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4th Newsletter (January 2008 – December 2008)

Validation of Metrics-Based Quality Control

Overview

Audience:

ARiSA, Project partners (Combitech, Alstom, Windh, Artisan), KK-foundation

Participants

ARiSA: Rüdiger Lincke, Welf Löwe
Alstom: Per Ranstad, Bengt-Åke Karlsson
Artisan: Slavica Stjepanovic, Sören Strömberg, Susanne Sjö
Combitech: Jan Thörnqvist, (Kjell Karlsson), Andreas Nilsson
Windh: Emil Eifrem, Mattias Persson

Purpose

Inform about activities and changes in past period.
Inform about pending and upcoming activities.

Period

January 2008 – December 2008

Ongoing/Upcoming Activities

The following activities are about to start and need attention of the participants.

1. Documentation of research results

We document our empirical approach of validating our software quality model. This approach has been developed in parallel to the work with the companies and is almost completed. Documentation of the results and submission to a journal is currently on the way.
Journal: Empirical Software Engineering

2. Implementation of Metrics Tool for Neo

Implementation of the metrics as discussed with Emil Eifrem as Eclipse/Maven Plug-in.
timeframe: February – March.

3. Presentation of Scientific Paper

We will present the accepted scientific paper at The 2009 IEEE International Workshop on Quantitative Evaluation of large-scale Systems and Technologies (QuEST09), Bradford, UK, 26-29th May, 2009.

4. Closing Project – Final Report

The project ended 2008-12-31. We have to wrap-up and document the final results.

Activities

The following activities and events can be reported for the specified period.

4th Newsletter: January 2008 – December 2008

1. New Scientific Paper, January

The necessity of our research, and in particular the definition of unambiguous metrics has been documented in a scientific paper under the title: Comparing Software Metric Tools. It

has been submitted to the International Symposium on Software Testing and Analysis (ISSTA08), Seattle, WA, July 20-24 2008. It is available at: <http://www.arisa.se/files/LLL-08.pdf>

2. **Workshop, 30th of January – Artisan**
First Contact Analysis of LK Rekryterings system, Artisan. Presentation of results.
3. **Workshop, 11th of April – .Windh/Neo**
Workshop with .Windh, Emil Eifrem. Wrapping up of daQapo project. Starting with new project: Neo
4. **Presentation of Paper, July**
Our scientific paper was accepted for publication and has been presented at ISSTA08. The paper has been discussed and we got some good feedback.
5. **Workshop, 18th of August**
Workshop with Neo, Emil Eifrem. Definition of Neo Metrics Tools. A VizzAnalyzer version adapted to the needs of Neo.
6. **New Scientific Paper, November**
We performed some quantitative analysis on over 146 different open source projects, ca. 70.000 classes and over 11 million lines of code. We documented our findings and submitted it to: The 2009 IEEE International Workshop on Quantitative Evaluation of large-scale Systems and Technologies (QuEST09), Bradford, UK, 26-29th May, 2009. It has by now been accepted for publication. It will be presented in May. It is available at: <http://www.arisa.se/files/BLL-09.pdf>

3rd Newsletter: June 2007 – December 2007

7. First Contact Analysis of daQapo.
The daQapo project was submitted by Windh. It has been analyzed as part of a First Contact Analysis. The analysis results are currently evaluated by Windh. Their feedback will result in more specific analysis in a next step.
8. First Contact Analysis of Control System.
The Control System project was submitted by Alstom. It has been analyzed as part of a First Contact Analysis. The analysis results are currently evaluated by Alstom. Their feedback will result in more specific analysis in a next step.

2nd Newsletter: September 2006 – May 2007

9. First Contact Analysis of RANDIS.
RANDIS was submitted by Combitech. It has been analyzed as part of a First Contact Analysis. The analysis results are currently evaluated by Combitech. Their feedback will result in more specific analysis in a next step.
10. New scientific paper.
The foundations for our unambiguous metric description framework have been documented in a scientific paper under the title: Foundations for Defining Software Metrics. It has been submitted to the 3rd International Workshop on Metamodels, Schemas, Grammars, and Ontologies for Reverse Engineering (ATEM), Genoa, Italy, 1st Oktober, 2006. It is available at: <http://www.arisa.se/files/LL-06b.pdf>
11. Presentation of paper.
Our scientific paper was accepted for publication and has been presented at atem 2006. The paper has been discussed and we got some good feedback.
12. New journal paper.
Our scientific paper presented at the ICSM2006 was selected as one of the best papers to be extended as a Journal article, which will be published in the IEEE Transactions of Software Engineering 2007, later this year. We are currently in the process of refining the existing version.

13. Licentiate Thesis.

We documented and published our current project results describing the technical and scientific foundations for the experiments we want to conduct in the frame of this project as well as two case studies in form of a licentiate thesis. The thesis was presented and successfully defended the 25th of April, at the Växjö University. A hard copy of the thesis has been sent to all project partners.

1st Newsletter: May 2006 – August 2006

14. Randis as kick-off project.

Combitech submitted its project RANDIS to ARiSA as first project to be analyzed. The analysis of this project is currently being prepared.

15. New scientific paper

Our project (outline and goals) has been documented in a scientific paper under the title: Validation of a Standard- and Metric-Based Software Quality Model. It has been submitted to the 10th ECOOP Workshop on Quantitative Approaches in Object-Oriented Software Engineering (QAOOSE2006). It is available for download at: <http://www.arisa.se/files/LL-06.pdf>

16. Presentation of paper

Our scientific paper was accepted for publication and has been presented at QAOOSE2006. The paper has been discussed and we got some good feedback, as well as a contact with a French company being interested in our experiment.

17. New scientific paper

To facilitate our research we need a meta-model as foundation of our analysis. We described this meta-model in a scientific paper with the title: An Extensible Meta-Model for Program Analysis. It has been submitted to the 22nd IEEE International Conference on Software Maintenance (ICSM2006). It is available for download at: <http://www.arisa.se/files/SLLL-06.pdf>

18. Presentation of paper

Our scientific paper was accepted for publication and will be presented end of the month at ICSM2006.

19. A more detailed project plan covering the current year has been created.

20. A communication plan has been created.

21. The project agreement has been signed by all parties and was submitted to KK-Foundation.

22. A Project Kick-off workshop with Alstom took place.

23. The project, its partners and the activities are documented on our homepage:

http://www.arisa.se/index_projects.html