Why Do Software Projects Fail?
Reasons and a Solution Using a Bayesian Classifier to Predict Potential Risk

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Abstract

The dependability of an information system critically relies on that of its software. Reportedly, however, 70% of software projects fail in various ways. Obviously the system developed by a failed project can be problematic in assuring dependability. Clarifying the reasons why software projects fail and taking preventive measures are therefore a key to successful development of dependable information systems.

We present the results of our attempt to address this important issue. In this research attempt, (1) we designed a questionnaire that can be used to collect necessary data from software engineers. (2) We developed an analysis method that can identify reasons for project failures from the results of the questionnaire. This method uses a Bayesian classifier as its basis. (3) We conducted a large-scale experiment using field data obtained from industry. The results suggest that our method is useful to predict the success or failure of a software development project.