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VS2010 Development Tool		Only for Recipients' Reference
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# VS2010 Development Tool

## Installation and Application



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# 1 VS2010 Download and Installation

## 1.1 Download

Visual Studio 2010 development tool can be downloaded with two methods:

### 1. Download from Microsoft's official website

The address of Microsoft's official website is: <http://www.microsoft.com/>

### 2. Purchase Genuine Software

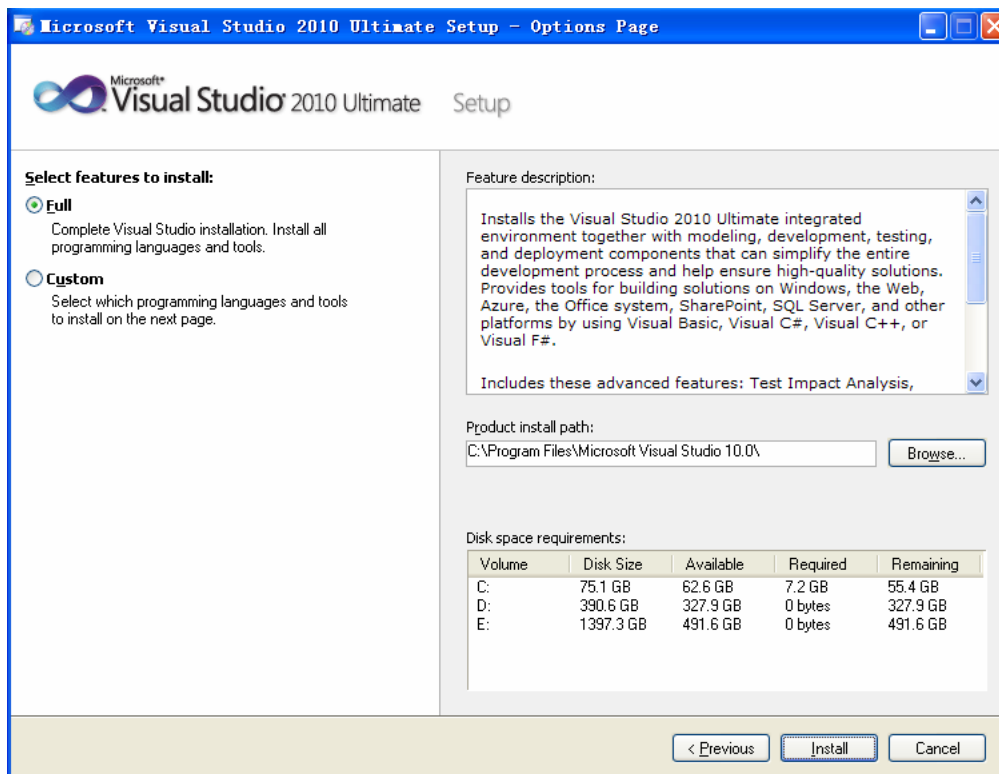
If you need genuine “VS2010” tool, you can purchase from Microsoft's official sellers. After purchase, insert the setup disk into the drive, and install according to the installation procedure.

## 1.2 Installation

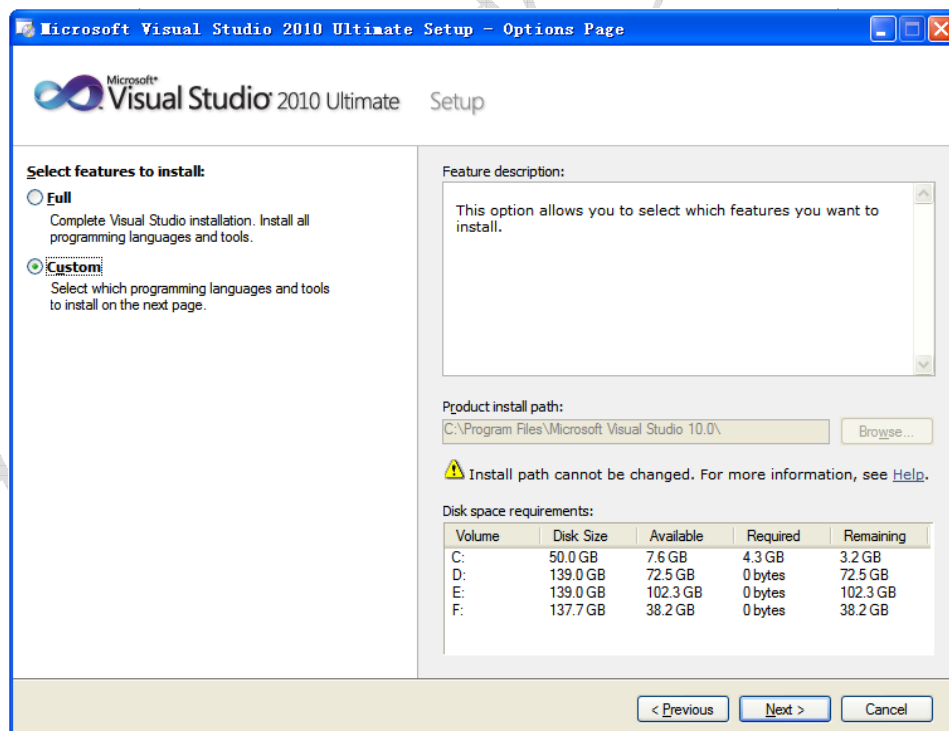
According to the installation wizard, install VS2010 step by step. When you install, you can select Full Installation or Custom Installation. After installation, you must restart the computer to finish the installation. After you restart the computer, it will continue to install automatically.

1. Open VS2010 installation package, click “Install Microsoft Visual Studio 2010”.
2. Load the installed components. Here, you can select whether to send the install information to Microsoft Company.
3. Finish loading the components. Click “Next” for the next step. Continue the installation.
4. Select “I have read and accepted the installation agreement”, click “Next”.
5. Select the installation mode and the installation path. Here, you can select “Full” for full installation. You can also select “Custom” for custom installation. Here, it will display the sizes of every disk to confirm whether the installation can be finished.

