rsync File sync tool

CONCEPTS

A trailing slash on the source copies its contents; without it the folder itself lands inside the destination.

Source local or host:path
↓ quick check
Compare size + mtime
↓ delta
Transfer changed parts only
↓ apply
Destination local or host:path

Always rehearse with -n (dry run) before using --delete or --remove-source-files.

BASIC COPY

`rsync -av <src>/ <dest>/`
Copy contents, keep attributes

`rsync -av <src> <dest>/`
Copy the folder itself into dest

`rsync -n -av <src>/ <dest>/`
Dry run, change nothing

`rsync -avP <src> <dest>`
Show progress, keep partial files

`rsync -avh --info=progress2 <src>/ <dest>/`
One overall progress line

`rsync -avi <src>/ <dest>/`
Itemize what changes per file

REMOTE SYNC

`rsync -avz <src>/ <user>@<host>:<dir>/`
Push to a remote host

`rsync -avz <user>@<host>:<dir>/ <dest>/`
Pull from a remote host

`rsync -avz -e "ssh -p <port>" <src>/ <host>:<dir>/`
Use a custom ssh command

REMOTE SYNC (cont.)

`rsync -a --bwlimit=<rate> <src>/ <host>:<dir>/`
Limit bandwidth

INCLUDE & EXCLUDE

`--exclude '<pattern>'`
Skip matching files

`--exclude '<dir>/'`
Skip a directory

`--exclude '/<path>'`
Skip only at the transfer root

`--include '<pattern>'`
Re-include; must precede the exclude

`--exclude-from <file>`
Read exclude patterns from a file

`--files-from <file>`
Copy exactly the listed paths

Pattern wildcards

Pattern	Matches
`*`	any chars except /
`**`	any chars including /
`?`	one char except /
`[abc]`	one of a, b, c
`dir/**`	dir and everything in it

DELETING & SAFETY

`rsync -av --delete <src>/ <dest>/`
Remove extras from destination

`rsync -av --max-delete=<n> <src>/ <dest>/`
Cap number of deletions

`rsync -av --remove-source-files <src>/ <dest>/`
Move files, not copy

`rsync -av -b --backup-dir=<dir> <src>/ <dest>/`
Keep replaced files in a folder

`rsync -av --ignore-existing <src>/ <dest>/`
Never overwrite existing files