# Visual Studio 2008 Express Editions

## Visual Studio 2008 Installation Instructions

### Burning a Visual Studio 2008 Express Editions DVD

- Download (http://www.microsoft.com/express/download/) the Visual Studio 2008 Express All-In-One DVD image file.

- Common utilities for writing ISO file to recordable media such as DVD-R include Nero, and Roxio. The contents of image files can be used as virtual discs using utilities such as ISObuster, Daemon Tools or Virtual CloneDrive for Windows Vista.

### What is an ISO Image?

The Visual Studio 2008 Express Editions All-In-One DVD image is posted as ISO image file. An ISO image Is file is an exact representation of a DVD including the content and the logical format. ISO files end with an .ISO extension.

### Installing Visual Studio 2008 Express Edition

- After following the DVD burning process above, you are ready to install Visual Studio Express Edition on your computer.

- Now simply insert the DVD created above into the computer to which you plan to install and double-click the setup.hta file to begin the installer OR browse to the mounted image and double-click the setup.hta to begin the installer.
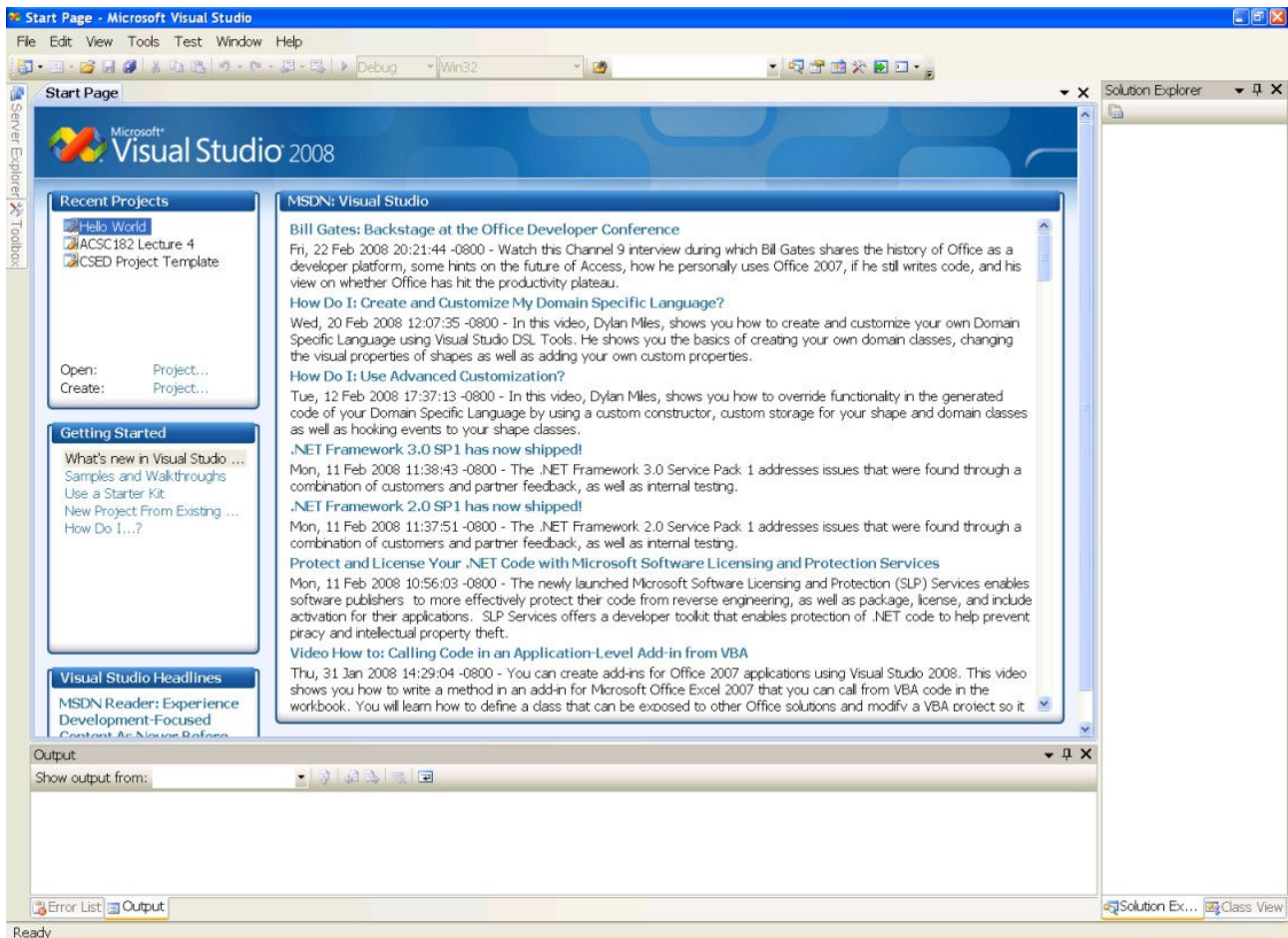


