A Competence Web on Software Maintenance

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Abstract

In a software maintenance course given by Vxj University, the students were given a somewhat different assignment, to gather information on how to build a competence web on software maintenance. The purpose of the web application is to spread knowledge and competence about software maintenance with emphasis on applications based on Internet technology. The information was found in the literature, on the Internet and in Swedish computer journals. The information may seem superficially presented, which is intentional, as this is the first part of further studies. We can see that at least some interesting concepts and technical solutions on this relatively new market are starting to emerge, such as products for document and version handling. A few of these are about to or have become standards.

Measuring Ripple Effect for Software Maintenance

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Abstract

The Halstead and McCabe metrics give us information about the complexity of individual modules but not about modules interacting with each other. The ripple effect metric relates directly to the maintainers’ task, if a change is made in one part of a system what is the likelihood of this causing a knock-on effect in a different part of the system via parameter passing or global variables? This paper gives an introduction to software maintenance models, the part that impact analysis plays within these models and a description of the ripple effect measure. Yau and Collofello’s ripple effect measure seems to be promising approach, but can be prohibitively expensive to compute. We have an approximation which appears to be acceptably accurate.