1 Install software packages

Tool	Command	Notes
APT	`apt install package`	Package is obtained from the package repository
	`apt --no-download install package`	Package is not obtained from the package mirror, but is instead taken from the package cache
	`apt-get install package`	Package is obtained from the package repository
	`apt-get --no-download install package`	Package is not obtained from the package mirror, but is instead taken from the package cache
Aptitude	`aptitude install package`	Package is obtained from the package repository
Dpkg	`dpkg -i filename`	Filename refers to a local package file in `.deb` format

2 Renew software packages

Tool	Command	Notes
APT	`apt install package`	Install an updated version of the same package if this package is already installed. Package is obtained from the package repository.
	`apt safe-upgrade package`	Install a newer version of the package. Package is obtained from the package repository.
	`apt-get install package`	Install an updated version of the same package if this package is already installed. Package is obtained from the package repository.
	`apt-get upgrade package`	Install a newer version of the package. Package is obtained from the package repository.
Aptitude	`aptitude safe-upgrade package`	Install a newer version of the package. Package is obtained from the package repository

3 Remove software packages, and keep the configuration files

Tool	Command	Notes
APT	`apt remove package`	
	`apt-get remove package`	
Aptitude	`aptitude remove package`	
Dpkg	`dpkg -r package`	
	`dpkg --remove package`	

4 Remove software packages as well as the configuration files

Tool	Command	Notes
APT	apt purge *package*	
	apt-get purge *package*	
	apt-get --purge remove *package*	
Aptitude	aptitude purge *package*	
Dpkg	dpkg -P *package*	
	dpkg --purge *package*	

5 List installed software packages

Tool	Command	Notes
APT	apt list --installed	List all installed packages
Apt-cache	apt-cache search *package*	List all available packages for the given package name; search includes package name as well as the package description
	apt-cache search --names-only *package*	List all available packages for the given package name; search includes package names, only
Aptitude	aptitude search '~i'	List all installed packages
Dpkg	dpkg -l	List all installed packages
	dpkg --list	List all installed packages

6 Display information about a single software package

Tool	Command	Notes
APT	apt list *package*	Display package information, and installation status
	apt show *package*	Display detailed package information, and installation status
Aptitude	aptitude show *package*	Display detailed package information, and installation status
Dpkg	dpkg -l *package*	Display installation status
	dpkg --list *package*	Display installation status
	dpkg -s *package*	Display package information
	dpkg --status *package*	Display package information

7   Display package dependencies

Tool	Command	Notes
Apt-cache	`apt-cache depends package`	Display reverse dependencies
	`apt-cache rdepends package`	Display dependencies
Aptitude	`aptitude search '~R' package`	Display dependencies
	`aptitude search '~D' package`	Display reverse dependencies
Apt-rdepends	`apt-rdepends -r package`	Display dependencies
	`apt-rdepends package`	Display reverse dependencies
Dpkg	`dpkg -f filename Depends`	Filename refers to a local `.deb` file; Display dependencies
	`dpkg-deb -f filename Depends`	Filename refers to a local `.deb` file; Display dependencies
Grep-status	`grep-status -F Package -s Depends package`	Display dependencies
	`grep-status -P -s Depends package`	Display dependencies

8   List files of a package prior to installation

Tool	Command	Notes
Dpkg	`dpkg -c package`	
	`dpkg --contents package`	
Dpkg-deb	`dpkg-deb -c package`	
	`dpkg-deb --contents package`	

9   List files of an installed package

Tool	Command	Notes
Apt-file	`apt-file -list package`	
	`apt-file -show package`	
Dpkg	`dpkg -L package`	
	`dpkg --listfiles package`	
Dpkg-query	`dpkg-query -L package`	
	`dpkg-query --listfiles package`	

Debian Package Management Cheatsheet

Version 0.1 – © 2023 Frank Hofmann ✉ info@efho.de
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International License. Created with LaTeX.
 https://github.com/hofmannedv/cheatsheets .

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10   List configuration files of a package

Tool	Command	Notes
Dpkg	`dpkg -s package`	
	`dpkg --status package`	
Dpkg-query	`dpkg-query -s package`	
	`dpkg-query --status package`	

11   Identify the package from which a file originates

Tool	Command	Notes
Apt-file	`apt-file find filename`	Search in all available packages
	`apt-file search filename`	Search in all available packages
Dpkg	`dpkg -S filename`	Search in all installed packages
	`dpkg --search filename`	Search in all installed packages
Dpkg-query	`dpkg-query -S filename`	Search in all installed packages
	`dpkg-query --search filename`	Search in all installed packages

12   Display package status

Tool	Command	Notes
Apt-cache	`apt-cache show package`	Search in all available packages
Aptitude	`aptitude show package`	Search in all available packages
Dpkg	`dpkg -s package`	Package has to be installed locally
	`dpkg --status package`	Package has to be installed locally
	`dpkg -I filename`	Filename refers to a local `.deb` file
	`dpkg --info filename`	Filename refers to a local `.deb` file
Dpkg-query	`dpkg-query -s package`	Package has to be installed locally
	`dpkg-query --status package`	Package has to be installed locally

13   Display available packages

Tool	Command	Notes
APT	`apt list`	List all known, and available packages with its status
Apt-cache	`apt-cache pkgnames`	List all known, and available packages

14 Display renewable packages

Tool	Command	Notes
Apt	`apt list --upgradable`	List available packages with a new version
	`apt list --upgradable package`	List new versions for this package
	`apt-get upgrade -u`	List available packages with a new version
	`apt-get upgrade --show-upgraded`	List available packages with a new version
	`apt-get upgrade -u -s`	Simulate upgrading available packages with a new version
	`apt-get upgrade --show-upgraded --simulate`	Simulate upgrading available packages with a new version
Aptitude	`aptitude search '~U'`	List available packages with a new version
	`aptitude search ?upgradable`	List available packages with a new version

15 Validate package signature

Tool	Command	Notes
Debsums	`debsums package`	Validate all files from the package (except configuration files)
Debsums	`debsums`	Validate all files for all packages (except configuration files)
Dpkg	`dpkg -V package`	Validate all files from the package
	`dpkg --verify package`	Validate all files from the package
Dpkg-sig	`dpkg-sig --verify package`	Validate the GPG signature of the package
Gpg	`gpg --verify package`	Validate the GPG signature of the package

16 Check package for changes

Tool	Command	Notes
Dpkg	`dpkg --verify package`	Check this package, only
	`dpkg --verify`	Check all packages

Recommended books

Axel Beckert, Frank Hofmann: Das Debian-Paketmanagement-Buch
○ https://github.com/dpmb