Abstract

Software reuse is considered as the key to a successful software development because of its potential to reduce the time to market, increase quality and reduce costs. This increase in demand made the software organizations to envision the use of software reusable assets which can also help in solving reoccurring problems for successful software. Now a day, organizations
are interested in implementing reuse program. As the “reuse” is growing in software industry, there is a growing need to assess the value of reuse by measuring it, which helps to know their success. As the concepts like reuse and reusability emerged, a question arose on how to measure them. So, in our paper, we investigate on what techniques, methods, models and metrics for assessing the value of reuse and proposed some new subcategories for the reuse metrics and models categories. Note: This work is part of our thesis which we have submitted during our masters in BTH, Sweden. One can find the whole thesis at [55].

Reference

A Systematic Mapping Study on Value ofReuse

engineering. Melbourne, Australia, ACM.

correlation between amount-of-reuse metrics in the C programming language. In: Proceedings
- Frakes, W. B., R. Anguwswamy, et al. (2009). Reuse Ratio Metrics RL and RF. Demo. 11th
International Conference on Software Reuse. Falls Church, VA, VA Springer.
applications and experience, ACM: 213-233.
- V. R. Basili, H. D. Rombach, et al. (1990). Ada reusability and measurement, University of
Maryland at College Park: 25.
Software Components. Proceedings of the 9th International Symposium on Software Metrics,
IEEE Computer Society.
Proceedings of the ACS/IEEE 2005 International Conference on Computer Systems and
Applications, IEEE Computer Society.
Workshop on Assessment of Contemporary Modularization Techniques, IEEE Computer
Society.
- J. J. Marshall and R. R. Downs (2008). Reuse Readiness Levels as a Measure of
Methods: An Evaluation of the Vector Space Model (VSM) and Latent Semantic Indexing (LSI)."
of Reusable Software Components." IJCSNS International Journal of Computer Science and
Network Security Volume 8(Issue 8).
NATO Science Committee.
(2007). Towards a maturity model for a reuse incremental adoption. In Brazilian Symposium on
Software Components, Architectures and Reuse (SBCARS 2007). Campinas, S~ao Paulo,
Brazil, Brazilian Computer Society.
- B. M. Konda and Mandava K. K. A systematic mapping study on software reuse. MS thesis: Blekinge Institute of Technology.

Index Terms

Computer Science  Software Engineering

Key words

Software  Reuse
Assets  Reusable
Value
Metrics
Models