



Spectra StorCycle Solution Release Notes

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Part Number

90990139 Revision H

Revision History

Revision	Date	Description
A		Not externally released.
B	January 2020	First public release.
C	April 2020	Updated for StorCycle 3.0.1.
D	April 2020	Updated for StorCycle 3.0.2.
E	July 2020	Updated for StorCycle 3.1.0.
F	September 2020	Updated for StorCycle 3.2.0.
G	January 2021	Updated for StorCycle 3.3.0.
H	March 2021	Updated for StorCycle 3.4.0

Note: To make sure you have the release notes for the most current version of the BlackPearl Release Notes, check the Spectra Logic Technical Support portal at support.spectralogic.com/documentation/release-notes/. You must sign into the portal before viewing Release Notes.

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Helpful Information

These release notes give you the latest information available about the Spectra® StorCycle® application.

Note: To make sure you have the release notes for the most current version of the Spectra StorCycle Solution solution, log on to the Spectra Logic Technical Support portal at support.spectralogic.com.

Intended Audience

This guide is intended for data center administrators and operators who maintain and operate file storage systems. The information in this guide assumes a familiarity with computing terminology. You also need to be familiar with installing, configuring, and using data file storage and archival software.

User Interface Screens

The user interface changes as new features are added or other modifications are made between software revisions. Therefore, the screens you see in the user interface may differ from those shown in this guide.

Typographical Conventions

This document uses the following conventions to highlight important information:



WARNING Read text marked by the “Warning” symbol for information you must know to avoid personal injury.



CAUTION Read text marked by the “Caution” symbol for information you must know to avoid losing data.



IMPORTANT Read text marked by the “Important” symbol for information that helps you complete a procedure or avoid extra steps.

Note: Read text marked with “Note” for additional information or suggestions about the current topic.

User Feedback

Contact us at (800) 833-1132 to give us suggestions or feedback on our products and documentation.

Related Publications

The latest revision of the following documents related to the Spectra Spectra StorCycle Solution are available as PDF files on the Spectra Logic website at:

<https://support.spectralogic.com/documentation>.

- The [Spectra StorCycle Solution Getting Started Guide](#) provides a quick reference for installing and configuring the Spectra StorCycle solution.
- The [Spectra StorCycle Solution User Guide](#) provides detailed information about installing, configuring, and using the Spectra StorCycle solution. The content of this guide, for your revision of the StorCycle solution, is accessible by clicking **Help ?** in the toolbar of the software.

The following document is available after logging into your Support portal account at:

support.spectralogic.com.

- The [Spectra StorCycle Solution Release Notes and Documentation Updates](#) provide the most up-to-date information about the solution, including information about the latest software releases and documentation updates.

For additional information about the Spectra BlackPearl® Converged Storage system and the Spectra BlackPearl NAS solution, refer to the publications listed in this section.

- The [Spectra BlackPearl Converged Storage System User Guide](#) provides detailed information about configuring, using, and maintaining your BlackPearl system.
- The [Spectra S3 API Reference](#) provides information on understanding and using the Spectra S3 API.
- The [Spectra BlackPearl Eon Browser User Guide](#) provides installation and usage information for the BlackPearl Eon Browser.
- The [Spectra BlackPearl NAS Solution User Guide](#) provides information about configuring, using and maintaining your BlackPearl NAS solution.
- The [Spectra Verde NAS Solution User Guide](#) provides information about configuring, using and maintaining your Verde NAS solution.

The following documents are available after logging into your Support portal account at: support.spectrallogic.com.

- The [*Spectra BlackPearl Converged Storage System Release Notes and Documentation Updates*](#) provide the most up-to-date information about the BlackPearl and BlackPearl NAS systems, including information about the latest software releases and documentation updates.
- The [*Spectra Verde NAS Solution Release Notes and Documentation Updates*](#) provide the most up-to-date information about the Verde NAS solution, including information about the latest software releases and documentation updates.

To access the documentation for the REST API, from the StorCycle server, go to <https://localhost/apidocs/#>.

StorCycle Solution Updates

This section provides an overview of the features and changes for each released software version.

Package History

The following sections list the released Spectra StorCycle Solution update packages, and provide information about new features and updates that affect the application and its components.

