

∞drive Active Circle

Release Notes

August 2024

Active Circle V6.7.2.2



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Update Process

From version 4.0.2pX



A specific procedure is implemented to update 4.0.2 versions to version 4.6. This is available on the Active Circle help site: <https://activecircle-help.com>.

Since the VFS catalog format has changed, **all** VFS catalog objects must be upgraded before proceeding to upgrade the next node.

From version 4.5 up to 4.6

The procedure for updating Active Circle to version 6.7 from versions 4.5 up to 4.6, is first to upgrade to version 5.5 using the procedure for a major update and then to upgrade to Active Circle 6.7 using the below procedure.

From version 5.x up to 6.6

The procedure for updating Active Circle to version 6.7 from versions 5.x up to 6.6 is straightforward and requires no special preparation, but it requires to stop the service on every nodes in the circle. It involves updating the binary files on all the nodes in your Circle and restarting the updated nodes.

The procedure is as follows:

1. Copy the **ac-6.7.X.bin** binary file for the new version to all the nodes in the Circle (X is the patch number).
2. Stop the activecircle service on all the nodes in the Circle.
3. On a first node, ideally a consolidation node, run the setup program with the command: `./ac-6.7.X.bin -r`
4. Start the activecircle service on the first node (the necessary updates are applied during the start-up).
5. Verify that the first node has started correctly.
6. On each remaining node, run the setup program with the command: `./ac-6.7.X.bin -r` and start the activecircle service, one at a time. Verify that the node has started correctly before proceeding to the next one. Synchronization will update the metadata for all the nodes.

From version 6.7.x

This version is compatible with every 6.7.x, a single node in a 6.7.x circle can be upgraded without stopping all the nodes of the circle.

On the node to upgrade the procedure is the following:

1. Copy the **ac-6.7.X.bin** binary file for the new version to the node to upgrade (X is the patch number).
2. Stop the activecircle service on the node.
3. Run the setup program with the command: `./ac-6.7.X.bin -r`
4. Start the activecircle service on the node.
5. Verify that the node has started correctly.

Active Circle V6.7.2.2 HOTFIX – August 2024

SHA256 footprint

e80407b1e7dcaae40d404d89c77f77da19bfaa03461404a2c19f47e63912a6e4

Fixes

AC-4765

Allow more than 25 concurrent NETLOGON authentication requests.

Active Circle V6.7.2.1 HOTFIX – July 2024

SHA256 footprint

6fbd844d7ec84d4d79bc0545c08d8ef791c943dbd8794383f3e669dc552da7e2

Fixes

AC-4753

SMB2 - Fix performance issue checking sequence numbers.

Active Circle V6.7.2.0 PATCH – June 2024

This Active Circle patch provides major fixes like managing user authentication on active directory with a long DN, dead lock fix in the NFS server and others.

SHA256 footprint

ac1501e498d990b33c86cb6ab358b7ec031d2a2267b812fbbf88abef1767a812

Fixes

AC-4746

The system property **com.starla.dcerpc.defaultBufferSize** can be used to increase the size given in bytes of an internal buffer to deal with user authentication that have a long DN. The default value of the property is 512.

AC-4745

Fix dead lock in the NFS server during the treatment of concurrent NFS commit requests that may close several time the same file.

The system property **com.starla.oncrpc.nbCommitsToClose** can be set to define the number of NFS commit request to be received for a single file before closing it. The default value of this property is 0, i.e. the file is closed at each NFS commit request.

Note: the former system property **com.starla.oncrpc.ignoreCommit** can always be used to bypass the NFS commit request.

AC-4744

Allow to manage DCE-RPC authentication with an AD configured with several DC.

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AC-4736

Fix tape library inventory synchronization to prevent from aborting a read or a write operation.

Active Circle V6.7.1.0 PATCH – May 2024

This Active Circle patch provides major fixes like destaging performance enhancements and a limitation in the stream lookup during disk pool integrity check.

