

# Symbian OS using C++

## Synopsis & Objective of Course

In the recent past Symbian has developed to become the most used commercial Operating System for Mobile phones. Symbian OS's microkernel was built to follow three design rules: the integrity and security of user data is paramount, user time must not be wasted and all resources are scarce.

This course is intended to expertise a trainee in the entire OS programming features of symbian. The course will substantially cover application classes, declarations, program development, resource and memory management, descriptors, dynamic arrays, utilities and leaves.

## Target Audience

Programmers & application developers who have been working on or would want to switch to mobile system programming on the OS.

## Prerequisites

Attendees should have a basic knowledge of OS & programming.

An understanding of the C++ language & Object Oriented Programming is essential.

## Delivery

The training will be tutor led with sufficient theory sessions, demonstrative examples & exhaustive hands-on assignments. Carbide C++ will be the IDE used for the entire training module.

**Duration : 4 days**

## Course Contents

Day	Topic	Sub topics
Day 1	Introduction to symbian OS	Symbian OS background Symbian Devices OS overview Symbian OS Layer UI designs Platforms Symbian Platform evolution Development requirements
Day 2	Software development Kits(SDK).  Carbide C++ IDEs	Features of Carbide C++ IDE Layout of the IDE Creating a new workspace Creating an series60 application importing an series60 application Editing a file Adding a new link library Building a project Running/debugging on the emulator Building for Target

	<b>Class Types and Declration</b>	Basic Types Classes (T,C,R,M) Variables Functions
<b>Day 3</b>	<b>Leaves</b>	Leaves overview Conventional C++ memory management Leaves leaves example handling leaves
	<b>Memory management</b>	Why Memory Management Stack and heap Cleanup Stack Using the cleanup stack cleanup stack example Two phase construction Memory Leaks Panic
<b>Day 4</b>	<b>Application Classes</b>	Basic application Structure Basic application classes Class derivations Start-up sequence Application entry point Application classes in details Resource files Locationlisation files Resource compilation Example servers and client APIs Server Plug-ins Sessions Requests Using client APIs Example API Asynchronous Event handling Asynchronous Functions Active Objects Active Scheduler Active Objects: other uses Basic application classes Class derivations Start-up sequence

	<b>Utilities</b>	TextBox Label Statuspane TitlePane ContextPane Form Dialog Single Style List box <ul style="list-style-type: none"> <li>• Double Style List box</li> <li>• Compiling for target</li> <li>• Packaging</li> <li>• Installation</li> </ul>
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**Trainers' Profile**

Corporate Trainer(s) with more than 6 years of experience in embedded development & corporate training in CMM level5 companies.

**Scheduled & On-site Training**

Apart from in-house training programs, comprehensive training can be also provided as per the requirement & will be optimally customized as per the client's needs.

*For training calendar, availability of seats & other details please mail us at [training@sigmasolutions.co.in](mailto:training@sigmasolutions.co.in)*