

Visual C++ 2012 Tutorial

For Introduction to Programming with C++
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1 Introduction

Visual C++ is a component of Microsoft Visual Studio 2012 for developing C++ programs. A free version named *Visual Studio Express* can be downloaded from Supplement II.A. This section introduces how to create a project, create a program, compile and run the program in Visual C++ Express 2012 Edition.

2 Getting Started with Visual C++

Visual C++ is easy to install. If you need help with installation, please refer to Supplement II.A on the Companion Website.

Suppose you have installed Visual C++ 2012 Express Edition. You can launch Visual C++ from the Windows Start button by choosing *VS Express for Desktop*. The Visual C++ 2012 Express user interface appears, as shown in Figure 1.

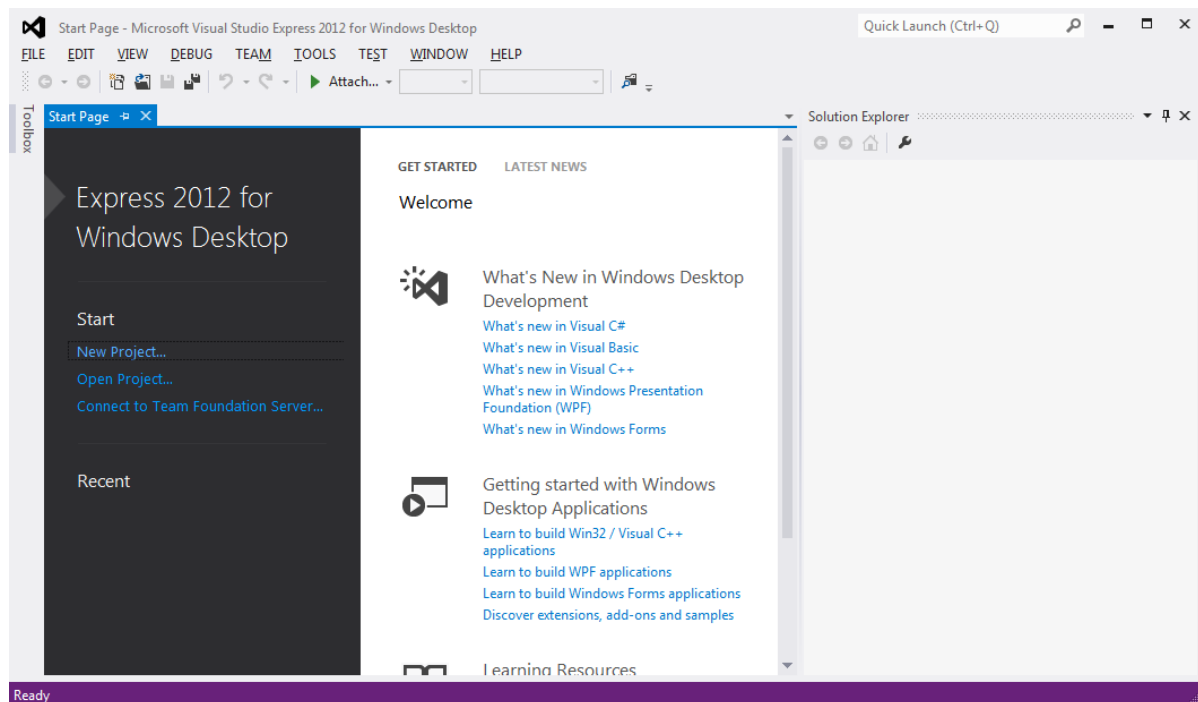


Figure 1

The Visual C++ user interface is a single window that performs editing, compiling, debugging, and running programs.

3 Creating a Project

To create C++ programs in Visual C++, you have to first create a project. A project is like a holder that ties all the files together. Here are the steps to create a project:

1. Choose *File, New, Project* to display the New Project window, as shown in Figure 2.
2. Choose *C++* under the Template and select *Win32 Console Application* in the middle column. Type bookexample in the Name field and c:\smith in the Location field. Click *OK* to display the Win32 Application Wizard window, as shown in Figure 3.
3. Click *Next* to display the application settings window, as shown in Figure 4.
4. Select *Console application* in the Application type section and check *Empty project* in the Additional options section. Click *Finish* to create a project. You will see the project named bookexample in the Solution Explorer, as shown in Figure 5.

