

StorNext Storage Manager

Syntax conventions:

- <brackets> = replace with a variable
- [] = optional component

See the *MAN Pages Reference Guide* for a complete list of commands, options and descriptions.

Policy Class Management

| Command | Options | Description |
|------------|-----------------------|--|
| fsaddclass | | Creates and defines a new policy class. |
| | <class> | The policy class (maximum of 16 alphanumeric characters). |
| | [-s <softlimit>] | Warning limit for the number of media allocated in the policy class. Default: 20,000 |
| | [-h <hardlimit>] | Maximum number of media allowed in the policy class. Default: 25,000 |
| | [-S <stubsiz>] | The minimum number of KB to leave on disk when files are truncated. Default: 0 |
| | [-t <mediatype>] | Defines the media type to use for the policy class. Default: LTO (unless changed at install time) |
| | [-l securitycode >] | Security code for the policy class (up to 4 characters in length). Default: NONE |
| | [-o acctnum >] | Account number for the policy class (up to 5 characters in length). Default: 12345 |

| Command | Options | Description |
|---------|------------------------|--|
| | [-x <maxcopies>] | Maximum number of copies (including the primary) allowed for each file in the policy class. Default: 4 |
| | [-d <defaultcopies>] | Total number of stored copies (including the primary) for each file in the policy class. This value cannot exceed the maxcopies setting. Default: 1 |
| | [-m <minstoretime>] | Minimum time (in minutes) that a file must reside unmodified on disk before being considered a candidate for storage on media. Default: 5 |
| | [-c <mintruncetime>] | Minimum time (in days) that a file must reside unaccessed on disk before being considered a candidate for truncation. Default: 3 |
| | [-a <affinity>] | List of disk affinities that the files in the policy class will traverse in their lifecycle. Default: "" (empty list) |
| | [-i <minreloctime>] | Minimum time (in days) that a file must reside unaccessed on disk before being considered a candidate for relocation. Default: 7 |
| | [-R <affinity>] | The affinity to retrieve a truncated file to (overrides the default affinity). |
| | [-v <drivepool>] | Media Manager drive pool used to store or retrieve data for the policy class. Default: fs_F0drivepool |
| | [-k <maxversions>] | Maximum number of inactive versions to keep for a file. (The minimum is 1 and the maximum is 25). Default: 10 |
| | [-f i p] | File retention policy (-f) for the policy class. Files can be: <ul style="list-style-type: none"> • i - Truncated immediately • p - (Default) Truncated at policy application time |

| Command | Options | Description |
|---------------|---------------------------------|---|
| | [-r c s] | Media classification cleanup action. When all files are deleted from a medium, the medium can revert (-r) back to: <ul style="list-style-type: none"> • c - Policy class blank pool • s - (Default) System blank pool |
| | [-p yes no] | Specifies whether the policy engine automatically stores files for the policy class. Default: yes |
| | [-z <minsetsize> [MB GB]] | Sets the minimum set size of the policy's data to store (MB or GB). Default: 0 |
| | [-g <maxsetage>] | Sets the candidate expiration time (hours) when files will get stored if minsetsize is not reached. Default: 0 |
| | [-G y n] | Specifies whether to generate and maintain a checksum for each stored file. Default: n |
| | [-V y n] | Specifies whether to verify the checksum of each retrieved file. Default: n |
| | [-D y n] | Specifies whether to remove database information when a file is removed. If enabled, the file cannot be recovered with fsrecover . |
| | [-T ANTF LTF5] | Specifies the media format type that will be used when formatting or selecting media. ANTF is the Quantum internal tape format. LTF5 is the Linear Tape File System specification tape format. |
| | [-L drivelimit] | The maximum number of drives to use when the policy is run. Specifying none will disable the drive limit. If the -L option is not specified, all available drives will be used. |
| fsaddrelation | | Adds a directory-to-policy class association. |
| | <directory> | Path name of the directory to associate with the policy class. |

