pacman Arch package manager

CONCEPTS

The capital letter picks the operation (S sync, R remove, Q query, U upgrade, F files, D database); lowercase letters modify it.

Repositories sync databases
↓ `-Sy`
Package cache /var/cache/pacman/pkg
↓ `-S` / `-U`
Installed system local database
↓ `-Q`
Query results owners, files, orphans

Never run -Sy alone or install after it without upgrading. A partial upgrade can break the system; use -Syu.

SYNC AND UPGRADE

`sudo pacman -Syu`
Refresh databases and upgrade all

`sudo pacman -S <pkg>`
Install a package with deps

`sudo pacman -S <pkg1> <pkg2>`
Install several at once

`sudo pacman -Sy`
Refresh the sync databases only

`sudo pacman -Syyu`
Force-refresh, then upgrade

`sudo pacman -S --needed <pkg>`
Skip packages already current

`sudo pacman -S <repo>/<pkg>`
Install from a specific repo

`sudo pacman -Sw <pkg>`
Download only, do not install

`sudo pacman -Syu --ignore <pkg>`
Upgrade but skip a package

`sudo pacman -S --asdeps <pkg>`
Install and mark as dependency

REMOVE

`sudo pacman -R <pkg>`
Remove just the package

REMOVE (cont.)

`sudo pacman -Rs <pkg>`
Remove with unused dependencies

`sudo pacman -Rns <pkg>`
Also skip .pacsave backups

`sudo pacman -Rsu <pkg>`
Remove only if nothing needs it

`sudo pacman -Rc <pkg>`
Also remove dependent packages

Removed config files you edited are saved as .pacsave; changed upgrades leave .pacnew next to the live file.

SEARCH AND INSPECT

`pacman -Ss <term>`
Search repos by name and description

`pacman -Si <pkg>`
Show repo package details

`pacman -Qi <pkg>`
Show installed package details

`pacman -Qs <term>`
Search installed packages

`pacman -Ql <pkg>`
List files a package installed

`pacman -Qo <file>`
Which package owns a file

`pacman -Q`
List all installed packages

`pacman -Qe`
List explicitly installed packages

`pacman -Qm`
List foreign (AUR) packages

`pacman -Qu`
List out-of-date packages

`pacman -Qk <pkg>`
Check that a package's files exist

`pacman -Qq`
Print names only, for scripts

ORPHANS AND INSTALL REASON

`pacman -Qdt`
List orphaned dependencies

ORPHANS AND INSTALL REASON (cont.)

`pacman -Qdtq | sudo pacman -Rns -`
Remove all orphans

`pacman -Qet`
Explicit packages nothing requires

`sudo pacman -D --asexplicit <pkg>`
Mark explicit, protect from cleanup

`sudo pacman -D --asdeps <pkg>`
Mark as dependency

FILES AND LOCAL PACKAGES

`sudo pacman -Fy`
Refresh the file databases

`pacman -F <file>`
Which repo package ships a file

`sudo pacman -U <file>.pkg.tar.zst`
Install a local package file

`sudo pacman -U <url>`
Install a package from a URL

`sudo pacman -U /var/cache/pacman/pkg/<file>`
Downgrade from the cache

CACHE AND CONFIG

`sudo pacman -Sc`
Clean uninstalled packages from cache

`paccache -r`
Keep the last 3 versions of each

`find /etc -name '*.pacnew'`
Find config files to merge

RECIPES

Routine system update

```
sudo pacman -Syu
pacman -Qdt
find /etc -name '*.pacnew'
```

Find what owns a file or provides a command

```
pacman -Qo /usr/bin/<cmd>
# not installed yet?
sudo pacman -Fy
pacman -F <cmd>
```