

Find out what is new in the Symbian OS v9 GUI



Details

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| Level: | Intermediate |
| Duration: | 1 day |
| Development language: | C++ |
| Experience: | It is expected that developers and architects already have experience in developing GUI applications for older Symbian OS releases (pre v9.3), either on Series 60, UIQ 2 or FOMA. The course is designed for experienced Symbian OS developers who have a good understanding of OO and C++ in particular. Familiarity with an IDE is required, preferably Carbide.C++ on which the course is based. |

Target audience

This course demonstrates the emergent facilities within the UI framework for Symbian OS v9.x. It covers the following areas:

- New features in the control framework (CONE) in v9
- How platform security affects GUI applications
- New features for graphics in v9.

Not all these features were necessarily initially adopted in the first v9 releases of UI systems, so developers will want to learn about them as early as possible as new releases are made.

Description

This is a “hands-on” course with a huge emphasis on coding exercises and short presentations. The course consists of approximately 50% practical sessions and 50% lectures.

Objectives

For experienced GUI application developers to learn to use new features available in the Symbian OS UI framework. Upon completing this course, participants will be able to:

- Build GUI apps for the secure platform
- Create compound controls the new way
- Use enhanced control-drawing methods
- Draw text using font providers and zooming
- Understand the layout manager framework
- Use scaleable icons

The course attendee should be familiar with how to write GUI applications as well as the operating principles and organisation of Symbian OS to a level provided by training covered in the Symbian OS Essentials Course and early versions (pre-v9) of the Application UI Development course.

There is substantial overlap of content with parts of the Symbian OS v9-based Application UI Development Courses.

Tools

This course uses the Nokia Carbide.c++ IDE environment.

Platform

This course uses the Symbian TechView UI environment.

Agenda

Introduce course

Build secure apps

The module explains the impact of platform security on GUI applications. The module covers code file caging, data file caging, building applications and other minor changes in the application framework due to platform security.

The candidates will validate their understanding of the materials by an exercise.

Create compound controls

Symbian OS v9.x provides new techniques in CONE to create compound controls. The module review past practise and introduce control arrays. It explain how to set the parent control for a control and how to identify controls through unique identifiers. It also addresses the default focusing behaviour.

Use enhanced control-drawing

CONE has new features for drawing controls. The module covers how to draw the backgrounds of children, how to use text drawers and how to establish a control-specific graphics context

Draw text using font providers and zooming

Symbian OS provides new ways of drawing text. The module shows how to use font providers from CONE and how to support zooming within your application. Zooming support is used often on UIQ phones.

Understand layout manager framework

Symbian has introduced support for layout managers. The module provides an overview of layout managers and explains how to access the layout manager. It demonstrates the layout of controls depends on the controls specifying their required size.

Use scalable icons

The new framework supports scalable icons (SVG-T). The module covers how to generate and use scalable icons and understand the limitations.

Review Objectives

Every module ends with a short coding exercise such that the candidate can experience the new feature in practise and validate their understanding of the topic.