### (1) Full Installation

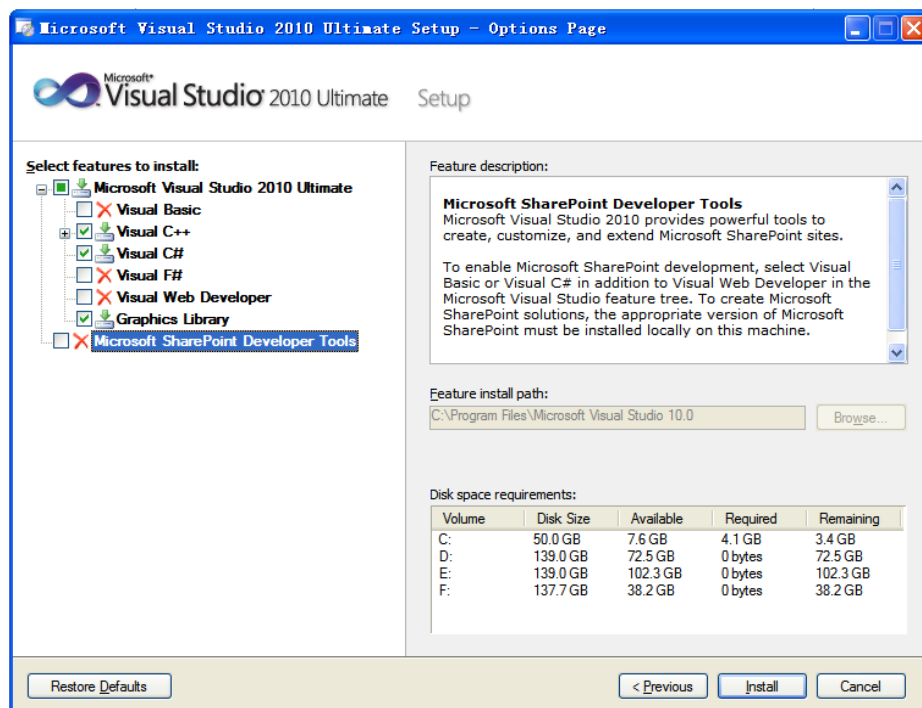


## (2) Custom Installation



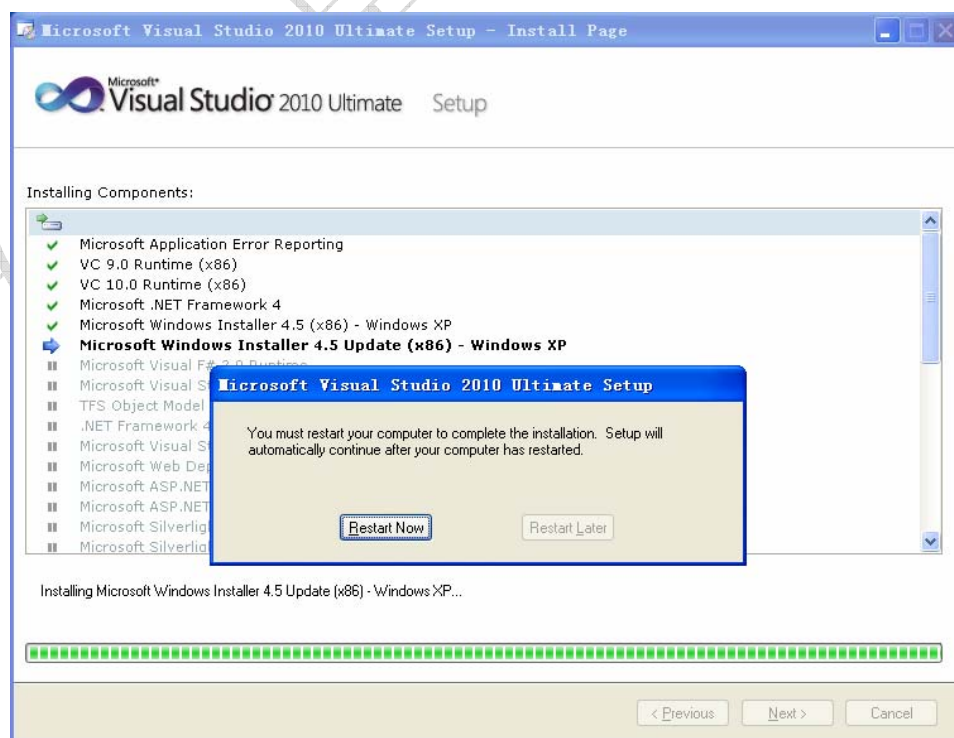
VS2010 tool can select “Full” for full installation. It can also select “Custom” for custom installation. If you select “Full” for full installation, it will install all the programming languages and tools supported by Visual studio 2010. This will occupy a large amount of disk space. So we generally select “Custom” for custom installation.

Notice: because we develop C++ programs, when we use the custom installation, we must select Visual C++.

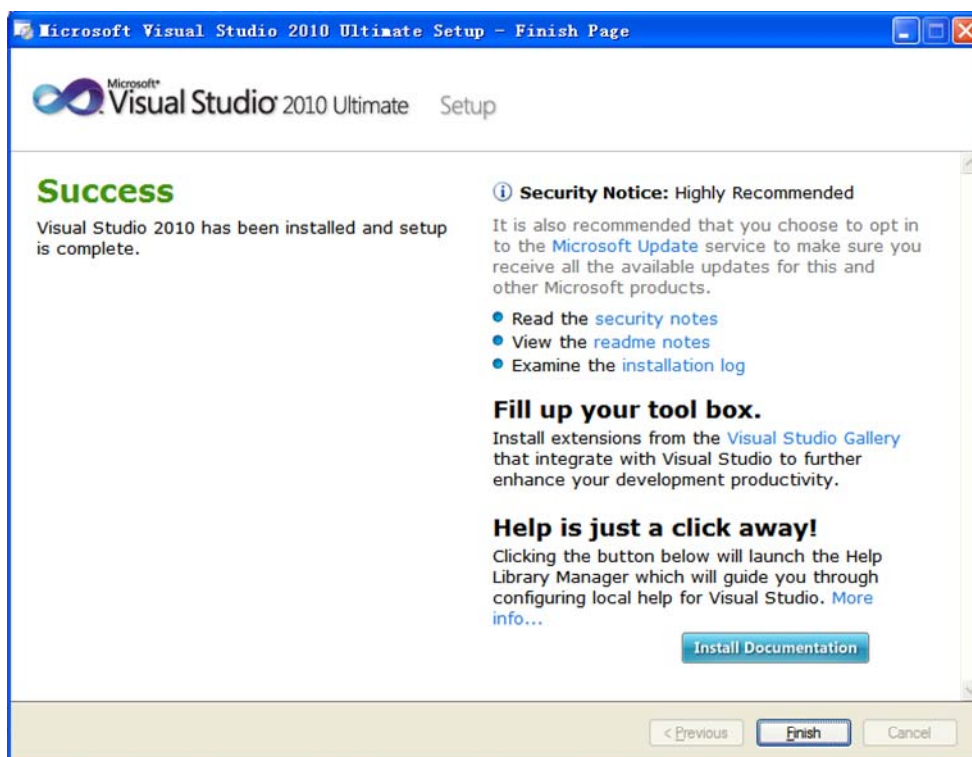


6. Start to install. This step needs long time.

7. After you finish installing “Microsoft Windows Installer 4.5 Update(x86) – Windows XP”, it will prompt the user to restart the computer to finish the installation.



