

Abstract

This thesis is the result of a Master's Project in Computer Science at Karlstad University performed by Per Johansson and Henrik Wallinder in 2005. The project was carried out at the Telecom R&D, Test Tools & Solutions department of TietoEnator in Karlstad, which develops support systems for different telecom platforms. The purpose of the project was to study different test tool frameworks that can be used for creating an integrated test environment. The goal of the project was to find a product that TietoEnator could use in future projects. The method used was to first specify some basic requirements for a test tool framework, then carry out a market analysis to find candidate products, and finally build a prototype as a proof of concept for the product that best matched the specified requirements. The requirements include infrastructure for remote test bed launch and execution as well as centralized functions for building new test tools. The result from the market analysis was that the product that best fulfilled the stated requirements was a product from the open source project Eclipse: the Test and Performance Tools Platform (TPTP). A functioning prototype was built using Eclipse TPTP. The prototype makes it possible for a tester to prepare, run and evaluate a test executed on a remote machine. A final conclusion from the project is that there remains some work with additional functionality and documentation before Eclipse TPTP is mature to use in real projects, but that Eclipse TPTP has good potential for being a quality test tool framework with a rich set of functions in the future.