- Click on the Microsoft Visual C++ 2008 Express Edition to begin installation.

# Visual Studio 2008 Environment

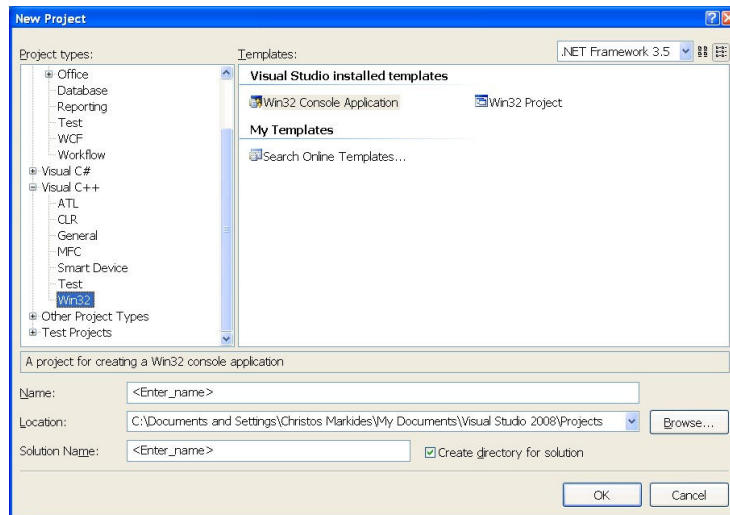To start the Visual Studio 2008 Environment:

Click on **Start|Programs| Microsoft Visual Studio 2008|Microsoft Visual Studio 2008**

The following diagram displays the Visual Studio 2008 Environment:



**The Microsoft Visual Studio 2008 is designed for creating applications in Graphical Environments. However for the Programming Principles I course this is not necessary because console applications will be created.**

To **create** a C++ **Console Application** click on **File|New|Project**. The following dialog appears. Expand the **Visual C++** menu and select from the templates on the left the **Win32 Console Application**.

