

## ASM for Windows Version 5.40.102 ReadMe File

Thank you for purchasing Application Storage Manager™ (ASM) version 5.40.102 for Windows. ASM brings the latest features to address the full range of mass storage management requirements. This document provides an overview of the new features and outstanding issues for this release. For more information, please consult the StorageTek website at <http://www.support.storageitek.com> and the documentation included with this software.

### **I. Installation Requirements**

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Below is a list of items that need to be known when installing version 5.40.102.

#### **System Requirements**

Because Data Manager functions as a Windows service, we require the following operating systems:

- Windows NT 4.0 Server with Service Pack 6a, or
- Windows 2000 with Service Pack 2 or 3.

#### **ASM Data Manager**

Installing ASM Data Manager is an easy process, with system prompts that guide you through every step of the installation process. After Data Manager is installed and you open the Administrator for the first time, you will be able to add the basic components necessary to get your ASM system up and running. You may create them at this time or choose to do it later.

For more detailed installation requirements, please refer to the “Planning Your Data Manager System” section in the *ASM Data Manager Getting Started Guide*, which is provided on the installation CD.

#### **ASM MediaStor**

Before installing the ASM MediaStor media service, certain system components should be checked, such as hardware connections and network configuration. This will ensure that the MediaStor installation runs smoothly, and minimizes the time it takes to get the system up and running.

For more detailed installation requirements, please refer to the “Planning Your Data Manager System” section in the *ASM Data Manager Getting Started Guide*, and the “Planning Your MediaStor System” section of the *ASM MediaStor System Guide*, both of which are provided on the installation CD.

## License Server

Data Manager and MediaStor 5.40 both require License Server version 5.40.102 or above. After installation or upgrade of your ASM system, use the License Server Administrator to install your new license. After upgrading, you will need to reset the License Server information using the setup utility installed with Data Manager and MediaStor. The setup utility can be found in the ASM and ASM MediaStor program groups.

## II. New Features

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Below is a list of new features in version 5.40.102.

### Limited Support for File Retention on Extended Drive

Files migrated to the media types that support retention will be protected from deletion and modification from the time of migration.

### Support for File Retention on NAS WORM Devices

The Limited support for file retention as described above is available for NAS devices that support WORM functionality.

### EMC 2.0 Support

EMC version 2.0 hardware is now supported.

### Support for Non-compliant EMC Centera devices

The Limited support for File Retention is now supported on compliant as well as non-compliant EMC Centera devices (as long as they are running Centera software version 1.2 or above).

### NAS Aggregation Support

Once the media is configured for NAS aggregation, renames of migrated files and folders will be prevented at the driver level.

### Resource Savers for EMC

Resource Saver settings are now enforced on the EMC media service.

### Support for ACSLS version 6.1.1

ACSLs version 6.1.1 is now supported. Please refer to the end of this document for access control procedures for ACSLS 6.1.1.

### New Hardware Support

New hardware support has been added for the devices in the table below. Also listed are the firmware revisions for the devices that were tested.

<b>Device</b>	<b>Firmware</b>	<b>Comments</b>
STK L700 STK T9940B	Lib – 3.03.02 Drv – 1.32.215	Native B media only
ATL P7000 QUANTUM SuperDLT1	Lib – 64380503.20 Drv - 2D2D	ATL P7000 w/679 slots & SDLT1 (220)
NSM NSM2500 NSM NSM2500U		w/150 slots
IBM 03590H11	Lib – F26E Drv - F26E	IBM 3590 - H11FX 13-12626 (fibre)
IBM 03590H11	Lib – F26E Drv - F26E	IBM 3590 - H11X 13-52693 (SCSI)
PIONEER CHANGR DRM-3000 PIONEER DVD-R DVD-R7322 PIONEER DVD-D7563 DVD-ROM	Lib – 1.19 Drv (writer) - 1.75 Drv (reader) – 1.04	w/320 slots
PIONEER CHANGR DRM-7000 PIONEER DVD-R DVD-R7322 PIONEER DVDROM DVD-D7563	Lib – 1.15 Drv (writer) - 1.78 Drv (reader) – 1.04	w/ 720 slots
PLASMOM D-SERIES MATSHITADVD-RAM SW-9571	Lib – 116D Drv – A109	PLASMOM D120 w/ SW-9571
ADIC Scalar 100		w/ 96 slots
PLASMOM D-SERIES D875 MATSHITADVD-RAM SW-9571	Lib – 302 Drv – A111	Plasmon "Big D" Enterprise D875 w/ 875, 1525, 2175 slots
IBM 03584		w/721 slots

Device	Firmware	Comments
SPECTRA GATOR		w/30, 80, 200 slots
ATL M2500		w/100 slots
ATL M2500		w/25 slots
COMPAQ MSL5000		w/ 52 slots

## Note for users running Windows 2000 with libraries with more than three drives:

After configuring the library in MediaStor and rebooting, the error “Invalid Driver Type” may be displayed when setting the optical library online. This can occur when the device contains more than three drives.