StorCycle 3.4.0




IMPORTANT

You can only upgrade to StorCycle 3.4.0 from StorCycle 3.3.x or StorCycle 3.2.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see [Contacting Spectra Logic on page 8](#)).

Enhancements

This release updates the user interface, improves error handling and error messages, and adds the new features listed in the table below.

Feature	Description
Source S3 Storage Locations	S3 storage locations can now be used as sources. Files on an S3 source can only be migrated / stored to a BlackPearl (object) storage location, and then can only be restored to a Spectra or non-Spectra NAS storage location.
Daily Restore Limits for Restore Only Active Directory / LDAP Users	If you selected to allow any Active Directory / LDAP user to restore files, you can now select whether to limit the amount of data an AD / LDAP user can restore each day and if selected, enter the daily limit in either TB or GB.
Enhancements to the Migrate / Store Feature	<ul style="list-style-type: none"> Migrate / store projects can now be edited, and their schedules can be paused and resumed. A previously completed single run project may have the schedule edited and converted into a recurring project. The migrate / store wizard now allows you to set a custom age filter and to select to delete empty directories after removing migrated / stored files.

Feature	Description
HTML Link Enhancements	<ul style="list-style-type: none"> You can now select to whether to remove HTML links when files are restored to the original location from which a migrate / store with the option to replace files with HTML links was done. You can now configure a Hostname Override to use instead of a hostname lookup in HTML links created to replace migrated / stored files.
Configure Restore Target in Restore Wizard	You can now configure a new non-Spectra NAS storage location in the Restore wizard to use as the target of the restore project.
Select BlackPearl Bucket Data Policy	When you configure a BlackPearl storage location, you can now view and select the data policy for a new bucket.
Rerun Scans	On the Scan dashboard, next to each project is a Run  icon to use to rerun the project with a Start Now schedule.
Search by Tags on Delete Page	When selecting projects to delete files, you can now search on tags.

Resolved Issues

Issue	Resolution
A single run project in the process of migrating / storing files displays as a candidate for deletion on the Delete Files screen. If selected, files continue to migrate / store while the project is deleted, leaving the files on the target (s) in an unknown state.	This issue no longer occurs.
When a scan is interrupted due to loss of network connection, the job may report completed with no warnings or errors.	A scan job interrupted by the loss of a network interruption now the appropriate warning and errors.
The Restore Symbolic Links option is not available when a restore project is configured from the Catalog Search screen.	The Restore Symbolic Links option is now available when a restore project is configured from the Catalog Search screen.
The state for an active Migrate/Store job displays as "Completed:Errors" as soon as an errors occur.	The state for an active job with warnings or errors displays as "Active:Warnings" or "Active:Errors" as appropriate.

Issue	Resolution
"If you attempt to run a database backup job while a retention delete job is in progress, the database backup fails and you get the error message,"default not allowing RetentionDelete with BackupDb".	This issue no longer occurs.
Attempting to delete a project archived to an S3 target which was not configured with an S3 Region, fails.	This issue no longer occurs.
A database backup may fail with the error, "must specify an archive or scanAndArchive policy type."	This issue no longer occurs.

Known Issues

Issue	Workaround
Report data may be inaccurate if the StorCycle solution encounters a power cycle during a migrate / store job	There is no workaround for this issue.
When you enter an invalid SMTP server address and click Submit , the page becomes unresponsive and after a while displays "Lost Communication with Server".	There is no workaround for this issue.

StorCycle 3.3.0



IMPORTANT

You can only upgrade to StorCycle 3.3.0 from StorCycle 3.2.0 or StorCycle 3.1.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see [Contacting Spectra Logic on page 8](#)).

When upgrading from StorCycle 3.1.0, the database is upgraded to an indexed database to increase search speeds. The time required for the upgrade depends on the size of the database.

- The update takes approximately 1 hour per 10 million file records in the database. Every file scanned or migrated by the StorCycle solution is considered one record.
- The StorCycle web interface is inaccessible during this upgrade process. Instead the web interface is replaced by a message that the database is being updated. Once the StorCycle web interface is accessible, then the upgrade is complete.
- The upgrade progress can be tracked in the log file ssc.log. The upgrade process consists of two parts:
 - Creation of the index in the database - There are no incremental updates to the log during this process.
 - Editing the records in the database (split file path into component pieces) - This step provides periodic log updates showing the number of records updated per second and how many total records have been updated.