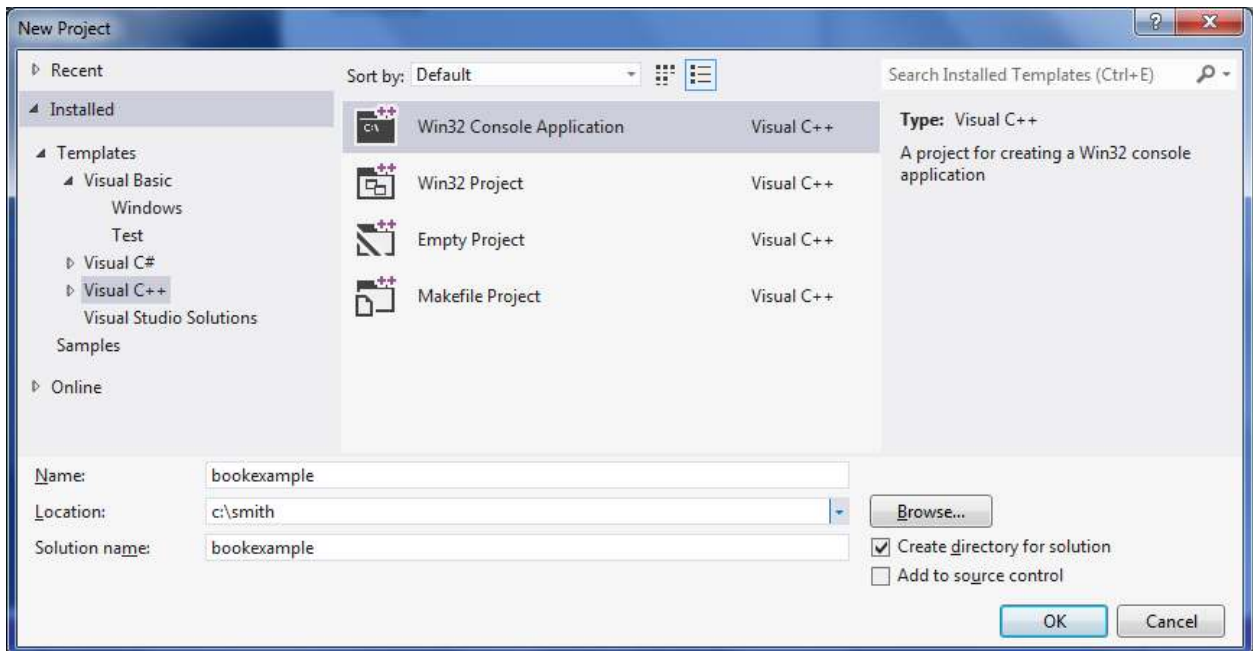


Figure 2

You need to create a project before creating programs.

