



Linux | DB | Open Source | Web

≡ Menu

- [Home](#)
- [Free eBook](#)
- [Start Here](#)
- [Contact](#)
- [About](#)

How To Manage Packages Using apt-get, apt-cache, apt-file and dpkg Commands (With 13 Practical Examples)

by Ramesh Natarajan on October 14, 2009



DEBIAN / UBUNTU PACKAGE MANAGEMENT

Debian based systems (including Ubuntu) uses apt-* commands for managing packages from the command line.

In this article, using Apache 2 installation as an example, let us review how to use apt-* commands to view, install, remove, or upgrade packages.

1. apt-cache search: Search Repository Using Package Name

If you are installing Apache 2, you may guess that the package name is apache2. To verify whether it is a valid package name, you may want to search the repository for that particular package name as shown below.

The following example shows how to search the repository for a specific package name.

```
$ apt-cache search ^apache2$
apache2 - Apache HTTP Server metapackage
```

2. apt-cache search: Search Repository Using Package Description

If you don't know the exact name of the package, you can still search using the package description as shown below.

```
$ apt-cache search "Apache HTTP Server"
apache2 - Apache HTTP Server metapackage
apache2-doc - Apache HTTP Server documentation
apache2-mpm-event - Apache HTTP Server - event driven model
apache2-mpm-prefork - Apache HTTP Server - traditional non-threaded model
apache2-mpm-worker - Apache HTTP Server - high speed threaded model
apache2.2-common - Apache HTTP Server common files
```

3. apt-file search: Search Repository Using a Filename from the Package

Sometimes you may know the configuration file name (or) the executable name from the package that you would like to install.

The following example shows that apache2.conf file is part of the apache2.2-common package. Search the repository with a configuration file name using apt-file command as shown below.

```
$ apt-file search apache2.conf
apache2.2-common: /etc/apache2/apache2.conf
apache2.2-common: /usr/share/doc/apache2.2-common/examples/apache2/apache2.conf.gz
```

4. apt-cache show: Basic Information About a Package

Following example displays basic information about apache2 package.

```
$ apt-cache show apache2
Package: apache2
Priority: optional
Maintainer: Ubuntu Core Developers
Original-Maintainer: Debian Apache Maintainers
Version: 2.2.11-2ubuntu2.3
Depends: apache2-mpm-worker (>= 2.2.11-2ubuntu2.3)
        | apache2-mpm-prefork (>= 2.2.11-2ubuntu2.3)
        | apache2-mpm-event (>= 2.2.11-2ubuntu2.3)
Filename: pool/main/a/apache2/apache2_2.2.11-2ubuntu2.3_all.deb
Size: 46350
Description: Apache HTTP Server metapackage
 The Apache Software Foundation's goal is to build a secure, efficient and
 extensible HTTP server as standards-compliant open source software.
Homepage: http://httpd.apache.org/
```

5. apt-cache showpkg: Detailed Information About a Package

“apt-cache show” displays basic information about a package. Use “apt-cache showpkg” to display detailed information about a package as shown below.

```
$ apt-cache showpkg apache2
Package: apache2
Versions:
2.2.11-2ubuntu2.3 (/var/lib/apt/lists/us.archive.ubuntu.com_ubuntu_dists_jaunty-updates_main_binary-i386_Packages) (/var
  Description Language:
                        File: /var/lib/apt/lists/us.archive.ubuntu.com_ubuntu_dists_jaunty-updates_main_binary-i386_Packages
                        MD5: d24f049cd70ccfc178dd8974e4b1ed01

Reverse Depends:
  squirrelmail,apache2
  squid3-cgi,apache2
  phpmyadmin,apache2
  mahara-apache2,apache2
  ipplan,apache2

Dependencies:
  2.2.11-2ubuntu2.3 - apache2-mpm-worker (18 2.2.11-2ubuntu2.3) apache2-mpm-prefork (18 2.2.11-2ubuntu2.3) apache2-mpm-e
  2.2.11-2ubuntu2 - apache2-mpm-worker (18 2.2.11-2ubuntu2) apache2-mpm-prefork (18 2.2.11-2ubuntu2) apache2-mpm-event (

Provides:
  2.2.11-2ubuntu2.3 -
  2.2.11-2ubuntu2 -

Reverse Provides:
  apache2-mpm-itk 2.2.6-02-1build4.3
  apache2-mpm-worker 2.2.11-2ubuntu2.3
  apache2-mpm-prefork 2.2.11-2ubuntu2.3
  apache2-mpm-prefork 2.2.11-2ubuntu2
  apache2-mpm-event 2.2.11-2ubuntu2
```

