### Package Management



### INTRODUCCIÓN

- 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 Introduced with RHEL 5
   Replacement for up2date
- Designed to <u>resolve package</u> <u>dependencies</u>
- Can locate packages across multiple repositories
- GUI: gpk-application

### 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 ...
- Removingyum 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 ["globexpression"]