zypper openSUSE package manager

START HERE

`sudo zypper ref`
Refresh repo metadata

`sudo zypper rm <pkg>`
Uninstall a package

`zypper se <term>`
Find a package

`sudo zypper up`
Update installed packages

`zypper if <pkg>`
Read package details

`sudo zypper dup`
Distribution upgrade

`sudo zypper in <pkg>`
Install a package

`zypper lr`
List repositories

Repositories /etc/zypp/repos.d → `refresh` → **Solver** libzypp, one transaction → `confirm, download` → **RPM transaction** install / remove / update → `logged` → **History** /var/log/zypp/history

CONCEPTS

Every command has a short alias: in, rm, se, if, up, lu, lr, ar, ref, pch. Global options such as -n and --no-refresh go before the command.

update only moves to newer versions inside the current repos and never changes vendor or removes packages. dup (dist-upgrade) may switch vendor, downgrade or remove: use it on Tumbleweed and for release upgrades.

openSUSE and SUSE Linux Enterprise. Changing the system needs root, so prefix with sudo. Run sudo zypper ref first when metadata may be stale; it also happens automatically for repos with autorefresh on.

UPDATE AND UPGRADE

`zypper lu`
List available updates

`sudo zypper up`
Update all installed packages

`sudo zypper up <pkg>`
Update one package

`sudo zypper dup`
Distribution upgrade (full sync)
Tumbleweed: this is the normal update. It may change vendors and remove packages, so read the summary.

`sudo zypper dup --from <repo>`
Upgrade only from a given repo

`sudo zypper dup --releasever <ver>`
Switch release during upgrade
Point the repos at the new release first (check with zypper --releasever <ver> lr -u), then refresh and run dup.

`zypper lp`
List needed patches

`zypper pchk`
Exit 100/101 if patches pending
100 means patches are available, 101 means security patches are available.

`sudo zypper patch`
Apply all needed patches
On SUSE Linux Enterprise this is the usual update path; Tumbleweed has no patches.

UPDATE AND UPGRADE (cont.)

`sudo zypper patch --category security`
Only security patches

`zypper lp --cve=<CVE-ID>`
Patches for a CVE

`sudo zypper up -D`
Dry run, change nothing

`sudo zypper -n up`
No prompts, for scripts

INSTALL AND REMOVE

`sudo zypper in <pkg>`
Install a package

`sudo zypper in <pkg1> <pkg2>`
Install several at once

`sudo zypper in -y <pkg>`
Install without asking

`sudo zypper in --no-recommends <pkg>`
Skip recommended extras

`sudo zypper in -r <repo> <pkg>`
Install from one repo

`sudo zypper in <name>=<ver>`
Install a specific version

`sudo zypper in -f <pkg>`
Reinstall a package

`sudo zypper in <file>.rpm`
Install a local RPM

`sudo zypper in -D <pkg>`
Dry run the install

`sudo zypper in -t pattern <name>`
Install a pattern

`sudo zypper rm <pkg>`
Remove a package

`sudo zypper rm -u <pkg>`
Remove with unused dependencies

`sudo zypper si <pkg>`
Install source build deps and sources

`sudo zypper ve`
Verify and repair dependencies

`sudo zypper purge-kernels`
Remove old kernels
Keeps the kernels set in multiversion.kernels in /etc/zypp/zypp.conf.

SEARCH AND INSPECT

`zypper se <term>`
Search names and summaries

`zypper se -i <term>`
Search installed only

`zypper se -s <term>`
Show versions and repos

`zypper se -x <name>`
Exact name match

`zypper se -d <term>`
Search descriptions too

`zypper se -f <file>`
Which package lists this file

`zypper wp <file or cap>`
What provides this

`zypper if <pkg>`
Show package details

`zypper if --requires <pkg>`
List its dependencies

`zypper pa -u`
Packages not installed

`zypper pa --orphaned`
Packages without a repo

`zypper pa --unneeded`
Packages nothing needs

`zypper pt`
List patterns

REPOSITORIES

`zypper lr`
List repositories

`zypper lr -d`
Repos with URI, priority, refresh

`zypper lr -E`
Enabled repos only

`sudo zypper ar -f <url> <alias>`
Add a repo with autorefresh

`sudo zypper ar -p <n> <url> <alias>`
Add repo with priority
1 is highest, 99 the default; a lower number wins when versions compete.

`sudo zypper ar <file>.repo`
Add repos from a .repo file

`sudo zypper rr <alias>`
Remove a repository

`sudo zypper mr -d <alias>`
Disable a repository

`sudo zypper mr -e <alias>`
Enable a repository

`sudo zypper mr -p <n> <alias>`
Change repo priority

REPOSITORIES (cont.)

`sudo zypper mr -f <alias>`
Turn on autorefresh

`sudo zypper ref`
Refresh all repos

`sudo zypper ref -f`
Force a full refresh

`sudo zypper --gpg-auto-import-keys ref`
Trust new repo keys

`sudo zypper clean -a`
Clear caches

`zypper lr -e <file>.repo`
Export repos to a file

LOCKS AND MAINTENANCE

`sudo zypper al <pkg>`
Lock a package
Locked packages are not updated, installed or removed. Glob patterns like kernel- work.*

`zypper ll`
List locks

`sudo zypper rl <pkg or #>`
Remove a lock

`sudo zypper cl`
Remove locks matching nothing

`zypper ps -s`
Processes using outdated files

`zypper needs-rebooting`
Exit 102 if reboot advised

RECIPES

Routine update

```
sudo zypper ref
zypper lu
sudo zypper up
# Tumbleweed: use dup instead
zypper ps -s
```

Add a third-party repo

```
sudo zypper ar -f -p 90 <url>
<alias>
sudo zypper --gpg-auto-import-
keys ref
sudo zypper in --from <alias>
<pkg>
```

Hold a package back

```
sudo zypper al <pkg>
zypper ll
sudo zypper up
sudo zypper rl <pkg>
```

Security patches only (SLE, Leap)

```
zypper pchk
sudo zypper patch --category
security
zypper needs-rebooting
```