IMPORTANT

Enhancements

This release updates the user interface, improves error handling and error messages, and adds the new features listed in the table below.

Feature	Description
REST API	It is now possible to interact with the Spectra StorCycle Solution using a REST API (application-programming interface). To view the API documentation, go to https://localhost/apidocs/#/ on the StorCycle server.
Microsoft Azure Storage Location Support	The StorCycle solution now supports migrating / storing to and restoring from an Microsoft Azure storage locations.
Email Alerts When Restores Complete	When you configure a restore project, you can select to have an email alert sent when the restore job completes.

Feature	Description
Tag Matches Displayed for Reuse	Tags added to projects for searching now display potential matches to aid in reuse.
Full Support for OpenLDAP on Linux Servers	OpenLDAP is used to provide Simple Authentication, Security Layer, and Transport Layer Security.
Restore Files Tiered to Amazon Glacier	Files migrated / stored to a standard S3 bucket with tiering to Glacier and Glacier Deep Archive can be restored after the file is tiered.
Real Time Performance Charts for Scan, Migrate / Store, and Restore Jobs	The recent jobs on sections on the Scan, Migrate / Store, Restore, and Jobs screens now provide real-time performance graphs for active jobs.
Restore of Symbolic Links	You can now select to restore symbolic links only. This is useful if the symbolic links to migrated / stored files were inadvertently deleted.

Resolved Issues

Issue	Resolution
Entering an invalid license key can remove existing License Keys.	This issue no longer occurs.
Clicking Test Storage Location for a BlackPearl storage location returns, “unable to confirm spectra device: 403 Forbidden” when the configured username and password is for a BlackPearl user with Login credentials.	The username and password used when creating a BlackPearl storage location must have Administrator or Monitor permission.
The StorCycle solution does not allow user email addresses with unicode characters.	Unicode characters are now allowed in email addresses.
The Send Test Email button does not work for Active Directory users.	If an Active Directory user is configured correctly, the StorCycle solution does an Active Directory lookup call to find the matching email address and uses that to send a test email.
StorCycle allows an administrator to create an Active Directory user that does not exist.	You can no longer create an Active Directory user that does not exist.

Issue	Resolution
Messages are never deleted.	Messages older than two years are deleted.
MacOS 10.15 and later may reject the StorCycle SSL certificate.	The number of days the SSL certificate is valid was updated to meet the new requirements in MacOS 10.15.
StorCycle waits until objects are persisted to storage domains before considering migrates / stores to BlackPearl systems complete. This can slow further migrates / stores.	StorCycle now considers a migrate / store to a BlackPearl system complete when the data is completely in BlackPearl cache.

Known Issues

Issue	Workaround
An incorrect root directory for completed scans may display in the projects table and job details screen.	There is no workaround for this issue. The correct root directory is used in the scan.
If an invalid SMTP server address is entered in the Configure SMTP dialog box, after clicking Submit , the page becomes unresponsive and displays a "Lost Communication with Server" error.	There is no workaround for the issue.
Running multiple concurrent restores from the same Microsoft Azure Archive job can complete with errors and not restore all files due to an Azure error "409: This operation is not permitted on an archived blob".	Do not run concurrent restores from the same Microsoft Azure Archive job.
When a migrate / store project is deleted by retention policy, and then searched for using the option Search by tag , the project displays and can be used in a restore project. The restore project fails with the error, "could not retrieve archive location: unable to get available archive storage location for restore job".	Do not attempt to restore a project deleted by retention policy.
In the Projects report, a Post Archives Action is sometimes displayed for a restore project.	Ignore any Post Archive Action displayed for a restore project.

StorCycle 3.2.0



IMPORTANT

You can only upgrade to StorCycle 3.2.0 from StorCycle 3.0.2 or StorCycle 3.1.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see [Contacting Spectra Logic on page 8](#)).

