

– General Linux 1 –

(Linux Professional Institute Certification)

102-2 Use Debian Package management [5]

a

```
.~.  
/V\   by: geoffrey robertson  
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@.__.@
```

\$Id: 102-5.tex,v 1.2 2003/05/30 06:06:18 waratah Exp \$

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Use Debian Package Management

Objective

Candidates should be able to perform Debian package management. This objective includes being able to use command-line and interactive tools to install, upgrade, or uninstall packages, as well as find packages containing specific files or software (such packages might or might not be installed). This objective also includes being able to obtain package information like version, content, dependencies, package integrity and installation status (whether or not the package is installed).

Key files, terms and utilities

- `/etc/dpkg/dpkg.cfg`
- `/var/lib/dpkg/*`
- `/etc/apt/apt.conf`
- `/etc/apt/sources.list`
- `dpkg`
- `dselect`
- `dpkg-reconfigure`
- `apt-get`
- `alien`

Resources

The Debian GNU/Linux FAQ :

<http://www.debian.org/doc/FAQ/index.html>

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Debian Packages—debs

General format: `package_version-build_architecture.deb`

Example deb: `disc-cover_1.0.1-3.deb`

Task Packages Package containing only a large number of dependencies.

Used to install a software bundle.

Task Package Example: `kde_2.2.25_all.deb`

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Using dpkg

dpkg is the core Debian package tool.

Installing Packages Using dpkg

To install a package :

```
# dpkg --install bpalogin_2.0-1.deb ↵
```

or

```
# dpkg -i bpalogin_2.0-1.deb ↵
```

Example :

```
# dpkg -i bpalogin_2.0-1.deb ↵
```

```
Selecting previously deselected package bpalogin.
```

```
(Reading database ...
```

```
110224 files and directories currently installed.)
```

```
Unpacking bpalogin (from bpalogin_2.0-1.deb) ...
```

```
Setting up bpalogin (2.0-1) ...
```

```
Starting bpalogin: bpalogin.
```

Install Dependencies Using `dpkg`

Force options for dpkg

Removing Packages Using dpkg

Removing a package does not remove any configuration files.

To remove a package :

```
# dpkg --remove bpalogin ↵
```

or

```
# dpkg -r bpalogin ↵
```

Example :

```
# dpkg -r bpalogin ↵
```

```
(Reading database ...
```

```
110235 files and directories currently installed.)
```

```
Removing bpalogin ...
```

```
Stopping bpalogin: bpalogin.
```

Removing Packages with Dependencies Using `dpkg`

Purging Packages Using dpkg

Purging a package removes all configuration files.

To purge a package :

```
# dpkg --purge bpalogin ←
```

or (notice the Upper case **P**)

```
# dpkg -P bpalogin ←
```

Example :

```
# dpkg -P bpalogin ←
```

```
(Reading database ...
```

```
110235 files and directories currently installed.)
```

```
Removing bpalogin ...
```

```
Stopping bpalogin: bpalogin.
```


Querying Packages Using dpkg

To purge a package :

```
# dpkg --print-avail bpalogin ↵
```

or (notice the lower case p)

```
# dpkg -p bpalogin ↵
```

Package Query Example :

```
# dpkg -p bpalogin ↵
Package: bpalogin
Priority: extra
Section: net
Installed-Size: 120
Maintainer: Robert Graham Merkel <rgmerk@mira.net>
Architecture: i386
Version: 2.0-1
Depends: libc6 (>= 2.1.94)
Recommends: dhcp-client
Size: 15306
Description: Login client for Telstra(TM) BPA cable users
 This daemon lets Telstra(TM) Big Pond(TM) Advance(TM) cable
 customers log in to their accounts. It uses the BIDS2 protocol.
 Please note that this client is not officially supported
 by Telstra.
.
You need some kind of DHCP client to use the service.
```

Listing Packages Using dpkg

To purge a package :

```
# dpkg --list apache* ←
```

or

```
# dpkg -l apache* ←
```

Example :

```
# dpkg -l apache* ←
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Installed/Config-files/Unpacked/Failed-config/Half-installed
|/ Err?=(none)/Hold/Reinst-required/X=both-problems (Status,Err: uppercase=bad)
||/ Name                Version                Description
+++-----+-----+-----+
ii apache                1.3.24-3              Versatile, high-performance HTTP server
ii apache-common        1.3.24-3              Support files for all Apache webservers
un apache-dev           <none>                (no description available)
un apache-doc           <none>                (no description available)
un apache-modules       <none>                (no description available)
un apache-perl          <none>                (no description available)
ii apache-ssl           1.3.24.3+1.48-2      Versatile, high-performance HTTP server with SSL
```

Showing Package Status Using dpkg

To purge a package :

```
# dpkg --status package_name ↵
```

or

```
# dpkg -s package_name ↵
```

Example of Package Status :

```
# dpkg -s eterm ↵
Package: eterm
Status: install ok installed
Priority: optional
Section: x11
Installed-Size: 1040
Maintainer: Laurence J. Lane <ljlane@debian.org>
Version: 0.9.1-2
Replaces: eterm-ml, eterm-backgrounds
Provides: x-terminal-emulator, eterm-backgrounds
Depends: ncurses-term, libast1, libc6 (>= 2.2.4-2), libimlib2,
libttf2, xlibs (>> 4.1.0)
Conflicts: eterm-backgrounds, eterm-ml

Description: Enlightened Terminal Emulator
A terminal emulator in the spirit of xterm or rxvt, eterm uses an
Enlightenment style config file, as well as themes. The Imlib
graphics engine is used to render images. This version supports
background images, pixmaped scrollbars, pseudo-transparency,
POSIX threads, and unicode support.
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dselect

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apt-get

apt-cache

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alien

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