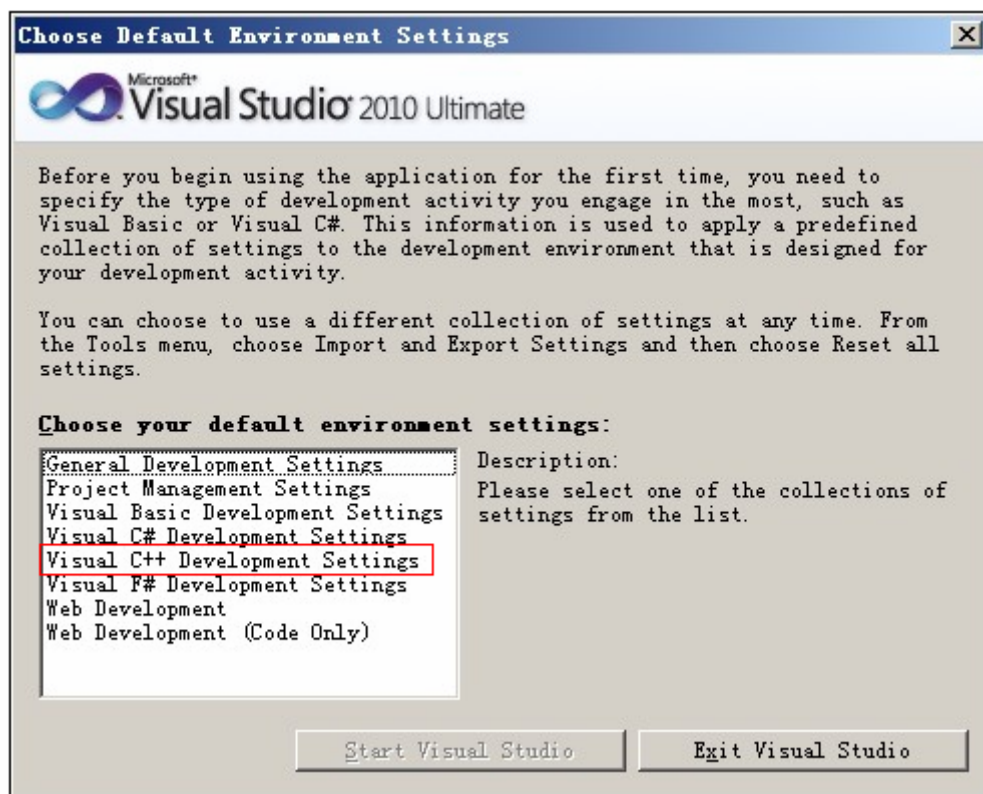
8. Click “Restart Now” to finish restarting the computer.
9. After you restart the computer, it will prompt you to continue the installation.
10. Finish the installation. Prompt the installation information.



## 1.3 Development Environment Configuration

When you launch Microsoft Visual Studio 2010 for the first time, you need to select the default development environment. Set the default development environment as “Visual C++ Development Settings”.

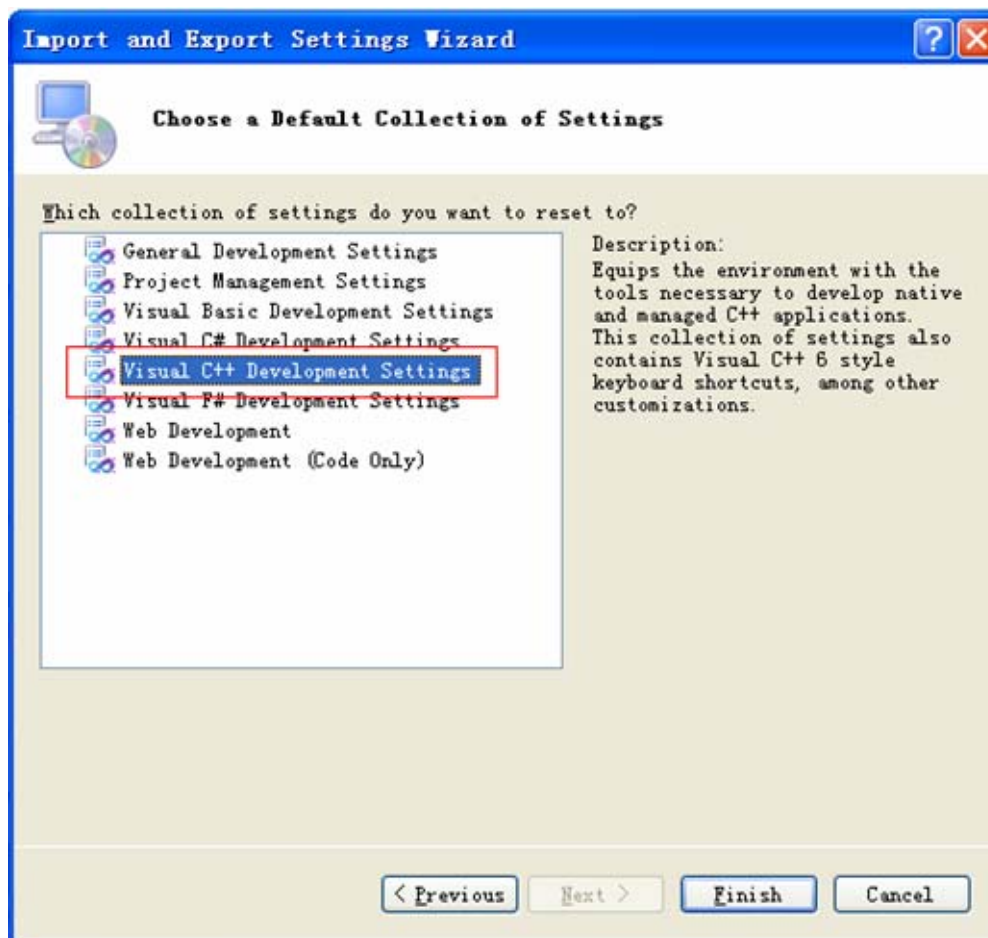




If it has been set to another development environment, you can modify it. You can modify as follows:

1. Select the menu “Tools--> Import and Export Settings..”. Open the setup wizard.
2. In the setup wizard, select “Reset all settings”. Click “Next” button.
3. Display “Whether to save the current settings” dialog box. If you need to save the current settings, select Yes. If you don’t need, select No. Click “Next” button.
4. In the wizard dialog box, select the default development environment as “Visual C++ Development Settings”, click “Finish” button to finish.

