Seminar Abstract

Programming in C++

(for Java™ Programmers)

COURSE OVERVIEW:

This course teaches experienced Java programmers how to program in Standard C++. A significant lab component is included. The course is not hardware or operating system-specific.

COURSE LENGTH: 3–4 days.

GOALS:

Provided students meet the prerequisites, at the end of the course, they should:

- Know the differences between the two set of operators, statements, and data types
- Have a grasp of the standard C++ runtime library.
- Have a basic knowledge of pointers and addressing
- Be able to design and implement simple classes
- Be able to overload basic operators
- Understand function and class templates
- Understand the importance of the preprocessor

This course does not cover threading, or use of advanced library types (such as serialization and sockets)

WHO SHOULD ATTEND:

Java Programmers and technical managers who are seriously interested in, or are about to begin, programming in the C++ language; or who wish to evaluate the suitability of C++ for projects and/or programming personnel.

PREREQUISITES:

A thorough working knowledge of Java is assumed. Unless you are very comfortable with the following topics, you may well have trouble keeping up with the C++-specific theory and making adequate progress with the lab problems:

- Built-in data types
- The operators, and looping and branching statements
- Array definition and manipulation

- Passing arguments to methods and returning values
- References and dynamic memory allocation
- Class design and implementation, including inheritance
- Exception handling

MATERIALS:

Each student will receive the following materials:

- *Programming in C++* — This book was written specifically for teaching Standard C++. It contains all of the main features added during the standardization of the language. This book serves as a useful reference once the course has been completed.