

## **Abstract**

Saab Bofors Dynamics' needs lie in a software system that provides a modular and component-based structure built for simulations and visualization purposes. This thesis is a description of an attempt to design such a system. The market offers several software components that are useful in the process of building visualization and simulation systems. The design of the system presented in this thesis is not dependent on the choice of product and can with a little work be used with all the products. The design is based on patterns in the sense of well-defined solutions and documented structures. The design also provides a component structure where functionality is embedded in Dynamic Linked Libraries. The most important parts of the design are implemented and the design is proven to be effective and meet the requirements for the project.