To remedy this problem, an alternate SCSI driver has been provided with the product; however, this driver is not in use with the standard product and therefore must be installed.

The files needed to install this driver are the following: **Scsiupdate.exe**, **Otgport.sys** and **Otgscsi5.sys**. By default, all three files are copied into the MediaStor\bin directory at the time of product installation, but the alternate driver is not installed automatically. Use the following steps to install the alternate driver.

1. Run the following command at the command prompt:

```
C:\Program Files\Legato\MediaStor\BIN\scsiupdate.exe /I (/I is the switch to install).
```

The driver may also be uninstalled using the /U switch. For the executable to work properly all files must reside in the same directory and the executable must be run from inside that directory.

If successful, the following sequence of messages should appear:

```
Port driver copied to system directory.  
Copied to Legato DX install path.  
Copied to Legato MS install path.  
Driver copying done.  
Service created.  
Registry keys created.  
Success. You will need to reboot.  
Done.
```

2. Reboot the system in order for the changes to take effect.

**Note:** To uninstall the alternate SCSI driver and revert to the original driver, run the same command with the /U switch instead of the /I switch.

## Note for users intending to upgrade ASM running on a Windows 2000 Advanced Server in a clustered environment:

The ASM resource should be deleted prior to performing an active/active cluster upgrade from 5.30.080. The ASM resource is located in the Cluster Administrator. Delete this resource before upgrading an active/active ASM installation. After the upgrade is complete, the resource will be automatically created the first time the ASM service is started.

## Note for users upgrading from ASM 5.40.050 using EMC Centera media with file retention:

After upgrading your installation, in order to enforce extended drive retention for already migrated files, you will have to run a file restore task on all of your legacy (5.40.050) EMC media.

### **III. Outstanding Issues**

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Below is a list of outstanding known severity 1 or 2 issues in ASM 5.40.102 for Windows. For further information about outstanding issues in this release, please contact your StorageTek representative.

#### **Severity 1 Issues**

There are no known Severity 1 issues.

#### **Severity 2 Issues**

##### **CQOTG00030067**

**Extended drive Backup:** ASM Administrator freezes when aborting extended drive backup

**Workaround:** The freeze is only temporary (comes back on its own).

##### **CQOTG00028937**

File renames on re-writable OSS media are not propagated to copy media.

This would only be a problem for files that meet all of the following criteria:

- A file that was renamed but not edited (editing causing file to be re-migrated to the original and updated on the copy media)
- A copy media containing the original file is promoted to original media
- The promoted copy media was removed and restored.

If this rare event occurred, files would not be lost, only those files affected would come back with their original names.

**Workaround:** In the worst case, the copy media is promoted and the file would be restored to the extended drive with the original (not changed) name. All data, however, would be intact. The problem is mitigated in a production environment when renamed files are edited by the user, and as a result are re-migrated with the new name. The next copy update would then result in the copy being updated with the edited file, including its new name.

### **IV. Resolved Issues**

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Below is a list of Resolved field issues in ASM v5.40.102. For further information about resolved issues in this release, please contact your StorageTek representative.

**CQOTG00029532** – Media Not Found error is displayed after de-allocated EMC media is re-allocated

**CQOTG00029720** –TSM Media is not mounted after 100 media is created.

**CQOTG00030070** – Memory leak during XMS mount

**CQOTG00030072** – MediaStor returns XERR\_LIBRARY\_NOT\_FOUND for Serial libraries

**CQOTG00030152** – PLASMON D-SERIES flipper is not recognized (double sided)

**CQOTG00030184** – Blue Screen using Quota Advisor-StorageCentral SRM 5.0 by Precise

**CQOTG00030275** – Pioneer DRM-7000 counts shelves incorrectly

**CQOTG00030623** – Upgrade - Tivoli 5.20.092 can't upgrade directly to 5.40

**CQOTG00030654** – Legacy (3.2 and earlier) OTG media can appear as Duplicate

**CQOTG00030715** – Changing a default move rule to one based on file size causes migration error

**CQOTG00031150** – ADIC Scalar 100 (36/72 shelf count) missing from MsHardware.cfg

**CQOTG00031493** – Server hangs may occur on networks with ADS security model

**CQOTG00031570** – JVC-CHG MC-8200 license level is incorrect

**CQOTG00032224** – Drive Scans hampered by missing media folder

**CQOTG00032445** –ASM's drive scan will not scan any folders that begin with "."

**CQOTG00032447** –Blue screen on ASM Server with Netware network due to redirector issue

**CQOTG00032922** – Upgrade from 5.20.158 to 5.40.050 fails stating “not a valid setup option”

## **V. Knowledgebase Articles**

The following is a list of critical articles related to this version. For the complete article, including any workaround or resolution, or to search articles by keywords, please refer to the Knowledgebase included with the CD, or consult Technical Support for further assistance.

