20 Linux YUM (Yellowdog Updater, Modified) Commands for Package Management

by [Ravi Saive](http://www.tecmint.com/author/admin/) | Published: August 11, 2012 | Last Updated: September 13, 2012

 Download Your Free eBooks NOW - [10 Free Linux eBooks for Administrators](http://www.tecmint.com/10-useful-free-linux-ebooks-for-newbies-and-administrators/) | [4 Free Shell Scripting eBooks](http://www.tecmint.com/free-linux-shell-scripting-books/)

In this article, we will learn how to install, update, remove, find packages, manage packages and repositories on Linux systems using YUM (Yellowdog Updater Modified) tool developed by RedHat. The example commands shown in this article are practically tested on our [CentOS 6.3](http://www.tecmint.com/centos-6-3-step-by-step-installation-guide-with-screenshots/) server, you can use these material for study purpose, certifications or just to explore ways to install new packages and keep your system up-to-date. The basic requirement of this article is, you must have a basic understanding of commands and a working Linux operating system, where you can explore and practice all the commands listed below.

[](http://www.tecmint.com/wp-content/uploads/2012/08/Linux-Yum-Commands.png)

*20 Linux Yum Commands*

What is YUM?

YUM (Yellowdog Updater Modified) is an open source command-line as well as graphical based package management tool for RPM (RedHat Package Manager) based Linux systems. It allows users and system administrator to easily install, update, remove or search software packages on a systems. It was developed and released by Seth Vidal under GPL (General Public License) as an open source, means anyone can allowed to download and access the code to fix bugs and develop customized packages. YUM uses numerous third party repositories to install packages automatically by resolving their dependencies issues.

1. Install a Package with YUM

To install a package called [Firefox 14](http://www.tecmint.com/install-firefox-14-in-rhel-centos-fedora/), just run the below command it will automatically find and install all required dependencies for Firefox.

**# yum install firefox**

Loaded plugins: fastestmirror

Dependencies Resolved

================================================================================================

Package Arch Version Repository Size

================================================================================================

Updating:

firefox i686 10.0.6-1.el6.centos updates 20 M

Updating for dependencies:

xulrunner i686 10.0.6-1.el6.centos updates 12 M

Transaction Summary

================================================================================================

Install 0 Package(s)

Upgrade 2 Package(s)

Total download size: 32 M

Is this ok [y/N]: y

Downloading Packages:

(1/2): firefox-10.0.6-1.el6.centos.i686.rpm | 20 MB 01:10

(2/2): xulrunner-10.0.6-1.el6.centos.i686.rpm | 12 MB 00:52

------------------------------------------------------------------------------------------------

Total 63 kB/s | 32 MB 02:04

Updated:

firefox.i686 0:10.0.6-1.el6.centos

Dependency Updated:

xulrunner.i686 0:10.0.6-1.el6.centos

Complete!

The above command will ask confirmation before installing any package on your system. If you want to install packages automatically without asking any confirmation, use option -y as shown in below example.

**# yum -y install firefox**

2. Removing a Package with YUM

To remove a package completely with their all dependencies, just run the following command as shown below.

**# yum remove firefox**

Loaded plugins: fastestmirror

Setting up Remove Process

Resolving Dependencies

--> Running transaction check

---> Package firefox.i686 0:10.0.6-1.el6.centos set to be erased

--> Finished Dependency Resolution

Dependencies Resolved

====================================================================================================

Package Arch Version Repository Size

====================================================================================================

Removing:

firefox i686 10.0.6-1.el6.centos @updates 23 M

Transaction Summary

====================================================================================================

Remove 1 Package(s)

Reinstall 0 Package(s)

Downgrade 0 Package(s)

Is this ok [y/N]: y

Downloading Packages:

Running rpm\_check\_debug

Running Transaction Test

Transaction Test Succeeded

Running Transaction

Erasing : firefox-10.0.6-1.el6.centos.i686 1/1

Removed:

firefox.i686 0:10.0.6-1.el6.centos

Complete!

Same way the above command will ask confirmation before removing a package. To disable confirmation prompt just add option -y as shown in below.

**# yum -y remove firefox**

3. Updating a Package using YUM

Let’s say you have outdated version of [MySQL](http://www.tecmint.com/category/databases/mysql/) package and you want to update it to the latest stable version. Just run the following command it will automatically resolves all dependencies issues and install them.

