

# Linux

Discussing Linux commands and apps that aren't directly related to self hosting but are generally useful.

- [Useful Commands](#)
- [Docker Commands](#)

# Useful Commands

"sudo pacman -Sy"

"sudo pacman -S git fakeroot binutils"

"cd ~/Downloads"

"git clone https://aur.archlinux.org/realvnc-vnc-viewer.git"

"cd realvnc-vnc-viewer"

"sudo pacman -U realvnc-vnc-viewer-\*-x86\_64.pkg.tar.zst"

"su" - elevate prompt so you don't need sudo

"pwd" - show current directory

"sudo fdisk -l" - ?

"mhwd -li" - show ??

"pamac install gvfs-smb" - install samba

"rsync -rvh /path/to/dir1 /path/to/destination" - basic copy command with rsync that copies one folder and all sub-folders into a destination

"rsync -avh /path/to/dir1/ /path/to/dir2/ /path/to/destination/" - copy the contents of two folders into one destination with rsync

Example: "rsync -avh /a/Media/ /b/Media/ /c/Media/" - results in /c/Media containing the **contents** of the two source Media folders

"rsync -avh /a/Media /b/Media /c/" - another way to get the same results as the previous one

"rsync -avh /a/Media /b/Media /c/Media" - Results in /a/Media and /b/Media being merged into /c/Media/Media

-a (archive): Preserves symbolic links, permissions, ownership, and timestamps. Identical to -dR --preserve=all, preserving recursive structure, symlinks, and attributes.

--archive archive mode; equals -rlptgoD (no -H,-A,-X)

--no-OPTION turn off an implied OPTION (e.g. --no-D)

-H (Hard Links): Preserves hard links in the transfer (not included in -a).

-A and -X: Preserve ACLs (Access Control Lists) and Extended Attributes, respectively.

-v (Verbose): Increases the information provided during the transfer, listing each file as it is processed.

-q, --quiet suppress non-error messages

--no-motd suppress daemon-mode MOTD (see caveat)

-c (Checksum): Forces rsync to compare files based on checksums rather than the default "quick check" of file size and modification time.

-r, --recursive recurse into directories

-R, --relative use relative path names

--no-implied-dirs don't send implied dirs with --relative

-P: Combines --partial (keeps partially transferred files if the sync is interrupted) and --progress (shows a progress bar during the transfer).

-u, --update skip files that are newer (modified time) on the receiver  
--inplace update destination files in-place  
--append append data onto shorter files  
--append-verify --append w/old data in file checksum  
-z (Compress): Compresses data during the transfer to reduce network usage, which is ideal for slow connections.  
-h (Human-Readable): Displays file sizes and transfer speeds in a more readable format (e.g., KB, MB, GB) instead of raw bytes.  
-n or --dry-run: Performs a trial run without making any actual changes. This is critical for testing your command before execution

If you're moving large files and you want the option to resume a cancelled or failed rsync operation from the exact point that rsync stopped, you need to use the --append or --append-verify switch on the next attempt.

--delete: Deletes files at the destination that no longer exist at the source. Use this to create an exact mirror, but always use --dry-run first to avoid accidental data loss.  
-e <command>: Specifies the remote shell to use, most commonly ssh. For example: rsync -avz -e ssh source/ user@remote:/dest/.  
--exclude='PATTERN': Excludes files or directories matching a specific pattern from the transfer.  
--ignore-existing (Optional but Recommended): Only copies files that do not exist on the destination, ignoring existing files, which saves time.  
Trailing / (Crucial): Ensure you include a trailing slash on the source path (e.g., /source/) to copy the contents of the folder, not the folder itself.

References:

<https://linuxize.com/post/how-to-use-rsync-for-local-and-remote-data-transfer-and-synchronization/>

<https://linux.die.net/man/1/rsync>

"cp" - alternate copy command

Never use "cp -r" if you need to maintain soft links (symlinks) as links; -r copies the actual file the link points to. Use -a instead.

# Docker Commands

```
docker stats --format "table
```

```
{{.ID}}\t{{.Name}}\t{{.CPUPerc}}\t{{.MemUsage}}\t{{.MemPerc}}\t{{.NetIO}}\t{{.BlockIO}}\t  
{{.PIDs}}" --no-stream
```

```
docker stats --format "table
```

```
{{.ID}}\t{{.Name}}\t{{.CPUPerc}}\t{{.MemPerc}}\t{{.NetIO}}\t{{.BlockIO}}" --no-stream
```