**Robocopy**

DZ, 5/28/2016 – Added to computer for review and development.

Updated: April 17, 2012

Applies To: Windows Server 2008, Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows 8

Copies file data.

[**Syntax**](javascript:void(0))

[Copy](javascript:if%20(window.epx.codeSnippet)window.epx.codeSnippet.copyCode('CodeSnippetContainerCode_5480940a-6c7f-475a-a574-d8b3a0d94f08');" \o "Copy to clipboard.)

robocopy <Source> <Destination> [<File>[ ...]] [<Options>]

[**Parameters**](javascript:void(0))

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| **Parameter** | **Description** |
| <Source> | Specifies the path to the source directory. |
| <Destination> | Specifies the path to the destination directory. |
| <File> | Specifies the file or files to be copied. You can use wildcard characters (**\*** or **?**), if you want. If the **File** parameter is not specified, **\*.\*** is used as the default value. |
| <Options> | Specifies options to be used with the **robocopy** command. |

[**Copy options**](javascript:void(0))

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| **Option** | **Description** |
| /s | Copies subdirectories. Note that this option excludes empty directories. |
| /e | Copies subdirectories. Note that this option includes empty directories. For additional information, see [Remarks](https://technet.microsoft.com/en-us/library/cc733145(v=ws.11).aspx#BKMK_remarks). |
| /lev:<N> | Copies only the top *N* levels of the source directory tree. |
| /z | Copies files in Restart mode. |
| /b | Copies files in Backup mode. |
| /zb | Uses Restart mode. If access is denied, this option uses Backup mode. |
| /efsraw | Copies all encrypted files in EFS RAW mode. |
| /copy:<CopyFlags> | Specifies the file properties to be copied. The following are the valid values for this option:  **D** Data  **A** Attributes  **T** Time stamps  **S** NTFS access control list (ACL)  **O** Owner information  **U** Auditing information  The default value for **CopyFlags** is **DAT** (data, attributes, and time stamps). |
| /dcopy:T | Copies directory time stamps. |
| /sec | Copies files with security (equivalent to **/copy:DAT**). |
| /copyall | Copies all file information (equivalent to **/copy:DATSOU**). |
| /nocopy | Copies no file information (useful with **/purge**). |
| /secfix | Fixes file security on all files, even skipped ones. |
| /timfix | Fixes file times on all files, even skipped ones. |
| /purge | Deletes destination files and directories that no longer exist in the source. For additional information, see [Remarks](https://technet.microsoft.com/en-us/library/cc733145(v=ws.11).aspx#BKMK_remarks). |
| /mir | Mirrors a directory tree (equivalent to **/e** plus **/purge**). For additional information, see [Remarks](https://technet.microsoft.com/en-us/library/cc733145(v=ws.11).aspx#BKMK_remarks). |
| /mov | Moves files, and deletes them from the source after they are copied. |
| /move | Moves files and directories, and deletes them from the source after they are copied. |
| /a+:[RASHCNET] | Adds the specified attributes to copied files. |
| /a-:[RASHCNET] | Removes the specified attributes from copied files. |
| /create | Creates a directory tree and zero-length files only. |
| /fat | Creates destination files by using 8.3 character-length FAT file names only. |
| /256 | Turns off support for very long paths (longer than 256 characters). |
| /mon:<N> | Monitors the source, and runs again when more than *N* changes are detected. |
| /mot:<M> | Monitors source, and runs again in *M* minutes if changes are detected. |
| /MT[:N] | Creates multi-threaded copies with *N* threads. *N* must be an integer between 1 and 128. The default value for *N* is 8.  The **/MT** parameter cannot be used with the **/IPG** and **/EFSRAW** parameters.  Redirect output using **/LOG** option for better performance.   |  | | --- | | **System_CAPS_noteNote** | | The /MT parameter applies to Windows Server 2008 R2 and Windows 7. | |
| /rh:hhmm-hhmm | Specifies run times when new copies may be started. |
| /pf | Checks run times on a per-file (not per-pass) basis. |
| /ipg:n | Specifies the inter-packet gap to free bandwidth on slow lines. |
| /sl | Copies the symbolic link instead of the target. |

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| **System_CAPS_importantImportant** |
| When using the **/SECFIX** copy option, specify the type of security information you want to copy by also using one of these additional copy options:   * **/COPYALL** * **/COPY:O** * **/COPY:S** * **/COPY:U** * **/SEC** |

[**File selection options**](javascript:void(0))

