



Release Notes

Date	January 2011
Product and Release No.	Scalar® i500 i7.0.3
Firmware Version	604G.GS001. (For instructions on updating library firmware, see the <i>Scalar i500 User's Guide</i> .)
Supported Web Browsers (Remote Web Client)	Microsoft® Internet Explorer 6.0, 7.0 and 8.0. (Note: The i7 release is the last major release that will support IE 6.0.) Mozilla Firefox™ 1.0.6 and later.

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Purpose

The Scalar i500 i7.0.3 (604G.GS001) release fixes several firmware issues. These are described in [Resolved Issues](#) on page 5. These notes also provide tape drive and auxiliary firmware compatibility information. Visit <http://www.quantum.com> for additional information about Scalar i500.

New Features and Enhancements

This version of firmware includes no new features. This release is for bug fixes only.

Errata in Documentation

- **Control Path Failover** — The *Scalar i500 User's Guide* is missing the following statement: Drives configured for control path failover must be connected to a host via an NPIV-enabled switch on the same fabric.

General Usage Notes

The following are important items that you may notice that are not covered in the [Known Issues](#) section of this document.

- **Restoring the Library Configuration** — You cannot restore a saved configuration after removing or replacing a control module or expansion module. After removing and/or replacing the module, save the library configuration for future use.
- **Library Service Utility** — You must run the Library Service Utility prior to upgrading firmware if you are currently running firmware version 320G.GS004 or 400G.GS006.
- **Limits on Downgrading Library Firmware** — If your library is running firmware version 600G or later, you can only downgrade library firmware to version 410G or later. If you need to downgrade to a version earlier than 410G, contact Quantum Support for assistance.
- **Limits on Downgrading Library Firmware** — If a library is running firmware version 420G or later, the following restrictions on downgrading apply:
 - **If your library is Quantum branded**, you can downgrade to firmware version 400G or later. (There is no earlier version of Quantum-branded firmware.)

- **If your library is ADIC branded and has Fibre-Channel I/O blades installed,** you can downgrade to firmware version 400G or later. You cannot downgrade to a version earlier than 400G.
- **Limits on Restoring a Saved Configuration —**
 - If your library is running firmware version 600G or later, you can only restore a saved configuration that was created with firmware version 410G or later. If you need to restore a configuration created with a firmware version earlier than 410G, contact Quantum Support for assistance.
 - The configuration file must be at the same or an earlier version of firmware than that which is currently installed on the library. You cannot restore a configuration file created with a later version of firmware.
- **SAS Host Bus Adapter and Host Bus Adapter Drivers —** SAS host bus adapter and drivers (combined) must support SAS standard 1.1 or higher.
- **Internet Explorer 7 Security Message —** Internet Explorer version 7 displays an informational message stating that the certificate issued by the library is not from a trusted source. This is normal behavior and does not affect library function. The library issues certificates based on local network data and is not a typical Web site that would be issued a certificate by a trusted source for public access via SSL. Accept the warning and continue.
- **Kerberos Limitation Issue —** When setting up the library to use Kerberos remote authentication, an error is generated if you try to use the IPv6 address for the **KDC (AD Server)** field. Instead of using the IPv6 address, use the fully qualified domain name (FQDN).
- **HP DataProtector 6 WORM Media Support —** The only WORM media supported by HP DataProtector 6 is HP-manufactured WORM media.

Security Scanners

Tenable Network Security® Nessus® version 4.2.2 security scanner was run against library code version 600G.GS001 build 22 and found no critical issues.

Compatibility Matrix

This section provides information on firmware and software compatibility.

Firmware Compatibility

The following table provides information about tape drive firmware compatibility with Scalar i500® i7.0.3 (604G.GS001). This information is current as of the publication date of these release notes. For the most recent firmware versions, check www.quantum.com.