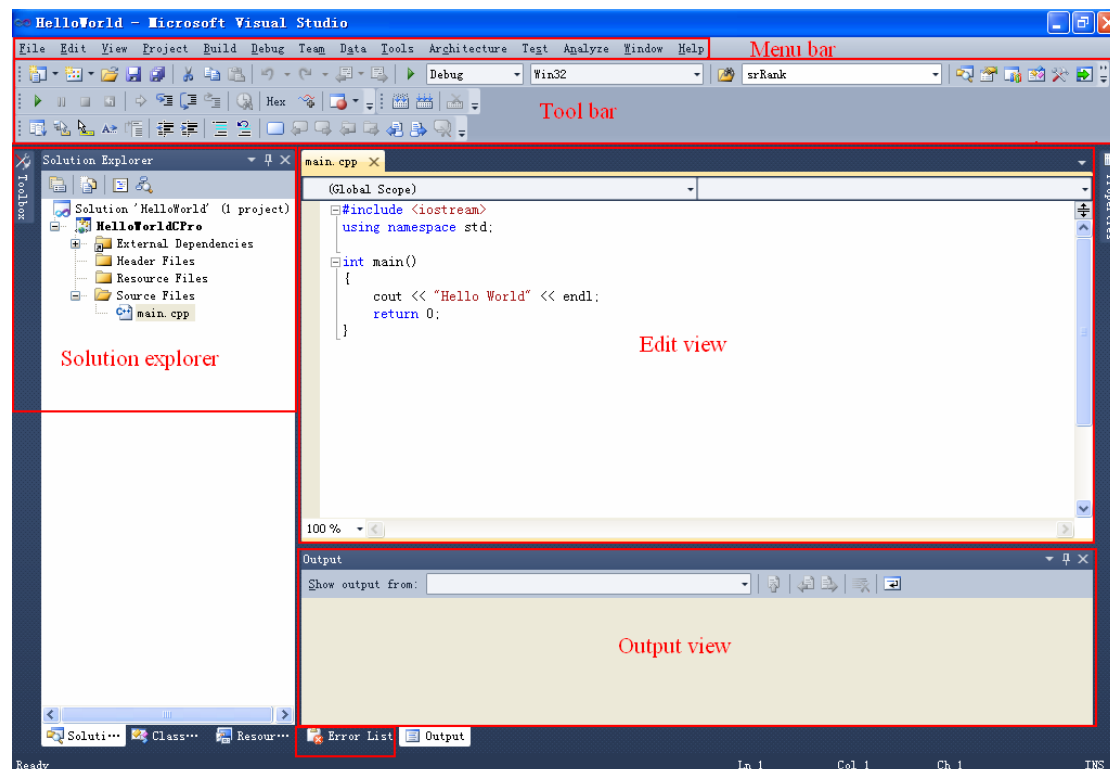




## 2 VS2010 Integrated Development Environment

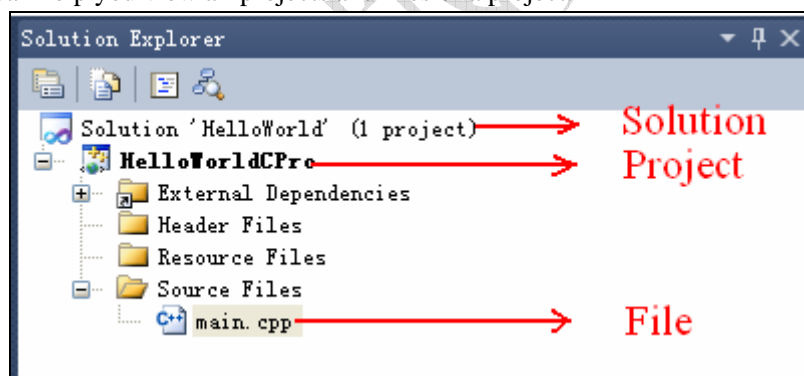
### 2.1 VS2010 Tool Interface View

In VS2010 tool, the generally used views include: Solution View, Edit View, Output View, Error List, etc.



## 1. Solution View

“Solution” can help you view all projects and files of a project.



Notice: there can be many projects in a solution.

## 2. Edit View

The editing area is used to edit the source code.

## 3. Output View

The output view is used to display the information when you compile or run the program.

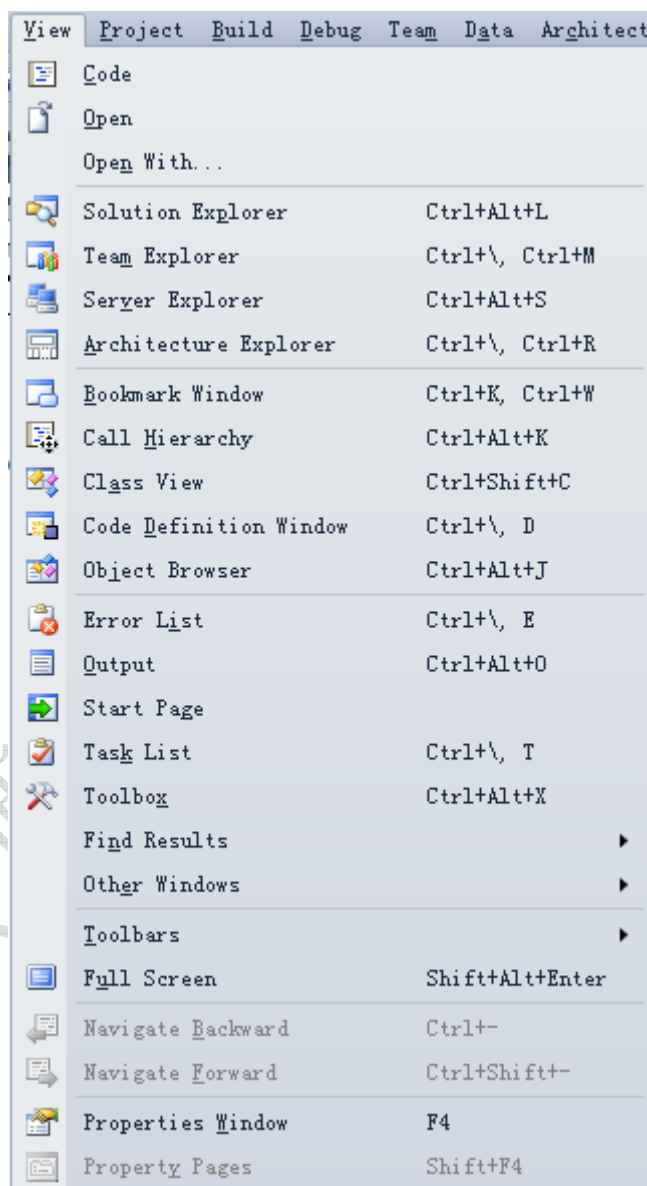
## 4. Error List View

It is used to display the warning and error information when the code is compiled.

Error List					
<div> <span>2 Errors</span> <span>0 Warnings</span> <span>0 Messages</span> </div>					
	Description	File	Line	Column	Project
2	error C2065: 'endl' : undeclared identifier	main.cpp	6	1	HelloWorldCPro
1	error C2065: 'cout' : undeclared identifier	main.cpp	6	1	HelloWorldCPro

## 5. Other Views

In VS2010 tool, you can select “View” menu, in the drop-down box, select other views that you need, display them on the interface.



## 2.2 VS2010 Integrated Development Tool

Visual Studio 2010 is an integrated development tools, including edition, compilation, link and

running.

## 1. Edit

Edit the code of the program in “Edit View” area.

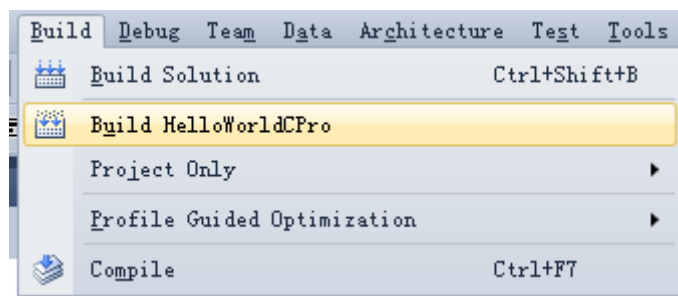
## 2. Compile and Link

In Visual Studio 2010 development environment, the compilation and link process of the program will be finished in build stage.

Visual Studio 2010 tool has two build methods:

(1) Through menu “Build”->“Build Solution”, build all the projects under the solution.

(2) Through menu “Build”->“Project Only”, build the single project under the solution.



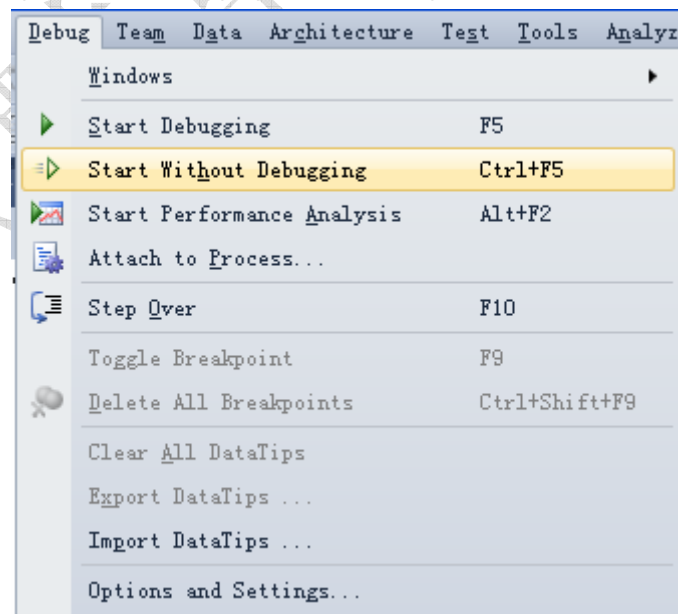
In “Output View”, the relevant information in the compilation and link process will be displayed.