6. apt-file list: List all the Files Located Inside a Package

Use “apt-file list” to display all the files located inside the apache2 package as shown below.

```
$ apt-file list apache2 | more
apache2: /usr/share/bug/apache2/control
apache2: /usr/share/bug/apache2/script
apache2: /usr/share/doc/apache2/NEWS.Debian.gz
apache2: /usr/share/doc/apache2/README.Debian.gz
apache2: /usr/share/doc/apache2/changelog.Debian.gz
...
```

7. apt-cache depends: List all Dependent Packages

Before installation, if you like to view all the dependent packages, use “apt-cache depends” as shown below.

```
$ apt-cache depends apache2
apache2
|Depends: apache2-mpm-worker
|Depends: apache2-mpm-prefork
  Depends: apache2-mpm-event
```

8. dpkg -l: Is the Package Already Installed?

Before installing a package, you may want to make sure it is not already installed as shown below using dpkg -l command.

```
$ dpkg -l | grep -i apache
```

9. apt-get install: Install a Package

Finally, install the package using “apt-get install” as shown below.

```
$ sudo apt-get install apache2
[sudo] password for ramesh:
```

```
The following NEW packages will be installed:
  apache2 apache2-mpm-worker apache2-utils apache2.2-common libapr1
  libaprutil1 libpq5
```

```
0 upgraded, 7 newly installed, 0 to remove and 26 not upgraded.
```

10. dpkg -l : Verify Whether the Package got Successfully Installed

After installing the package, use “dpkg -l” to make sure it got installed successfully.

```
$ dpkg -l | grep apache
ii  apache2                2.2.11-2ubuntu2.3  Apache HTTP Server metapackage
ii  apache2-mpm-worker     2.2.11-2ubuntu2.3  Apache HTTP Server - high speed threaded mod
ii  apache2-utils          2.2.11-2ubuntu2.3  utility programs for webserver
ii  apache2.2-common       2.2.11-2ubuntu2.3  Apache HTTP Server common files
```

11. apt-get remove: Delete a Package

Use “apt-get purge” or “apt-get remove” to delete a package as shown below.

```
$ sudo apt-get purge apache2
```

(or)

```
$ sudo apt-get remove apache2
```

```
The following packages were automatically installed and are no longer required:
  apache2-utils linux-headers-2.6.28-11 libapr1 apache2.2-common
  linux-headers-2.6.28-11-generic apache2-mpm-worker libpq5 libaprutil1
```

```
Use 'apt-get autoremove' to remove them.
The following packages will be REMOVED:
  apache2
0 upgraded, 0 newly installed, 1 to remove and 26 not upgraded.
Removing apache2 ...
```

- **apt-get remove** will not delete the configuration files of the package
- **apt-get purge** will delete the configuration files of the package

12. apt-get -u install: Upgrade a Specific Package

The following example shows how to upgrade one specific package.

```
$ sudo apt-get -u install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version.
The following packages were automatically installed and are no longer required:
  linux-headers-2.6.28-11 linux-headers-2.6.28-11-generic
Use 'apt-get autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 26 not upgraded.
```

13. apt-get -u upgrade: Upgrade all Packages

To upgrade all the packages to it’s latest version, use “apt-get -u upgrade” as shown below.

```
$ sudo apt-get -u upgrade
The following packages will be upgraded:
  libglib2.0-0 libglib2.0-data libicu38 libsmbclient libwbclient0
  openoffice.org-base-core openoffice.org-calc openoffice.org-common
  openoffice.org-core openoffice.org-draw openoffice.org-emailmerge
  openoffice.org-gnome openoffice.org-gtk openoffice.org-impress
  openoffice.org-math openoffice.org-style-human openoffice.org-writer
  python-uno samba-common smbclient ttf-opensymbol tzdata
26 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

 Tweet  Gefällt mir 18 [Add your comment](#)

If you enjoyed this article, you might also like..