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| **Option** | **Description** |
| /a | Copies only files for which the **Archive** attribute is set. |
| /m | Copies only files for which the **Archive** attribute is set, and resets the **Archive** attribute. |
| /ia:[RASHCNETO] | Includes only files for which any of the specified attributes are set. |
| /xa:[RASHCNETO] | Excludes files for which any of the specified attributes are set. |
| /xf <FileName>[ ...] | Excludes files that match the specified names or paths. Note that *FileName* can include wildcard characters (**\*** and **?**). |
| /xd <Directory>[ ...] | Excludes directories that match the specified names and paths. |
| /xct | Excludes changed files. |
| /xn | Excludes newer files. |
| /xo | Excludes older files. |
| /xx | Excludes extra files and directories. |
| /xl | Excludes "lonely" files and directories. |
| /is | Includes the same files. |
| /it | Includes "tweaked" files. |
| /max:<N> | Specifies the maximum file size (to exclude files bigger than *N* bytes). |
| /min:<N> | Specifies the minimum file size (to exclude files smaller than *N* bytes). |
| /maxage:<N> | Specifies the maximum file age (to exclude files older than *N* days or date). |
| /minage:<N> | Specifies the minimum file age (exclude files newer than *N* days or date). |
| /maxlad:<N> | Specifies the maximum last access date (excludes files unused since *N*). |
| /minlad:<N> | Specifies the minimum last access date (excludes files used since *N*) If *N* is less than 1900, *N* specifies the number of days. Otherwise, *N* specifies a date in the format YYYYMMDD. |
| /xj | Excludes junction points, which are normally included by default. |
| /fft | Assumes FAT file times (two-second precision). |
| /dst | Compensates for one-hour DST time differences. |
| /xjd | Excludes junction points for directories. |
| /xjf | Excludes junction points for files. |

[**Retry options**](javascript:void(0))

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| **Option** | **Description** |
| /r:<N> | Specifies the number of retries on failed copies. The default value of *N* is 1,000,000 (one million retries). |
| /w:<N> | Specifies the wait time between retries, in seconds. The default value of *N* is 30 (wait time 30 seconds). |
| /reg | Saves the values specified in the **/r** and **/w** options as default settings in the registry. |
| /tbd | Specifies that the system will wait for share names to be defined (retry error 67). |

[**Logging options**](javascript:void(0))

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| **Option** | **Description** |
| /l | Specifies that files are to be listed only (and not copied, deleted, or time stamped). |
| /x | Reports all extra files, not just those that are selected. |
| /v | Produces verbose output, and shows all skipped files. |
| /ts | Includes source file time stamps in the output. |
| /fp | Includes the full path names of the files in the output. |
| /bytes | Prints sizes, as bytes. |
| /ns | Specifies that file sizes are not to be logged. |
| /nc | Specifies that file classes are not to be logged. |
| /nfl | Specifies that file names are not to be logged. |
| /ndl | Specifies that directory names are not to be logged. |
| /np | Specifies that the progress of the copying operation (the number of files or directories copied so far) will not be displayed. |
| /eta | Shows the estimated time of arrival (ETA) of the copied files. |
| /log:<LogFile> | Writes the status output to the log file (overwrites the existing log file). |
| /log+:<LogFile> | Writes the status output to the log file (appends the output to the existing log file). |
| /unicode | Displays the status output as Unicode text. |
| /unilog:<LogFile> | Writes the status output to the log file as Unicode text (overwrites the existing log file). |
| /unilog+:<LogFile> | Writes the status output to the log file as Unicode text (appends the output to the existing log file). |
| /tee | Writes the status output to the console window, as well as to the log file. |
| /njh | Specifies that there is no job header. |
| /njs | Specifies that there is no job summary. |

[**Job options**](javascript:void(0))

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| **Option** | **Description** |
| /job:<JobName> | Specifies that parameters are to be derived from the named job file. |
| /save:<JobName> | Specifies that parameters are to be saved to the named job file. |
| /quit | Quits after processing command line (to view parameters). |
| /nosd | Indicates that no source directory is specified. |
| /nodd | Indicates that no destination directory is specified. |
| /if | Includes the specified files. |

[**Remarks**](javascript:void(0))

* The **/mir** option is equivalent to the **/e** plus **/purge** options with one small difference in behavior:
  + With the **/e** plus **/purge** options, if the destination directory exists, the destination directory security settings are not overwritten.
  + With the **/mir** option, if the destination directory exists, the destination directory security settings are overwritten.

[**Additional references**](javascript:void(0))

[Command-Line Syntax Key](https://technet.microsoft.com/en-us/library/cc771080(v=ws.11).aspx)