| Command | Options | Description |
|-------------|-----------------------|---|
| | -c <class> | Policy class to associate with the directory. |
| fsclassinfo | | Reports policy class processing parameters, directory paths, and affinity lists. |
| | [<class>] | One or more policy classes to be listed. Separate multiple policy classes with a space. |
| | [-l] | Long report - processing parameters, directory paths, and the disk affinity list for the policy class. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| | | Modifies the parameters of the policy class. |
| fsmodclass | <class> | The policy class. |
| | [-s <softlimit>] | Warning limit for the number of media allocated in the policy class. |
| | [-h <hardlimit>] | Maximum number of media allowed in the policy class. |
| | [-S <stubsizes>] | The minimum number of KB to leave on disk when files are truncated. |
| | [-t <mediatype>] | Defines the media type to use for the policy class. |
| | [-l <securitycode>] | Security code for the policy class (up to 4 characters in length). |
| | [-o <acctnum>] | Account number for the policy class (up to 5 characters in length). |
| | [-x <maxcopies>] | Maximum number of copies (including the primary) allowed for each file in the policy class. |
| | [-d <defaultcopies>] | Total number of stored copies (including the primary) for each file in the policy class. This value cannot exceed the maxcopies setting. |
| | [-m <minstoretime>] | Minimum time (in minutes) that a file must reside unmodified on disk before being considered a candidate for storage on media. |

| Command | Options | Description |
|---------|--------------------------------|---|
| | [-c <mintruncetime>] | Minimum time (in days) that a file must reside unaccessed on disk before being considered a candidate for truncation. |
| | [-a <affinity>] | List of disk affinities that the files in the policy class will traverse in their lifecycle. |
| | [-i <minreloctime>] | Minimum time (in days) that a file must reside unaccessed on disk before being considered a candidate for relocation. |
| | [-R <affinity>] | The affinity to retrieve a truncated file to (overrides the default affinity). |
| | [-v drivepool] | Media Manager drive pool used to store or retrieve data for the policy class. |
| | [-k <maxversions>] | Maximum number of inactive versions to keep for a file. |
| | [-f i p] | File retention policy (-f) for the policy class. Files can be: <ul style="list-style-type: none"> • i - Truncated immediately • p - Truncated at policy application time |
| | [-r c s] | Media classification cleanup action. When all files are deleted from a medium, the medium can revert (-r) back to: <ul style="list-style-type: none"> • c - Policy class blank pool • s - System blank pool |
| | [-p yes no] | Specifies whether the policy engine automatically stores files for the policy class. |
| | [-z <minsetsize> [MB GB]] | Sets the minimum set size of the policy's data to store (MB or GB). Default: 0 |
| | [-g <maxsetage>] | Sets the candidate expiration time (hours) when files will get stored if minsetsize is not reached. Default: 0 |
| | [-G y n] | Specifies whether to generate and maintain a checksum for each stored file. |
| | [-V y n] | Specifies whether to verify the checksum of each retrieved file. |

| Command | Options | Description |
|---------|--------------------------|--|
| | [-D y n] | Specifies whether to remove database information when a file is removed. If enabled, the file cannot be recovered with fsrecover . |
| | [-T ANTF LTFS NONE] | Specifies the media format type that will be used when formatting or selecting media. ANTF is the Quantum internal tape format. LTFS is the Linear Tape File System specification tape format. NONE is used for Lattus media since no special formatting is done. |
| | [-L drivelimit] | The maximum number of drives to use when the policy is run. Specifying none will disable the drive limit. If the -L option is not specified, all available drives will be used. |
| | [-C copy] | Used to apply the copy options to a specific copy. If the -C option is not specified, the copy options will apply to all copies. Copy options are media format type and drive limit. The -C option requires the -T option and/or the -L option. The -C option is not allowed with the -t option. |
| | [-T ANTF LTFS NONE] | Specifies the media format type that will be used when formatting or selecting media. ANTF is the Quantum internal tape format. LTFS is the Linear Tape File System specification tape format. NONE is used for Lattus media since no special formatting is done. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |

Device Management

| Command | Options | Description |
|----------|---------|--|
| fscstate | | Modifies the state of storage subsystems and drive components. |
| | <alias> | Alias used for storage subsystems and drive components. |

| Command | Options | Description |
|---------|--------------------------|---|
| | -s <state> | Desired state of drive components or subsystems. Valid values (drives): MAINT, ON, OFF Valid values (subsystems): ON, OFF |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |

