in var/log/core_fw. In addition, the Snapshot.RASAgents file now includes sled and brick IPs.	

Known Issues

This release of Scalar 282G.GS011 firmware has the following known issues:

Change Request Number	Description	Workaround
SQ-556	Veeam iBlade updates fail when using service port.	Use customer port to perform Veeam iBlade updates.
SQ-1193	Manual drive cleaning fails when I/E station is open and closed while cleaning is in process.	Close error and repeat manual drive cleaning.
SQ-1847	Library posts Power Supply Configuration/Installation RAS ticket (ET004) after a library firmware upgrade. The power supplies are powered on and no fault is indicated.	Disregard and close the RAS ticket.
SQ-1970	LTO-9 media initialization time.	When LTO-9 media is loaded into a drive for the first time, it may take up to two hours for the media to be initialized and calibrated. You should expect delays in media access and unload timing.
WUI-1273	Drive/Media Issue Timeline does not show all data for selected time frame.	Select larger time frame.

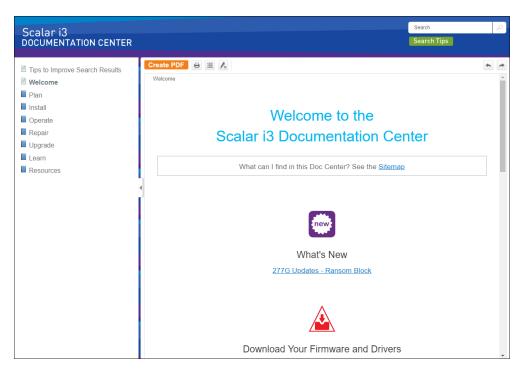
Documentation

Scalar i3 Documentation

All Scalar i3 documentation is available at the Scalar i3 Documentation Center: www.quantum.com/Scalari3Docs

Scalar i3 documentation includes:

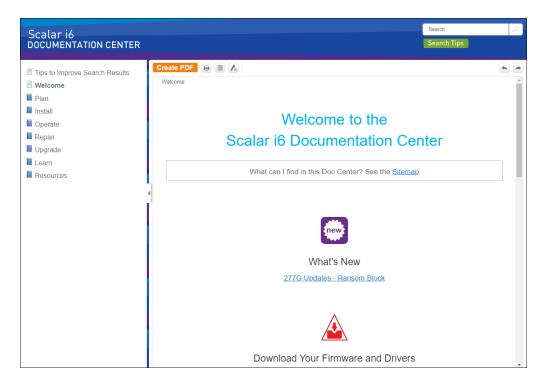
- · Site Planning Guide
- · Installation Guide
- · Operation Guides
- Repair and Upgrade Guides
- Reference Guides (Web Services, SCSI, SNMP)



Scalar i6 Documentation

All Scalar i6 documentation is available at the Scalar i6 Documentation Center: www.quantum.com/Scalari6Docs

Scalar i6 documentation includes:



Contacting Quantum

For further assistance, contact the Quantum Customer Support Center:

Region	Support Contact
North America	1-800-284-5101 (toll free)
	+1-720-249-5700
EMEA	+800-7826-8888 (toll free)
	+49 6131 324 185
Asia Pacific	+800-7826-8887 (toll free)
	+603-7953-3010
For worldwide support:	
https://www.quantum.com/serviceand	dsupport/get-help/index.aspx#contact-support