

# Yum/Dnf & Rpm

## yum/dnf

?????

```
# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
dnf repolist enabled

# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] disabled [ ] enabled
dnf repolist all
dnf repolist -v

# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
dnf repoinfo

# [ ] [ ] [ ] [ ] [ ] [ ] [ ]
dnf install yum-utils
dnf config-manager --enable <repositoryID>

# [ ] [ ] [ ] [ ] [ ] [ ] [ ]
dnf config-manager --disable <repositoryID>
```

????

```
# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
yum list updates
yum check-update
yum check-update --security

# [ ] [ ] [ ] [ ] [ ] [ ]
yum update
yum update --disablerepo=epel

# [ ] [ ] [ ] [ ] [ ] [ ] [ ]
subscription-manager release --list
```

```
yum clean all
yum --releasever=8.6 update

# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
yum update --security
yum update-minimal --security

# [ ] [ ] [ ] [ ]
yum update sudo
yum --security update sudo
yum --security update-minimal sudo

# [ ] [ ] [ ] [ ] ([ ] [ ] [ ] [ ] [ ] [ ])
# NOTE: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] cache [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
yum update -y --setopt tsflags=test
yum clean packages

# [ ] [ ] RHTA-XXX [ ] [ ] [ ] [ ]
yum update --advisory=RHTA-2019:0997
```

??????

```
dnf list --all
dnf list --installed
dnf list --available
```

??/????????

```
dnf --showduplicates list <package-name>
dnf list <package-name>-<version>
dnf install <package-name>-<version>
```

??????

```
# To display a list of all the latest yum transactions, use:
dnf history

# To display a list of all the latest operations for a selected package, use:
dnf history list <package-name>
```

# To examine a particular transaction, use:

dnf history info <transactionID>

# dnf history list

Updating Subscription Management repositories.

ID	Command line	Date and time	Action(s)	Altered
12	update	2022-03-18 16:57	I, U	328 EE
11	install haproxy	2021-11-17 15:37	Install	1
10	install chrony	2021-11-10 17:44	Install	2
9	install vim-enhanced	2021-11-10 17:44	Install	4
8	install sysstat	2021-11-10 17:43	Install	1
7	install yum-utils	2021-11-10 17:43	Install	1
6	install net-snmp-utils	2021-11-10 17:43	Install	1
5	install bind-utils net-snmp	2021-11-10 17:42	Install	30
4	install rsync mailx	2021-11-10 17:42	Install	1
3	install tmux	2021-11-10 17:41	Install	1
2	install redhat-lsb-core	2021-11-10 17:38	Install	26
1		2021-11-10 17:27	Install	396 EE

??????

???????????????? yum update ??????????????????????

# Install yum plugin: yum-versionlock

# The /etc/yum/pluginconf.d/versionlock.list will be created on the system.

# For RHEL 7.9

yum install yum-plugin-versionlock

# For RHEL 8 and 9

yum install python3-dnf-plugin-versionlock

# To install or lock the version of the gcc group of packages, run

yum versionlock gcc-\*

# To display the list of locked packages, use:

yum versionlock list

# To discard the list of locked packages, use:

yum versionlock clear

```
# To discard the lock on a specific package, use:  
yum versionlock delete <package_name>
```

## ?????? (Release)

```
# To determine which releases are available:  
subscription-manager release --list
```

```
# Temporary Setting  
yum clean all  
yum --releasever=8.6 update
```

```
# Permanent Setting  
subscription-manager release --set=8.6  
yum clean all  
subscription-manager repos --list-enabled
```

```
# To determine which releases system is set to:  
subscription-manager release --show
```

```
# To unset a specific release:  
subscription-manager release --unset  
yum clean all  
subscription-manager repos
```

????????????

<http://vault.centos.org/>

????????????

```
dnf clean all
```

????

