APT Debian package manager

CONCEPTS

update only refreshes the lists; upgrade is what installs new versions. Run them in that order.

Sources sources.list
↓ `apt update`
Package lists local index
↓ `apt install`
Downloaded .deb /var/cache/apt
↓ dpkg
Installed system dpkg database

apt is the interactive front end; apt-get and apt-cache behave more stably and are better in scripts.

UPDATE AND UPGRADE

`sudo apt update`
Refresh the package lists

`sudo apt upgrade`
Upgrade, never remove packages

`sudo apt full-upgrade`
Upgrade, allow removals if needed

`apt list --upgradeable`
List packages with updates

`sudo apt install --only-upgrade` *`<pkg>`*
Upgrade one package only

`sudo apt -s upgrade`
Simulate, change nothing

INSTALL AND REMOVE

`sudo apt install` *`<pkg>`*
Install a package

`sudo apt install` *`<pkg1> <pkg2>`*
Install several at once

`sudo apt remove` *`<pkg>`*
Remove, keep config files

`sudo apt purge` *`<pkg>`*
Remove including config files

`sudo apt autoremove`
Remove unneeded dependencies

`sudo apt install ./`*`<file>`***`.deb`**
Install a local .deb with deps

`sudo apt reinstall` *`<pkg>`*
Reinstall a package

INSTALL AND REMOVE (cont.)

`sudo apt install` *`<pkg>`*`=`*`<version>`*
Install an exact version

`sudo apt install --no-install-recommends` *`<pkg>`*
Skip recommended packages

`sudo apt install -f`
Repair broken dependencies

SEARCH AND INSPECT

`apt search` *`<term>`*
Search names and descriptions

`apt show` *`<pkg>`*
Show version, depends, size

`apt list --installed`
List installed packages

`apt list --installed | grep` *`<name>`*
Is it installed?

`apt policy` *`<pkg>`*
Installed, candidate, sources

`apt depends` *`<pkg>`*
What a package needs

`apt rdepends` *`<pkg>`*
What needs a package

HOLD AND MARK

`sudo apt-mark hold` *`<pkg>`*
Freeze at current version

`sudo apt-mark unhold` *`<pkg>`*
Allow upgrades again

`apt-mark showhold`
List held packages

`apt-mark showmanual`
List manually installed packages

DPKG PAIRING

`dpkg -l`
List installed packages

`dpkg -L` *`<pkg>`*
Files a package installed

`dpkg -S` *`<path>`*
Which package owns a file

`sudo dpkg --configure -a`
Finish interrupted installs