Open source project descriptions

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M. Jureczko and L. Madeyski, "Open source project descriptions," SPR 1/2014, Faculty of Computer Science and Management, Wroclaw University of Technology, March 2011. http://madeyski.e-informatyka.pl/download/JureczkoMadeyskiOpenSourceProjects.pdf Rev. 1: 2011, Rev. 2: 2014

Abstract

This document presents short descriptions of open source projects for which we built software defect prediction models.

1 Descriptions of the investigated open-source projects

This document presents short descriptions of open source projects for which we built software defect prediction models, see details in papers by Madeyski and Jureczko [3, 2, 1].

- POI (http://poi.apache.org/). The POI project consists of APIs for manipulating various file formats based upon Microsoft's OLE 2 Compound Document format, and Office OpenXML format, using pure Java.
- Synapse (http://synapse.apache.org/). Synapse is a simple, lightweight and high performance Enterprise Service Bus (ESB) made by Apache. Synapse has support for HTTP, SOAP, SMTP, JMS, FTP and file system transports, Financial Information eXchange (FIX) and Hessian protocols for message exchange as well as first class support for standards such as WS-Addressing, Web Services Security (WSS), Web Services Reliable Messaging (WSRM), efficient binary attachments (MTOM/XOP).
- Xalan-Java (http://xml.apache.org/xalan-j/). Xalan is an XSLT processor for transforming XML documents into HTML, text, or other XML document types. It implements XSL Transformations (XSLT) Version 1.0 and XML Path Language (XPath) Version 1.0.

- PBeans (http://pbeans.sourceforge.net/). PBeans is a Java persistence layer and an object/relational database mapping (ORM) framework.
- Xerces (http://xerces.apache.org/xerces-j/). Xerces is a parser that supports the XML 1.0 recommendation and contains advanced parser functionality, such as support for XML Schema 1.0, DOM level 2 and SAX version 2.
- Ant (http://ant.apache.org/). Ant is a well known Java-based, shell independent build tool.
- Ivy (http://ant.apache.org/ivy/). Ivy is a dependency manager that is focused on flexibility and simplicity.
- Camel (http://camel.apache.org/). Apache Camel is a powerful open source integration framework based on known Enterprise Integration Patterns with powerful Bean Integration.
- Log4j (http://logging.apache.org/log4j/). Logging package for printing log output to different local and remote destinations. Log4j supports selection and filtering of log events at runtime.
- Lucene (http://lucene.apache.org/). Lucene provides Java-based indexing and search technology, as well as spellchecking, hit highlighting and advanced analysis / tokenization capabilities.
- Velocity (http://velocity.apache.org/). Velocity is a Java-based template engine. It permits anyone to use a simple yet powerful template language to reference objects defined in Java code. Velocity separates Java code from the web pages, making the web site more maintainable over its lifespan and providing a viable alternative to Java Server Pages (JSPs) or PHP.
- JEdit (http://www.jedit.org/). JEdit is a cross platform programmer's text editor written in Java.

References

- [1] Marian Jureczko and Lech Madeyski. Predykcja defektów na podstawie metryk oprogramowania identyfikacja klas projektów. In *Inżynieria Oprogramowania w procesach integracji systemów informatycznych*, pages 185–192. Wydawnictwo Komunikacji i Łączności, 2010. Draft: http://madeyski.e-informatyka.pl/download/JureczkoMadeyski10e.pdf.
- [2] Marian Jureczko and Lech Madeyski. Towards identifying software project clusters with regard to defect prediction. In *PROMISE'2010: Proceedings of the 6th International Conference on Predictive Models in Software Engineering*, pages 9:1–9:10. ACM, 2010. Draft: http://madeyski.e-informatyka.pl/download/JureczkoMadeyski10f.pdf.
- [3] Lech Madeyski and Marian Jureczko. Which Process Metrics Can Significantly Improve Defect Prediction Models? An Empirical Study. Software Quality Journal, 2014 (DOI: 10.1007/s11219-014-9241-7) (accepted).