When upgrading to StorCycle 3.2.0, the database is upgraded to an indexed database to increase search speeds. The time required for the upgrade depends on the size of the database.

- The update takes approximately 1 hour per 10 million file records in the database. Every file scanned or migrated by the StorCycle solution is considered one record.
- The StorCycle web interface is inaccessible during this upgrade process. Instead the web interface is replaced by a message that the database is being updated. Once the StorCycle web interface is accessible, then the upgrade is complete.
- The upgrade progress can be tracked in the log file ssc.log. The upgrade process consists of two parts:
 - Creation of the index in the database - There are no incremental updates to the log during this process.
 - Editing the records in the database (split file path into component pieces) - This step provides periodic log updates showing the number of records updated per second and the how many total records have been updated.




IMPORTANT

Enhancements

This release updates the user interface, improves error messages, and adds the new features listed in the table below.

Feature	Description
Retention Policies	Storage Locations can be configured to automatically delete the data migrated / stored by a project after a specified number of days. Users can be configured to receive an email about pending deletions five days before they occur. Note: As of StorCycle 3.3.0, retention policies are only supported for data center and enterprise licenses.
CIFS/SMB Support with Linux Server	The Spectra StorCycle solution running on a Linux server now supports NFS and CIFS/SMB sources. The StorCycle solution running on a Windows server continues to only support CIFS/SMB sources.
Delete Migrate / Store Projects	The Delete Files screen provides a way to delete all migrated / stored files associated with a migrate / store project to reclaim storage space.

Feature	Description
Rerun Now Button for Migrate / Store and Database Backup Jobs	On the Migrate Store and Database Backup dashboards, next to each project there is a Run  icon to click to rerun the project with a Start Now schedule.
Restore Jobs Processed First	When more than 10 jobs are running on the StorCycle solution, restore jobs are prioritized at the top of the job queue.
Support for Regular Expressions in the Migrate / Store Filter Fields	The StorCycle solution now supports regular expressions when filtering for the included file types and excluded directories in a migrate / store project. The regular expressions include . (dot), \ (backslash), .* (dot asterisk), [] (square brackets), etc.

Resolved Issues

Issue	Resolution
Active Directory usernames are treated as case sensitive for logging into the StorCycle solution when they should not be.	The StorCycle solution now makes all usernames case insensitive.
After running a migrate / store job with a file type filter, the restore wizard incorrectly reports 0 files available to restore even though there are files available to restore.	The restore wizard now reports the correct number of files available to restore from a migrate / store job with a file type filter.
It is possible to create multiple departments with the same name.	It is no longer possible to create multiple departments with the same name.
If a restore project includes restoring a file that was deleted from a BlackPearl storage target, the entire job fails and no files are restored.	When one or more files in a restore job was deleted from a BlackPearl target, the restore job attempts to restore all of the other files in the job and reports an error for the deleted file(s).

Known Issues

Issue	Workaround
<p>If a migrate / store job with the Replacement Option Remove Source File: create Symbolic link or Remove Source File: create HTML link fails during post processing, an inconsistent state of deleted source files and created links may be present.</p>	<p>Delete the remaining source files and link files from the source manually, and then regenerate HTML links by creating a restore project and selecting Restore HTML Links Only. It is only possible to create a restore project to restore symbolic links using StorCycle 3.3.0 or later.</p>
<p>The StorCycle solution does not allow user email addresses with unicode characters. Note: This issue is resolved in StorCycle 3.3.0.</p>	<p>You must use email addresses without unicode characters.</p>
<p>A single run project in the process of migrating / storing files displays as a candidate for deletion on the Delete Files screen. If selected, files continue to migrate / store while the project is deleted, leaving the files on the target (s) in an unknown state. Note: This issue is resolved in StorCycle 3.4.0.</p>	<p>Do not attempt to delete the files for a project while it is in the process of running.</p>

StorCycle 3.1.0

Enhancements

This release adds the new features listed in the table below.

