Version Control with SVN

Olivier Roy

based on a CVS intro by Henri Dubois-Ferrière

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Outline

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2. What is SVN?
3. When do I need SVN?
4. How does SVN work?
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A Few Words about IT at LCAV

- IT maintenance load shared among the PhD students
  - Web
  - Printers
  - SVN
  - Ordering IT equipment
  - ...

- Distribution of tasks available on the LCAV’s intranet webpages
  - Problems/questions? Go to see the person in charge
A Few Words about IT at LCAV

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Today: SVN, the version control system used at LCAV !!
What is SVN?

- Version control system
- Goals:
  - Manage concurrent editing of files by multiple users
  - Ensure everyone has the last update of the files
  - Keep track of successive revisions
- Replaces our old CVS system, i.e. similar features with significant improvements:
  - Atomic commit
  - Renames/moves/deletes of directories
  - ...
When do I need SVN?

■ When you are working on a project with other people
■ When you are writing a paper with colleagues
■ When you are the teaching assistant of a course
■ ... or simply for yourself
Case study: Jelena and Martin are writing a book

- The files are stored in a directory BOOK_WSBC in the repository hosted at http://icsvn.epfl.ch/lcav/BOOK_WSBC
Case study: Jelena and Martin are writing a book
- Jelena asks for a local copy of the directory BOOK_WSBC
Case study: Jelena and Martin are writing a book

- Martin also asks for a local copy of the directory \texttt{BOOK\_WSBC}
How does SVN work? (1/2)

- Case study: Jelena and Martin are writing a book
  - Jelena modifies the file `tableofcontents.tex` locally

1. Edit files

   Jelena’s copy

   Martin’s copy

   Jelena modifies `tableofcontents.tex`
Case study: Jelena and Martin are writing a book

- Jelena then commits her changes
Case study: Jelena and Martin are writing a book
- Martin asks the server for the last update of BOOK_WSBC and gets the new version of the file `tableofcontents.tex`

1. **Edit files**
   - Jelena modifies `tableofcontents.tex`

2. **Commit**
   - Martin gets the new version of `tableofcontents.tex`

3. **Update**
   - Martin gets the new version of `tableofcontents.tex`
DEMO!!
Pointers

- **Documentation**
  - SVN website: http://subversion.tigris.org/
  - SVN help command: $ svn help
  - SVN@LCAV: LCAV’s intranet webpages

- **SVN Clients**
  - Multi-Platform Shell: http://subversion.tigris.org/
  - Windows GUI: http://tortoisesvn.tigris.org/
  - MacOSX GUI: http://www.lachoseinteractive.net/.../svnx/
  - Multi-Platform GUI: http://rapidsvn.tigris.org/
On Your Side...

- Identify your SVN needs
- Read the documentation
- Go to see the person in charge to manage your access and possibly create new directories
- Use it!!