

Abstract

Ericsson AB develops GSN nodes, which target the GPRS and UMTS networks. In order to facilitate the development process, they requested a test tool built. This tool, later named regTUX, should be used in order to check input/output consistency on the nodes in question. Having the possibility to run readily made test files via the tool would increase the efficiency of the implementation process substantially. The purpose of these files is to inform the developers of any changes within the node in a fast and controlled way. It was decided that the tool should be built in Java with the purpose of making it as modular as possible. Having a stable tool that would not cause problems on the nodes was also a part of the requirements from Ericsson. The thesis presents the construction of regTUX, as well as a deeper discussion regarding the usage of the tool and its interface. It also accounts for the primary concerns that arose during the implementation process with special regards to Java functionality. Furthermore, the thesis discusses the creation of tests for a specific area of Ericsson's business, namely Performance Monitoring. A presentation of the test suites constructed follows a brief introduction to the area itself. The main focus of the thesis, however, is the construction of the regTUX tool. This tool enables Ericsson to run the pre-constructed tests within their internally developed environments, as well as on the actual nodes. The tool can also easily be distributed to third-party software developers.