**# yum update mysql**

Loaded plugins: fastestmirror

Dependencies Resolved

============================================================================================================

Package Arch Version Repository Size

============================================================================================================

Updating:

vsftpd i386 2.0.5-24.el5\_8.1 updates 144 k

Transaction Summary

============================================================================================================

Install 0 Package(s)

Upgrade 1 Package(s)

Total size: 144 k

Is this ok [y/N]: y

Downloading Packages:

Running rpm\_check\_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

Updating : vsftpd 1/2

Cleanup : vsftpd 2/2

Updated:

vsftpd.i386 0:2.0.5-24.el5\_8.1

Complete!

4. List a Package using YUM

Use the list function to search for the specific package with name. For example to search for a package called openssh, use the command.

**# yum list openssh**

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

\* base: mirror.neu.edu.cn

\* epel: mirror.neu.edu.cn

\* extras: mirror.neu.edu.cn

\* rpmforge: mirror.nl.leaseweb.net

\* updates: mirror.nus.edu.sg

Installed Packages

openssh.i386 4.3p2-72.el5\_6.3 installed

Available Packages 4.3p2-82.el5 base

To make your search more accurate, define package name with their version, in case you know. For example to search for a specific version openssh-4.3p2 of the package, use the command.

**# yum list openssh-4.3p2**

5. Search for a Package using YUM

If you don’t remember the exact name of the package, then use search function to search all the available packages to match the name of the package you specified. For example, to search all the packages that matches the word .

**# yum search vsftpd**

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

\* base: mirror.neu.edu.cn

\* epel: mirror.neu.edu.cn

\* extras: mirror.neu.edu.cn

\* rpmforge: mirror.nl.leaseweb.net

\* updates: ftp.iitm.ac.in

============================== Matched: vsftpd ========================

ccze.i386 : A robust log colorizer

pure-ftpd-selinux.i386 : SELinux support for Pure-FTPD

vsftpd.i386 : vsftpd - Very Secure Ftp Daemon

6. Get Information of a Package using YUM

Say you would like to know information of a package before installing it. To get information of a package just issue the below command.

**# yum info firefox**

Loaded plugins: fastestmirror

Loading mirror speeds from cached hostfile

\* base: mirror.neu.edu.cn

\* epel: mirror.neu.edu.cn

\* extras: mirror.neu.edu.cn

\* rpmforge: mirror.nl.leaseweb.net

\* updates: ftp.iitm.ac.in

Available Packages

Name : firefox

Arch : i386

Version : 10.0.6

Release : 1.el5.centos

Size : 20 M

Repo : updates

Summary : Mozilla Firefox Web browser

URL : http://www.mozilla.org/projects/firefox/

License : MPLv1.1 or GPLv2+ or LGPLv2+

Description: Mozilla Firefox is an open-source web browser, designed for standards

: compliance, performance and portability.

7. List all Available Packages using YUM

To list all the available packages in the Yum database, use the below command.

**# yum list | less**

8. List all Installed Packages using YUM

To list all the installed packages on a system, just issue below command, it will display all the installed packages.

**# yum list installed | less**

9. Yum Provides Function

Yum provides function is used to find which package a specific file belongs to. For example, if you would like to know the name of the package that has the /etc/httpd/conf/httpd.conf.

**# yum provides /etc/httpd/conf/httpd.conf**

Loaded plugins: fastestmirror

httpd-2.2.3-63.el5.centos.i386 : Apache HTTP Server

Repo : base

Matched from:

Filename : /etc/httpd/conf/httpd.conf

httpd-2.2.3-63.el5.centos.1.i386 : Apache HTTP Server

Repo : updates

Matched from:

Filename : /etc/httpd/conf/httpd.conf

httpd-2.2.3-65.el5.centos.i386 : Apache HTTP Server

Repo : updates

Matched from:

Filename : /etc/httpd/conf/httpd.conf

httpd-2.2.3-53.el5.centos.1.i386 : Apache HTTP Server

Repo : installed

Matched from:

Other : Provides-match: /etc/httpd/conf/httpd.conf

10. Check for Available Updates using Yum

To find how many of installed packages on your system have updates available, to check use the following command.

