The standard open operating systems are becoming more and more common in the mobile phones. This promotes more complex features and allows the third party vendors to release their applications to several products with less effort per one product. Symbian OS had the biggest market share on the open smartphone OSs at the time this thesis was written, and it is also in the focus of this thesis.

Since the availability of positioning technologies in the mobile phones and networks is increasing, the interest in the location-aware applications has grown correspondingly. Therefore, there is also a need for common interfaces and methods for taking advantage of various positioning techniques.

The objective of this thesis is to define a proposal for positioning framework for Symbian OS. It includes interfaces for the location-aware applications and for the various positioning techniques providing location information to the system. The proposal aims to utilise some of the most essential features of the Symbian OS base. These features are designed to help to efficiently control the scarce resources of the mobile phones, and therefore differ from those used in other systems.

In this thesis, various positioning techniques are introduced with an introduction to the positioning and location information. An overview of the basic principles of the Symbian OS system is also given. The Location API for J2ME is reviewed as an existing interface for location-aware Java applications.

Keywords: positioning, location information, Symbian OS