File Management

| Command | Options | Description |
|----------|--------------------------------|--|
| fschdiat | | Modifies the attributes of the directory. |
| | [-s e p] | Indicates how storage policies (-s) operate on the directory: <ul style="list-style-type: none"> e - Excludes files from storage when a store policy occurs. p - Stores files by storage policy. |
| | [-r e p] | Indicates how relocation policies (-r) operate on the directory: <ul style="list-style-type: none"> e - Excludes files from relocation when a relocation policy occurs. p - Relocates files by relocation policy. |
| | [-t e p] | Indicates how truncation policies (-t) operate on the directory: <ul style="list-style-type: none"> e - Excludes files from truncation when a store or cleanup policy application occurs. p - Truncates files by cleanup policy. |
| | [-D y n] | Specifies whether to remove database information when a file is removed. If enabled, the file cannot be recovered with fsrecover . |
| | [-c <class>] | Specifies the policy class associated with the directory. |
| | [-S <stubsizes>] | The truncation stub size (in KB). This is the minimum number of bytes to leave on disk when files are truncated. |

| Command | Options | Description |
|----------|--------------------------|---|
| | directoryname | The directory to change attributes for. Separate multiple directory names with a space. |
| | -R directory | The directory from which to start the recursive operation. All entries from the specified directory and any subdirectories will be processed. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fschfiat | | Modifies the attributes of the file. |

| Command | Options | Description |
|---------|--------------------------------|---|
| | [-s e p] | Indicates how storage policies operate on the file: <ul style="list-style-type: none"> e - Excludes the file from storage when a store policy occurs. p - Stores the file by storage policy. |
| | [-r e p] | Indicates how relocation policies operate on the file: <ul style="list-style-type: none"> e - Excludes the file from relocation when a relocation policy occurs. p - Relocates the file by relocation policy. |
| | [-t e p i c] | Indicates how truncation policies operate on the file: <ul style="list-style-type: none"> e - Excludes the file from truncation when a store or cleanup policy application occurs. p - Truncates the file by cleanup policy. i - Truncates the file immediately when stored. *c - temporarily clears the indication that this file met truncation exclusion criteria defined in the <code>excludes.truncate</code> file. If the file is modified and then stored again, the file is marked as excluded provided it still meets the criteria. This indicator is independent of the settings made by this option's other arguments. |
| | [-D y n] | Specifies whether to remove database information when a file is removed. If enabled, the file cannot be recovered with fsrecover . |
| | [-c <copies>] | Number of file copies to store, including the primary. This value cannot exceed the policy's maxcopies setting. |
| | [-a <class>] | Specifies an alternate policy class associated with the file. |
| | [-S <stubsizes>] | The truncation stub size (in KB). This is the minimum number of bytes to leave on disk when files are truncated. |
| | <filename> | File to change attributes for. Separate multiple file names with a space. |

| Command | Options | Description |
|-------------------|--------------------------|---|
| | -R directory | The directory from which to start the recursive operation. All entries from the specified directory and any subdirectories will be processed. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsfilecopy | | Replaces the primary copy (or a specified copy) of a file on a piece of media by duplicating it on another piece of media. |

| Command | Options | Description |
|-----------------|--------------------------------|---|
| | -r | Copies the file(s) to a piece of media and deletes all corresponding file(s) on the original piece of media. |
| | <filename> | The path of the file(s) to replace. Separate multiple file names with a space. |
| | -d <medialD> | Specifies the piece of media to which the file(s) are copied. |
| | [-c <copynum>] | Specifies the copy of the file(s) to replace. (If not specified, the primary copy is replaced.) |
| | [-b] | File(s) are copied to a blank piece of media. |
| | [-t <mediatype>] | Defines the type of media to be used for replacement. |
| | [-G y n] | Specifies whether or not (y or n) to generate and maintain a checksum for each copied file. Policy class settings are not used when this option is not specified. Any file being copied that already has had a checksum generated will ignore this option and continue to use the existing value. The default is n. |
| | [-T ANTF LTFS] | Specifies the media format type that will be used when formatting or selecting media. ANTF is the Quantum internal tape format. LTFS is the Linear Tape File System specification tape format. |
| | -s sourcedrivepool | Specifies the Media Manager drive pool group from which the source drive will be selected when copying the specified media. |
| | -v destinationdrivepool | Specifies the Media Manager drive pool group from which the destination drive will be selected when copying the specified media. |
| fspolicy | | Manages disk data / space via file system or class. |
| | [-s] | Invokes the storage policy. |
| | [-r] | Invokes the relocation policy. |
| | [-t] | Invokes the cleanup (truncation) policy. |