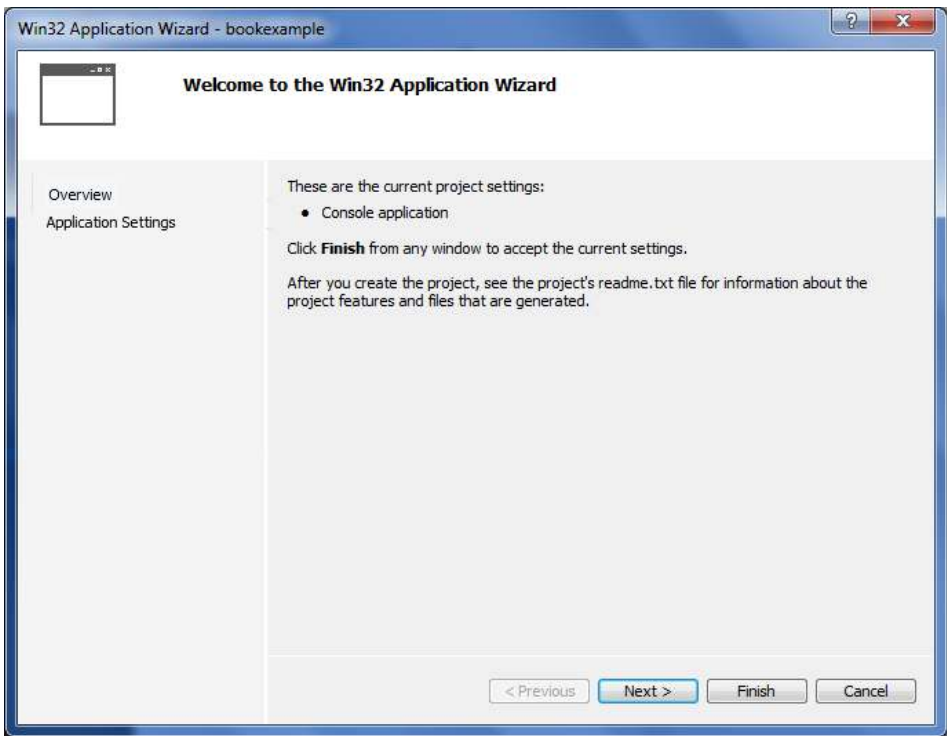


Figure 3
Win32 Application Wizard creates a project for Win32 applications.

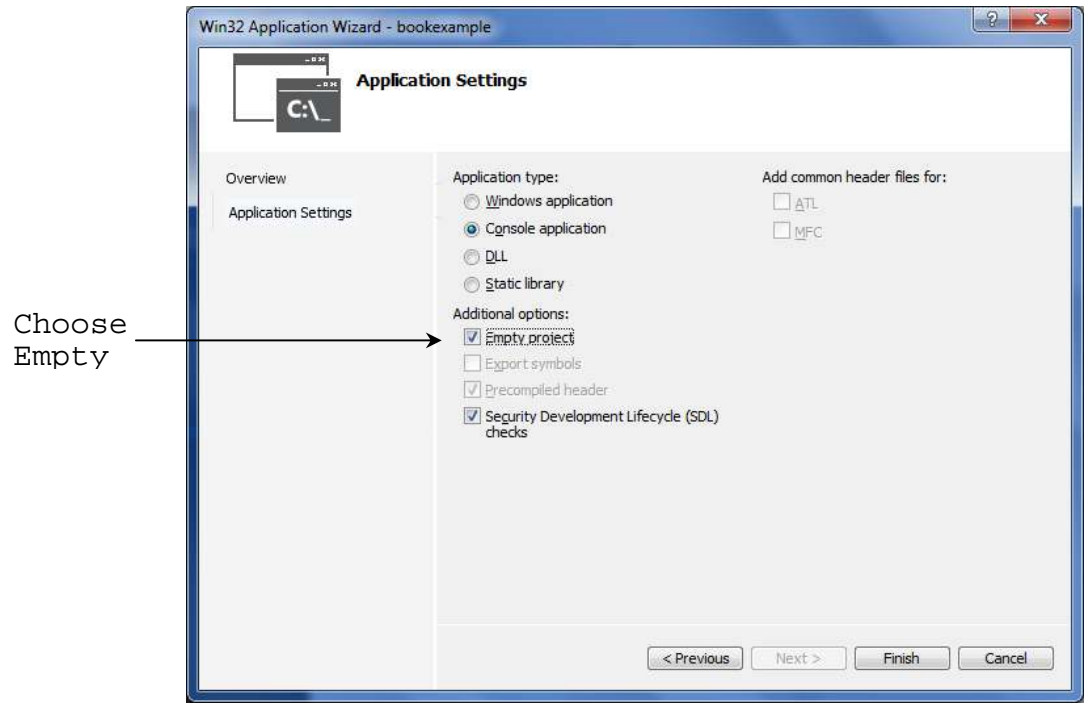


Figure 4
Win32 Application Settings window lets you set the application type.