In the **Name:** textbox enter a name for the project for example **Practical 1**. Click **OK**. This will create a folder called Practical under the folder My Documents\Visual Studio 2008\Projects. The following dialog box appears:
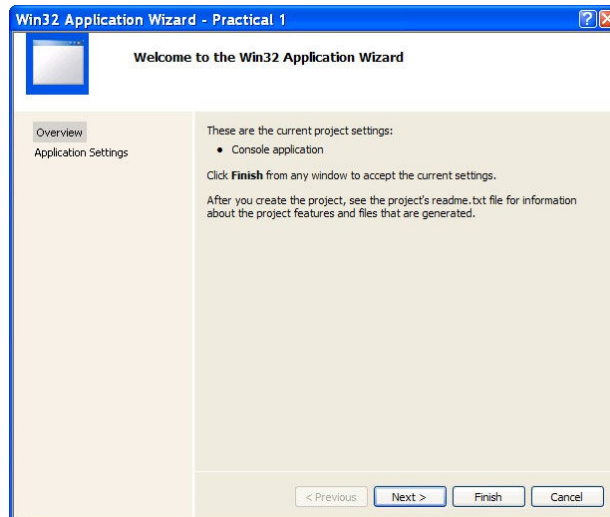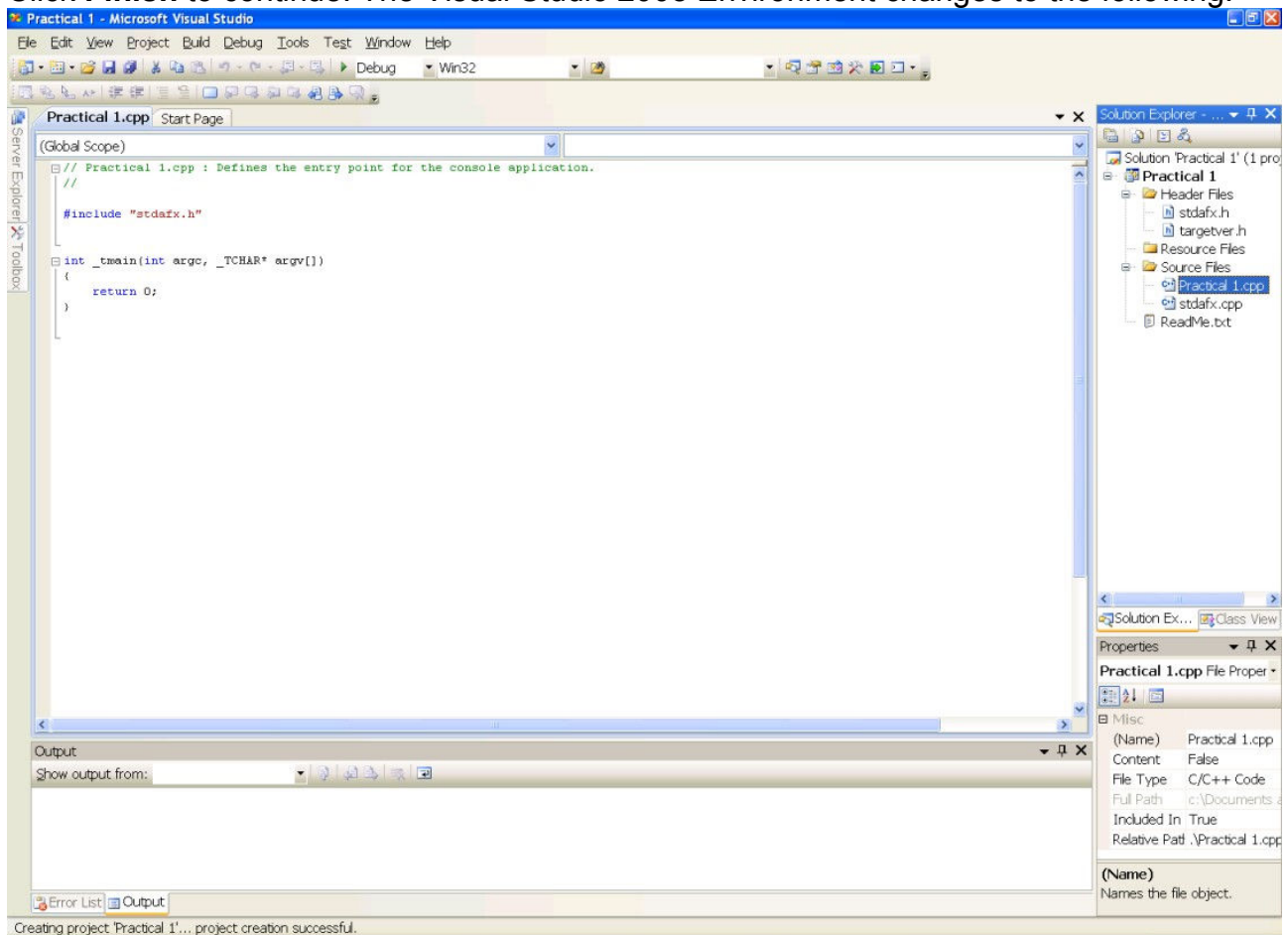