## 3. Run

If the code is compiled and linked successfully, Visual Studio 2010 tool has two running methods:

(1) Through “Debug”->“Start Without Debugging”, run directly.

(2) Through “Debug”->“Start Debugging”, run in Debug mode.



## 3 VS2010 Application

### 3.1 VS2010 Application Composition

VS2010 development program directory structure is composed of the solution folder and the project folder.

#### 1. Solution Folder

The solution file (.sln file) and the project folders in the solution are stored in the solution folder. A solution can include many projects.

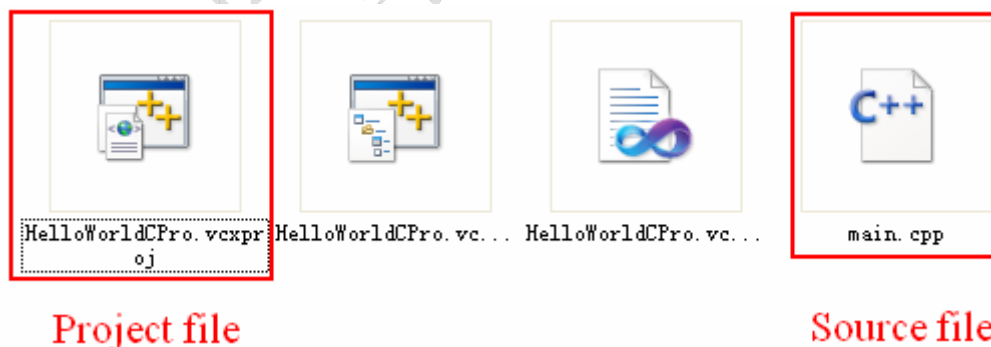
The solution file (.sln file) includes the project information in the current solution, and stores the settings of the solution. In VS2010, a solution can include many projects.



#### 2. Project Folder

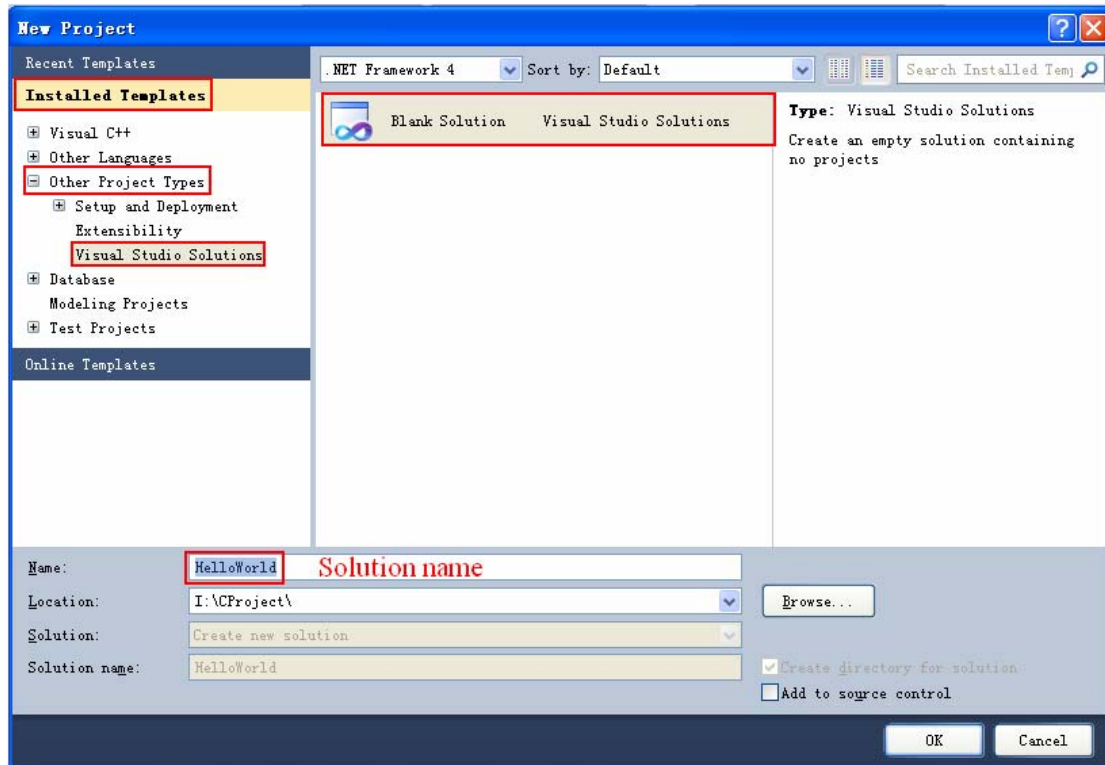
The project files (.vcxproj file) and the code files in the project are stored in the project folder.

The project file (.vcxproj file) includes the settings of the current project and the file information included in the project, etc.