SHA256 footprint

6d67cbccb3a30d1030a8927d6838c9674155ac621c023a3365822196145ad4c2

Fixes

AC-4733

Fix tape duplication when the TAR file references to a deleted archive. The TAR file is copied to the destination, but no archive is updated. Set the system property **activecircle.archive.mediumloadable.duplicateUnknownArchiveSegment** to **true** to activate this fix.

AC-4732

Avoid NPE in `acadmin --tape --duplicate` if the type of the destination tape is not given (option `--tapeType`)

AC-4713

Fix performance issue when copying files to the cache (destaging) or recreating the disk copies of files in case of concurrent processes retrieving files from the same tape.

Note: This fix addresses only the case where the processes are running on the resource manager (i.e. local library, or local resource manager)

AC-4711

Limit during a disk pool integrity check, the stream lookup to the shares specified in the system property **activecircle.integrityChecker.targetedAccounts**.

The property must be defined on the node that manages the disk pool and should contain the comma separated list of the targeted shares.

Active Circle V6.7.0.3 HOTFIX – February 2024

SHA256 footprint

f52b6cd87d2a28b53e0851a8bd9c7e9ffb7167d0be1e2f6b9bf6292f78c2bd5f

Fixes

AC-789

Do not check and display archive with missing or incomplete locations by default. The default value of **activecircle.archive.alertOnLocation** is now **false**. To reactivate the feature set the value of the property to **true** on every node.

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Active Circle V6.7.0.2 HOTFIX – February 2024

SHA256 footprint

1d6b30fb6c8076ca9b193ceb4dac42849e935393cbc681e55af0dea91bd3a25b

Fixes

AC-789

Due to performance issue, it is now possible to disable checking and displaying archive with missing or incomplete locations by setting the system property **activecircle.archive.alertOnLocation** set to **false** (default value is **true**).

Active Circle V6.7.0.1 HOTFIX – February 2024

SHA256 footprint

fa817f4f74e492617f24845393f1581936bff7d359075756493c7b6a5e9aa022

Fixes

AC-4651

LTO9 calibration management enhancement by using the immed mode in the load scsi command and by waiting that the drive becomes ready again (end of calibration).

The calibration timeout can be defined with the system property (in s) **activecircle.system.device.sub.scsi.LTO.calibrationTimeout** (default value 7200).

Active Circle V6.7.0.0 – December 2023

This major version of Active Circle provides, amongst others, archiving module enhancements, increased reliability of deposit jobs, use “append only mode” to write on tape, checksum management add-on and many other fixes and enhancements.

This version is now available for RHEL 8/ AlmaLinux 8 and is still available for Centos 7/RHEL 7.

SHA256 footprint

267f62b2a2689e31c1827d599841d0dd16d89f3b1a5c4e1b5cfe012bb3d68149

Compatibility matrix

This new version of Active Circle 6.7.0.0 is compatible with the following version of the options:

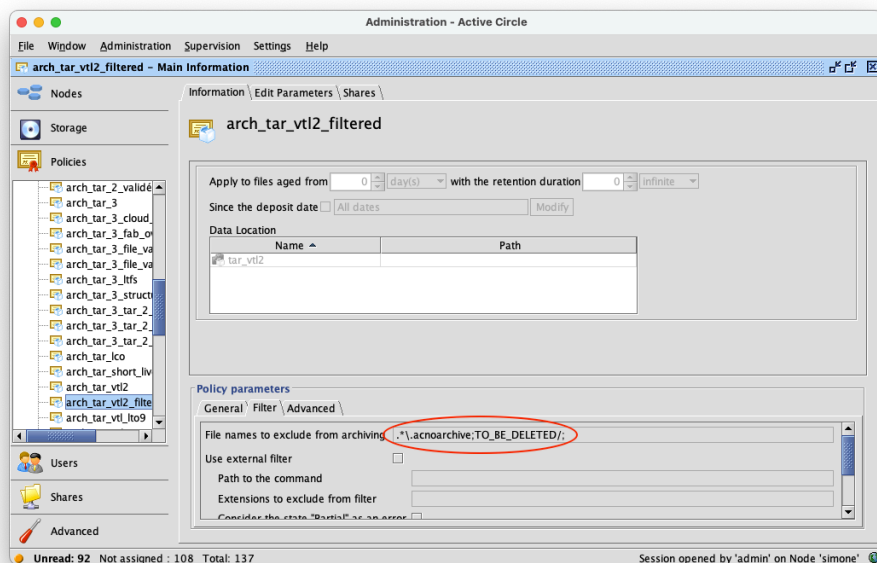
- AMC 6.2
- ADM 1.4.0 in HTTP
- AME 2.3

New features and enhancements

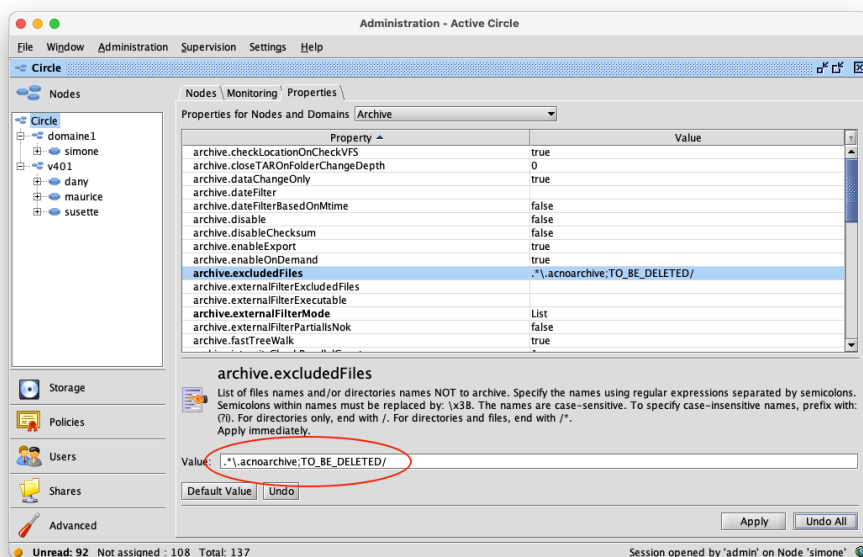
Archiving module enhancements

- The directories can now be excluded from archive by the selection filter of the archiving policies. The files names and/or directories names excluded from archive are specified using regular expressions separated by semicolons. Semicolons within names must be replaced by: `\x3B`. The names are case-sensitive. To specify case-insensitive names, prefix with: `(?i)`. For directories only, end with `/`. For directories and files, end with `/*`.

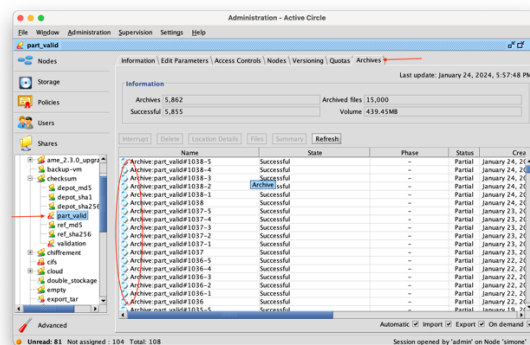
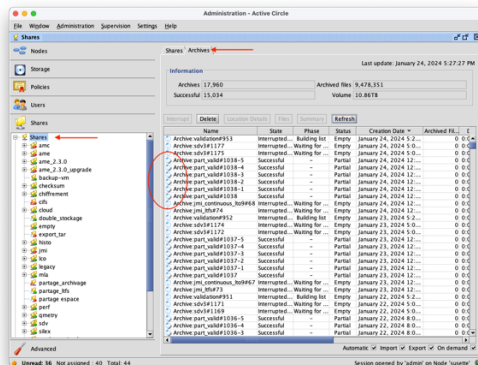
Reminder: The filters are declared in the archiving policies:



and/or in the circle parameter **archive.excludedFiles** for the default value:



- The archives whose tapes have been deleted are displayed in the archive lists with the icon , both in the global or per share archive list.



- For multiple sequential archiving, the order is now defined by the accessibility of the destination pool. First archiving is launched on the primary tape pool, then on the secondary tape pools, and at last on the cloud pool. If the accessibility of the pools is the same, the order is defined by the index of the pool in the archiving policy.
- Do not check external filter for each file if the filter is not defined.

