Abstract

Testing is an important part of software development. It ensures that the developed product is of high standard and quality. Tieto frequently develops large complex systems which require comprehensive testing. Testing employs manually designed test cases. According to recent development within software testing it has been shown that design of test cases can be simplified with domain specific test languages (DSTL).

The thesis project is a research and development study in the field of software testing and has been performed at Tieto office in Karlstad. The project concerns the development of a DSTL and a suitable development environment based on the Eclipse Platform. The project evaluates the development of a domain specific test language using the tools Eclipse JDT, developed by Eclipse Foundation, and Xtext, developed by itemis AG. The experiment was evaluated by its functionality and integrability.

The project has shown promise in using a domain specific test language with a suitable development environment. The result and evaluation have shown that the subject shows promise, but needs further development if it is to be adapted within Tieto´s organization.