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
```