Append only mode on tape.

Uses the MODE SELECT SCSI command to activate the “append only” mode when loading a TAR tape. This is done after checking the label to allow the label to be rewritten on a recycled tape.

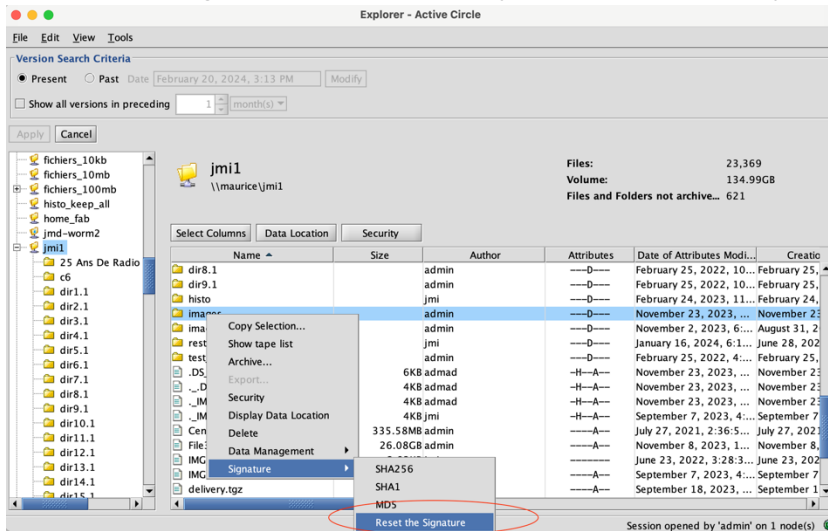
LTFs tapes require the “write-anywhere” mode.

This prevents from overwriting the tape during archiving if it is rewind by mistake.

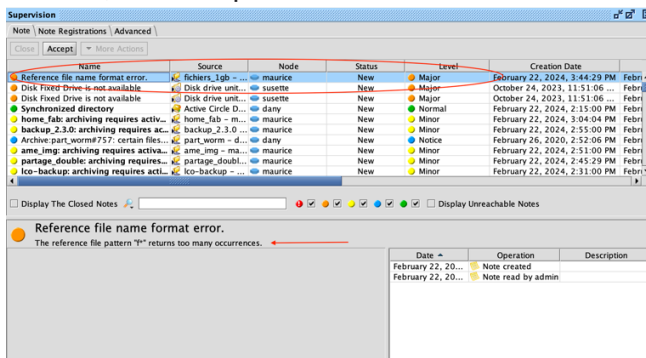
The “append only” mode selection can be avoided by setting the system property **activecircle.system.device.sub.scsi.types.drive.sub.tape.manageWriteMode** to false.

Checksum management enhancements

- It is now possible to reset the checksum from the Active Circle Explorer by choosing the new **Reset the Signature** menu item in the 'Signature' contextual menu. If a directory is selected, the signatures are recursively reset in the directory content.



- The * wildcard is allowed in the `vfs.depositChecksumReferenceFile` circle parameter to define the signature reference file name. For example, `*.md5` stands for every file with md5 extension.
- The signature reference file is now recursively upward looked for according to the value of the circle parameter `vfs.depositChecksumReferenceFile`. To prevent from any spelling error in the pattern, it should not match more that 10 files per level, otherwise the lookup is aborted, and a supervision note is sent to warn the user that the pattern is too wide.



- A new supervision note is sent to warn the user that a checksum reference file has not the correct format (i.e. hash filename). The note contains the details necessary to fix the problem.
- When a share has the option "Compute the checksum after deposit" enabled, then signature calculation on the Active Circle Explorer behaves like the signature calculation after deposit. i.e. only the chosen algorithm is available for signature calculation, the file must be located in the cache of the node and the reference file rules are applied.

