

Zypper

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In This Talk...

- Overview 6 minutes
- Tips & Tricks 10 minutes
- Future Plans & How to Contribute 4 minutes
- Q & A

Overview



What is Zypper?

- Command line software manager
- Command line interface to libzypp

```
jkupec : bash
File Edit View Scrollback Bookmarks Settings Help
(root@kompost)# zypper se eclipse
Loading repository data...
Reading installed packages...

S | Name | Summary | Type
--|-----|-----|-----
i | eclipse | Eclipse Platform and Java IDE | package
i | eclipse-archdep-platform | Eclipse platform common files | package
i | eclipse-jdt | Eclipse Java development tools | package
i | eclipse-pde | Eclipse Plugin Development Environment | package
i | eclipse-platform | Eclipse platform common files | package
i | eclipse-source | Eclipse Source | package
(root@kompost)#
```



History

- August 2006
 - Duncan Mac-Vicar, Martin Vidner
- First release 0.6.x
 - openSUSE 10.2 (SLE 10)
- Current stable release 1.0.x
 - openSUSE 11.1 (SLE 11)
- Development releases 1.1.x
 - openSUSE 11.2



Commands

- Manage repositories
 - addrepo, removerepo, repos, modifyrepo, refresh, ...
 - addservice, removeservice, refresh-services, ...
- Query
 - search, info, patterns, what-provides
- Install packages
 - install, install-new-recommends
- Update packages
 - list-updates, update (package-wise)
 - list-patches, patch, patches (patch-wise)
 - dist-upgrade (switch to newer distro)



Commands

- Lock Packages
 - locks, addlock, removelock, cleanlocks
- Special Commands
 - verify, licenses, versioncmp, targetos
- Help
 - zypper
 - zypper help [command]



General Features

- Non-interactive mode
- XML output
- Work on alternative root directory
- Work with many medium types

(Devel) Tips & Tricks



Installation

- Plain .rpm files
 - install `http://foo.org/somerepo/bar.rpm`
 - install `somedir/my.rpm`
- Specific version or arch
 - install `boost=3.3.1-1`
 - install `boost.i686`
- By provides
 - install `libcurl.so.4`
- Patterns
 - search `-t pattern`
 - install `-t pattern lamp_server`



Installation

- Source package and/or its build-dependencies
 - search **-t srcpackage** somepackage
 - **source-install** somepackage
- Hardware drivers + other recommends
 - install-new-recommends



Repository Management

- Modify several repos at once
 - `zypper modifyrepo --no-refresh --all`
 - `zypper modifyrepo --keep-packages --remote`
- Backup/Restore repos
 - `zypper repos --export myrepos.repo`
 - `zypper addrepo myrepos.repo`
- Use temporary repository
 - `zypper --plus-repo <URI> <command>`
- Load only specified repos
 - `zypper dist-upgrade --repo <repo1> --repo <repo2>`
- Ignore remote repos
 - `zypper --no-remote <command>`



Using From Scripts & Frontends

- Non-interactive mode
 - `zypper --non-interactive <any-command>`
- Turn off security
 - `zypper --no-gpg-checks <any-command>`
- Output verbosity
 - `--quiet`, `normal`, `-v`, `-vv`
- XML output
 - `--xmlout`



Alternative Root Directory

- Bootstrap
 - zypper **--root /my/root** addrepo \
http://.../openSUSE-11.1/repo main
 - zypper **--root /my/root** install zypper
- Create and maintain a chroot environment
- Create your own custom system
 - KIWI
 - YaST Product Creator



Services

- Add one URL, get repos automatically
 - zypper **addservice** http://foo.org myservice
 - zypper **refresh-services**
 - zypper repos OR zypper **services -r**
 - zypper modify-repo --enable foorepo
- Refresh to update the repos
 - zypper **refresh-services**
- More info:
 - http://en.opensuse.org/Standards/Repository_Index_Service



Working With Various Media

- ISO image as repository
 - addrepo 'iso:///?iso=foo.iso&nfs:///server/imgdir' foo
 - addrepo 'iso:///?iso=/path/to/your/image.iso' image
- SMB share
 - install
- USB drive
 - install 'hd:///?device'
- More examples
 - <http://en.opensuse.org/Libzypp/URI>



Miscellaneous Tricks

- Look what your package drags in
 - `zypper --disable-system-resolvables` install zypper
- First download all, then install
 - `zypper modifyrepo --keep-packages --remote`
 - `zypper <command> --dry-run [args]`
 - `zypper <command> [args]`

Future Plans



Future Plans

- Improved installation summary
 - Version, arch, vendor changes
 - Recommended, suggested list
 - Pager
 - View package changelogs
 - View dependency tree
- Configuration file
 - `~/.zypperrc`, INI format
- **--from** <repository> option



Future Plans

- **info** command remake
- **More dependency information**
 - requires, provides, conflicts, suggests, what-requires, what-conflicts, ...
- **More output polishing**
 - Overall installation progress with ETA
 - Download rate while refreshing
 - Help texts in all prompts
- **Package history log view**



How To Contribute

- Pick up a bug and fix it
 - wiki: [Zypper/Bugs_For_Adoption](#)
- Pick up an idea and implement it
 - wiki: [Zypper/Development#Future_Plans](#)
- Come up with your own idea
- Get general zypper development info
 - wiki: [Zypper/Development](#)



More Info

- Homepage: <http://en.opensuse.org/Zypper>
- Man page: `man zypper`
- Blog: <http://jniq.blogspot.com>
- GIT repo:
`git://git.opensuse.org/projects/zypp/zypper.git`

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