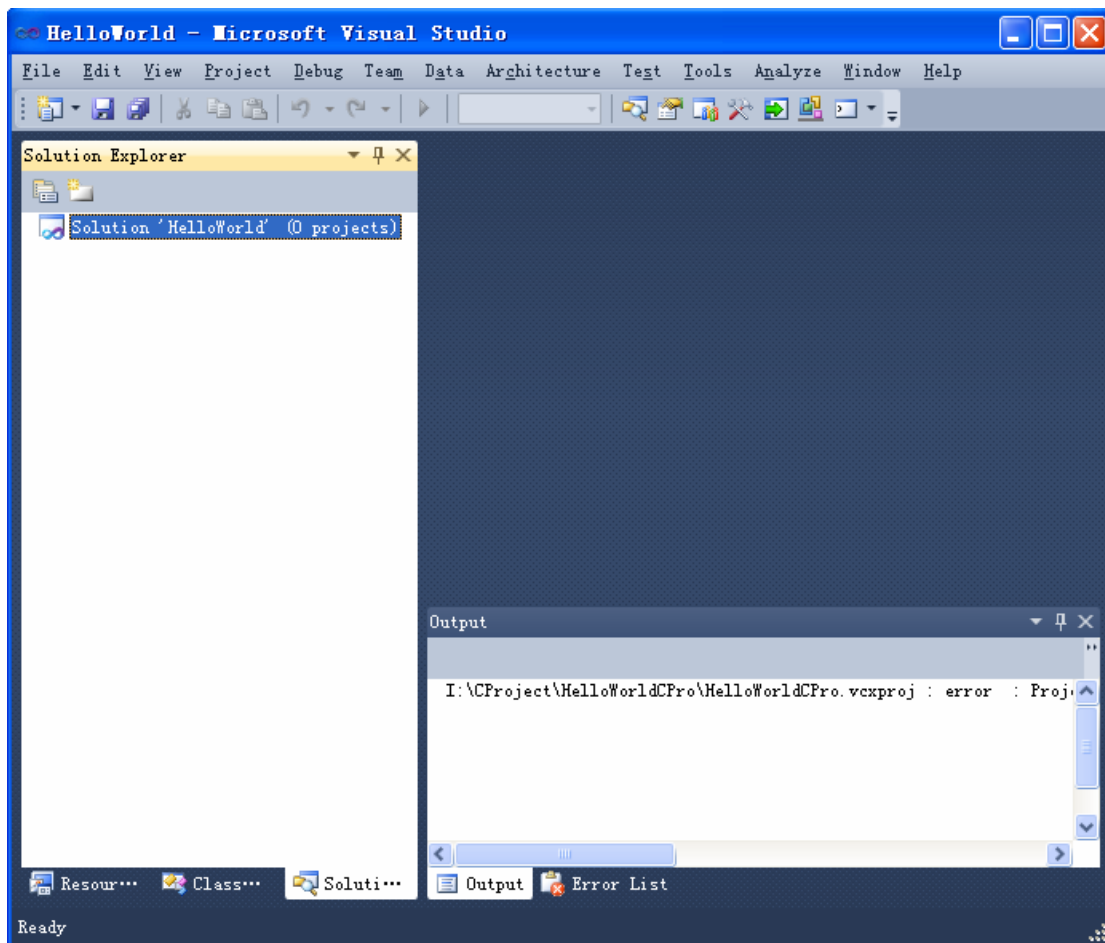


### 3.2 Create Solution

1. From “Start -> Program -> Microsoft Visual Studio 2010”, launch Microsoft Visual Studio.
2. Select the menu “File->New->Project”, display New Project dialog box.
3. Select “Other Project Type -> Visual Studio Solutions -> Blank Solution”, input the solution name “HelloWorld”, select the saving path of the solution.



4. Click “OK”, finish creating the solution. After you finish creating it, the interface is as follows:



5. In the solution folder, you can see the following files:

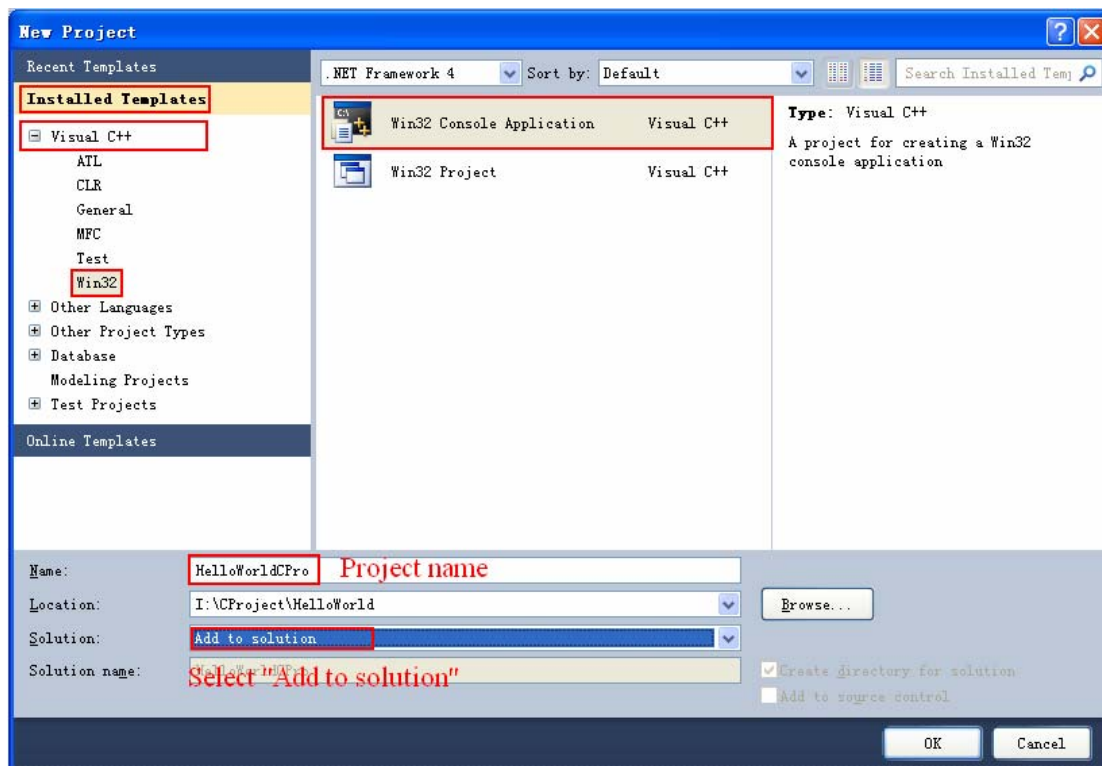


### 3.3 Create Project

#### 1. Create Win32 Console Project

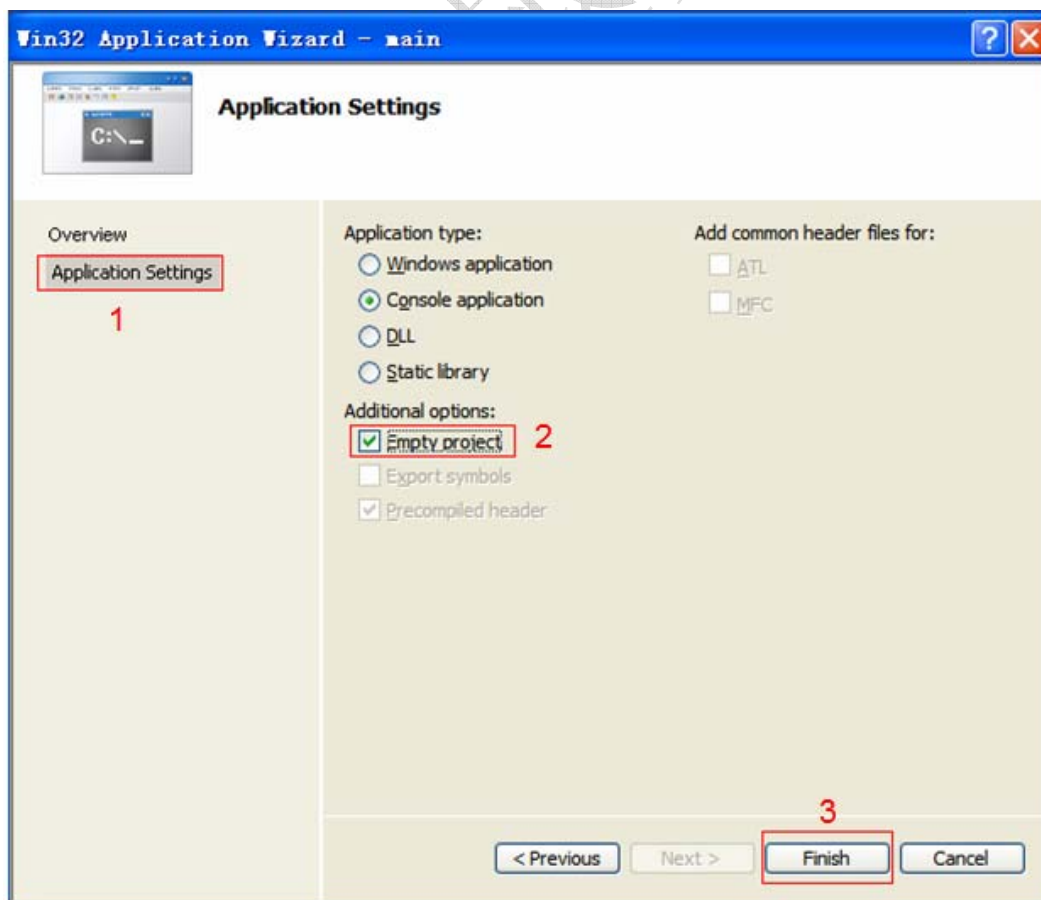
- (1) After you finish creating the solution, select the menu “File->New->Project”, display New Project dialog box.
- (2) In the pop-up dialog box, select “Visual C++ -> Win32”, input the project name “HelloWorldCPro”, click “OK”, create a Win32 console project.