Tape duplication enhancement

- If the new circle parameter **media.keepDefragmentedTapeNotRecycled** is set to **true**, a duplicated/defragmented tape is not recycled but kept closed and moved in the **Excluded Tapes** media pool where it can be then deleted. This feature prevents from reusing a duplicated/defragmented tape in the source pool in case of global LTO generation migration.
- The option `--tapeType` of the CLI `acadmin --tape --duplicate` is used to select the duplication destination tape type. This feature can be used for global LTO generation migration to ensure that the old LTO generation tapes are duplicated on a new LTO generation tape.
- A new internal TAR tapes duplication mode that can be used for tapes created from the **AC 4.5** allows the archive to directly address the destination tape instead of using a redirection.
To use the legacy mode, set the system property **activecircle.partition.compactWithRedirection** to true.

Versioning policy enhancements

- The new circle parameter **vfs.policy.keepArchivedVersion** prevents the versioning policy from purging a version if it is only located in an archive.
Note : Purging an archived-only version doesn't reduce storage consumption or meta-data footprint.
- The new circle parameter **vfs.policy.removeObsoleteDiskCopies** defines the mode of deletion of the obsolete disk copies (disk copies that have reached their retention period). The possible value are :
 - **Disabled**: Obsolete disk copies are not deleted
 - **Delete if archived once**: Obsolete disk copies are deleted when the file is archived at least once.
 - **Delete if archived everywhere**: Obsolete disk copies are deleted only if the file is archived on every pool (archiving policy is fulfilled)

Choose the archived data source according to their accessibility.

When reading a file located on several archives, primary tape pool, secondary tape pool and cloud pool, the primary tape pool is chosen first, then the cloud pool and finally the secondary tape pool.

Change the default column shown in the explorer GUI.

- Proof columns (date and number) are no longer visible by default.
- Adds the column for not proven files if the proof generation is enabled for the share, in folders mode only or if explicitly selected to be displayed.

Temporary library management

The java property **java.io.tmpdir** that sets the temporary libraries location is defined specifically in the launching scripts of the Active Circle processes to put the libraries in secured places. This folder is automatically cleaned up when the process finished.

For the Active Circle server itself, the **java.io.tmpdir** takes the value of the global variable **CELL_TMP_DIR** whose default value is **/activecircle/cell/tmp**.

The new global variable **ADMIN_TMP_DIR** whose default value is **/activecircle/cell/tmp** defines the root path of the temporary folders for the GUI and CLI.

- For the administration GUI, **java.io.tmpdir** takes the value **\$ADMIN_TMP_DIR/admin\$\$** (where \$\$ is the PID of the process)
- For the explorer GUI, **java.io.tmpdir** takes the value **\$ADMIN_TMP_DIR/explorer\$\$** (where \$\$ is the PID of the process)
- For the CLI, **java.io.tmpdir** takes the value **\$ADMIN_TMP_DIR/api\$\$** (where \$\$ is the PID of the process)

For the standalone installation of the API/CLI, **java.io.tmpdir** takes the value **\$installdir/tmp/api\$\$** where **installdir** is the installation location of the API and \$\$ the PID of the process.

In case of abnormal termination of a process, the next startup will clean up the temporary folders.

Deposit job life cycle

Increase the reliability of file deposits by reading the newly created disk copy (stream) before validating the job. If the read fails, the deposit job is not successful, and the file is kept in the cache, and will be processed again upon job restart.

This may add contention to the cache, however this validation can be disabled with the system property **activecircle.appli.vfs.data.disablePackChecking**.

The new streams are read after a delay given in milliseconds by the system property **activecircle.appli.vfs.data.packCheckingDelay** (default value is 0 i.e. no delay)

Fixes

AC-4689

Fix slave devices recovery of a shared disk pool (uses the `lsblk` linux command if `blkid` does not returns the volumes)

AC-4686

Fix deadlock in the DRLM supervisor activation mode management.

AC-4673

Avoid NPE during archiving with the system parameter **activecircle.archive.optimizedSelection** set to **true** (default value is **false**).

AC-4633

The integrity check of a share can now remove an ungranted orphan stream.

AC-4630

During the installation of a new node, the setup now fails if the catalogs cannot be synchronized.

AC-4625

Enhancement in the authentication failure list management of a user: Add the failure in the list only if required (account locked, or login delayed after some failures)

AC-4617

Disk copies massive deletion optimization to avoid blocking the whole system by thread starvation.

