**RPM**

[**http://www.thegeekstuff.com/2010/07/rpm-command-examples/**](http://www.thegeekstuff.com/2010/07/rpm-command-examples/)

 **RPM** (**Red Hat Package Manager**) is an default open source and most popular package management utility for **Red Hat** based systems like (**RHEL**, **CentOS** and **Fedora**). The tool allows system administrators and users to **install**, **update**, **uninstall**, **query**, **verify** and manage system software packages in **Unix/Linux** operating systems. The RPM formerly known as **.rpm** file, that includes compiled software programs and libraries needed by the packages. This utility only works with packages that built on **.rpm** format.

 RPM is free and released under **GPL** (**General Public License**).

 RPM keeps the information of all the installed packages under **/var/lib/rpm** database.

**There are five basic modes for RPM command :**

1. **Install** : It is used to install any RPM package.
2. **Remove** : It is used to erase, remove or un-install any RPM package.
3. **Upgrade** : It is used to update the existing RPM package.
4. **Verify** : It is used to query about different RPM packages.
5. **Query** : It is used for the verification of any RPM package.

**Where to find RPM packages :**

[http://rpmfind.net](http://rpmfind.net/)

<http://rpm.pbone.net/>

**For. Example In the MySQL-client-3.23.57-1.i386.rpm file:**

* MySQL-client – Pack age Name
* 3.23.57 – Version
* 1 – Release
* i386 – Architecture

**rpm command and options**

* -i : install a package
* -v : verbose
* -h : print hash marks as the package archive is unpacked.
* -q :query operation
* -a queries all installed packages
* -f : file name
* -d : refers documentation.
* -p : specify a package name
* l : list the files in the package
* -e : erace/remove package

|  |  |  |
| --- | --- | --- |
| **Syntax** | **Description** | **Example(s)** |
| rpm -ivh {rpm-file} | Install the package | rpm -ivh mozilla-mail-1.7.5-17.i586.rpm rpm -ivh --test mozilla-mail-1.7.5-17.i586.rpm |
| rpm -Uvh {rpm-file} | Upgrade package | rpm -Uvh mozilla-mail-1.7.6-12.i586.rpm rpm -Uvh --test mozilla-mail-1.7.6-12.i586.rpm |
| rpm -ev {package} | Erase/remove/ an installed package | rpm -ev mozilla-mail |
| rpm -ev --nodeps {package} | Erase/remove/ an installed package without checking for dependencies | rpm -ev --nodeps mozilla-mail |
|  |  |  |
| rpm -qa | Display list all installed packages | rpm -qa rpm -qa | less |
| rpm -qi {package} | Display installed information along with package version and short description | rpm -qi mozilla-mail |
| rpm -qf {/path/to/file} | Find out what package a file belongs to i.e. find what package owns the file | rpm -qf /etc/passwd rpm -qf /bin/bash |
| rpm -qc {pacakge-name} | Display list of configuration file(s) for a package | rpm -qc httpd |
| rpm -qcf {/path/to/file} | Display list of configuration files for a command | rpm -qcf /usr/X11R6/bin/xeyes |
| rpm -qa --last | Display list of all recently installed RPMs | rpm -qa --last rpm -qa --last | less |
| rpm -qpR {.rpm-file} rpm -qR {package} | Find out what dependencies a rpm file has | rpm -qpR mediawiki-1.4rc1-4.i586.rpm rpm -qR bash |

**1. How to Check an RPM Signature Package**

Always check the PGP signature of packages before installing them on your Linux systems and make sure its integrity and origin is **OK**. Use the following command with **–checksig** (**check signature**) option to check the signature of a package called **pidgin**.

[root@tecmint]# rpm --checksig pidgin-2.7.9-5.el6.2.i686.rpm

pidgin-2.7.9-5.el6.2.i686.rpm: rsa sha1 (md5) pgp md5 OK

### 2. How to Install an RPM Package

# rpm -ivh <packagename.rpm>

**RPM command and options**

**-i** : install a package

**-v** : verbose for a nicer display

**-h**: print hash marks as the package archive is unpacked.

### 3. How to check dependencies of RPM Package before Installing

[root@tecmint]# rpm -qpR <packagename.rpm>

/usr/bin/ packagename.rpm

##### RPM command and options

1. **-q** : Query a package
2. **-p** : List capabilities this package provides.
3. **-R**: List capabilities on which this package depends..
4. **How to Install a RPM Package Without Dependencies**

If you know that all needed packages are already installed and RPM is just being stupid, you can ignore those dependencies by using the option **–nodeps** (**no dependencies check**) before installing the package.