Drive Type	Firmware Version
IBM LTO-2 (Fibre)	A4N0
IBM LTO-2 (SCSI)	A4N0
IBM LTO-3 (Fibre)	93GM
IBM LTO-3 (SCSI)	93GM
IBM LTO-4 (Fibre)	BBH4*
IBM LTO-4 (SCSI)	BBH4*
IBM LTO-4 (SAS)	BBH4*
HP LTO-4 (Fibre)	H63Z
HP LTO-4 (SAS)	A63Z
IBM LTO-5 FC	BBN2
HP LTO-5 FC	I57Z
HP LTO-5 SAS	X57Z

* Due to security features, you cannot downgrade the IBM LTO-4 drive with tape drive firmware version 82FB or later to previous code levels without following specific instructions. If you must downgrade, contact Quantum Support for assistance.

Software Compatibility

To view a list of which backup software packages have been tested for interoperability with the Scalar i500, see the Quantum Software Compatibility Guide at <http://www.quantum.com/swcompguide.aspx>.

Resolved Issues

This release of Scalar i500® i7.0.3 (604G.GS001) firmware resolved the following issues.

Change Request Number	Service Request Number	Description	Solution
35814		Correct cross-site scripting vulnerability which could only be exploited if the user is currently authenticated.	Fixed.
35818		The logShow.htm page will display any file on the system (depending on permission of the file).	Fixed. The logShow.htm page does not display system files.
35822		Remove/disable unused Linux system accounts.	Fixed.

Known Issues

This release of Scalar i500® i7.0.3 (604G.GS001) firmware has the following known issues.

Change Request Number	Service Request Number	Description	Workaround
18328		When Fibre Channel port 2 is selected to be the active port in a host port failover configuration, the active port can switch to the default setting, port 1, following a reboot.	Reconfigure the host port failover settings so that the intended port is the active port.
19299		If you set the time and the time zone in the same action, the actual time reported by the library may be incorrect (it may be an hour off from the actual time).	Reset the time again (without resetting the time zone).
20982		The Web browser may intermittently fail to display menus properly. Alternatively, some elements on a few of the pages may obscure some menu items when viewing in Internet Explorer.	Refresh the browser.

Change Request Number	Service Request Number	Description	Workaround
22766		The library may log you off after you change the time or time zone.	Log back in.
22967		When upgrading a library with a Model 2 robot to firmware version 570G, the library may generate a RAS ticket T124 (Robotics Hardware Error - RCB).	<p>Explanation: The problem has been fixed in code versions 570G and later, but because the problem resides in previous code versions, you may encounter this issue when upgrading from a previous version to version 570G.</p> <p>Workaround: Leave the library powered on for 20 minutes after the ticket was posted to allow the picker to recover. If you open a library door or power cycle the library during this time, the picker may become inoperable and require replacement.</p>
23407		<p>The library presents misleading I/E station failure messages in the following two instances:</p> <ul style="list-style-type: none"> • Using the web client, select a tape to export. Open the I/E station, or open and close the I/E station and click Apply before the rescan completes. The following failure message displays: "The Destination slot is Full." • Insert a cartridge into the I/E station and assign it to a partition. On the web client, go to the Import Media page and select the media to import. Open the I/E station and then click on the Apply button. The following failure message displays: "Command not completed. The library is Not Ready." <p>In both these cases, the problem is that the I/E slot is inaccessible, not the error message that is displayed.</p>	When performing export/import media operations, do not interfere with the operation by opening and closing the I/E station.
25651		If a tape drive firmware update fails when using a firmware update method other than autoleveling, the library may incorrectly generate RAS ticket T112 - Invalid Tape Drive Firmware Image in addition to correctly generating RAS ticket T109 - Tape Drive Firmware Update Failure .	Ignore T112, and follow the resolution steps for T109.

