

Java™ Native Methods

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Course Overview:

This course describes the Java Native Interface (JNI) introduced with JDK1.1. JNI contains a mechanism by which Java and non-Java routines (written using C/C++ calling conventions) can interact.

Course Length: 1 day.

Who Should Attend:

Java Programmers and technical managers who want to go beyond the basics of Java.

Prerequisites:

This course follows on from the course *Programming in Java*. Attendees are expected to be comfortable with the following concepts and the syntax required to express them in Java:

- Basic Language Elements
- Looping and Testing
- Methods
- References, Strings, and Arrays
- Classes
- Inheritance
- Exception handling
- Input and Output
- Packages
- Interfaces

A working knowledge of C (or at least the C subset of C++) is also necessary.

Materials:

- *Java Native Methods* – This manuscript was written specifically for teaching. It serves as a useful reference once the course has been completed.

Detailed Topics:

The topics covered include:

- Passing and Returning Primitives

- Passing and Returning Strings and Arrays
- Accessing Static Fields and Methods
- Accessing Instance Fields and Methods
- Catching and Throwing Exceptions
- Local and Global References
- Thread-Related Issues
- C++-specific Issues
- Embedding the JVM in a Native Program