Package Management

INTRODUCCIÒN

- Software as Packages:

  packagename-version-release.arch.rpm

- It contains: Files Archive (binaries), documentation, "default" config, summary, description, changelog, signature, instructions (scripts pre/post install), metadata

- Upgrading replace with newer version or release. Except: modified conf files, Kernel.

About Yum
(YellowDog Updater Modified)

- Command-line front-end to **rpm** (RHEL 5+).

- Designed to **resolve package dependencies.**

- Can locate packages across multiple repositories.

- On Red Hat Enterprise Linux 8, installing software is ensured by the new version of the YUM tool, which is based on the DNF technology (YUM v4).

Querying with Yum

- Listing packages and information

  yum list [all] [package_glob...]

  yum list (installed | available | updates [package_glob])

  yum group list [hidden]

  yum info package ...

  yum group info packagegroup ...

- Searching packages and files

  yum search [all] searchterm ...

  yum provides filename ...

Managing Packages with Yum

- Installing new packages

  yum install package | rpmfile | @packagegroup ...

  yum localinstall rpmfile ...

  yum group install packagegroup ...

- Removing

  yum remove package ...

- Update to later version/release

  yum update [package | rpmfile | @packagegroup] ...

Transaction History with yum

- Logs:

  /var/log/yum.log

- **yum history**

  yum history info #num

  yum history undo #num

  yum history redo #num

  yum history rollback #num

Advanced queries with rpm

rpm -q package ... (sobre los instalados)

rpm -qa [package_glob ...] (sobre los instalados)

rpm -qp rpmfile

rpm -qf file_path_name (sobre los instalados)

rpm -qi package (info general)(sobre los instalados)

rpm -ql package (lista files del paquete) "

rpm -qc package (lista files de conf del pac) "

rpm -qd package (docs) (sobre los instalados)

rpm -qR package (requires what) (sobre los instalados)

Advanced Installation and Removal with rpm

- Install/upgrade: **rpm -i | -F | -U** rpmfile ...

- Removal: **rpm -e** packagename ...

- Options: **-v** (print packname), **-h** (hashmark)

- Reinstall same version:

  rpm -i - -replacepkgs package.rpm

- Downgrade version of a package

  rpm -U - - oldpackage package.rpm

Updating to a new Kernel RPM

- Kernel are installed in parallel, not upgraded

  Don't use rpm -U or rpm -F !!!!

  Yum properly handles with update or install.

- Updating (adding) a kernel:

  yum update kernel or

  rpm -ivh kernel

  (yum remove kernel-old-version if no problems)

Enabling yum Repositories

- Create a file in /etc/yum.repos.d for your repository

  1. must end with .repo

  2. contains one or more stanzas like

  [repo-name]

  name=Cool description

  baseurl=http://yourserver.com/path/to/repo

  enabled=1 (or 0)

  gpgcheck=0 (or 1, if 1 we have to add, after import it:)

  gpgkey=file:///path/to/key

Enabling yum Repositories

- yum repolist all

  yum-config-manager - -enable "repo-id"

  yum-config-manager - -disable "repo-id"

  yum-config-manager - -add-repo="URL"

- yum install foo - -disablerepo=epel*

  yum update foo - -enablerepo=epel*

  yum list available - -disablerepo=*

  - -enablerepo=rpmfusion

Installing a repo package

- Before installing an RPM repository you should import (and, maybe download) the repo key

  rpm - -import http://dl.fedoraproject.org/pub/epel/RPM-GPG-KEY-EPEL-7

- Installing the corresponding repository
  yum install http://dl.fedoraproject.org/pub/epel/7/x86_64/e/epel-release-7-5.noarch.rpm

- Verify: cat /etc/yum.repos.d/epel.repo

- yum install - -nogpgcheck ... ignoring key.

More...

- yum repolist all

- yum -y ... (fuerza el yes)

- yum install - -skip-broken package (no instala dependencias)

- Clear cache: yum clean all

- rpm2cpio rpmFile | cpio -i - -list

- rpm2cpio rpmFile | cpio -id ["glob-expression"]

Module Streams

module – They are set of packages

php – One of the **module**

:7.1 – One of the **Stream** = Version

/minimal – One of the **profile** (list of recommended packages to be installed together for a particular use).

Module Streams

Module streams can be **active** or **inactive**.

Active streams give the system access to the RPM packages within the particular module stream, allowing installation of the respective component version.

Streams are active either if marked as default or if they are explicitly enabled by a user action or you install it.

Module Streams

- Module: **perl**
- Module Streams

    - **5.24**

    - **5.26**   [d]

- Profiles

    - **common** [d]

    - **minimal**

Module Streams

dnf module list [--enabled] [module_name]

dnf module info <module_spec>

yum module info --profile php:7.1 list profiles

dnf module install <module_spec>...

yum module remove module_name

yum module reset module_name

Module Streams remove/disable/reset

- yum module remove module-name

- All streams of the module are returned to the initial state. No installed content is removed.

  yum module reset module-name

- Disable a whole module (for example if content from module stream is not accessible).

  yum module disable module-name