| Command | Options | Description |
|-------------------|------------------------------------|---|
| | [-b] | Scans file system for candidate files to store, relocate, or truncate, and rebuilds the candidate lists. |
| | [-y <filesystem>] | File system to which the policy will be applied. |
| | [-e] | Invokes a high priority for immediate action on file storage, relocation, or truncation in a file system. |
| | [-v <drivepool>] | Specifies the drivepool from which to allocate drives when storing files. |
| | [-m <minstoretime>] | Minimum time (in minutes) that a file must reside on disk before being considered a candidate for storage. |
| | [-m <minreloctime>] | Minimum time (in minutes) that a file must reside on disk before being considered a candidate for relocation. |
| | [-m <mintruncetime>] | Minimum time (in days) that a file must reside unaccessed on disk before being considered a candidate for truncation. |
| | [-o <goal>] | Percentage of used disk space at which a relocation or truncation policy ceases is applied. |
| | [-z <minsize>] | Minimum file size (in bytes) to relocate or truncate. |
| | [-a <affinity>] | The affinity to be used for relocation or truncation. |
| | [-c <class>] | Policy class associated with data to be stored, relocated, or truncated. |
| fsretrieve | | Retrieves or recovers files from media and places the files on disk. |
| | [-a] | Updates the access time of the requested files. |
| | [-c copy] | Retrieves a specific copy of filename if one exists. |
| | <filename> | Path and name of the file to retrieve. Separate multiple file names with a space. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |

| Command | Options | Description |
|----------|------------------------------|---|
| | -n <newfilename> | New path and name into which to retrieve the file. |
| | [-b <startbyte> <endbyte>] | Specifies a byte range to retrieve. The value of startbyte must be less than the endbyte value. Both values must be within the byte range of the file. |
| | -R <directory> | Directory from which to start recursive retrieval. |
| | -B <batchfile> | The batch file contains a list of files to be retrieved. Depending on the number of files in the batch file, running this option may use extensive TSM resources. This option can be used with the batch file generated by <code>fspostrestore</code> , which contains files that have been configured to be excluded from truncation. This provides a capability to re-stage those files back onto disk. |
| | [-x y n] | Forces a change in the alternate retrieval location behavior. <ul style="list-style-type: none"> • y - The alternate location is used, bypassing the standard copies. • n - The alternative location is ignored. |
| fsrmcopy | | Removes a copy or copies of a file from disk or media. |
| | [-c <copynum> -a] | Deletes either a specific file copy (copynum) or all file copies (-a) from the media. |
| | <filename> | File or files to remove from disk or media. Separate multiple file names with a space. |

| Command | Options | Description |
|--------------|------------------|---|
| | -R directory | The directory from which to start the recursive operation. All entries from the specified directory and any subdirectories will be processed. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsrmdiskcopy | | Removes a file copy from disk after the file is stored to media. |

| Command | Options | Description |
|---------|------------------|---|
| | <filename> | Full path and name of the file copy to remove from disk. Separate multiple file names with a space. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| | -R directory | The directory from which to start the recursive operation. All entries from the specified directory and any subdirectories will be processed. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |

| Command | Options | Description |
|---------|------------------|--|
| fsstore | | Expedites storage of data to media, instead of allowing data migration by StorNext software. |
| | <filename> | Name of file on disk to store to media. Separate multiple file names with a space. |
| | -R directory | The directory from which to start the recursive operation. All entries from the specified directory and any subdirectories will be processed. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter RECURSION_BATCH_REPORT_INTERVAL. The parameter is an integer value. For a further description of the system parameter see the fs_sysparm.README file. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter RECURSION_BATCH_REPORT_INTERVAL. The parameter is an integer value. For a further description of the system parameter see the fs_sysparm.README file. |

| Command | Options | Description |
|-----------|--------------------|--|
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| | [-t <mediatype>] | Defines the media type to use for storage. |
| | [-c <copies>] | Number of file copies to store, including the primary. |
| | [-f i p] | File retention policy (-f) for the file. Files can be: <ul style="list-style-type: none"> • i - Truncated immediately • p - Truncated at policy application time |
| | [-v <drivepool >] | Specifies the Media Manager drive pool group used to store the file. |
| | [-z <minsize >] | Specifies the minimum file size (in bytes) to store. |
| | [-u <runtime >] | Specifies the maximum time (in hours) allowed for the command to finish. |
| | [-T ANTF LTFS] | Specifies the media format type that will be used when formatting or selecting media. ANTF is the Quantum internal tape format. LTFS is the Linear Tape File System specification tape format. |
| fsversion | | Reports or changes versions of a file. |
| | -h | Displays usage. |
| | [-a] | Lists all available versions of the file (current and inactive). |
| | [-v] | Verbose listing of the file (version number and modification time). |
| | <name> | File for which the version number will be checked. Separate multiple file names with a space. |
| | -c <ver> | Modifies the current version of the file to the specified inactive version. |
| | [-f] | Forces the version change. |