Feature	Description
<p>Amazon Glacier Support</p>	<p>The StorCycle solution now supports migrating / storing and restoring directly to and from an Amazon Glacier tier storage location.</p>
<p>Transparent Access</p>	<p>Files migrated / stored with the Replacement Option set to Remove Source File: create Symbolic link are replaced with symbolic links which transparently open the replaced files from secondary storage.</p>
<p>Cost Savings Calculator</p>	<p>The Job Details screen for scan jobs now includes a Cost Savings Calculator feature that allows you to determine how much you can save by moving data from high-cost primary storage to different types of secondary storage.</p>

Feature	Description
Improved User Interface	This release includes many new usability improvements, such as a wizard to clone a previous migrate / store project, allowing the reuse of a storage location name or path that was never used in a project, and the ability to create a storage location within the Scan or Migrate / Store wizards.
Jobs Continue After 10K Errors	Instead of a job failing after 10,000 errors, error messages are grouped by error reason (access permissions, unsupported characters in files names, etc.) and the job continues.

Resolved Issues

Issue	Resolution
Email alerts do not work for Active Directory user accounts.	The StorCycle solution now looks up the email address for Active Directory users. If no address is found, that user is skipped. Other Active Directory users and local users still receive the emails.
The New Storage Location wizard allows you to enter a bucket name with a period at the end for a BlackPearl storage location, but clicking Test Location or Submit fails.	Test Location and Submit now work correctly for a BlackPearl storage location with a period at the end of the bucket name.
A blank performance graph displays on Job Details screens.	This issue no longer occurs.
Scan of share root fails on Linux.	Scans starting from the root of a share in a Linux environment now complete correctly.
It is possible to delete a department even if it the parent of other departments.	This issue no longer occurs.
Restore of a ZIP pack migrated / stored to a BlackPearl system fails with an error "zip: not a valid zip file".	This issue no longer occurs.
The Migrate / Store wizard does not display the previous scan data histogram for the root of a storage location.	The histogram now displays correctly when you select the root of a storage location.

Issue	Resolution
<p>If a file is migrated / stored to a BlackPearl system, and then restored to a directory containing a file with the same name but different metadata, the StorCycle solution does not replace the file in the restore directory, but incorrectly changes the metadata to match the file that was migrated / stored.</p>	<p>The StorCycle solution no longer changes the metadata on a file with the same name but different metadata in a restore target.</p>

Known Issues

Issue	Workaround
<p>When an Active Directory user is added as a local user and then deleted, the user is no longer able to log into the StorCycle solution to restore when Allow any Active Directory /LDAP user to restore is enabled.</p>	<p>Recreate the local user to allow this user to log into the StorCycle solution.</p>

StorCycle 3.0.2

Resolved Issues

Issue	Resolution
<p>If the storage location root uses a two-element UNC path (for example, \\host-name\share-name), using the Restore wizard or the Search feature to display objects to restore returns an error.</p>	<p>This issue no longer occurs.</p>

Known Issues

Issue	Workaround
<p>Email alerts do not work for Active Directory user accounts.</p> <p>Note: This issue is resolved in StorCycle 3.1.0.</p>	<p>Create a non-Active Directory user account with an email address to receive alerts.</p> <p>Note: You must disable receive notifications (clear the check boxes) for every AD user that has them selected in order for non-AD users to receive notifications.</p>

StorCycle 3.0.1

Enhancements

This release supports running the StorCycle solution on Linux servers with NFS-protocol storage locations, implements several changes to improve the speed and reliability of migrating / storing / restoring data, and improves error handling, messages, reports, and logs.

Resolved Issues

Issue	Resolution
<p>The StorCycle solution incorrectly changes the auto-inherit flag on source storage location files and folders after a migrate / store job when Keep Original is selected.</p>	<p>This issue no longer occurs.</p>
<p>Creating a restore project using a working directory returns the error, "No successful objects associated with this job. Please choose another."</p>	<p>When using a working directory in a restore project, the objects to restore now display correctly.</p>
<p>The data graph in the Migrate Wizard is not populated after a scan of a sub-directory under the root folder is successful.</p>	<p>The data graph now updates as expected.</p>

