

# **IDE Configuration Procedures for Microsoft Visual Studio .NET 2008 and Microsoft Visual C++ .NET 2008 Express Edition**

This document provides step-by-step procedures for configuring the 2008 edition of the Microsoft Visual Integrated Development Environment (IDE) for simple project development. Topics covered are:

1. Creating a new project
2. Editing an existing project
3. Setting up command line arguments
4. Changing the IDE text editor's Tab characteristics

In all cases, the IDE must be opened first by using the following procedure, or equivalent:

*from Windows desktop:*

*for standard versions of Microsoft Visual Studio 2008:*

**Start → All Programs → Microsoft Visual Studio 2008 → Microsoft Visual Studio 2008**

*This starts the application and opens the “Start Page – Microsoft Visual Studio” window.*

*for the express version of Microsoft Visual C++ 2008:*

**Start → All Programs → Visual C++ 9.0 Express Edition → Microsoft Visual C++ 2008 Express Edition**

*This starts the application and opens the “Start Page – Visual C++ 2008 Express Edition” window.*

**NOTE:** When you start Microsoft Visual Studio .NET 2008 for the very first time it may prompt you to “Chose your default environment settings:”. If you plan to eventually program in multiple languages, choose “General Development Settings”. For C/C++ development only, choose “Visual C++ Development Settings”.

## Creating a new project

Rather than creating a separate project for each homework exercise, I recommend that you create one C project and one C++ project and develop each exercise within one or the other of these. When an exercise is complete, simply save a copy of your source code into another file using the **File → Save filename As** facility.

After opening the IDE to the “*Start Page – ...*” window as previously described, do:

**File → New → Project...**

“*New Project*” dialog box opens, then:

In the **Project Types:** field, select **Visual C++ → Win32**

In the **Templates:** field, select **Win32 Console Application**

In the **Name:** edit field, type **Project 1**

In the **Location:** edit field, type **C:\My Programs**

Uncheck the “Create directory for solution” checkbox

Click the **OK** button

The “*New Project*” dialog box closes and the “*Win32 Application Wizard – Project 1*” dialog box opens, then:

Click on **Application Settings**

Check the **Empty project** check box

Click the **Finish** button

The “*Solution Explorer – Project 1*” dialog box should open. If it doesn't do the following to open it:

**View → Solution Explorer**

Repeat the next 6 steps for each C/C++ source file you want in your project, using a different source file name each time:

In the “*Solution Explorer – Project 1*” dialog box right click the **Source Files** folder, then:

**Add → New Item...**

In the **Categories:** field, select **Visual C++ → Code**

In the **Templates:** field, select **C++ File (.cpp)**

In the **Name:** edit field, type **Source 1.c (C)** or **Source 1.cpp (C++)**

In the **Location:** edit field, type **C:\My Programs\Project 1**

Click the **Add** button

At this point you are in the IDE editor in file **Source 1.c/cpp**. Create your C/C++ program here. When finished, to compile your program:

**Build → Build Project 1**

(Click the **Yes** button if asked about building a debug file.)

If errors or warnings, correct them and repeat the previous two steps,  
else run your program by doing:

**Debug → Start Without Debugging**

Note: After your program has run, a message will appear in the command run window saying “Press any key to continue”. Before “Pressing any key” be sure to first copy this window onto the clipboard.

## Editing an existing project

After opening the IDE to the “*Start Page – ...*” window as previously described:

Click on the underlined name of your project (Project 1) shown in the list of Recent Projects.

Note: If this list is not available or your project is not listed, open the “*Open Project*” window by doing: **File → Open → Project/Solution...** Then navigate to the folder in which you created your original project (C:\My Programs\Project 1\ in this example), highlight *Project 1.sln*, and click the **Open** button.

*The title of the “Start Page – ...” dialog box changes to “Project 1 – .... If the desired source code file Source 1.c(cpp) is not already open, open it by doing:*

1. In the “Solution Explorer” window, expand the Project 1, then Source Files folders (if not already expanded) by clicking on the + box next to the folder names. If the “Solution Explorer” window is not open, open it by doing:  
**View → Solution Explorer**
2. Double-click on *Source 1.c(cpp)* to open it.

*At this point you are in the IDE editor in file Source 1.c(cpp). Modify/Create your C program here. When finished, to compile your program:*

**Build → Build Project 1**

(Click the **Yes** button if asked about building a debug file.)

*If errors or warnings, correct them and repeat the previous two steps,  
else run your program by doing:*

**Debug → Start Without Debugging**

Note: After your program has run, a message will appear in the command run window saying “Press any key to continue”. Before “Pressing any key” be sure to first copy this window onto the clipboard .

## IDE Command Line Arguments

Many exercises require the use of a command line. This can be done by either running the program from a command prompt or by setting up command line arguments within the IDE itself. For example, assume you want to redirect your IDE program's output to a file named "C:\testfile". Within the IDE, you do not specify your program's name, as you would for a real command prompt, but only the arguments that follow:

After opening the IDE to the "Start Page – ..." window as previously described, do:

### **Project → Properties**

"Project 1 Property Pages" dialog box opens, then:

If not already expanded, click on the **Configuration Properties** folder to expand.

Within that folder click on **Debugging**

Enter the desired arguments in the *Command Arguments* entry field that appears on the right: > C:\testfile

Click the **OK** button

## Changing IDE Text Editor Tab Characteristics

It is recommended that the text editor built into the IDE be used for the editing of all source files in the project. By default the editor is set to provide 4-column tab stops and to insert a "hard tab character" each time the keyboard Tab key is pressed. Although 4-column tab stops are fine (though my personal preference is 3), the use of "hard tab characters" is discouraged because the actual size of a hard tab is interpreted differently by different editors and printers. This causes files containing them to have an undesirable editor/printer dependency and can result in ugly surprises when they are printed. It is usually preferable to have a text editor substitute in an appropriate number of spaces whenever the tab key is pressed. Use the following procedure to make changes to the tab characteristics of the IDE's built in text editor:

After opening the IDE to the "Start Page – ..." window as previously described, do:

### **Tools → Options...**

"Options" dialog box opens, then:

### **Text Editor → C/C++ → Tabs**

In the Tab group:

1. Set both the "Tab size:" and the "Indent size:" fields to the same value, as desired.
2. Select the "Insert spaces" radio button.

Click the **OK** button