

Integrating an Automatic version control system into Eiffel Studio

ENGINEER THESIS PROJECT PLAN

Project period: 22. December 2008 – 30. April 2009.
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1. PROJECT DESCRIPTION

Overview

The result of this thesis is the automatic version control system integrated into Eiffel Studio. This automatic version control system uses SVN to commit and update files. Version control systems allow people to go back to previous revisions of individual files, and to compare any two revisions to view the changes between them. More importantly, version control systems help several people (even in geographically disparate locations) work together on a development project over the Internet by merging their changes into the same source repository [3].

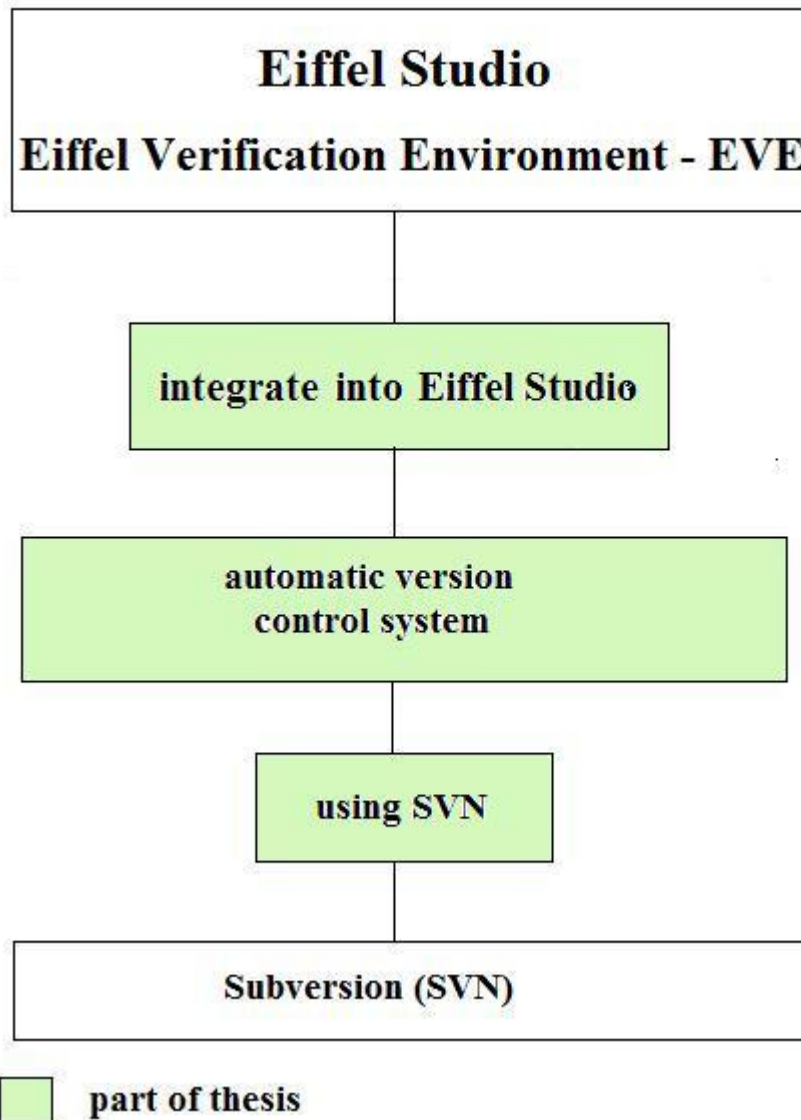
The automatic version control system will be integrated into Eiffel Studio in EVE (the Eiffel Verification Environment) the research branch of Eiffel Studio. The goal of EVE is to unify all the efforts that aim at adding new, experimental functionalities to Eiffel studio [4].

This thesis is also a part of the project "Developing an Environment for Distributed Software Engineering". The main idea of the project is to develop a web-based IDE containing an editor, a compiler and an automatic version control system which is accessed using a web-browser.

Scope of the work

This thesis will develop an automatic version control system using SVN, integrated into Eiffel Studio. The system contains the following functions:

- Commit
- Update
- Conflict resolve
- Merge
- Show logs



Intended results

The results will be the automatic version control system using SVN, integrated into Eiffel Studio in EVE. This will allow programmers automatically to commit and update source code to the project on server.

2. BACKGROUND MATERIAL

Reading list

- Subversion open source version control system: <http://subversion.tigris.org/>
- Eiffel Verification Environment; Online at: <http://eve.origo.ethz.ch/>
- Compiling Eiffel Studio: http://dev.eiffel.com/Compiling_EiffelStudio

- Web Based Integrated Development Environment (IDE):
[http://www.docjax.com/search/index.shtml?q=Web%20Based%20Integrated%20Development%20Environment%20\(IDE\)](http://www.docjax.com/search/index.shtml?q=Web%20Based%20Integrated%20Development%20Environment%20(IDE))

3. PROJECT MANAGEMENT

Objectives and priorities

The priority lies in the integration of the automatic version control into Eiffel Studio.

- First the automatic version control system will be implemented using SVN.
- Then we integrate the system into Eiffel Studio.

Criteria for success

The thesis will succeed if the automatic version control system is implemented and integrated into Eiffel Studio. The minimal functionalities are: commit, update, and see log; it should be possible to automatically update and commit.

Method of work

- Weekly meeting with Mr. Martin Nordio on skype.
- Commit reports and documents each week to WebSVN - cloud studio.
- Follow and update information in project Cloud studio on origo.ethz.
- Communicate via email if there is any question.

Quality management

Documentation

- Engineer thesis report.
- User guide for the system.

Validation steps

Based on the feedback of the supervisor after each meeting.

4. PLAN WITH MILESTONES

Project steps

1. Compile EVE (1 week)
2. Learn about Version Control System and Subversion (SVN).
3. Implement the automatic version control system using SVN (integrated into Eiffel Studio).
4. Optional: Integrate the system into the web-based IDE.
5. Test the system in Eiffel Studio.
6. Writing report.

Deadline

29. April 2010

Tentative schedule

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Compile EVE	■															
Get familiar with the EVE code		■														
Learn about Subversion			■													
Implement auto version control system using SVN				■	■	■	■	■	■							
Integrate the system into Eiffel Studio										■	■	■	■			
Test the integrated system														■	■	■
Write the report									■				■			■

REFERENCES

- [1] Chair of Software Engineering: *Semester-/Diplomarbeiten*; Online at: <http://se.inf.ethz.ch/projects/index.html>, consulted in October 2002.
- [2] Bertrand Meyer: *Object-Oriented Software Construction, 2nd edition*, Prentice Hall, 1997.
- [3] A version control glossary; On line at: http://www.tigris.org/nonav/scdocs/ddCVS_cvsglossary.html
- [4] Eiffel Verification Environment; On line at: <http://eve.origo.ethz.ch/>