DNF Fedora package manager

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

CONCEPTS

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

config-manager comes from the dnf-plugins-core package; install it first if the command is missing.

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 --refresh`
Expire metadata first

INSTALL AND REMOVE

`sudo dnf install <pkg>`
Install a package

INSTALL AND REMOVE (cont.)

`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

`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 list --extras`
Installed but in no repo

`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 redo <id>`
Repeat a 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 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>
```