Change Request Number	Service Request Number	Description	Workaround
25964	SR1070246	If a library is upgraded and fails to initialize upon reboot, the snapshot name will be incorrect.	Snapshot information is correct other than the name. Correct the hardware issue that is causing library not to initialize.
27092		Occasionally the FC I/O blade serial number is reported incorrectly on the Tools - FC I/O Blade Information screen (Tools > FC I/O Blade Info).	If the serial number ends with invalid characters, ignore the invalid characters. The rest of the serial number is correct.
27518		Once you configure the primary and secondary SKM servers on the library remote web client and encryption keys are generated, if you switch the key servers (i.e., you try to make the primary server the secondary server, or vice versa), SKM will not function.	Once configured on the library, do not switch the primary SKM server to the secondary, or vice versa.
28022		IBM SAS tape drive port lights do not come on when the tape drive is connected.	The port lights are not enabled as of this release. They will be enabled in a future release.
28047		Cleaning counts reported inconsistently when cleaning tape is used in tape drives from multiple vendors.	The problem only occurs if you use the same cleaning tape in both IBM and HP tape drives because each vendor reports cleaning count differently.
28240		When an HP LTO-5 tape drive is set to 8 Gb/s but connected to a lower-speed HBA, the drive's amber link LED stays lit even after the drive is disconnected from the HBA. The link LED should turn off.	Reset the tape drive (from the web client menus, select Tools > Diagnostics > Drives > Drive Tests > Reset).
28248		Service only: Resetting factory defaults does not create any default partitions.	Use the library interface to automatically or manually create partitions.
28408		IBM LTO-5 drives failed firmware upgrade on a library that had an FC I/O blade installed. Some of the drives that failed the upgrade were connected to the FC I/O blade.	Try the firmware upgrade operation again.
29140		E-mailing Advanced Reports via the web client fails to complete. This only happens when you first "save" the report and then immediately try to "e-mail" the report using the Save and E-mail buttons in the report viewer.	There are two workarounds. Either: <ul style="list-style-type: none"> • E-mail the report before saving it, or • Once you save the report, leave the report viewer page and go to another page in the web client. Return to the report viewer page and then click the E-mail button to e-mail the report.

Change Request Number	Service Request Number	Description	Workaround
29297	1148738	Picker issues cause the operator panel to remain in the "working" state.	Log on to the web client, capture a snapshot, and contact Quantum Support for assistance.
30478	1187320	Occasionally after reboot, the library remains in "initialization" with no access to the operator panel or web client.	Contact Quantum Support.
31491		If the tape cartridge barcode label is changed, you cannot export encryption keys using the Export Current or Export Selective options. The keystore metadata pairs the data encryption key with the media label that was present at the time of first encryption. If the label changes, the pairing is lost, and these export options will either export no key or possibly the wrong key.	No workaround. Note: Encryption read/write operations are not affected by media barcode label and will continue to work correctly.
31568		Cannot encrypt data on unlabeled tapes. The following error occurs: "Data Protect: External Data Encryption Key Manager Error."	The library does not support unlabeled media with encryption. Export the media, label it properly, import it back into the library, and try the write operation again.
31724		Cannot change drive topology setting after disabling data path failover.	Refresh the web browser page before attempting to change topology.
32239		EKM Path Diagnostics fails when you change the DNS host name of a primary or secondary EKM server (Setup > Encryption > System Configuration). This occurs when changing the DNS host name to another host name, or when changing an IP address to a DNS host name.	After you change the host name, restart the library.

Change Request Number	Service Request Number	Description	Workaround
32278		If both FC I/O blades and Ethernet Expansion blades are in the library, when you perform an operation that reboots all installed Fibre Channel I/O blade, it will also reset all installed Ethernet Expansion blades. The EE blade reset may generate a RAS ticket T177 - EEB lost Ethernet/CAN connectivity.	Close the EEB RAS ticket. Verify that no other related RAS tickets were generated.
32352		Changing the library's internal IP address in the midst of a host-initiated backup/restore operation may cause the backup to fail.	Do not change the library's internal IP address during backup/restore operations. It is recommended practice to reboot the library after changing the internal IP address. Additionally, you may receive RAS tickets for loss of drive communication if you change the internal IP address. If this occurs, resolve any related RAS tickets, and then reboot the library.

Firmware Versions

The table below lists firmware code for the last several releases.

