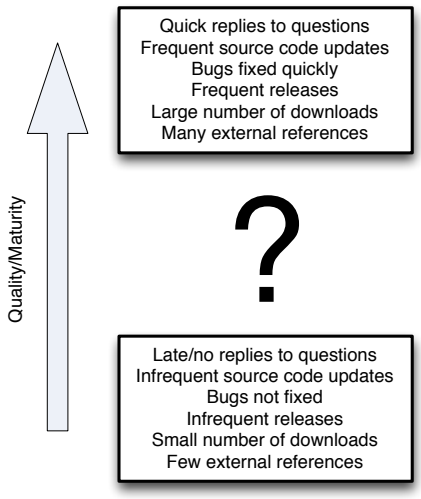
OSSMETER

Automated Measurement and Analysis of Open Source Software

Project Overview

OSSMETER aims to extend the state-of-the-art in the field of automated analysis and measurement of open-source software (OSS), and develop a platform that will support decision makers in the process of discovering, comparing, assessing and monitoring the health, quality, impact and activity of open-source software. To achieve this, OSSMETER will compute trustworthy quality indicators by performing advanced analysis and integration of information from diverse sources including the project metadata, source code repositories, communication channels and bug tracking systems of OSS projects. OSSMETER does not aim at building another OSS forge but instead at providing a meta-platform for analysing existing OSS projects that are developed in existing OSS forges and foundations such as SourceForge, Google Code, GitHub, Eclipse, Mozilla and Apache.

Motivation



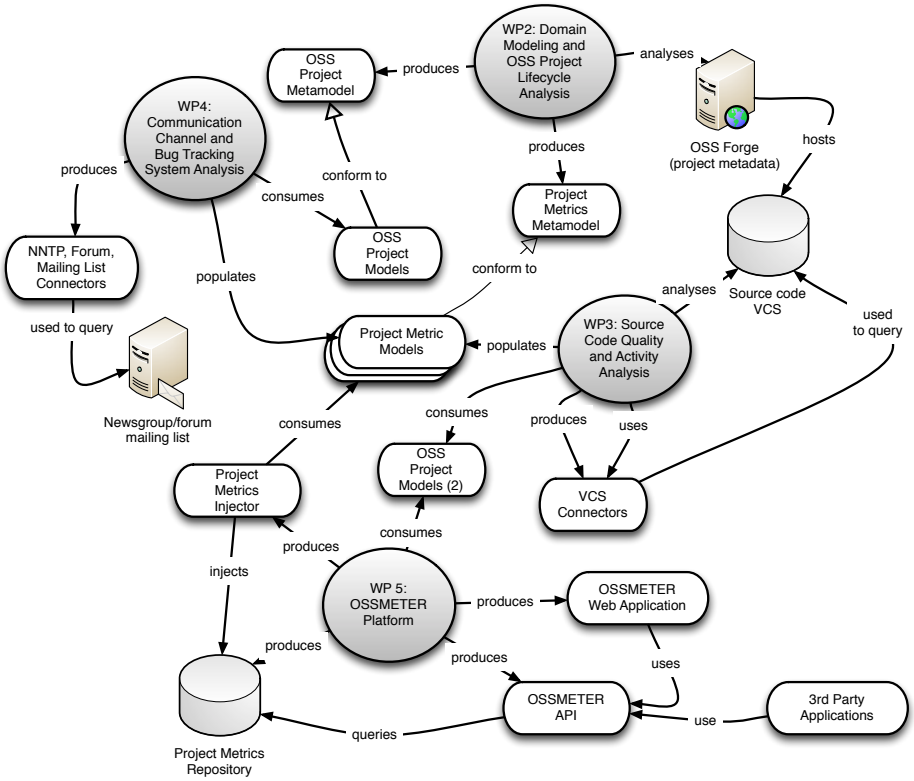
Consortium

- The Open Group (UK)
  (Project co-ordinator)
- University of York (UK)
  (Technical co-ordinator)
- University of Manchester (UK)
- Centrum Wiskunde Informatica (NL)
- University of L'Aquila (IT)
- Tecnalia (ES)
- Softeam (FR)
- Uninova (PT)
- Unparallel Innovation (PT)

Contact

- Scott Hansen (The Open Group)
  s.hansen@opengroup.org
- Dimitris Kolovos (University of York)
  dimitris.kolovos@york.ac.uk

Project Architecture



Technical Objectives

- Comprehensive domain modelling for the domain of open source software development; identification and formal representation of the meta-information that needs to be captured in order to extract meaningful quality metrics and indicators for OSS projects;
- Extraction of quality metrics by analysing aspects related to the source code and the development team behind an OSS project;
- Extraction of quality metrics related to the communication channels, and bug tracking facilities of OSS projects using Natural Language Processing and text mining techniques;
- Development of an extensible cloud-based platform that can monitor and incrementally analyse a large number of OSS projects, and a web-application to present their related quality metrics in an intuitive manner that aids decision making.

Beneficiaries

- **Developers and Project Managers** who are responsible for deciding on the adoption of OSS, as it will enable them to make decisions on hard facts and uniform quality indicators;
- **Developers of OSS** as it will enable them to monitor the quality of the OSS projects they contribute to, promote the OSS they contribute to using independently-calculated and trustworthy quality indicators, and identify related projects for establishing synergies with;
- **Funding Bodies** that are funding ICT projects which produce OSS, as it will allow them to monitor the quality and assess the impact of the produced software even after the end of the projects.

Project Identity

- **Project type**: Small or medium-scale focused research project (STREP)
- **Grant agreement no.**: 318736
- **Project start date**: 1/10/2012
- **Project duration**: 30 months
- **Project website**: http://www.ossmeter.com