# rpm -ivh --nodeps <packagename.rpm>

Preparing... ########################################### [100%]

1: <packagename.rpm ########################################### [100%]

The above command forcefully install rpm package by ignoring dependencies errors, but if those dependency files are missing, then the program will not work at all, until you install them.

1. **How to check an Installed RPM Package**

Using **-q** option with package name, will show whether an rpm installed or not.

# rpm -q BitTorrent

1. **How to List all files of an installed RPM package**

To view all the files of an installed rpm packages, use the **-ql** (**query list**) with rpm command.

# rpm -ql <PackageName.rpm>

1. **How to List Recently Installed RPM Packages**

Use the following rpm command with **-qa** (**query all**) option, will list all the recently installed rpm packages.

# rpm -qa –last

1. **How to List All Installed RPM Packages**

[root@tecmint]# rpm –qa

1. **How to Upgrade a RPM Package**

If we want to upgrade any RPM package “**–U**” (**upgrade**) option will be used. One of the major advantages of using this option is that it will not only upgrade the latest version of any package, but it will also maintain the backup of the older package so that in case if the newer upgraded package does not run the previously installed package can be used again.

[root@tecmint]# rpm -Uvh <packageName.rpm>

1. **How to Remove a RPM Package**

The **-e (erase)** option is used to remove package.

[root@tecmint]# rpm -evv nx

1. **How to Remove an RPM Package Without Dependencies**

The **–nodeps** (**Do not check dependencies**) option forcefully remove the rpm package from the system. But keep in mind removing particular package may break other working applications.

[root@tecmint]# rpm -ev --nodeps <packageName>

1. **How to Query a file that belongs which RPM Package**

Let’s say, you have list of files and you would like to find out which package belongs to these files. For example, the following command with **-qf** (**query file**) option will show you a file **/usr/bin/htpasswd** is own by package **httpd-tools-2.2.15-15.el6.centos.1.i686**.

[root@tecmint]# rpm -qf /usr/bin/htpasswd

httpd-tools-2.2.15-15.el6.centos.1.i686

1. **How to Query a Information of Installed RPM Package**

Let’s say you have installed an rpm package and want to know the information about the package. The following **-qi** (**query info**) option will print the available information of the installed package.

[root@tecmint]# rpm -qi vsftpd

### Get the Information of RPM Package Before Installing

You have download a package from the internet and want to know the information of a package before installing. For example, the following option **-qip** (**query info package**) will print the information of a package [sqlbuddy](http://www.tecmint.com/install-sql-buddy-a-web-based-mysql-administration-tool-for-rhel-centos-fedora/).

[root@tecmint]# rpm -qip sqlbuddy-1.3.3-1.noarch.rpm

### How to Query documentation of Installed RPM Package

To get the list of available documentation of an installed package, use the following command with option **-qdf** (**query document file**) will display the manual pages related to [vmstat](http://www.tecmint.com/linux-performance-monitoring-with-vmstat-and-iostat-commands/) package.

[root@tecmint]# rpm -qdf /usr/bin/vmstat

1. **How to Verify a RPM Package**

Verifying a package compares information of installed files of the package against the rpm database. The **-Vp** (**verify package**) is used to verify a package.

[root@tecmint downloads]# rpm -Vp sqlbuddy-1.3.3-1.noarch.rpm

S.5....T. c /etc/httpd/conf.d/sqlbuddy.conf

1. **How to Verify all RPM Packages**

Type the following command to verify all the installed rpm packages.

[root@tecmint]# rpm –Va

1. **How to Import an RPM GPG key**

To verify **RHEL/CentOS/Fedora** packages, you must import the **GPG** key. To do so, execute the following command. It will import **CentOS 6** GPG key.

[root@tecmint]# rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-6

1. **How to List all Imported RPM GPG keys**

To print all the imported **GPG** keys in your system, use the following command.

[root@tecmint]# rpm -qa gpg-pubkey\*

1. **How To rebuild Corrupted RPM Database**

Sometimes rpm database gets corrupted and stops all the functionality of rpm and other applications on the system. So, at the time we need to rebuild the rpm database and restore it with the help of following command.

[root@tecmint]# cd /var/lib

[root@tecmint]# rm \_\_db\*

[root@tecmint]# rpm --rebuilddb

[root@tecmint]# rpmdb\_verify Packages