Click **Next** to continue. The following dialog box appears:
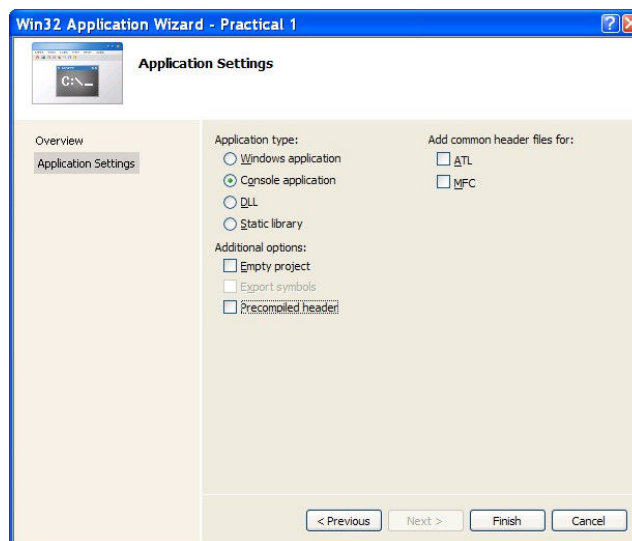
Select the following:

- Deselect the **Precompiled header**.

Click **Finish** to continue. The Visual Studio 2008 Environment changes to the following:



Perform the following tasks before start writing your code:

- In the **Solution Explorer** on the left right-click on stdafx.h and select **Remove**. Confirm by clicking on the **Delete** button.
- In the **Solution Explorer** on the left right-click on targetver.h and select **Remove**. Confirm by clicking on the **Delete** button.
- In the **Solution Explorer** on the left right-click on stdafx.cpp and select **Remove**. Confirm by clicking on the **Delete** button.

The source code editor window:

```cpp
// Practical 1.cpp : Defines the entry point for the console application.
//

#include "stdafx.h"


int _tmain(int argc, _TCHAR* argv[])
{
    return 0;
}
```
*Practical 1.cpp*

Change the code in the code window to the following:

The source code editor window:

```cpp
// Program:
// Description:
// Date:
// Name:

// Libraries
#include <iostream>

// Using standard namespace
using namespace std;

// Declare functions here


void main()
{
    cout << "Hello World!" << endl;


    // Press any key to continue
    system("pause");
}

// Implement functions here
```

*Practical 1.cpp*

After saving a file the coding may begin, saving the file **regularly**. This means that after writing a few lines of code click on the **Save** button on the toolbar (see toolbar at the end of this document).

Coding is not an easy task. Apart from understanding the language syntax, correct coding guidelines must be followed so that the code must be readable by other programmers. It also helps the programmer to understand the program flow, or reviewing the program after a while.

Correct programming techniques are the:

- Indentation in coding
- Correct program flow
- Declaration of variables at the right places
- Using comments

These are but a few; good programming technique comes with practice and experience.

For example the following program illustrates comments and indentation:

The source code editor window:

```cpp
// Program:
// Description:
// Date:
// Name:

// Libraries
#include <iostream>

// Using standard namespace
using namespace std;

// Declare functions here


void main()
{
      cout << "Hello World!" << endl;


      // Press any key to continue
      system("pause");
}
```
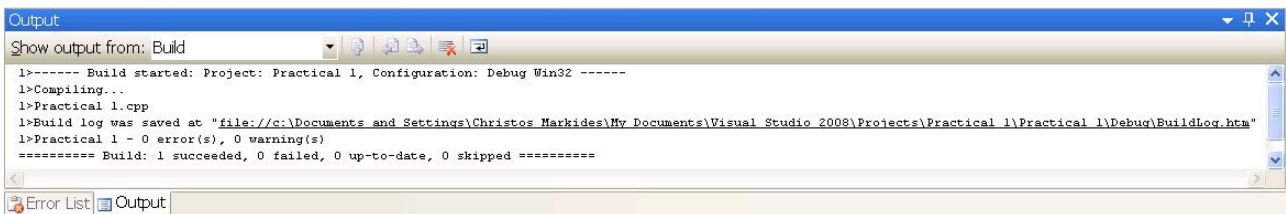
These are comments at the beginning of the program.

