



Basic Usage

Core Syntax

`rsync [OPTION...] SRC... DEST` - Basic syntax for rsync command.

Local:

`rsync [OPTION...] SRC... DEST`

Remote:

Push: `rsync [OPTION...] SRC... [USER@]HOST:DEST`

Pull: `rsync [OPTION...] [USER@]HOST:SRC... DEST`

Basic Examples

Syncing a local folder to another local folder:

`rsync -avz ./source_folder /destination_folder`

Syncing a local folder to a remote folder (push):

`rsync -avz ./source_folder user@remote_host:/remote_destination`

Syncing a remote folder to a local folder (pull):

`rsync -avz user@remote_host:/remote_source ./local_destination`

Syncing the *contents* of a source directory:

`rsync -avz ./source_folder/ /destination_folder`

Note the trailing slash on the source.

Important Notes

Trailing slash `/` matters! Use `/source/` to sync content *within* `source`, and `/source` to sync the directory `source` itself.

`-a` implies `-r` (recursive), but be mindful of symlinks. If you don't want to follow symlinks, use `-l` to copy them as links.

Essential Options

Transfer Options

<code>-z, --compress</code>	Enable compression during transfer to reduce bandwidth usage.
<code>--partial</code>	Allows resuming of aborted syncs, useful for large files or unreliable connections.
<code>--bwlimit=RATE</code>	Limits socket I/O bandwidth to a specified RATE in KB/s. Example: <code>--bwlimit=200</code>
<code>--rsync-path=PATH</code>	Tells rsync to execute from a specific path, useful if rsync isn't in the system's default path.

Display Options

<code>-q, --quiet</code>	Suppress non-error messages.
<code>-v, --verbose</code>	Increase verbosity. Use <code>-vv</code> or <code>-vvv</code> for even more details.
<code>--stats</code>	Show file transfer stats.
<code>-h, --human-readable</code>	Output numbers in a human-readable format.
<code>--progress</code>	Show progress during transfer.
<code>-P</code>	Equivalent to <code>--partial --progress</code>

Advanced Options

Skipping and Filtering

<code>-u, --update</code>	Skip files that are newer on the destination.
<code>-c, --checksum</code>	Skip files based on checksum, not modification time and size.
<code>--exclude=PATTERN</code>	Exclude files matching the specified pattern.
<code>--include=PATTERN</code>	Include files matching the specified pattern (overrides exclude).
<code>--exclude-from=FILE</code>	Read exclude patterns from FILE.
<code>--include-from=FILE</code>	Read include patterns from FILE.
<code>--files-from=FILE</code>	Read list of filenames from FILE to transfer.
<code>-C, --cvs-exclude</code>	Exclude files that would be excluded by CVS (from local/global <code>.cvsignore</code> files).

Deletion Options

<code>--delete</code>	Delete extraneous files from the destination directory. Use with caution!
<code>--delete-before</code>	Deletion happens before transfer.
<code>--delete-after</code>	Deletion happens after transfer. This is the default.
<code>--delete-during</code>	Deletion happens during transfer (less efficient).
<code>--delete-delay</code>	Find deletions during, defer until after.

Backup Options

<code>-b, --backup</code>	Backup with suffix.
<code>--suffix=SUFFIX</code>	Backup suffix (default <code>~</code> if <code>--backup-dir</code> not specified).
<code>--backup-dir=DIR</code>	Make backups into hierarchy under DIR.
<code>--link-dest=DIR</code>	Hardlink to files in DIR when unchanged.

Archive and Security

Archive Options

<code>-a, --archive</code>	Archive mode; equals <code>-r1ptgoD</code> (no <code>-H, -A, -X</code>).
<code>-r, --recursive</code>	Recurse into directories.
<code>-l, --links</code>	Copy symlinks as links.
<code>-p, --perms</code>	Preserve permissions.
<code>-t, --times</code>	Preserve modification times.
<code>-g, --group</code>	Preserve group.
<code>-o, --owner</code>	Preserve owner (super-user only).
<code>-D</code>	Preserve devices and special files.

Security Options

<code>--numeric-ids</code>	Don't map uid/gid values by user/group name.
<code>--no-implied-dirs</code>	Don't send implied directories with <code>--recursive</code> .
<code>--fake-super</code>	Store/recover privileged attrs using a fake super account.

OSX Specific Exclusions

Common exclusions for macOS systems:	
<code>--exclude</code>	<code>' .Trashes '</code>
<code>--exclude</code>	<code>' .Spotlight-V100 '</code>
<code>--exclude</code>	<code>' .fsevents '</code>