Release	Scalar i500 Library Firmware	Board Support Package (BSP)	UDS Firmware	Fibre-Channel I/O Blade Firmware	Ethernet Expansion Blade
i7.0.3	604G.GS001	7.47	715Q.GU001 with 430A.GU001 boot	V05100818	130G.GC02000
i7.0.2	603G.GS003	7.45	715Q.GU001 with 430A.GU001 boot	V05100818	130G.GC02000
i7.0.1	602G.GS001	7.42	715Q.GU001 with 430A.GU001 boot	V05100807	110G.GC02100
i7	600G.GS004	7.42	710Q.GU012 with 430A.GU001 boot	V05100807	110G.GC02100
i6.1	585G.GS003	6.86	655Q.GU005 with 430A.GU001 boot	V05100201	

Release	Scalar i500 Library Firmware	Board Support Package (BSP)	UDS Firmware	Fibre-Channel I/O Blade Firmware	Ethernet Expansion Blade
i6	580G.GS003	6.80	650Q.GU014 with 430A.GU001 boot	V05100201	
i5.1	571G.GS002	6.73	630Q.GU008 with 430A.GU001 boot	V05090501	
i5	570G.GS025	6.73	630Q.GU008 with 430A.GU001 boot	V05090501	
i4	520G.GS003	6.66	610Q.GU005 with 430A.GU001 boot	V05080801	
i3.1	500G.GS004	6.53	591Q.GU004 with 430A.GU001 boot	V05080201	
i3	500G.GS002	6.52	590Q.GU001 with 430A.GU001 boot	V05080201	
SP4.2	420G.GS005	6.42	570Q.GU002 with 430A.GU001 boot	V05071101	
	420G.GS006	6.42	570Q.GU002 with 430A.GU001 boot	V05071102	
SP4	410G.GS007	6.39	550A.GU003 with 430A.GU001 boot	V05070901	
i2	400G.GS010	6.32	530A.GU004 with 430A.GU001 boot	V05070504	

Documentation

Documentation pertaining to this product is located at:

<http://www.quantum.com/ServiceandSupport/SoftwareandDocumentationDownloads/SI500/Index.aspx#Documentation>

Document Number	Document Title
6-01733-04	<i>Scalar i500 Site Planning Guide</i>
6-01210-05	<i>Scalar i500 User's Guide</i>
6-01811-06	<i>Scalar i500 User's Guide Addendum</i>
6-01741-03	<i>Scalar i500 Getting Started Guide</i>
6-01385-04	<i>Scalar i500 Unpacking Instructions (5U)</i>

Document Number	Document Title
6-01524-03	<i>Scalar i500 Unpacking Instructions (9U)</i>
6-01525-05	<i>Scalar i500 Unpacking Instructions (14U)</i>
6-01370-08	<i>Scalar i500 Basic SNMP Reference Guide</i>
6-00423-11	<i>Quantum Intelligent Libraries SCSI Reference Guide</i>
6-01317-10	<i>Quantum Intelligent Libraries SMI-S Reference Guide</i>
6-00676-05	<i>Quantum SNC Firmware 4 and 5 User's Guide</i>
6-01739-07	<i>Scalar i500 Library Firmware Upgrade Instructions</i>
6-01740-06	<i>Scalar i500 Tape Drive Firmware Upgrade Instructions</i>
6-01844-02	<i>Library Service Utility Installation Instructions</i>
6-00618-10	<i>System, Safety, and Regulatory Information Guide</i>

To order a copy of the source code covered by the Open Source Licenses, contact the Quantum Technical Assistance Center. Refer to [Contacting Quantum](#) below.

The following documents were updated for this release:

- *Scalar i500 User's Guide Addendum*
- *Quantum Intelligent Libraries SCSI Reference Guide*
- *Scalar i500 Library Firmware Upgrade Instructions*
- *Scalar i500 Tape Drive Firmware Upgrade Instructions*

Contacting Quantum

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<http://www.quantum.com/ServiceandSupport/Services/GuardianInformation/Index.aspx>

For further assistance, or if training is desired, contact the Quantum Customer Support Center:

United States	800-284-5101 (toll free) 949-725-2100
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