???? libstdc++.so.6

```
dnf whatprovides "*/libstdc++.so.6"
```

```
dnf provides "*/libstdc++.so.6"
```

????

```
dnf search mypackage
```

```
dnf search --all mypackage
```

??????

```
dnf deplist <package-name>
```

```
repoquery --requires <package-name>
```

?? RPM ??

```
yum -y install yum-utils.noarch
```

```
yumdownloader <package-name>
```

```
yumdownloader --destdir /path/to/download <package-name>
```

```
# Include all dependencies
```

```
yumdownloader --resolve --alldeps <package-name>
```

```
# Extract downloaded RPM
```

```
rpm2cpio dekiwiki-10.0.1-3.1.noarch.rpm | cpio -idmv
```

```
yum -y install --downloadonly --downloadaddir=/tmp/packages NetworkManager
```

??????????

```
dnf --enablerepo=elrepo-kernel install kernel-ml kernel-ml-devel
```

???? ISO??????

```
# vi /etc/yum.repo.d/CentOS-Media.repo
```

```
[c6-local]
```

```
name=CentOS-$releasever - Media
```

```
baseurl=file:///mnt/disc/
```

```
gpgcheck=0
```

```
enabled=0
```

NOTE: enabled=0 ☐ 1 ☐ DVD ☐ /mnt/disc

```
# yum --disablerepo="*" --enablerepo=c6-local list available
# yum --disablerepo="*" --enablerepo=c6-local install nfs-utils
```

## ?????? RPM ??

```
dnf --nogpgcheck install http-1.0.2-1.el5.rf.x86_64.rpm
```

## ??????????

```
yum list installed
yum list installed |tail -n +3|cut -d' ' -f1 > installed_packages.lst
# 
rpm -qa > installed_packages.lst

yum -y install $(cat installed_packages.lst)
```

## COPR ???

```
# Install the tool
sudo dnf install dnf-plugins-core

# Search the repository
dnf copr search [keyword]

# List the repository
dnf copr list
dnf copr list --enabled
dnf copr list --disabled

# Enable the repository
sudo dnf copr enable [user]/[project]

# Disable the repository
sudo dnf copr disable [user]/[project]

# Remove the repository
sudo dnf copr remove [user]/[project]
```

## EPEL ???

- [Extra Packages for Enterprise Linux \(EPEL\) :: Fedora Docs \(fedoraproject.org\)](https://docs.fedoraproject.org/en-US/epel/)

```
rpm -ivh http://mirror01.idc.hinet.net/EPEL/5/i386/epel-release-5-4.noarch.rpm
```

```
rpm -ivh http://mirror01.idc.hinet.net/EPEL/6/i386/epel-release-6-8.noarch.rpm
```

## TIPs:

“ ??: Error: Cannot retrieve metalink for repository: epel. Please verify its path and try again

```
??: sed -i "s/mirrorlist=https/mirrorlist=http/" /etc/yum.repos.d/epel.repo
```

## ELRepo ???

## ELRepo - The Community Enterprise Linux Repository

```
rpm --import http://elrepo.org/RPM-GPG-KEY-elrepo.org
```

```
# for RHEL-5, CENTOS-5
```

```
rpm -Uvh http://elrepo.org/elrepo-release-5-2.el5.elrepo.noarch.rpm
```

```
# for RHEL-6, CENTOS-6
```

```
rpm -Uvh http://elrepo.org/elrepo-release-6-3.el6.elrepo.noarch.rpm
```

## RPMforge/RepoForge ???

RPMforge ?? Dag ???????????????? CentOS ???? 5000 ?????? wine?vlc?mplayer?xmms-mp3 ?????????????????? Red Hat ? CentOS ??????????????????????

<http://repoforge.org/use/>

????????

??? GNOME

??

```
# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  
yum grouplist  
# [ ] [ ] GNOME [ ] [ ] [ ]  
yum groupinstall "GNOME Desktop Environment"  
# [ ] [ ] [ ] [ ]  
yum groupremove "Office Suite and Productivity" "Dial-up Networking Support"  
  
# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  
yum grouplist hidden
```

## Yum ??

?? /etc/yum.conf

```
# Set Proxy  
# proxy=http://<username>:<password>@<this.is.proxy.ip:<port>/  
proxy=http://windowsad\username:password@proxy.server:port/  
  
# Set Timeout  
timeout=600
```

## ?????? RPM

```
yum localinstall my.rpm
```

## ?? YUM ?????? (with ISO)

- [How to create a local mirror of the latest update for Red Hat Enterprise Linux 5, 6, 7, 8 and 9 without using Satellite server?](#)

