**RPM stands for Red Hat Package Manager**

RPM command is used for installing, uninstalling, upgrading, querying, listing, and checking RPM packages on your Linux system.

With root privilege, you can use the rpm command with appropriate options to manage the RPM software packages.

Installing a RPM package Using rpm -ivh

RPM filename has packagename, version, release and architecture name.

For example, In the MySQL-client-3.23.57-1.i386.rpm file:

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

When you install a RPM, it checks whether your system is suitable for the software the RPM package contains, figures out where to install the files located inside the rpm package, installs them on your system, and adds that piece of software into its database of installed RPM packages.

rpm command and options

* -i : install a package
* -v : verbose
* -h : print hash marks as the package archive is unpacked.

### Query all the RPM Packages using rpm -qa

# rpm -qa

cdrecord-2.01-10.7.el5

bluez-libs-3.7-1.1

setarch-2.0-1.1

* -q query operation
* -a queries all installed packages

To identify whether a particular rpm package is installed on your system, combine rpm and grep command as shown below. Following command checks whether cdrecord package is installed on your system

# rpm -qa | grep 'cdrecord'

### Query a Particular RPM Package using rpm -q

The above example lists all currently installed package. After installation of a package to check the installation, you can query a particular package and verify as shown below

# rpm -q MySQL-client

MySQL-client-3.23.57-1

# rpm -q MySQL

package MySQL is not installed

Note: To query a package, you should specify the exact package name. If the package name is incorrect, then rpm command will report that the package is not installed.

### Query RPM Packages in a various format using rpm –queryformat

Rpm command provides an option –queryformat, which allows you to give the header tag names, to list the packages. Enclose the header tag with in {}.

# rpm -qa --queryformat '%{name}-%{version}-%{release} %{size}\n'

cdrecord-2.01-10.7 12324

bluez-libs-3.7-1.1 5634

setarch-2.0-1.1 235563

### Which RPM package does a file belong to? – Use rpm -qf

Let us say, you have list of files and you would want to know which package owns all these files. rpm command has options to achieve this.

The following example shows that /usr/bin/mysqlaccess file is part of the MySQL-client-3.23.57-1 rpm

# rpm -qf /usr/bin/mysqlaccess

MySQL-client-3.23.57-1

### -f : file name

### Locate documentation of a package that owns file using rpm -qdf

Use the following to know the list of documentations, for a package that owns a file. The following command, gives the location of all the manual pages related to mysql package.

# rpm -qdf /usr/bin/mysqlaccess

/usr/share/man/man1/mysql.1.gz

/usr/share/man/man1/mysqlaccess.1.gz

/usr/share/man/man1/mysqladmin.1.gz

/usr/share/man/man1/mysqldump.1.gz

/usr/share/man/man1/mysqlshow.1.gz

-d : refers documentation.

rpm -qi MySQL-client

# rpm -qip MySQL-client-3.23.57-1.i386.rpm

* -i : view information about an rpm
* -p : specify a package name

List all the Files in a Package using rpm -qlp

To list the content of a RPM package, use the following command, which will list out the files without extracting into the local directory folder.

$ rpm -qlp ovpc-2.1.10.rpm

/usr/bin/mysqlaccess

/usr/bin/mysqldata

/usr/bin/mysqlperm

.

.

/usr/bin/mysqladmin

* q : query the rpm file
* l : list the files in the package
* p : specify the package name

### List the Dependency Packages using rpm -qRP

To view the list of packages on which this package depends,

# rpm -qRp MySQL-client-3.23.57-1.i386.rpm

/bin/sh

/usr/bin/perl

### Find out the state of files in a package using rpm -qsp

The following command is to find state (installed, replaced or normal) for all the files in a RPM package.

### 11. Verify a Particular RPM Package using rpm -Vp

Verifying a package compares information about the installed files in the package with information about the files taken from the package metadata stored in the rpm database. In the following command, -V is for verification and -p option is used to specify a package name to verify.

# rpm -Vp MySQL-client-3.23.57-1.i386.rpm

### Upgrading a RPM Package using rpm -Uvh

Upgrading a package is similar to installing one, but RPM automatically un-installs existing versions of the package before installing the new one. If an old version of the package is not found, the upgrade option will still install it.

# rpm -Uvh MySQL-client-3.23.57-1.i386.rpm

### Uninstalling a RPM Package using rpm -e

To remove an installed rpm package using -e as shown below. After uninstallation, you can query using rpm -qa and verify the uninstallation.

# rpm -ev MySQL-client

### Verifying all the RPM Packages using rpm -Va

The following command verifies all the installed packages.

# rpm -Va

S.5....T c /etc/issue

S.5....T c /etc/issue.net

S.5....T c /var/service/imap/ssl/seed

S.5....T c /home/httpd/html/horde/ingo/config/backends.php

.

.

S.5....T c /home/httpd/html/horde/ingo/config/prefs.php

S.5....T c /etc/printcap

Reference :: <https://www.thegeekstuff.com/2010/07/rpm-command-examples/>