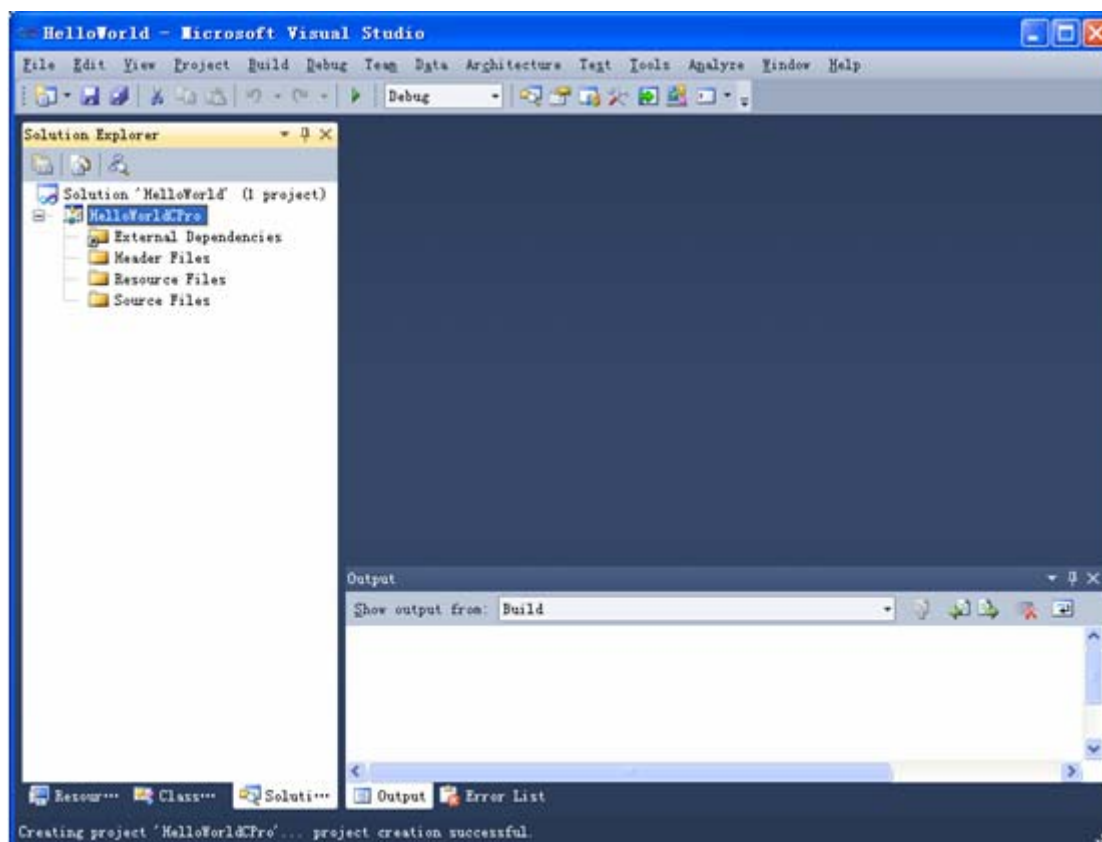
## 2. Set up Win32 Console Project

Set up Win32 console project as an empty project.



### 3. Finish Creating Project

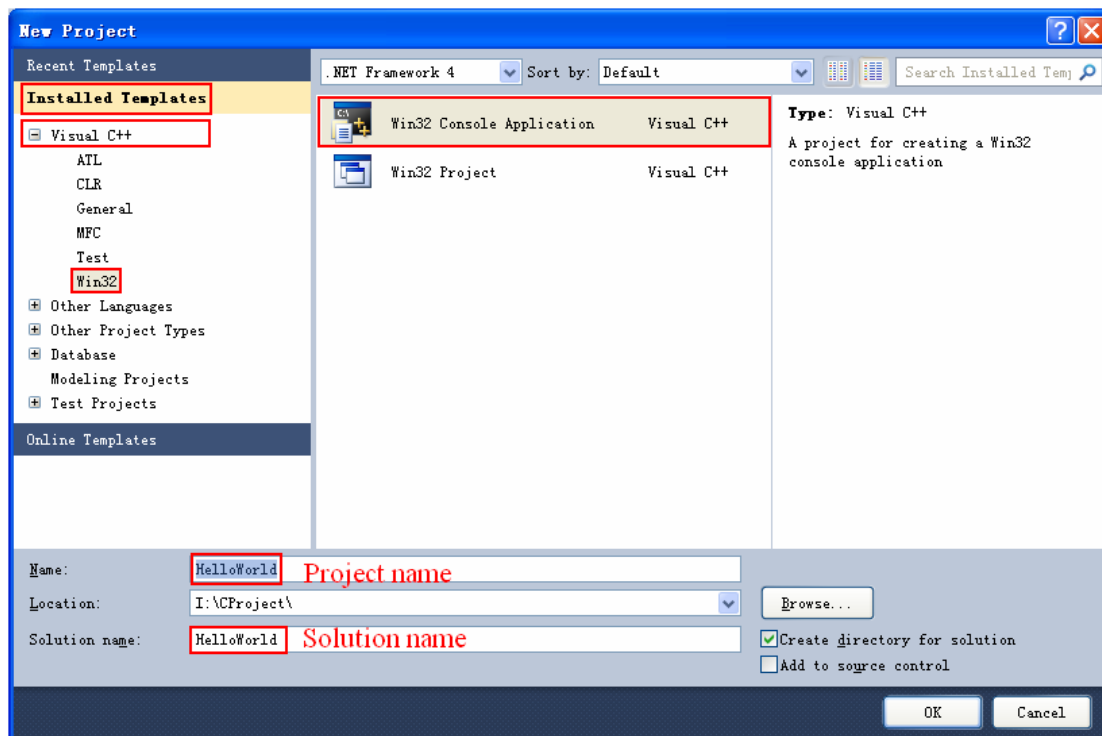
After you finish the creation, the interface is as follows:



In VS2010 tool, there is another method to create the project. When the project is created, it will generate a solution which has the same name as the project by default. The user himself can modify the solution name.

The specific implementation method is as follows:

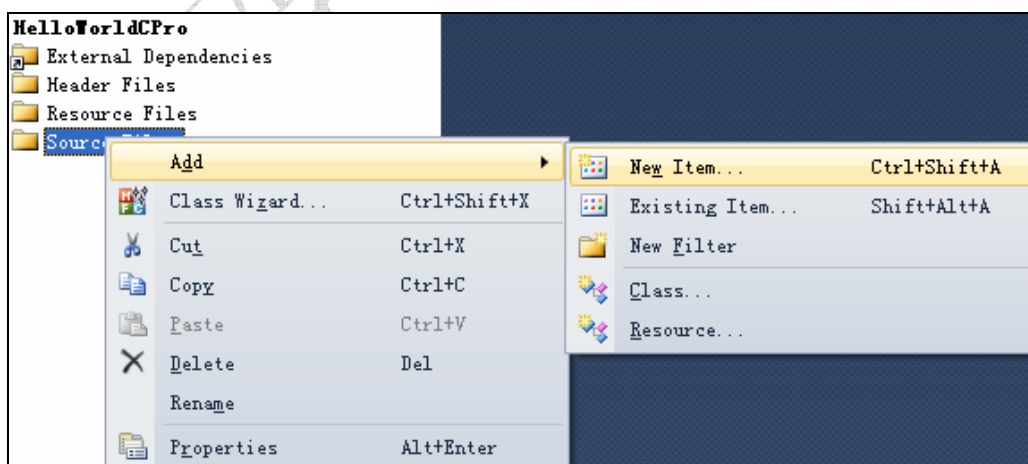
- (1) From “Start -> Program -> Microsoft Visual Studio 2010”, launch Microsoft Visual Studio.
- (2) After you select the menu “File -> New -> Project”, in the pop-up dialog box, select “Visual C++ -> Win32”, input the project name “HelloWorld”, click “OK”, create a Win32 console project.



