Zypper

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In This Talk...

- Overview
- Tips & Tricks
- Future Plans & How to Contribute
- •Q & A

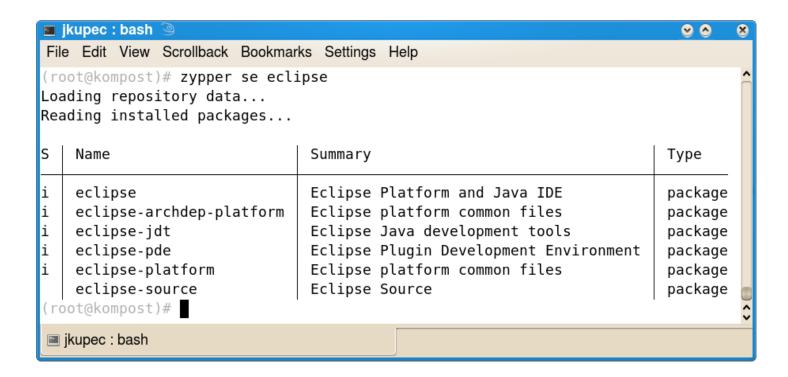
- 6 minutes
- 10 minutes
 - 4 minutes

Overview



What is Zypper?

- Command line software manager
- Command line interface to libzypp





History

- August 2006 First lines of code
 - Duncan Mac-Vicar Prett, 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]
 - man zypper





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 --type pattern
 - install --type pattern lamp_server





Installation

- Source package and/or its build-dependencies
 - search --type 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 & Front-ends

- 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





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
 - addrepo 'smb://user:pass@host/path'
- USB drive (or any other hard drive)
 - install 'hd:///path/to/foo.rpm?device=/dev/sdb1'
- 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]





Services

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



Future Plans



Future Plans

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



Future Plans

- info command remake
- More dependency information
 - requires, provides, conflicts, suggests, whatrequires, 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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