Indentation is achieved by the TAB key.

```cpp
// Implement functions here
```
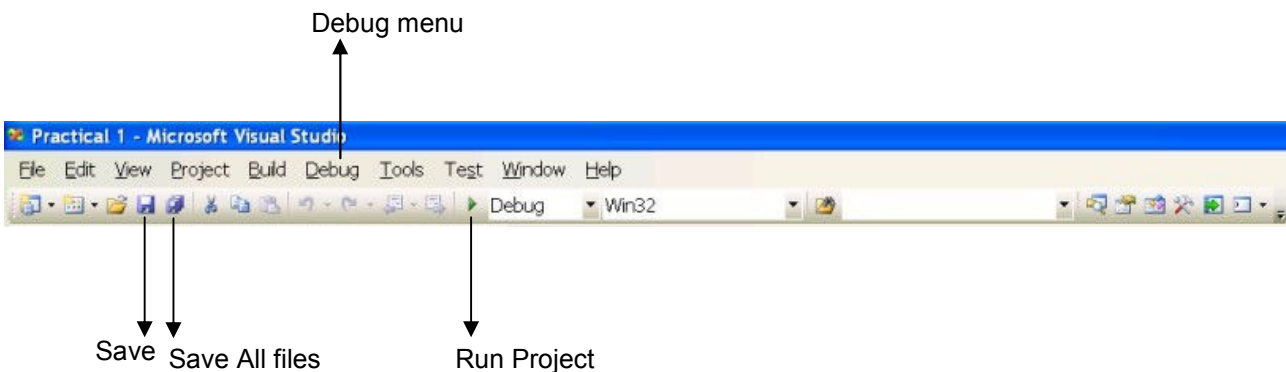
*Practical 1.cpp*

Now the file may be compiled by clicking **Build|Compile** button from the menu. The results of the compilation process appear in the bottom of the screen in the **Output** window.
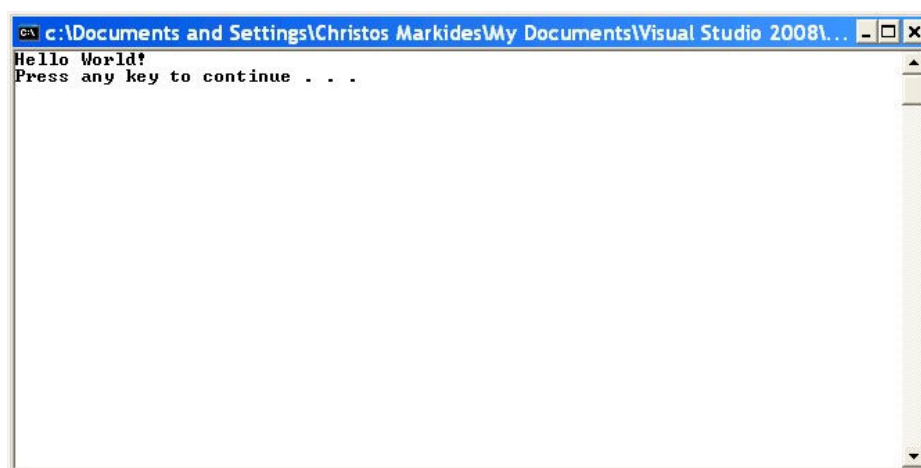


The Visual Studio Environment toolbar:

**If there are errors in the compilation, the compilation stops and errors are displayed.**



The line with the error is indicated with an arrow on the left.

