

A Tour of the Visual C++ 2005 IDE

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A Tour of the Visual C++ 2005 IDE

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Agenda

- Introduction
- Editing Demonstrations
- Debugging Demonstrations
- Project System Demonstrations
- Environment Demonstrations
- Summary
- Q&A

Introduction

- **A development environment is like a home**
 - You live there every day
 - You organise your furniture
 - Great gadgets help you be efficient
 - Different rooms have different purposes
- **Visual C++ 2005 is the best home I've ever lived in**
 - Best debugger ever
 - Smart, adaptable editing and browsing
 - Scalable project system
 - Environment extended by hundreds of partners
 - Fits C++ users' needs closely
 - Simple access to main features
 - Full power of tools available in one palce
- **This presentation**
 - Demonstrates some great new features of our latest version
 - Only scratches of the surface of a large and powerful product

Demonstrations

- Editor
- Debugger
- Project System
- Other IDE

Editor Demo

Debugger Demo

Project System Demo

IDE General features

What you saw

- New Code definition window
- New intellisense
- Improved editor tips
- Improved ClassView
- New #defines in editor
- Improved Outlining
- Improved DataTips
- New Debugger Visualizations
- New STL support
- New Breakpoints window
- New Tracepoints
- New Wildcard breakpoints
- Improved multiprocess debugging
- New breakpoint filtering
- New replace-in-files
- New bookmark window
- New Macros IDE
- Improved project properties
- New project property sheets
- New property inheritance
- New shared properties
- New custom build tools
- New multi-processor build
- Improved command-line build
- New 64 bit support
- Improved CE device support
- New import existing source code wizard
- New profile-guided optimisation
- Improved tool window layout
- New settings transfer
- New emulations
- Improved keyboard bindings support

Questions?

- Ask me anything about Visual Studio 2005
- Follow-up:
 - <http://blogs.msdn.com/martynl>
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Backup

Editor

The Big 2 (Features)

- Intellisense
 - Provide contextual information for the code you're writing/accessing
 - It's all live (we parse nested headers and take into account the macro state)
- Browsing
 - Ability to examine relationships between code elements
 - Extremely powerful way to grok a foreign codebase
- A myriad of other forms of assistance
 - All the classic things you expect in an editor (i.e. show line numbers)
 - Highly customizable interface
 - Tons of keyboard driving options (and customizable)

Debugger

- Great debugging is arguably more important than a lot of language features and our debugger does not disappoint
- Breakpoints
 - Not limited to just breaking on a line (Function breakpoints)
 - You can “condition” breakpoints (conditional breakpoints and filters)
 - You can even use them to do other things (tracepoints)
- Visualization
 - The debugger provides great visualizations for many types (templates...)
 - You can add your own (maybe you’re still using your own string class 😊)
- Integrated experience
 - You can seamlessly debug mixed binaries (native & managed)
 - Edit & Continue

Project System

- A lot of you may be accustomed to using Makefiles and building from the command-line
- Visual C++ does not use nmake as its build system, instead we use vcbuild and .vcproj files instead
- The IDE provides an elegant abstraction (GUI) over this build system so there's virtually no learning curve
- **Major Concepts**
 - At the core there is a project, which equates to a binary (exe, dll, lib)
 - A project can have multiple configurations (e.g. debug, release)
 - A project can target multiple platforms (e.g. x86, x64)
 - For each of these buckets, you can set the whole gamut of compiler/linker options
- **Ability to extend**
 - Easy to add custom tools into the build process
 - Easy to set configurations on many projects at once