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## Software quality observatory for open source software

## **Results in Brief**

# Open source, a neat and business-like truth

Not all software is created equally. This is the unfortunate truth that many users face on a daily basis. A European project developed a neat platform, called Alitheia, to assess the quality of software, in particular for open source.





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The Alitheia Core tool, developed by the EUfunded 'Software quality observatory for open source software' (SQO-OSS) project, is an extensible platform for software quality analysis. It is designed specifically to help software engineering research on large and diverse data sources.

Of Greek origin, the name Alitheia means 'neat and business-like truth', according to the Greek partners in the project. Aptly so,

because Alitheia integrates data collection and preprocessing phases with an array of analysis services, and presents the researcher with an easy to use extension mechanism.

Taking a holistic approach, the SQO-OSS project initially targeted open source software because the development data was readily available. The goal was to build a website of quality assessed OSS based on a back-end engine that runs various process and product metrics (measurements) on a continuous basis.

Partners from Germany, Greece, Sweden and the UK delivered a framework that can be extended by attaching plug-in metric components, and which works with web or application interfaces. They created metrics that can be automatically - or with minimal human intervention - applied to a software project's repository, giving quantifiable quality measurements.

Today, Alitheia Core forms the basis of what the project team calls an 'ecosystem of shared tools and research data enabling researchers to focus on their research questions at hand, rather than spend time on re-implementing analysis tools'. It has been used to analyse the source code, mailing lists and bug databases of some 700 projects and results have been presented as conference papers and in relevant journals. A demonstration (<a href="http://demo.sqo-oss.org">http://demo.sqo-oss.org</a> carries data concerning a great many of these projects, with more expected to be added over time.

What's more, as many OSS projects have made the transition to proprietary software, the tools SQO-OSS produced remain universally applicable.

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### **Project Information**

#### **SQO-OSS**

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Project closed

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