Issue	Resolution
Clicking Restore Now or Restore Project Files in an HTML link page displays a blank white page when the DNS name for restore files cannot be determined.	The StorCycle solution can now better determine the correct DNS name for restore files.
When a large number of files have been scanned / migrated / stored, the Catalog Search screen may timeout before displaying matching projects / files / tags when searching by file or folder name.	The Catalog Search may take two to three minutes to display matches, but does not timeout.
A re-scan of a storage location does not update the reported Total Bytes Scanned to account for files that have changed size.	The reported Total Bytes Scanned is updated when the size of files changes and the storage location is re-scanned.
When creating a Spectra or non-Spectra NAS storage location, adding a trailing slash to the path is allowed, but can cause issues with restores.	The StorCycle solution can now handle a trailing slash in a NAS path.
When creating a storage location, the Test Location button sometimes verifies communication with the new storage location, but displays an error that it cannot clean up the test file.	This issue no longer occurs.
The Data Transfer report does not populate if job records are very large.	This issue no longer occurs.
It is possible to delete a storage location from the StorCycle solution after it has been used in a migrate / store job.	Once a storage location has been used in a job, the delete operation is no longer allowed.
Department names do not update if edited.	Department names update correctly when edited.

Known Issues

Issue	Workaround
<p>When SELinux is enabled, mongod is prevented from accessing the files "netstat" and "snmp" by default. This causes warnings to be generated and saved in /var/log/messages and can cause that log to roll frequently.</p>	<p>See the messages generated to address those problems if desired.</p>
<p>The New Storage Location wizard allows you to enter a bucket name with a period at the end for a BlackPearl storage location, but clicking Test Location or Submit fails. Note: This issue is resolved in StorCycle 3.1.0.</p>	<p>Do not use a bucket name with a period at the end.</p>
<p>Scanning millions of files all contained at the same level of a directory on an NFS share can take longer than expected.</p>	<p>There is no workaround for this issue.</p>
<p>A blank performance graph displays on Job Details screens. Note: This issue is resolved in StorCycle 3.1.0.</p>	<p>Ignore the graph.</p>
<p>When using the StorCycle solution on a Linux server and restoring from object storage, if a file with the same name already exists in the restore destination, the folder metadata is not updated as expected.</p>	<p>When the StorCycle solution migrates / stores or restores files, it also migrates / stores or restores associated directories. While the StorCycle solution ensures that a file does not already exist on the target and does not overwrite the file, it may overwrite existing directories. When it overwrites the directory:</p> <ul style="list-style-type: none"> • The Windows version of the StorCycle solution resets the permissions / ACL's based on the permissions / ACL's that are on the directory that it is migrating. • The Linux version of the StorCycle solution does not reset the permissions / ACL's (because Linux does not have an "Auto Inherit" flag like Windows).

StorCycle 2.1.1

First public release.

Known Issues

Issue	Workaround
<p>On the dashboard, when the Top Level Cost Savings are displayed for directories, the calculation is only one level down - the cost savings for a child department is included, but the cost savings for the child's child is not.</p>	<p>The dashboard cannot handle this level of complexity in a single infographic, so it displays only one level of parent / child department cost savings. The Cost Savings by Department report includes multilevel cost savings.</p>
<p>Clicking Test Storage Location for a BlackPearl storage location returns, "unable to confirm spectra device: 403 Forbidden" when the configured username and password is for a BlackPearl user with Login credentials. Note: This issue is resolved in StorCycle 3.3.0.</p>	<p>Currently, you must use the username and password for a BlackPearl Administrator when creating a BlackPearl storage location.</p>
<p>When the user under which the StorCycle service is running has read-only permissions to a directory that is the source of a migrate / store job, the StorCycle solution completes the job with errors and leaves partial files on the target.</p>	<p>Ensure that the user under which the StorCycle service is running has full permissions to all directories and files on the source storage.</p>
<p>The StorCycle solution will not run after removing it and reinstalling it in another directory.</p>	<p>Uninstall the StorCycle solution, delete the ssc.yml file in the C:\ProgramData\Spectra Logic Corporation\Spectra StorCycle\config directory and re-install the StorCycle solution in the new directory.</p>
<p>When creating a Spectra or Non-Spectra NAS storage location, adding a trailing slash to the path is allowed, but can cause issues with restores. Note: This issue is resolved in StorCycle 3.0.1.</p>	<p>Do not include a trailing slash when entering the path for a Spectra NAS or Non-Spectra NAS storage location.</p>