**Article Number 10069** – The concurrent existence of a T9940A and T9940B drive in the same library is not a supported configuration.

**Article Number 10197** – If a file exists on the system drive named “program”, DX service will fail to initialize with error 193.

**Article Number 10218** – ASM will not function properly if the Anonymous account on EMC Centera is modified from its default settings.

**Article Number 10226** – Files that are excluded in the subfolder will not migrate to the media in  
the root folder

**Article Number 10232** – Files that contain named streams will not migrate to Network Appliance NAS volumes that use Unix Qtree security

**Article Number 10233** – NetApp volumes can have additional space allocated to them using the  
NetApp management software. This increase in storage capacity may not always be displayed in the NAS media statistics in ASM.

**Article Number 10234** – DVD-R finalization with "Purge and Direct Read" option takes more than three hours to finalize a full media with small files.

**Article Number 10252** – How To: EMC and Tivoli use virtual media. These steps should be followed when changing the ASM server name.

**Article Number 10256** – File migration may stop if the ASM service times out while it is being  
stopped

**Article Number 10269** – In Windows NT, DxShell may become inaccessible from the shortcut menu after rename file called "C:\program"

**Article Number 10278** – Application error occurs when Tivoli trace file can no longer be written to.

**Article Number 10280** – Modifications to the access control feature of ACSLS is required for ASM to run with ACSLS version 6.1.1.

**Article Number 10281** – Tape media errors during copy update can cause copy update to fail and media to become read-only.

**Article Number 10282** – The StorageTek T9940B drive only supports native 9940B formatted media. Tape cartridges written on a T9940A tape  
drive are currently not supported in a T9940B tape drive.

**Article Number 10284** – The HP Ultrium LTO1 drive exhibits extremely slow write performance.

**Article Number 10289** – Ultrium LTO1 media brands will show different media capacities after  
format.



**Article Number 10291** – IBM reported a serious performance problem can occur with their Ultrium LTO1 drive and the Adaptec 29160 or 39160 HBAs.

**Article Number 10292** – The (Panasonic) Matsushita SW-9571 as incorporated into the new Plasmon D Series & Enterprise D jukeboxes can only READ

2.6

RAM media.

**Article Number 10293** – Plasmon recommends a maximum SCSI cable length for the D Series libraries to prevent certain errors from happening.

## **VI. Setting Access Control Privileges on ACSLS 6.1.1**

Once enabled, ACSLS access control uses a set of client identification files and a series of allow and/or disallow files that you create to manage command and/or volume access.

In versions prior to 6.1.1 there was mixed support for these files. The use of these files is now mandatory. These files include a mandatory internet.addresses and one or more access control file. There are a total of 4 files to choose or mix and match from: users.ALL.allow, users.ALL.disallow, users.COMMAND.all, users.COMMAND.disallow. These files are all inactive by default. To activate these files they must be renamed to remove SAMPLE from there filenames.

The basis of the internet.addresses file is to indicate Owner/Userids and their matching IP addresses.

Sample internet.addresses file:

IP address	Owner/Userid
-----	-----
10.8.13.8	DX_DX00_E
10.8.13.8	DX_DX00_H
10.8.13.9	DX_DX01_E

\*Note Userids/OwnerIds can share the same IP addresses.

The allow or disallow files indicate the OwnerId/Userids that either have access or in the case of a disallow file no permission to a volume. Allow files have priority over disallow files meaning access in an allow file and no access in a disallow file equals access to the volume. A simple users.ALL.allow file will suffice for most Dx media access. Users that need a more complex set of allow and disallow files should consult Storage-Tek documentation on access control. The foundation for a users.ALL.allow file is one or more Owners/Userids who have access to a volume owned by specific owner. The first word in this file is the owner ID, and the second and following words are the IDs of users who are allowed access to volumes owned by this owner.

Sample users.ALL.allow file:

OwnerID	userid "with" access
-----	-----
DX_DX00_E	dx_dx00_e DX_DX00_E

DX\_DX00\_H dx\_dx00\_h DX\_DX00\_H  
DX\_DX01\_E dx\_dx00\_h Dx\_DX00\_H DX\_DX01\_E DX\_DX01\_E

In this file, Owner ID DX\_DX00\_E can access media that is owned “only” by his owner id.  
Owner ID DX\_DX01\_E allows access to DX\_DX00\_H as well as DX\_DX01\_E.

After the configuration of access control files, it is suggested that the access control tables be rebuilt. (acsss\_config menu)