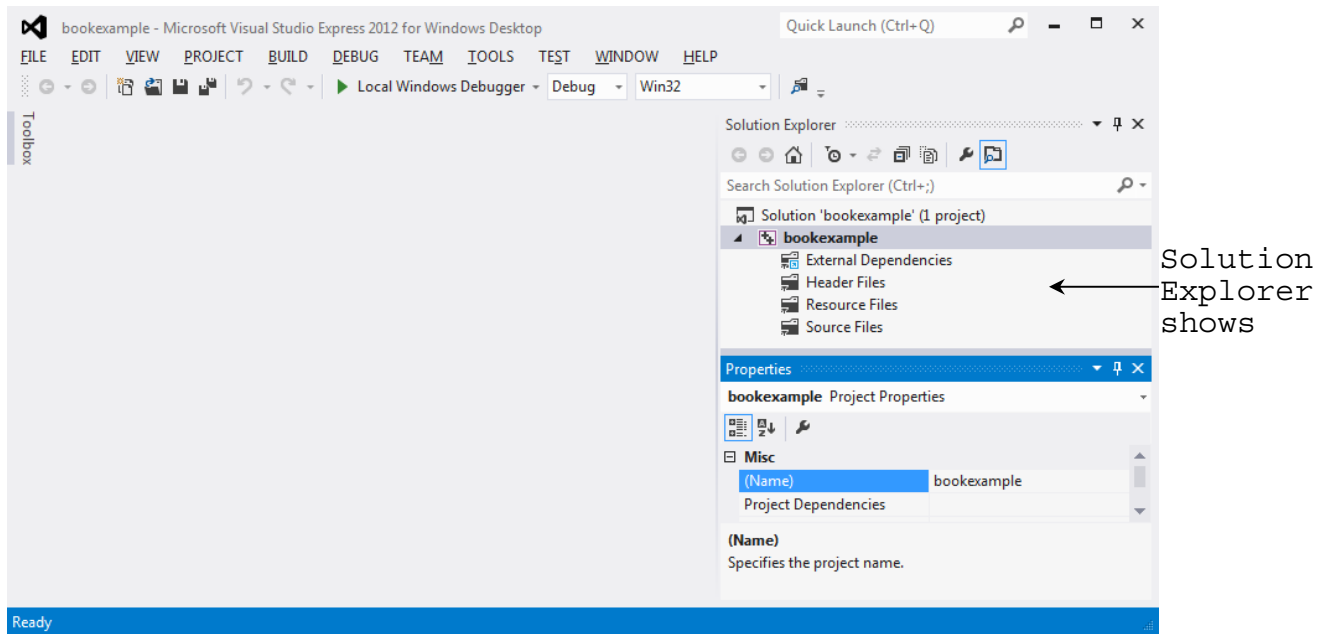


Figure 5

A project is created for C++ console applications.

4 Creating a C++ Program

After you create a project, you can create programs in it. Here are the steps to create a C++ program for Listing 1.1:

1. Right-click the bookexample project in the Solution Explorer to display a context menu. Choose *Add, Add New Item* from the context menu of the bookexample project (see Figure 6) to display the Add New Item window, as shown in Figure 7.
2. Choose Code under Visual C++ on the left column and C++ File (.cpp) in the middle column. Enter Welcome in the Name field and c:\smith\bookexample\bookexample in the Location field. Click *Add* to create the file, as shown in Figure 8.
3. Enter the code for Welcome.cpp exactly from Listing 1.1, as shown in Figure 9.