File System Recovery

| Command | Options | Description |
|---------------|---|--|
| fsrecover | | Reports or recovers files that were removed from disk. |
| | <filename> | Name of the file to report on. The name can be a file name, a partial path name, or a complete path name. Separate multiple file names with a space. |
| | [-p] | Specifies that the user report display entries for which the user has permissions. If this option is not specified, the report to the user displays only user-owned entries. |
| | [-t <starttime> [<endtime>]] | Indicates a time range to restrict the length of the user report. The format of the starttime and endtime parameters is: YYYY:MM:DD:hh:mm:ss |
| | <dirname> | Directory containing one or more files to recover. The name can be a directory name, partial path, or full path. Separate multiple directory names with a space. |
| | -d | Indicates that directory recovery processing is requested. |
| | [-r] | Indicates recursive processing is requested. |
| | [-a] | Specifies active files rather than recoverable files when either reporting or recovering a directory. |
| | [<RM_time>:::] <filepathname> | Full path of the file to recover. Optionally, you can have a timestamp of the form YYYY:MM:DD:hh:mm:ss::/stornext/snfs2/rel1/sub1/file.a. Separate multiple file names with a space. |
| | -u | Indicates that recovery processing is requested. |
| | [-v] | Specifies the verbose mode during a recover sequence. The system reports on the recovered files. |
| <dirpathname> | Full path of the directory containing file(s) to recover. Separate multiple directory names with a space. | |

| Command | Options | Description |
|-----------|-------------------------------|--|
| snrestore | | Restores elements of a StorNext Storage Manager system. |
| | [-p <temp_path>] | Specifies a temporary storage directory for restored files. |
| | [-e] | Only extracts files to the temporary storage directory. |
| | [-r <restore_path>] | Uses files from this directory to restore. No files are restored from media. |
| | [-m -mj [<file_system>]] | Specifies the file system metadata restore values. You can specify: <ul style="list-style-type: none"> -m - Restore file system metadata information for all file systems or for the selected optional file system. -mj - Restore file system journal information for all file systems or for the selected optional file system. |
| | [-d dj] | Specifies the database restore values. You can specify: <ul style="list-style-type: none"> -d - Restore database and journal files. -dj - Restore only the journal files and apply them to the existing database on the system. |
| | [-c] | Restores all software configuration information. |
| | [-h] | Displays usage. |

Media Management

| Command | Options | Description |
|-------------|-------------------|--|
| fshmedstate | | Modifies the state of media or a policy class to which the media belongs. |
| | <mediaID> | The media identifier. Separate multiple media IDs with a space. |
| | [-c <class> b] | For blank media, changes the name of the associated policy class (-c class) or changes the policy class to system blank pool (-b). |

| Command | Options | Description | |
|----------|------------------|---|--|
| fscclean | [-s <state>] | The media state. Valid values are: <code>unsp</code> , <code>protect</code> , <code>unprotect</code> , <code>avail</code> , <code>unavail</code> , and <code>unmark</code> . | |
| | [-F <type>] | Determines the output format and may be one of the following: <code>text</code> (default), <code>xml</code> , or <code>json</code> | |
| | | Removes inactive file version information. | |
| | -m <mediaID> | The media identifier. Separate multiple media IDs with a space. | |
| | -s <filesystem> | The file system to clean. Separate multiple file systems with a space. | |
| | -c <class> | Policy class associated with data to clean. Separate multiple policy classes with a space. | |
| | [-t <endtime>]> | Endtime option. This parameter should be less than or equal to the current time. The format of the endtime parameter is: <code>YYYY:MM:DD:hh:mm:ss</code> Default: current time | |
| | -r [<mediaID>] | Cleans all knowledge of files on media where <code>rminfo</code> processing has been done. | |
| | [-l] | Valid only with <code>-r</code> option. Displays a list of all media where <code>rminfo</code> processing has been done. | |
| | -p <filename> | Valid only with <code>-r</code> option. Creates a list of files that need to be retrieved so missing copies can be regenerated. | |
| | [-F <type>] | Determines the output format and may be one of the following: <code>text</code> (default), <code>xml</code> , or <code>json</code> | |
| | fsdrvclean | | Cleans the specified drive. |
| | | <drivealias> | The drive alias. |
| | fsmedcopy | | Copies, reports, or defragments media. |
| | <mediaID> | The media identifier. Separate multiple media IDs with a space. | |

