

## **Sammanfattning**

Denna rapport beskriver ett examensarbete som gjordes åt TietoEnator i Karlstad hösten 2003. Målet med examensarbetet var att skapa ett bibliotek med generiska datastrukturer i programspråket C. Arbetet bestod av kravinsamling, kravsammanställning, kravanalys, design samt implementation och testning av datastrukturerna i den miljö där biblioteket skall användas. Kravsammanställningen resulterade i sex krav som bibliotekets datastrukturer måste uppfylla. När kravanalysen var avslutad hade tre datastrukturer, som tillsammans uppfyllde de sex ställda kraven, hittats. De tre datastrukturerna var AVL-trädet, den dynamiska arrayen och den länkade listan. Designen samt implementationen och testningen av datastrukturerna genomfördes med framgång.

# Generic data structures for SS7

## Abstract

This report describes a bachelor's project that was performed at, and on behalf of, TietoEnator in Karlstad, during the autumn 2003. The project goal was to create a library of generic data structures written in the programming language C. The job consisted of requirements collection, compilation of requirements, requirements analysis, and also design, implementation and testing of the data structures in the environment where the library will be used. The requirements compilation resulted in six requirements that had to be met by the data structures of the library. When the requirements analysis was finished, three data structures that together complied with the six requirements had been found. The three data structures were the AVL-tree, the dynamic array and the linked list. The design, implementation and testing of the data structures was successfully pursued.