



# Debian GNU/Linux Reference Card

Version 5.0.1 2008-08-01

<http://www.debian.org/>

## Dpkg

|   |  |
|---|--|
| <code>dpkg-query -W ---<br/>showformat=<i>format</i></code> | Query installed packages,<br>format e.g. <code>'\${Package}<br/>\${Version}<br/>\${Installed-Size}\n'</code> . |
| <code>dpkg<br/>--get-selections &gt;<br/><i>file</i></code> | Write package selections to<br>file.   |
| <code>dpkg<br/>--set-selections &lt;<br/><i>file</i></code> | Set package selections from<br>file.   |

## The Network

|   |  |
|---|--|
| <code>/etc/network/<br/>interfaces</code>               | Network interface<br>configuration.  |
| <code>ifup, ifdown<br/>[<i>device</i>]</code>           | Start, stop network<br>interfaces according to files<br>above.                         |
| <code>/sbin/ip</code>                                   | Show and manipulate<br>network interfaces and<br>routing, needs <code>iproute</code> . |
| <code>ssh -X <i>user@host</i></code>                    | Login at other machine.  |
| <code>scp <i>files</i><br/><i>user@host:path</i></code> | Copy files to other machine<br>(and vice versa).                                       |

## Web Server (Apache2)

|   |  |
|---|--|
| <code>/etc/apache2/</code>                      | Configuration files.   |
| <code>/etc/apache2/<br/>sites-available/</code> | Contains virtual hosts. To<br>enable a virtual host, use<br><b>a2ensite</b> .    |
| <code>/etc/apache2/<br/>mods-available/</code>  | Contains available modules<br>files. To enable a module,<br>use <b>a2enmod</b> . |

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## Getting Help

|  |   |
|--|---|
| <code>man <i>page</i> or man<br/>bash</code>   | Read online help for every<br>command and many<br>configuration files.  |
| <code><i>command</i> [--help,<br/>-h]</code>   | Brief help for most<br>commands.  |
| <code>/usr/share/doc/<br/><i>package-name</i>/</code>  | Find all documentation<br>here, optional file<br>README.Debian contains<br>specifics.                               |
| <b>Web<br/>documentation</b>   | Reference, manuals, FAQs,<br>HOWTOs, etc. at<br><a href="http://www.debian.org/doc/">http://www.debian.org/doc/</a> |
| <b>Mailing lists</b> at<br><a href="http://lists.debian.org/">http://lists.debi-<br/>an.org/</a> | The community is always<br>helpful, search for users.   |
| <b>The Wiki</b> at <a href="http://wiki.debian.org/">http:-<br/>//wiki.debian.org/</a>           | Contains all kind of useful<br>information.   |

## Installation

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|---------------------------|--|
| <b>Installer</b>          | All information about it at<br><a href="http://www.debian.org/devel-1/debian-installer/">http://www.debian.org/deve-<br/>l/debian-installer/</a> |
| <b>CD images</b>          | Download from <a href="http://www.debian.org/distrib/">http://www.-<br/>debian.org/distrib/</a>  |
| <code>boot: expert</code> | E.g. to set up the network<br>w/o DHCP or using LILO<br>instead of GRUB.   |

## Bugs

|   |   |
|---|---|
| <b>Bug Tracking</b> at<br><a href="http://bugs.debian.org/">http://bugs.debia-<br/>n.org/</a> | All about existing and fixed<br>bugs.   |
| Package specific  | See <a href="http://bugs.debian.org-/package-name/">http://bugs.debian.org-<br/>/package-name/</a> , use <code>wpp</code> to<br>ask for new packages. |
| <code>reportbug</code>  | Report a bug by e-mail.   |
| <b>Reporting</b>  | Instructions at <a href="http://www.debian.org/Bugs/Reporting">http://www.-<br/>debian.org/Bugs/Reporting</a>   |

## Configuration

|   |  |
|---|--|
| <code>/etc/</code>  | All system configuration files are under directory <code>/etc/</code> .  |
| <code>editor files</code>   | Default text editor. May be <b>nano, emacs, vi, joe</b> .  |
| <b>CUPS</b> at <code>http://hostname:631</code>   | Browser interface to printing system.  |
| <code>dpkg-reconfigure package-name</code>  | Reconfigure a package, e.g. console-common (keyboard), locales (localisation).                                     |
| <code>update-alternatives options</code>  | Manage command alternatives.   |
| <code>update-grub</code>  | After changing <code>/boot/grub/menu.lst</code> .  |
| <code>make-kpkg --initrd --revision=2:my.1.0 --rootcmd fakeroot --uc --us kernel_image</code> | Build a kernel packages from sources, if a customised kernel is really needed, needs <code>kernel-package</code> . |
| <code>m-a a-i module kernel_image</code>  | Create and install third-party modules (gspca, ...), needs <code>module-assistant</code> .                         |