| Command | Options | Description |
|---------|-------------------------|--|
| | [-a] | All active and inactive versions are copied from the source medium. |
| | -c <class> | Copy only data file(s) belonging to the specified class. Note, this is useful only for non-tape media which are not associated with a single policy class. |
| | [-r] | Initiates copy-replace for a medium. |
| | [-d <mediaID>] | Copies a data file to the destination media identifier. |
| | [-b] | Specifies blank media for media destination. |
| | [-f <fill>] | Specifies the fill level threshold (between 0 and 100%). |
| | [-t <mediatype>] | Defines media type to use. |
| | [-u <runtime>] | Maximum allowable time (in hours) for the <code>fsmedcopy</code> command to finish. |
| | [-w <fragmentation>] | Percentage (0 to 100%) of wasted space out of filled space on media. |
| | [-G y n] | Specifies whether or not (y or n) to generate and maintain a checksum for each copied file. Policy class settings are not used when this option is not specified. Any file being copied that already has had a checksum generated will ignore this option and continue to use the existing value. The default is n. |
| | [-T ANTF LTF5] | Specifies the media format type that will be used when formatting or selecting media. ANTF is the Quantum internal tape format. LTF5 is the Linear Tape File System specification tape format. |
| | -s sourcedrivepool | Specifies the Media Manager drive pool group from which the source drive will be selected when copying the specified media. |
| | -v destinationdrivepool | Specifies the Media Manager drive pool group from which the destination drive will be selected when copying the specified media. |

| Command | Options | Description |
|-----------|------------------|--|
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsmedinfo | | Generates a report on the specified media. |
| | <mediaID> | The media identifier. Separate multiple media IDs with a space. |
| | [-l] | Generates the long-form report which includes a list of files on the media. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter RECURSION_BATCH_REPORT_INTERVAL. The parameter is an integer value. For a further description of the system parameter see the fs_sysparm.README file. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsmedlist | | Lists media in a data or storage area. |
| | [-c <class>] | Policy class for which the report is to be generated. Separate multiple policy classes with a space. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| | [-g] | Reports on blank media in the general scratch pool. |

| Command | Options | Description |
|--------------|-----------|---|
| | [-l] | Lists media in the long report format. |
| | [-k] | Lists all media marked for check out. |
| | [-m] | Lists all media marked for removal. |
| | [-b] | Lists unformatted blank media. |
| | [-f] | Lists formatted blank media. |
| | [-p] | Lists all write-protected media. |
| | [-q] | Lists media with mark error. |
| | [-a] | Lists all available media. |
| | [-n] | Lists all media unavailable to StorNext software. |
| | [-u] | Lists all media marked as unavailable but still located in StorNext system. |
| | [-s] | Lists all suspect media. |
| | [-d] | Lists all media located in a drive. |
| | [-h] | Lists all media located in its home slot/bin. |
| | [-t] | Lists all media transitioning between locations. |
| | [-z] | Lists all media exiting a storage area. |
| | [-o] | Lists all media checked out of storage areas. |
| fsrminfo | | Marks the media as logically blank and invalidates all copies stored to the media. WARNING: This command removes all knowledge of the files on the media from StorNext. Truncated files will be lost. |
| | <mediaID> | The media identifier. Separate multiple media IDs with a space. |
| | [-y] | Forces the command to run without prompting. |
| vsarchiveqry | | Queries for information about an archive. |

| Command | Options | Description |
|---------|--------------------|--|
| | <archivename> -a | Specifies the archive (archivename) or all archives (-a) to be queried. |
| | [-c] | Indicates that detailed information on all media classes associated with the specified archive will be reported. |
| | [-d] | Indicates that all drives associated with the specified archive will be reported. |
| | [-m] | Indicates that all media associated with the specified archive will be reported. |
| | [-s] | Indicates that all import/export ports associated with the specified archive(s) will be reported. |
| | [-t] | Indicates that detailed information on all media types associated with the specified archive will be reported. |
| | [-v] | Indicates that all drives, media classes, media, and media types associated with the specified archive will be reported. |
| | [-l] | Indicates that command line options are read from stdin. |
| | [-h] | Displays command usage. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default value: 15 Valid values: 1 to 32 |
| | [-R <retries>] | Number of retries the CLI software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300018s |