Notice: when the project is created, a solution which has the same name as the project will be generated by default. The default solution name is the same as the name of the first project. The user himself can modify it. There can be many projects in a solution.

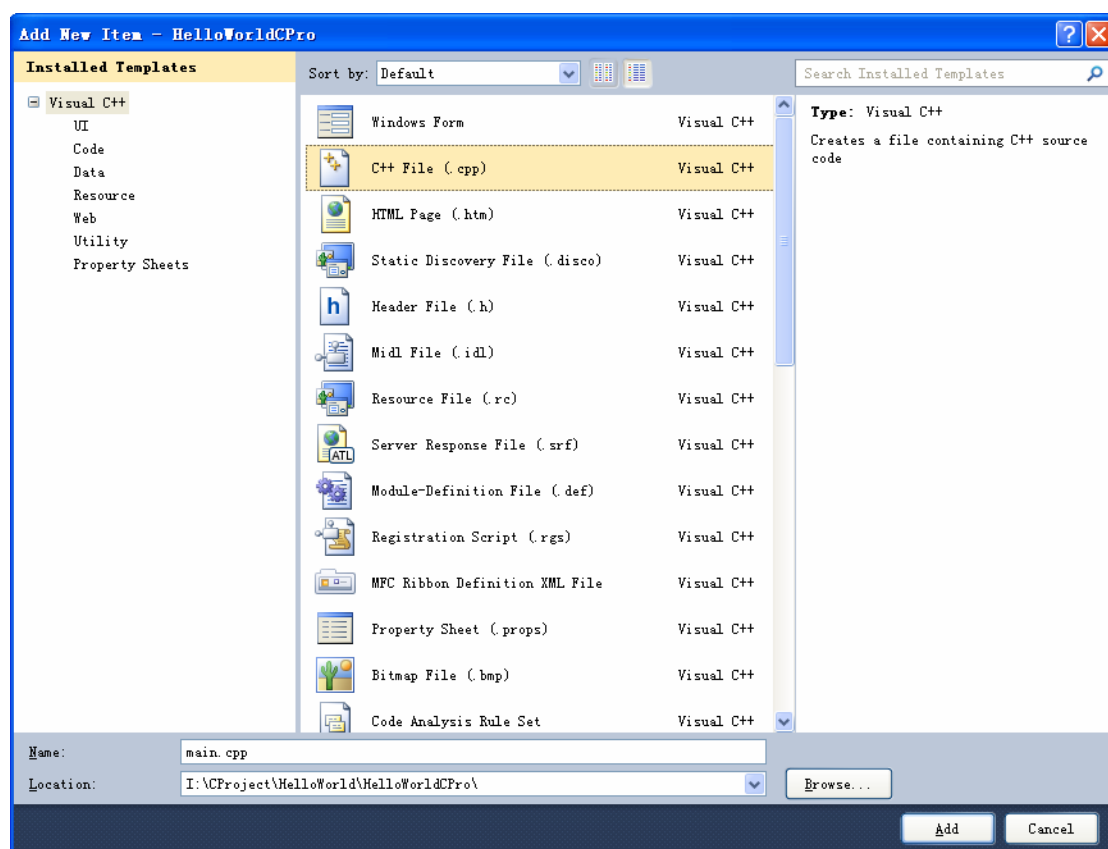
### 3.4 Add File

1. Right click "Source Files", select "Add"->"New Item" in the pop-up menu, open "Add File" dialog box.



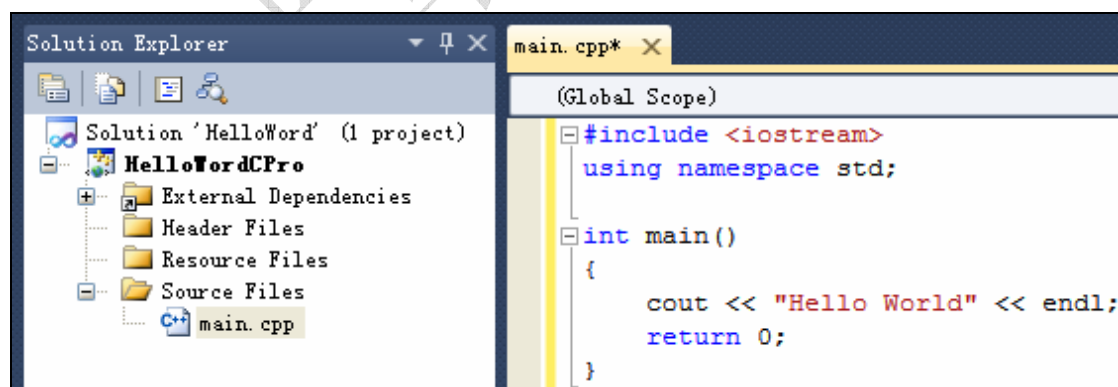
2. In "New File" dialog box, select the file type as "C++ File (.cpp)", input the file name as "main.cpp", select the file saving path as the project folder.

3. Click “Add” button to finish adding files.



## 3.5 Edit

Double click “main.cpp” file, open the file, and write the code in “Edit View”.



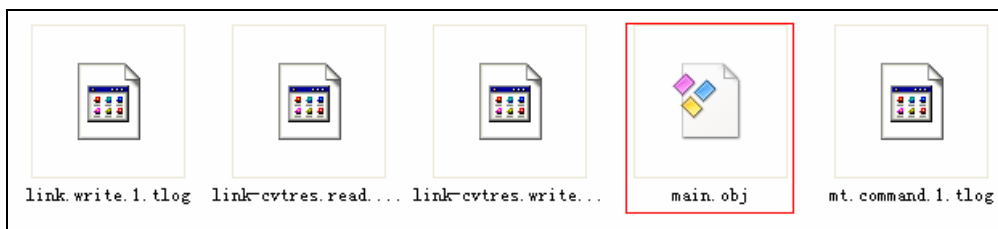
## 3.6 Compile and Link

In Visual Studio 2010 development environment, finish the compilation and link process of the program in build phase.

Select “Build”->“Build HelloWorldCPro” in “Menu Bar” on the interface of VS2010 tool.

## 1. Compile

After the successful compilation, a Debug folder will be generated under the project directory of HelloWorldCPro, including the .obj files after the successful compilation.



## 2. Link

After the successful link, a Debug folder will be generated under the solution of HelloWorld, including the .exe files after the program is linked successfully. Directly double click the file, you can also run the program.



## 3.7 Run

In “Menu Bar” on the interface of VS2010 tool, select “Debug” option, select “Start Without Debugging” to run the program.

