Seminar Abstract

Microsoft Windows™ 32-Bit DLLs

Course Overview:

This course introduces students to the design, implementation, and use of Dynamic Link Libraries (DLLs) in a Microsoft Windows 32-bit environment. The primary implementation language used is C, with some C++.

Course Length: 1-day

Goals:

Provided students meet the prerequisites, at the end of the course they should have a good understanding of the following:

- Know the advantages of using DLLs.
- Know how to link an existing DLL to a C or C++ program.
- Know when to, and when not to, use a DLL to solve some given problem.
- Know how to design a DLL.
- Know how to implement a DLL using either C or C++.
- Understand the implications multithreaded programs have on DLL design and implementation.
- Understand the differences between link-time DLL loading and run-time DLL loading.

Who Should Attend:

Programmers and technical managers who need to implement or manage projects using DLLs in a 32-bit Microsoft Windows environment.

Prerequisites:

Students are expected to be fluent in C or C++. They are also expected to know something about the Windows 32-bit API and to understand multithreading as implemented by Microsoft.

Materials:

- *Microsoft Windows 32-Bit DLLs* – This manuscript was written specifically for teaching. It serves as a useful reference once the course has been completed.

Detailed Topics:

The main topics covered are:

- DLL Initialization and Termination
- Public Data in DLLs

- Run-Time Linking
- DLL Function Calling Conventions
- Implementing a C++ Class inside a DLL