| Command | Options | Description |
|-------------|-----------------|---|
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| vsdriveqry | | Queries for information on the specified drive. |
| | <driveID> -a | Indicates a specific drive (driveID) or all drives (-a) will be queried. |
| | [-I] | Indicates that command line options are to be read from stdin. |
| | [-P <priority>] | Execution priority of the entered command. Default value: 15 Valid values: 1 to 32 |
| | [-R <retries>] | Number of retries the CLI software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300018 |
| | | |
| vsdrivevary | | Changes a drive state. |
| | <driveID> | Specifies the drive(s) whose state is to be changed. |
| | -s <state> | Specifies the target state of the specified drive. |
| | [-v] | Verbose listing (status information) of changed drives. |
| | [-I] | Indicates that command line options are read from stdin. |
| | [-h] | Displays command usage. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default: 15 Valid values: 1 to 32 |

| Command | Options | Description |
|---------------|---|---|
| | [-R <retries>] | Number of retries the CLI software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300018 |
| vsmedclassqry | | Queries for the attributes of a media class. |
| | <mediaclass> -a | Specifies a media class (mediaclass) or all media classes (-a) on which to request information. |
| | [-m] | Requests a list of media identifiers for all media associated with each reported media class. |
| | [-v] | Requests detailed information for all media associated with each reported media class. |
| | [-I] | Indicates that command line options are to be read from stdin. |
| | [-h] | Displays command usage. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default: 15 Valid values: 1 to 32 |
| | [-R <retries>] | Number of retries the CLI software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| [-V <number>] | RPC program number for the software. Default: 300018 | |
| vsmedqry | | Queries for the attributes of one or more specified media. |

| Command | Options | Description |
|-----------|-----------------|---|
| | <mediaID> -a | Specifies a media type (mediaID) or all media (-a) to be queried. Separate multiple media IDs with a space. |
| | [-I] | Indicates that command line options are to be read from stdin. |
| | [-h] | Requests help for the entered command. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default: 15 |
| | [-R <retries>] | Number of retries the CLI software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300018 |
| vspoolcfg | | Configures a drive pool. |
| | -p <drivepool> | Configures the specified drive pool. (Maximum of 16 characters.) |
| | -c <driveID> | Creates a drive pool with a list of drive identifiers. |
| | -d | Deletes the drive pool. |
| | -i <driveID> | Inserts drives into an existing drive pool. |
| | -r <driveID> | Removes drives from an existing drive pool. |
| | [-I] | Indicates that command line options are to be read from stdin. |
| | [-h] | Displays command usage. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default: 15 |

| Command | Options | Description |
|--------------|-------------------|---|
| | [-R <retries>] | Number of retries the CLI software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300018 |
| vspoolqry | | Displays information for a specified drive pool or for all drive pools. |
| | -a | Displays information for all drive pools. |
| | <drivepool> | Displays information for the specified drivepool. (Maximum of 16 characters.) |
| | [-v] | Specifies verbose output. |
| | [-l] | Indicates that command line options are to be read from stdin . |
| | [-h] | Displays command usage. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default: 15 Valid values: 1 to 32 |
| | [-R <retries>] | Number of retries that the software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300018 |
| vsreclassify | | Changes the media class associated with the specified media. |
| | <medialD> | Specifies one or more media to reclassify. |

| Command | Options | Description |
|---------|--------------------|---|
| | -c <mediaclass> | Specifies the media class with which specified media are currently associated. |
| | -n <newmediaclass> | Specifies the new media class with which the specified media are to be associated. |
| | [-v] | Specifies verbose output. |
| | [-l] | Indicates that CLI options are to be read from stdin . |
| | [-h] | Displays command usage. |
| | [-H <hostname>] | Hostname of the Media Manager server. |
| | [-P <priority>] | Execution priority of the entered command. Default: 15 |
| | [-R <retries>] | Number of retries that the software attempts if a timeout is received. Default: 3 |
| | [-T <timeout>] | Time interval (in seconds) that the software waits for status before returning a timeout. Default: 120 |
| | [-V <number>] | RPC program number for the software. Default: 300016 |