???? createrepo

CetOS 5:

```
createrepo /source/path/reas5  
createrepo -g /source/path/reas5/repodata/comps.xml
```

CetOS 6/7:



```
# [] [] [] [] []
```

```
createrepo /yum-repo-packages/centos_6.4_x86_64
```

```
# [] [] [] [] [] [] []
```

```
# CentOS 6.4
```

```
createrepo -g /yum-repo-packages/centos_6.4_x86_64/repodata/2727...cab6f72-c6-x86_64-comps.xml /yum-repo-packages/centos_6.4_x86_64
```

```
# RedHat 7.9
```

```
createrepo -g /mnt/yum-repo/redhat_7.9_x86_64/repodata/3df90817a193baef023d53222cc4ce8f4d15209e593bee361bf72016022008fb-comps-Server.x86_64.xml /mnt/yum-repo/redhat_7.9_x86_64
```

## RHEL 8:

```
# for RHEL 8 only
```

```
yum install createrepo_c
```

```
cp -r /mnt/iso/* /mnt/yum-repo/redhat_8.3_x86_64
```

```
createrepo /mnt/yum-repo/redhat_8.3_x86_64
```

## rhel-local.repo:

```
[LocalRepo_BaseOS]
```

```
name=LocalRepo_BaseOS
```

```
metadata_expire=-1
```

```
enabled=1
```

```
gpgcheck=1
```

```
baseurl=ftp://10.1.115/LINUX_REPO/redhat_8.3_x86_64/BaseOS/
```

```
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
```

```
[LocalRepo_AppStream]
```

```
name=LocalRepo_AppStream
```

```
metadata_expire=-1
```

```
enabled=1
```

```
gpgcheck=1
```

```
baseurl=ftp://10.10.1.115/LINUX_REPO/redhat_8.3_x86_64/AppStream/
```

```
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
```

## RPM

????

```
rpm -ivh vim-enhanced-*.x86_64.rpm

# Dry-run only without any changes
rpm -ivh --test vim-enhanced-*.x86_64.rpm
```

????

```
# [1111111111]
rpm -qi <package-name>

# [11111111] 32 [ ] 64 bit
rpm -qa --qf "%{n}-%{v}-%{r}.%{arch}\n" | grep -i <package-name>

# [11111111]
rpm -qpi your.rpm
less your.rpm

# [11111111]
rpm -q --requires <package-name>

# [111111] RPM [1111]
rpm -qp --requires your.rpm

# [11111111] RPM [11111111]
rpm -qlp your.rpm

# [1111111111]
rpm -qf /usr/bin/ksh

# [ ] RPM Public Key
rpm -q gpg-pubkey | sort | uniq -c | sort -nr
```

??????????????

```
# list the dependencies required for the git rpm
# -q: query the RPM package
# -p: specify the package file
# -R: list the dependencies required for the package
```

```
rpm -qpR git-1.8.3.1-20.el7.x86_64.rpm
```

# the command will output a list of dependencies required for Git. For example:

```
/bin/bash
/bin/sh
/lib/ld-linux-x86-64.so.2
/lib64/ld-linux-x86-64.so.2
libc.so.6(GLIBC_2.14)(64bit)
libcurl.so.4()(64bit)
libexpat.so.1()(64bit)
libssl.so.10()(64bit)
libz.so.1()(64bit)
perl(:MODULE_COMPAT_5.16.3)
perl(Error)
perl(Exporter)
perl(Fcntl)
... (more dependencies)
```

# get the RPM package names for these dependencies

```
rpm -q --whatprovides "libcurl.so.4()(64bit)"
```

????????????????????

```
rpm -qa --queryformat '%{NAME}-%{VERSION}-%{RELEASE}.%{ARCH}\n' | sort &> /tmp/rpm-qa.prod.output.txt
```

??????? Changelog

```
rpm -q --changelog sudo | grep -i cve-2021-3156
```

```
rpm -q --changelog -p sudo-1.8.6p3-29.0.2.el6_10.3.x86_64.rpm | grep -F CVE-2021
```

Rebuild source-rpm

```
yum install rpm-build
```

```
rpmbuild --rebuild something.src.rpm
```

GPG

- [RPM and GPG: How to verify Linux packages before installing them](#)

```
# List all GPG keys
rpm -q gpg-pubkey | sort | uniq -c

# Get the information of a key
rpm -qi gpg-pubkey-2f86d6a1-5cf7cefb
```

?? cache

```
yum clean all
rm /var/cache/yum/* -rf
```

?????????