Errors are displayed here
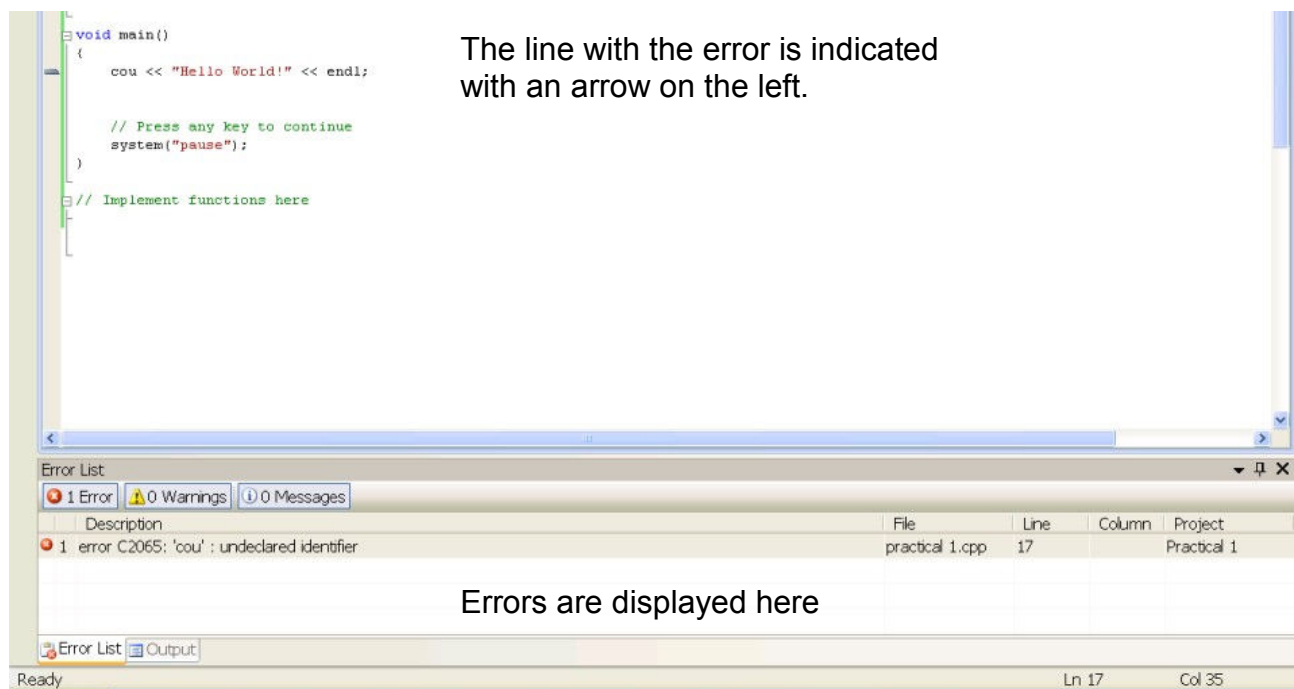
After a successful compilation without errors and no warnings then the program can be **saved** again (click on the **Save** button on the toolbar) and the program can be loaded and run.

To **run** a program, simply click on the **Run** button on the toolbar (see toolbar). After running the program a window appears with the result of your program (the executable code). Meanwhile an executable file is created (.exe).



The window will close after the program has finished executing.

To **exit** the Visual Studio Environment session click on **File|Exit**.

To **open** a file, start your Visual Studio 2008 then choose **File|Open|Project/Solution**. The **Open** dialog window then opens as shown below. Then select the desired folder and click **Open**. Select the Solution file and click **Open**.

This is the location (directory or folder) of the file.





