DNF Fedora package manager

CONCEPTS

Unlike apt, dnf refreshes stale metadata itself, so there is no separate update step. upgrade is the one that installs.

Repositories /etc/yum.repos.d
↓ metadata cache
Dependency solver one transaction
↓ confirm, download
RPM transaction install / remove
↓ recorded
History undo / rollback

UPDATE AND UPGRADE

dnf check-update
List updates; exit code 100 if any

sudo dnf upgrade
Upgrade all packages

sudo dnf upgrade *<pkg>*
Upgrade one package

sudo dnf upgrade --security
Only security advisories

sudo dnf upgrade --bugfix
Only bugfix advisories

sudo dnf upgrade --refresh
Expire metadata first

INSTALL AND REMOVE

sudo dnf install *<pkg>*
Install a package

sudo dnf install *<pkg1> <pkg2>*
Install several at once

sudo dnf install ./*<file>***.rpm**
Install a local rpm with deps

sudo dnf remove *<pkg>*
Remove a package and dependents

sudo dnf autoremove
Remove orphaned dependencies

sudo dnf reinstall *<pkg>*
Reinstall a package

sudo dnf downgrade *<pkg>*
Go back to a lower version

sudo dnf install *<pkg>-<version>*
Install an exact version

INSTALL AND REMOVE (cont.)

sudo dnf install --allowerasing *<pkg>*
Let it remove conflicting packages

sudo dnf install -y *<pkg>*
Answer yes to prompts

sudo dnf install --enablerepo=*<id>* *<pkg>*
Use a repo for this run

SEARCH AND INSPECT

dnf search *<term>*
Search names and summaries

dnf info *<pkg>*
Show package details

dnf provides *<path>*
Find the package owning a file

dnf list --installed
List installed packages

dnf list --available
List installable packages

dnf list --upgrades
List packages with updates

dnf repoquery -l *<pkg>*
List files in a package

dnf repoquery --requires *<pkg>*
Show what a package needs

dnf repoquery --whatrequires *<pkg>*
Show what depends on it

dnf repoquery --userinstalled
Packages you installed yourself

HISTORY AND UNDO

dnf history
List recent transactions

dnf history info *<id>*
Show what a transaction did

sudo dnf history undo *<id>*
Revert one transaction

sudo dnf history undo last
Revert the latest transaction

sudo dnf history rollback *<id>*
Revert everything after <id>

GROUPS AND MODULES

dnf group list
List package groups

dnf group info *<group>*
Show a group's packages

sudo dnf group install *<group>*
Install a whole group

sudo dnf group install --with-optional *<group>*
Include optional members

sudo dnf group remove *<group>*
Remove a group

REPOS AND CACHE

dnf repolist
List enabled repos

dnf repolist --all
Include disabled repos

sudo dnf config-manager --set-enabled *<repo>*
Enable a repo permanently

sudo dnf config-manager --set-disabled *<repo>*
Disable a repo permanently

sudo dnf makecache
Rebuild the metadata cache

sudo dnf clean all
Drop all cached data

sudo dnf --refresh *<command>*
Expire metadata for one run

dnf --disablerepo=*<id>* *<command>*
Ignore a repo for one run

RECIPES

Routine system update

```
dnf check-update
sudo dnf upgrade
sudo dnf autoremove
```

Find and install the tool for a command

```
dnf provides '*/bin/<cmd>'
sudo dnf install <pkg>
```

Undo a bad install

```
dnf history
dnf history info <id>
sudo dnf history undo <id>
```