Exploring Subversive
Eclipse SVN Team Provider

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Presenter:
Igor Vinnykov (igor.vinnykov@polarion.org),
Polarion Software

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Roadmap

- Current Subversive state:
  - As Eclipse project
  - As polarion.org project

- Overview of useful features and FAQ

- Next steps for the project
Subversive as Eclipse project - status

- June 2006 – Eclipse project proposal was published
- December 2006 – Subversive accepted as Eclipse Technology project
- Incubation phase delayed due to licensing issues
Subversive as Eclipse project - licensing

• Requirement – EPL compliance
  ▪ Subversive code itself – EPL compliant
  ▪ JavaHL – includes GPL parts, so not EPL compliant
  ▪ SVNKit – not EPL compliant

• Solution
  ▪ Subversive is Eclipse project, which is distributed from eclipse.org
  ▪ Subversion client (including JavaHL) is an exempt pre-req
  ▪ Subversive can also work with SVNKit
Subversive as polarion.org project

- Three streams available:
  - 1.0.x release – for Eclipse 3.0+ and SVN up to 1.5
  - 1.1.x release – for Eclipse 3.2+ and SVN up to 1.5
  - 1.2 development – for Eclipse 3.2+ and SVN 1.5

- Stays in TOP10 on EPIC for more than a year

- Growing community:
  - 25 000 downloads
  - 1 000 forum users, 1 800 forum posts
FAQ – client libraries

- **JavaHL**
  - JNI wrappers to native libraries
  - Most stable

- **SVNKit**
  - Pure Java library

- **JavaSVN**
  - Previous name of SVNKit
  - Provides extended features
  - Instable
FAQ – SVN clients installation

- Subversive includes JavaHL as default library
- Only JavaHL win32 binaries are distributed
- On non-Windows platforms use SVNKit or install JavaHL by yourself
FAQ – import of existing checkouts

- Share project operation can connect existing checkouts with repository
  - Requirement: SVN meta information should exist
FAQ – svn:externals

• Aim – to have subdirectories come from different locations in a repository/repositories

• Straightforward solution – use checkouts
  - It needs to repeat configuration on all clients

• svn:externals
  - Configured once, settings stored as properties
svn:externals – extended features

- Svn:externals browsing in SVN Repositories view
- Svn:externals freeze during branching/tagging
Recommended layout support

- No strict concept of branches and tags
- Three recommended layouts:
  - Monolithic layout
  - Single project layout
  - Multiple projects layout
Recommended layout support – part 2

• Operations use layout information
Revisions browsing on the repository

- Revisions can be used instead of tags
- You can see repository content at any revision
Eclipse projects auto search

- Eclipse project can be automatically searched and proposed for checkout
Next steps overview

- Start Incubation phase on Eclipse
- Support of Eclipse 3.4 new features
- SVN 1.5 support
SVN 1.5 – Changelists

- Aim: allow developers to work painlessly on different tasks at the same time
- Alternative practices: make branches, make patches, have different working copies
- Changelists offer:
  - Ability to group changes by applying labels
  - Operating with labeled items
- Limitations:
  - Same file can’t belong to different changelists
  - Private for particular working copy
SVN 1.5 - Sparse Directories

- Aim: provide an flexible ability to work with subset of resources
- Alternative solution: non-recursive checkout
- New options
  - Empty – skip from update all files and directories, which are not currently presented
  - Files – updates any files, but not subdirectories
  - Immediate – update all files and subdirectories, but subdirectories will have Empty option
  - Infinity – update entire tree
Merge improvements – the current state

- What we have now?
  - We don’t know merge result before we make it
  - We get temporary files to resolve conflicts
  - We unable to make repeated merge
SVN 1.5 – Merge improvements

- Merge tracking features:
  - Cherry picking
  - Repeated merge
  - Rollback merge
  - Automated merge
SVN 1.5 – Compare directories

- Directories and revisions comparison
Short plan

- SVN 1.5 support
- Compare with branch/tag operation
- Compare of directory revisions
- History View enhancements – filters improvement, history export
- Properties merge editor
- Integration interfaces enhancement
Thank you!

- Try Subversive
  - www.polarion.org
  - www.eclipse.org/subversive