**# yum check-update**

11. Update System using Yum

To keep your system up-to-date with all security and binary package updates, run the following command. It will install all latest patches and security updates to your system.

**# yum update**

12. List all available Group Packages

In Linux, number of packages are bundled to particular group. Instead of installing individual packages with yum, you can install particular group that will install all the related packages that belongs to the group. For example to list all the available groups, just issue following command.

**# yum grouplist**

**Installed Groups:**

Administration Tools

DNS Name Server

Dialup Networking Support

Editors

Engineering and Scientific

FTP Server

Graphics

Java Development

Legacy Network Server

**Available Groups:**

Authoring and Publishing

Base

Beagle

Cluster Storage

Clustering

Development Libraries

Development Tools

Eclipse

Educational Software

KDE (K Desktop Environment)

KDE Software Development

13. Install a Group Packages

To install a particular package group, we use option as groupinstall. Fore example, to install “MySQL Database“, just execute the below command.

**# yum groupinstall 'MySQL Database'**

Dependencies Resolved

=================================================================================================

Package Arch Version Repository Size

=================================================================================================

Updating:

unixODBC i386 2.2.11-10.el5 base 290 k

Installing for dependencies:

unixODBC-libs i386 2.2.11-10.el5 base 551 k

Transaction Summary

=================================================================================================

Install 1 Package(s)

Upgrade 1 Package(s)

Total size: 841 k

Is this ok [y/N]: y

Downloading Packages:

Running rpm\_check\_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

Installing : unixODBC-libs 1/3

Updating : unixODBC 2/3

Cleanup : unixODBC 3/3

Dependency Installed:

unixODBC-libs.i386 0:2.2.11-10.el5

Updated:

unixODBC.i386 0:2.2.11-10.el5

Complete!

14. Update a Group Packages

To update any existing installed group packages, just run the following command as shown below.

**# yum groupupdate 'DNS Name Server'**

Dependencies Resolved

================================================================================================================

Package Arch Version Repository Size

================================================================================================================

Updating:

bind i386 30:9.3.6-20.P1.el5\_8.2 updates 981 k

bind-chroot i386 30:9.3.6-20.P1.el5\_8.2 updates 47 k

Updating for dependencies:

bind-libs i386 30:9.3.6-20.P1.el5\_8.2 updates 864 k

bind-utils i386 30:9.3.6-20.P1.el5\_8.2 updates 174 k

Transaction Summary

================================================================================================================

Install 0 Package(s)

Upgrade 4 Package(s)

Total size: 2.0 M

Is this ok [y/N]: y

Downloading Packages:

Running rpm\_check\_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

Updating : bind-libs 1/8

Updating : bind 2/8

Updating : bind-chroot 3/8

Updating : bind-utils 4/8

Cleanup : bind 5/8

Cleanup : bind-chroot 6/8

Cleanup : bind-utils 7/8

Cleanup : bind-libs 8/8

Updated:

bind.i386 30:9.3.6-20.P1.el5\_8.2 bind-chroot.i386 30:9.3.6-20.P1.el5\_8.2

Dependency Updated:

bind-libs.i386 30:9.3.6-20.P1.el5\_8.2 bind-utils.i386 30:9.3.6-20.P1.el5\_8.2

Complete!

15. Remove a Group Packages

To delete or remove any existing installed group from the system, just use below command.

**# yum groupremove 'DNS Name Server'**

Dependencies Resolved

===========================================================================================================

Package Arch Version Repository Size

===========================================================================================================

Removing:

bind i386 30:9.3.6-20.P1.el5\_8.2 installed 2.1 M

bind-chroot i386 30:9.3.6-20.P1.el5\_8.2 installed 0.0

Transaction Summary

===========================================================================================================

Remove 2 Package(s)

Reinstall 0 Package(s)

Downgrade 0 Package(s)

Is this ok [y/N]: y

Downloading Packages:

Running rpm\_check\_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

Erasing : bind 1/2

warning: /etc/sysconfig/named saved as /etc/sysconfig/named.rpmsave

Erasing : bind-chroot 2/2

Removed:

bind.i386 30:9.3.6-20.P1.el5\_8.2 bind-chroot.i386 30:9.3.6-20.P1.el5\_8.2

Complete!

