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**
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 addrepolo 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, 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/Zyppper
- Man page:  man zypper
- Blog:  http://jniq.blogspot.com
- GIT repo:  git://git.opensuse.org/projects/zypp/zypper.git
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