?? minimal ISO ????????????????????

## RedHat 6

```
yum install setuptool system-config-network* system-config-securitylevel-tui system-config-keyboard \
lvm2 lsof nfs-utils sysstat net-snmp net-snmp-utils vim-enhanced rsync mailx bind-utils vim-enhanced \
net-tools
```

## RedHat 7/8

```
yum install chrony tmux vim-enhanced rsync mailx bind-utils net-snmp net-snmp-utils \
yum-utils sysstat nfs-utils redhat-lsb-core lsof net-tools

# for VMware guest OS
yum install open-vm-tools
```

??????

## RHEL 8 & 9

```
yum group install GNOME base-x Fonts

#or

yum groupinstall "Server with GUI"
```

## RHEL 7

```
yum groupinstall gnome-desktop x11 fonts
```

```
# Or
```

```
yum groupinstall "Server with GUI"
```

## RHEL 6

```
# Recommended
```

```
yum groupinstall Desktop "General Purpose Desktop" "Desktop Platform" "X Window System" "Internet Browser" "Graphical Administration Tools" Fonts
```

```
# Minimal
```

```
yum groupinstall Desktop "X Window System" Fonts
```

## RHEL 5

```
# Recommended
```

```
yum groupinstall gnome-desktop base-x graphical-internet admin-tools
```

```
# Minimal
```

```
yum groupinstall gnome-desktop base-x
```

## CVE ????

- [RedHat CVE Checker](#)
- [RedHat CVE Database](#)

?????????? CVE ??? (??????????)

```
# [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] CVE [ ] [ ]
```

```
yum updateinfo info --cve CVE-2023-48795
```

```
# With RHSA
```

```
yum updateinfo info --advisory RHSA-2023:7549
```

???????????????????????????? CVE ??

```
# rpm -q --changelog [package-name] | grep [CVE-NUMBER]
rpm -q --changelog openssl | grep CVE-2021-3450
```

???????????? (RHSA ????)

```
# [ ] [ ] [ ] [ ]
yum updateinfo list updates security

# [ ] [ ] [ ] [ ]
yum updateinfo list security --installed

# [ ] [ ] [ ] RHSA [ ] [ ] [ ] [ ] [ ] [ ]
yum updateinfo info <RHSA ID>
```

????? RHSA-ID

```
yum check-update --advisory=RHSA-2024:1249

yum update --advisory=RHSA-2024:1249
```

## FAQ

## About EPEL Repository

### Important Notice

- The following information has been provided by Red Hat, but is outside the scope of the posted Service Level Agreements and support procedures.
- Installing unsupported packages does not necessarily make a system unsupportable by Red Hat Global Support Services
  - However, Red Hat Global Support Services will be unable to support or debug problems with packages not shipped in standard RHEL channels.
- Installing packages from EPEL is done at the user's own risk.
- The EPEL repository is a community supported repository hosted by the Fedora Community project.
- The EPEL repository is not a part of Red Hat Enterprise Linux and does not fall under Red Hat's Production Support Scope of Coverage. The repository is considered an optional repository and is not tested by Red Hat quality engineers.

(<https://access.redhat.com/solutions/3358> )

What is the difference between yum update vs yum update-minimal

<https://access.redhat.com/solutions/3620411>

## How to Upgrade RHEL 8 to RHEL 9

- [How to Upgrade from RHEL 8 to RHEL 9 Release](#)

RHEL 4 ?? yum ??

RHEL 4 ????? yum ??????????????

???? zip ?????? \*.rpm?

[Yum\\_rhel4.zip](#)

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Revision #85

Created 16 August 2020 04:46:11 by Admin

Updated 24 March 2025 17:38:08 by Admin