AC-4613

Fix filesystem full error occurrence on disk partition in case of parallel allocation (consider the container being allocated in the remaining space calculation)

AC-4600

Prevent from launching several times the versioning policy manually from the admin GUI.

AC-4587

Fix regression from **AC 4.6** when retrieving the version list of a file that prevented to remove or restore the oldest version of a file with the explorer GUI or CLI (`acrm acrestore`).

AC-4460

Fix abusive note about storage policy processing failure for not historized shares in case a version of a file is replaced quickly by another one.

New stream COS keepers must be ignored when determining the global cancel status of storage policy processing.

AC-1903

The system property disabling quotas notes **activecircle.vfs.quota.disableNote** is replaced by the circle parameter **vfs.quota.disableNote**. The default value is **false** to receive reaching quota limits notifications.

Add the circle parameter **vfs.quota.closeNote** to enable automatic closure of quota notes if the limits are respected again. The default value is false as it may affect NAS performance if enabled.

Version history

AC 6.7.2.1	15/07/2024	Hot fix
AC 6.7.2.0	01/07/2024	Patch
AC 6.7.1.0	17/05/2024	Patch
AC 6.6.0.10	15/03/2024	Hot fix
AC 6.7.0.3	28/02/2024	Hot fix
AC 6.7.0.2	22/02/2024	Hot fix
AC 6.7.0.1	15/02/2024	Hot fix : LTO9 calibration enhancement
AC 6.7.0.0	26/12/2023	Major version : Checksum enhancement
AC 6.6.0.9	28/12/2023	Hot fix : fix NPE in acarhive
AC 6.6.0.8	10/10/2023	Hot fix : Fix renaming file with SMB2.
AC 6.6.0.7	07/09/2023	Hot fix : Add destaging timeout
AC 6.6.0.6	31/07/2023	Hot fix : fix pending cloud archive file list
AC 6.6.0.5	04/07/2023	Hot fix : fix file closing with NFS
AC 6.6.0.4	16/06/2023	Hot fix : memory leaks with NFS
AC 6.6.0.3	10/05/2023	Hot fix : NTLM authentication
AC 6.6.0.2	04/04/2023	Hot fix : NTLM authentication
AC 6.6.0.1	03/03/2023	Hot fix : NTLM authentication
AC 6.6.0.0	16/01/2023	Major version : LTO9 support
AC 6.5.0.6	14/10/2022	Hot fix : SMB authentication
AC 6.5.0.5	23/09/2022	Hot fix : Tape drive cleaning
AC 6.5.0.4	11/08/2022	Hot fix : polluting log with HP LTO7 drive
AC 6.5.0.3	27/07/2022	Hot fix : HTP LTO8 drive detection
AC 6.5.0.2	30/05/2022	Hot fix : Fix catalog corruption
AC 6.5.0.1	05/05/2022	Hot fix : Fix file data size
AC 6.5.0.0	29/04/2022	Major version : SMB2, RHEL 8
AC 6.4.0.3	22/02/2022	Hot fix : compatibility with acapi
AC 6.4.0.2	27/01/2022	Hot fix : deadlock
AC 6.4.0.1	06/12/2021	Hot Fix : cloud license checker
AC 6.4.0.0	10/11/2021	Major version : Cloud Filesystem
AC 6.2.0.7	22/02/2022	Hot fix : compatibility with acapi
AC 6.2.0.6	26/10/2021	Hot fix : NPE
AC 6.2.0.5	15/10/2021	Hot fix : deadlocks and others
AC 6.2.0.4	17/06/2021	Hot fix : fix missing pack management for shared disk pool
AC 6.2.0.3	25/05/2021	Major version : miscellaneous enhancements
AC 6.1.0.1	09/06/2021	Hot fix : FTP fix "Too many open files"
AC 6.1.0.0	22/12/2020	Major version : s3 support for cloud provider
AC 6.0.0.1	26/11/2020	Hot fix : temprarory fix for AD authentication with SMB2
AC 6.0.0.0	16/11/2020	Major version : Variable pack size

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