Reports and Queries

| Command | Options | Description |
|------------|------------|---|
| fsfileinfo | | Reports the current location of files, whether on disk, media or not in the system. |
| | <filename> | Full path and filename of the file. Separate multiple file names with a space. |

| Command | Options | Description |
|------------|------------------|---|
| | -R directory | The directory from which to start the recursive operation. All entries from the specified directory and any subdirectories will be processed. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| | -B batchfilename | The batch file contains the list of entries to be processed. Each entry must be listed one per line. Do not enclose the entry in quotes, use escape characters or any character not in the actual name. Success for individual items (files, directories, etc.) will not be reported. Instead an overall progress status message will be reported periodically with this general format: "Processed <N> out of <TOTAL> entries...". It may take some time before the value of <TOTAL> is known. Until that time, <TOTAL> will be reported as <TBD>. By default, <N> is reported at intervals of 1000. This can be overridden by the system parameter <code>RECURSION_BATCH_REPORT_INTERVAL</code> . The parameter is an integer value. For a further description of the system parameter see the <code>fs_sysparm.README</code> file. |
| fsfileinfo | [-c] | Displays the checksum value generated for the file when stored. |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsqueue | | View subsystem resource requests. |

| Command | Options | Description |
|--------------------|--------------------------------|--|
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| | [-r <requestID>] | Identifier of the request to be reported. |
| | [-m] | Reports media movement for a request identifier or all media in the queue. |
| | [-f] | Reports all files in the queue or specific files if request identifiers or filenames are specified. |
| | -a | Displays information only for active data mover hosts. |
| | [-v] | Displays information only for active data mover requests. |
| | <filename> | Path and filename of the file. Separate multiple file names with a space. |
| fsstate | | Reports the state of drive components, storage subsystem, and Tertiary Manager software. |
| | [<alias>] | Alias for drives and storage subsystems. |
| | [-f] | Generates a report showing the status of Tertiary Manager software. Valid states are: Active, Not Active, Not Available |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsusedspace | | Reports the total amount of stored, primary copy data in the StorNext system (in GB). |

Scheduled Features

| Command | Options | Description |
|-------------------|---------------------------|---|
| fsschedule | | Reports, inserts, modifies, deletes, or resets scheduled features. |
| | -f <feature> | The scheduled feature to work with. Valid options are: clninfo, clnver, rebuild, p_backup, f_backup, spolicy, healthck. |

| Command | Options | Description |
|--------------------|--|--|
| | -n <name> | The schedule name. |
| | [-l] | Lists schedules in the long report format. |
| | -a | Adds a new schedule. (This option requires the -n, -f, and -p options.) |
| | [-p <period>] [-e <weekday>] [-y <monthday>]] | The period of the schedule. Valid options are: daily, weekly, monthly. (This options requires the -t option.) For weekly, you must specify -e weekday where valid options are: sun, mon, tue, wed, thu, fri, sat. For monthly, you must specify -y monthday where monthday is a day of the month (1-31). |
| | [-t <runtime>] | The start time of the feature in HHMM (hours and minutes). |
| | [-w <window>] | The window or runtime offset in HHMM (hours and minutes). |
| | [-o <option>] | If spolicy is specified for -f feature, use -o option where option is the name of an existing policy class. |
| | -m | Modifies an existing schedule. (This option requires the -n option.) |
| | -d | Deletes an existing schedule. (This option requires the -n option.) |
| | -r | Resets all schedules of a feature. (This option requires the -f option.) |
| | [-F <type>] | Determines the output format and may be one of the following: text (default), xml, or json |
| fsschedlock | | Locks and unlocks some automated StorNext features. |
| | [-r] | Reports the current lock status for all features. |
| | [-a -d] | Add (-a) or delete (-d) a lock from the feature(s) specified with the -t option. |

| Command | Options | Description |
|---------|------------------------------------|--|
| | [-t type] | The type of feature for which to add or delete a lock. Valid options are: store, reloc, foreign, rebuild, lospace, mintime, clnver, clninfo, p_backup, f_backup, spolicy, all |
| | [-f] | Locks the feature for a full day |
| | [-s <time>] | The time to start the lockout in HHMM format. (Uses a 24 hour clock. Midnight is 0000.) |
| | [-e <time> -p hrs] | Specify one of the following: The time to end the lockout in HHMM format. (Uses a 24 hour clock. Midnight is 0000.) The duration of the lockout period (in hours). |
| | [<day>] | The day(s) of the week to lock the feature. Valid options are: sun, mon, tue, wed, thu, fri, sat, or all. |

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