Filename *Practical 1* is selected.
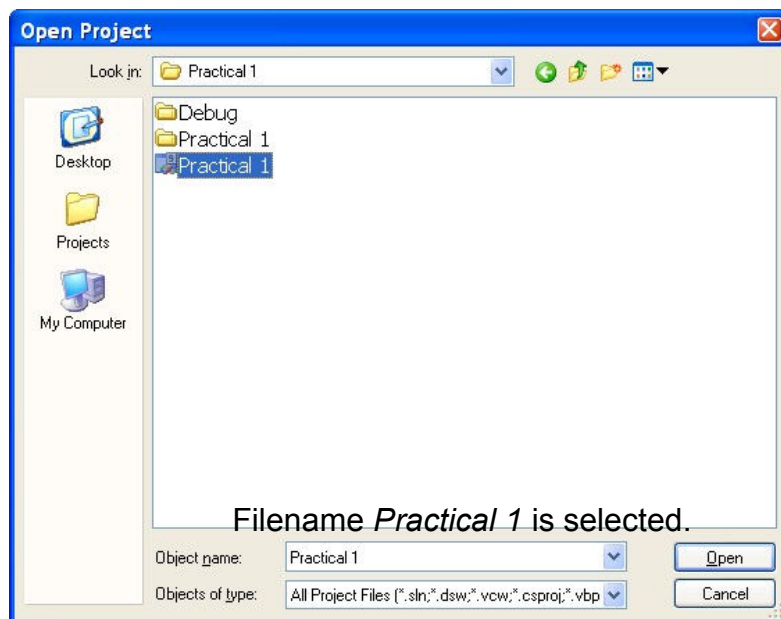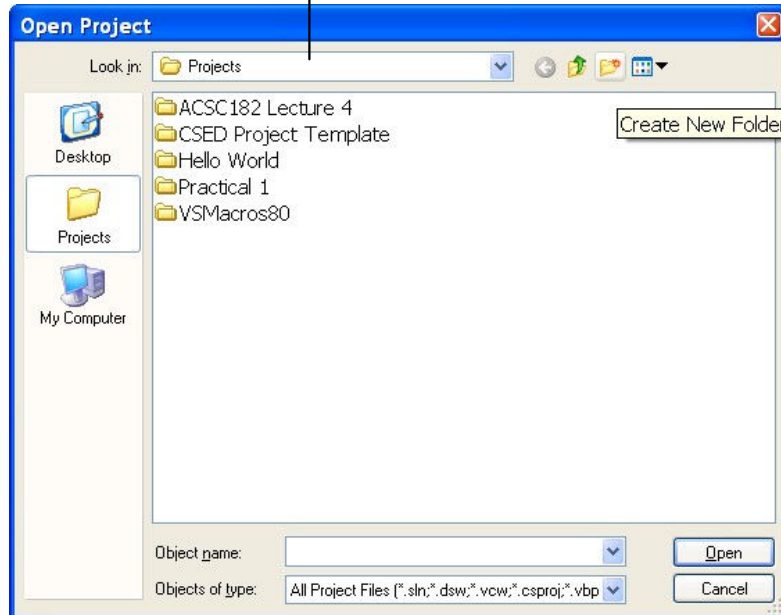
Help in Visual Studio 2008 is readily available. If you click the key **F1** after you typed a function (e.g. `cout`), then the environment searches the help database and displays the help file.
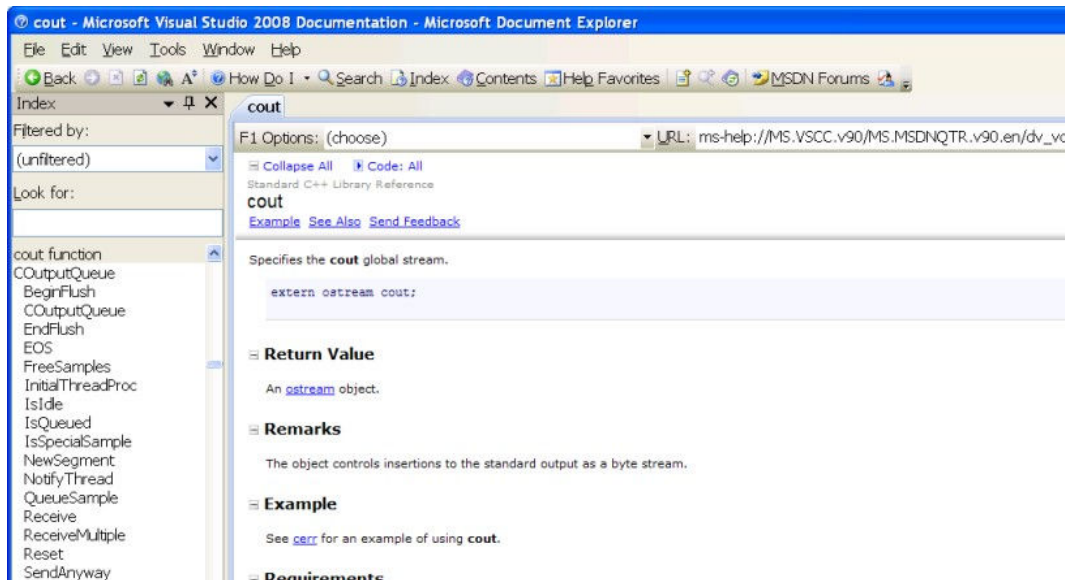
The help pages contain examples as well. Look further down the page or the **Example** link to see the example.

The help window can be closed at any time by clicking the on the ⊠ button.

*Enjoy programming in Visual Studio 2008!!*
*Beware: Save your files more than once and on different disks!!!!*
*HELP: USE the F1 key on keywords to obtain on-line help!!!!!*