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
```