## Daemons and System

|                                       |   |
|---------------------------------------|---|
| <code>/etc/init.d/file restart</code> | Restart a service, system daemon.             |
| <code>/etc/init.d/file stop</code>    | Stop a service, system daemon.                |
| <code>/etc/init.d/file start</code>   | Start a service, system daemon.               |
| <code>halt, reboot, poweroff</code>   | Halts, reboots, shuts down system.            |
| <code>/var/log/</code>                | All log files are under this directory.       |
| <code>/etc/default/</code>            | Default values for many daemons and services. |

## Important Shell Commands

|                                     |                             |
|-------------------------------------|-----------------------------|
| <code>cat files</code>              | Print files to screen.      |
| <code>cd directory</code>           | Change to directory.        |
| <code>cp files dest</code>          | Copy files and directories. |
| <code>echo string</code>            | Echo string to screen.      |
| <code>gzip, bzip2 [-d] files</code> | Compress, uncompress files. |
| <code>pager files</code>            | Show contents of files.     |

## Important Shell Commands

|  |  |
|--|--|
| <code>ls [files]</code>                              | List files.  |
| <code>mkdir directory-names</code>                   | Create directories.  |
| <code>mv file1 file2</code>                          | Move, rename files.  |
| <code>rm files</code>                                | Remove files.  |
| <code>rmdir dirs</code>                              | Remove empty directories.  |
| <code>tar [c][x][t][z][j] -f file.tar [files]</code> | Create, eXtract, list Table of archive file, <i>z, j</i> for <i>.gz, .bz2</i> .      |
| <code>find directories expressions</code>            | Find files like <code>-name name</code> or <code>-size +1000</code> , etc.           |
| <code>grep search-string files</code>                | Find search-string in files.   |
| <code>kill [-9] number</code>                        | Send signal to process (e.g. terminate it).  |
| <code>ln -s file link</code>                         | Create a symbolic link to a file.  |
| <code>ps [options]</code>                            | Show current processes.  |
| <code>su - [username]</code>                         | Become another user, e.g. <code>root</code> .  |
| <code>sudo command</code>                            | Execute a command as <code>root</code> as normal user, see <code>/etc/sudoers</code> |
| <code>command &gt; file</code>                       | Overwrite file with output of command.   |
| <code>command &gt;&gt; file</code>                   | Append output of command to file.  |
| <code>cmd1   cmd2</code>                             | Use output of command 1 as input of command 2.                                       |
| <code>command &lt; file</code>                       | Use file as input for command.   |

## APT

|  |  |
|--|--|
| <code>apt-get update</code>                  | Update packages listings from package repositories as listed in <code>/etc/apt/sources.list</code> . Required whenever that file or the contents of the repositories change. |
| <code>apt-cache search search-string</code>  | Search packages and descriptions for <code>search-string</code> .  |
| <code>apt-cache policy package-names</code>  | Show versions and priorities of available packages.  |
| <code>apt-cache show package-names</code>    | Show package information incl. description.  |
| <code>apt-cache showpkg package-names</code> | Show package dependencies (needed packages).   |

## APT

|   |  |
|---|--|
| <code>apt-get install package-names</code>    | Install packages from repositories with all dependencies.  |
| <code>apt-get upgrade</code>                  | Install newest versions of all packages currently installed.   |
| <code>apt-get dist-upgrade</code>             | Like <b>apt-get upgrade</b> , but with advanced conflict resolution.                                   |
| <code>apt-get remove package-names</code>     | Remove packages with all needed packages.  |
| <code>apt-get autoremove</code>               | Remove packages that no other packages depend on.  |
| <code>apt-cache depends package-names</code>  | List all packages needed by the one given.   |
| <code>apt-cache rdepends package-names</code> | List all packages that need the one given.   |
| <code>apt-file update</code>                  | Update content listings from package repositories, see <b>apt-get update</b>                           |
| <code>apt-file search file-name</code>        | Search packages for file.  |
| <code>apt-file list package-name</code>       | List contents of a package.  |
| <code>auto-apt</code>                         | Installs packages automatically if needed, can replace <b>apt-file</b> , needs <code>auto-apt</code> . |
| <code>aptitude</code>                         | Console interface to APT, needs <code>aptitude</code> .  |
| <code>synaptic</code>                         | GUI interface to APT, needs <code>synaptic</code> .  |

## Dpkg

|   |  |
|---|--|
| <code>dpkg -l [names]</code>                  | List packages.   |
| <code>dpkg -l pkg.deb</code>                  | Show package information.  |
| <code>dpkg -c pkg.deb</code>                  | List contents of package file.                                       |
| <code>dpkg -S filename</code>                 | Show which package a file belongs to.                                |
| <code>dpkg -i pkg.deb</code>                  | Install package files.   |
| <code>debsums</code>                          | Audit check sums of installed packages, needs <code>debsums</code> . |
| <code>dpkg-divert [options] file</code>       | Override a package's version of a file.                              |
| <code>dpkg --compare-versions v1 gt v2</code> | Compare version numbers, check with <b>echo \$?</b> .                |