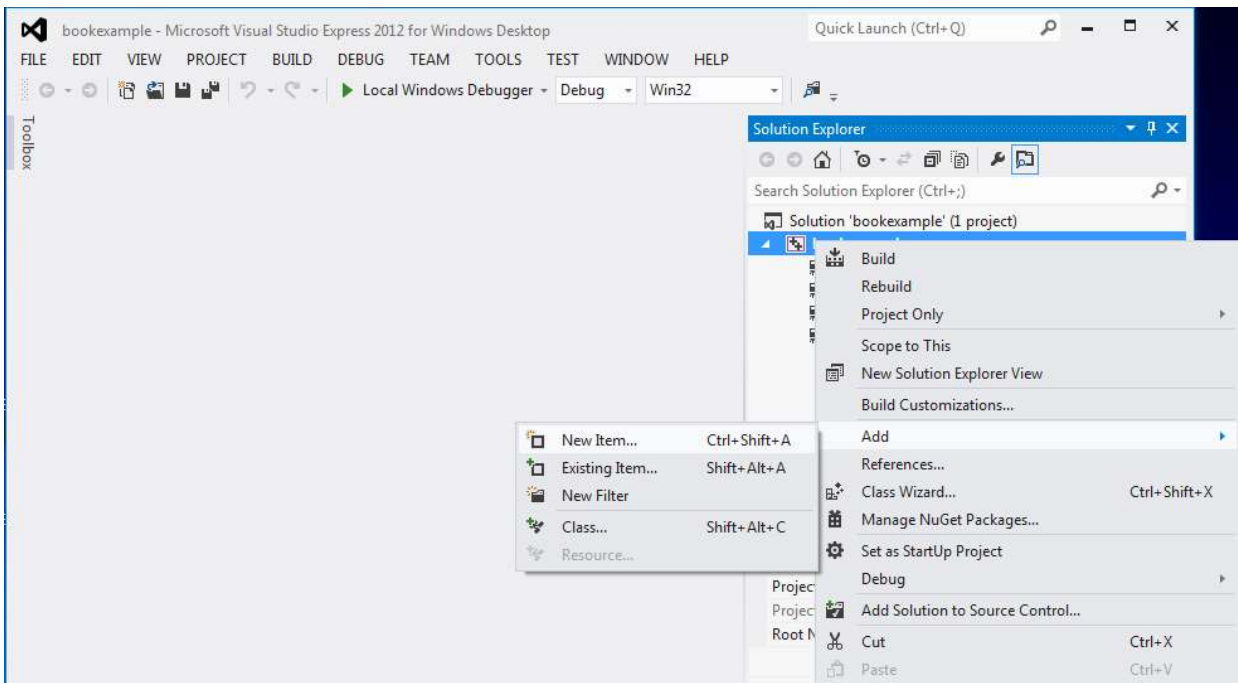


Figure 6

You can open the Add New Item window from the project's context menu.

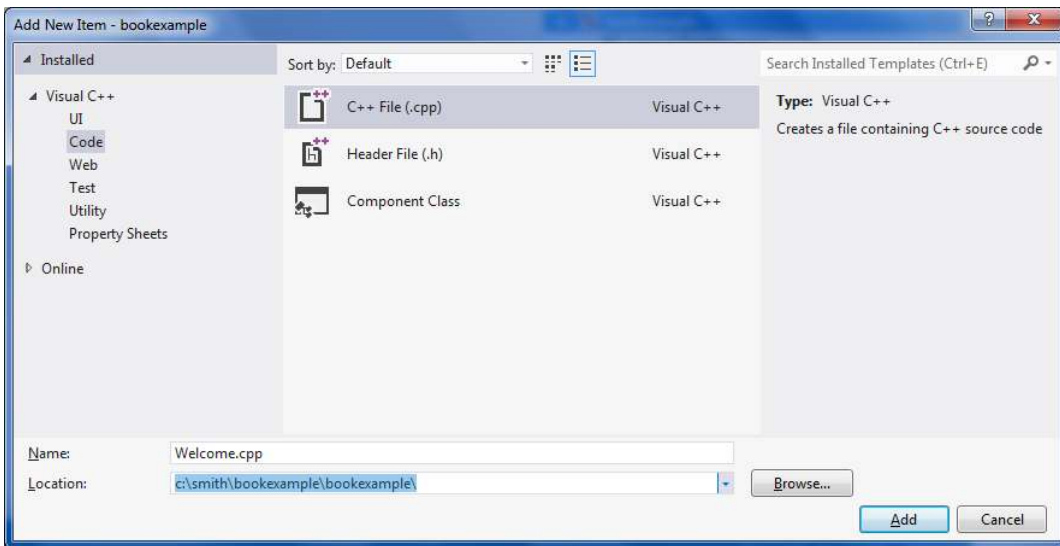


Figure 7

You can specify the file type, name, and location to create a file.

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