

## Course Aims:

This course is designed to provide developers, who already have some C++ experience, with the experience they need to develop windows based C++ applications using the Microsoft Foundation Classes (MFC).

## Course Outline:

<p><b>Overview of Windows Programs:</b></p> <ul style="list-style-type: none"><li>• The architecture of a non-MFC program</li><li>• The winmain() function</li><li>• Processing windows messages</li></ul> <p><b>Overview of MFC:</b></p> <ul style="list-style-type: none"><li>• The evolution of MFC</li><li>• The MFC Classes</li><li>• The MFC Exception Classes</li><li>• Architecture of an MFC program</li><li>• InitInstance()</li></ul> <p><b>Detecting Memory Leaks:</b></p> <ul style="list-style-type: none"><li>• Memory leakage</li><li>• The CMemoryState Class</li></ul> <p><b>The App Wizard:</b></p> <ul style="list-style-type: none"><li>• SDI Applications</li><li>• App Wizard output</li><li>• MDI Applications</li><li>• The Class Wizard</li><li>• The Draw application</li></ul> <p><b>Application Framework:</b></p> <ul style="list-style-type: none"><li>• Document / View architecture</li></ul> <p><b>Working With Different Types of Project :</b></p> <ul style="list-style-type: none"><li>• The different types of view class</li></ul> <p><b>Menus, Toolbars &amp; Other Resources:</b></p> <ul style="list-style-type: none"><li>• Creating &amp; editing menus</li><li>• Creating &amp; editing toolbars</li><li>• Message handlers</li></ul> <p><b>Drawing in a Window:</b></p> <ul style="list-style-type: none"><li>• Windows GDI</li><li>• Device Context</li><li>• Mapping Modes</li><li>• The CDC class</li><li>• Using the mouse</li></ul>	<p><b>MFC Collection Classes:</b></p> <ul style="list-style-type: none"><li>• CArray</li><li>• CList</li><li>• CMap</li><li>• CTypedPtrList</li></ul> <p><b>Dialogs &amp; Controls:</b></p> <ul style="list-style-type: none"><li>• Dialog resources</li><li>• Controls</li><li>• Modal &amp; Modeless Dialogs</li></ul> <p><b>Serialization &amp; Printing:</b></p> <ul style="list-style-type: none"><li>• CArchive &amp; CFile</li><li>• Serializing the Document class</li><li>• The printing process</li><li>• Print &amp; Print preview</li><li>• Enhancing the printing process</li><li>• Printing multiple pages</li></ul> <p><b>Database Applications:</b></p> <ul style="list-style-type: none"><li>• DAO vs ODBC</li><li>• Creating a database application</li><li>• RFX</li><li>• Filtering &amp; Sorting</li></ul> <p><b>Introduction to COM &amp; OLE:</b></p> <ul style="list-style-type: none"><li>• The MFC OLE classes</li><li>• OLE server &amp; container applications</li></ul> <p><b>MFC ActiveX Controls:</b></p> <ul style="list-style-type: none"><li>• Creating an ActiveX Control</li><li>• The ActiveX Control test container</li><li>• Property sheets / property pages</li></ul> <p><b>Multithreaded Applications:</b></p> <ul style="list-style-type: none"><li>• Threading overview</li><li>• CWinThread</li><li>• Thread Synchronisation</li></ul>
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## Target Audience:

Systems and applications programmers who will be developing or maintaining C++ Windows programs. Anyone who wants a practical understanding of Windows C++ programs using MFC will benefit from this course.

## Assumed Knowledge:

Participants should have a good knowledge of programming techniques in C++. A good knowledge of how to implement the OO principles of encapsulation, inheritance & polymorphism is required.