16. List Enabled Yum Repositories

To list all enabled Yum repositories in your system, use following option.

**# yum repolist**

repo id repo name status

base CentOS-5 - Base enabled: 2,725

epel Extra Packages for Enterprise Linux 5 - i386 enabled: 5,783

extras CentOS-5 - Extras enabled: 282

mod-pagespeed mod-pagespeed enabled: 1

rpmforge RHEL 5 - RPMforge.net - dag enabled: 11,290

updates CentOS-5 - Updates enabled: 743

repolist: 20,824

16. List all Enabled and Disabled Yum Repositories

The following command will display all enabled and disabled yum repositories on the system.

**# yum repolist all**

repo id repo name status

C5.0-base CentOS-5.0 - Base disabled

C5.0-centosplus CentOS-5.0 - Plus disabled

C5.0-extras CentOS-5.0 - Extras disabled

base CentOS-5 - Base enabled: 2,725

epel Extra Packages for Enterprise Linux 5 - i386 enabled: 5,783

extras CentOS-5 - Extras enabled: 282

repolist: 20,824

17. Install a Package from Specific Repository

To install a particular package from a specific enabled or disabled repository, you must use –enablerepo option in your yum command. For example to [Install PhpMyAdmin 3.5.2](http://www.tecmint.com/install-phpmyadmin-3-5-2-for-apache-or-nginx-on-rhelcentos-6-35-8-fedora-17-12/) package, just execute the command.

**# yum --enablerepo=epel install phpmyadmin**

Dependencies Resolved

=============================================================================================

Package Arch Version Repository Size

=============================================================================================

Installing:

phpMyAdmin noarch 3.5.1-1.el6 **epel** 4.2 M

Transaction Summary

=============================================================================================

Install 1 Package(s)

Total download size: 4.2 M

Installed size: 17 M

Is this ok [y/N]: y

Downloading Packages:

phpMyAdmin-3.5.1-1.el6.noarch.rpm | 4.2 MB 00:25

Running rpm\_check\_debug

Running Transaction Test

Transaction Test Succeeded

Running Transaction

Installing : phpMyAdmin-3.5.1-1.el6.noarch 1/1

Verifying : phpMyAdmin-3.5.1-1.el6.noarch 1/1

Installed:

phpMyAdmin.noarch 0:3.5.1-1.el6

Complete!

18. Interactive Yum Shell

Yum utility provides a custom shell where you can execute multiple commands.

**# yum shell**

Loaded plugins: fastestmirror

Setting up Yum Shell

> update httpd

Loading mirror speeds from cached hostfile

\* base: mirrors.sin3.sg.voxel.net

\* epel: ftp.riken.jp

\* extras: mirrors.sin3.sg.voxel.net

\* updates: mirrors.sin3.sg.voxel.net

Setting up Update Process

>

19. Clean Yum Cache

By default yum keeps all the repository enabled package data in /var/cache/yum/ with each sub-directory, to clean all cached files from enabled repository, you need to run the following command regularly to clean up all the cache and make sure that there is nothing unnecessary space is using. We don’t want to give the output of the below command, because we like to keep cached data as it is.

**# yum clean all**

20. View History of Yum

To view all the past transactions of yum command, just use the following command.

**# yum history**

Loaded plugins: fastestmirror

ID | Login user | Date and time | Action(s) | Altered

-------------------------------------------------------------------------------

10 | root | 2012-08-11 15:19 | Install | 3

9 | root | 2012-08-11 15:11 | Install | 1

8 | root | 2012-08-11 15:10 | Erase | 1 EE

7 | root | 2012-08-10 17:44 | Install | 1

6 | root | 2012-08-10 12:19 | Install | 2

5 | root | 2012-08-10 12:14 | Install | 3

4 | root | 2012-08-10 12:12 | I, U | 13 E<

3 | root | 2012-08-09 13:01 | Install | 1 >

2 | root | 2012-08-08 20:13 | I, U | 292 EE

1 | System | 2012-08-08 17:15 | Install | 560

history list

We have tried to cover all the basic to advance yum commands with their examples. If anything related to yum commands may have missed out. Please update us through our comment box. So, we keep updating the same based on feedback’s received.