Basler Components

How to Build Pylon Applications Using the Free Visual C++ 2005 Express Edition

APPLICATION NOTES

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1 Introduction

Some users of Basler's Pylon 2.0 software may want to build their own applications without the need to buy Microsoft Visual C++ Studio. This application note describes an alternative way to build pylon based applications for free using Microsoft Visual C++ Express and the Microsoft Platform SDK. To use Visual C++ Express to build Win32 applications, you'll need to take just a few extra steps.

2 Steps

Step 1: Install the pylon SDK

Obtain version 2.0 of the pylon SDK and install it. The *Installation and Setup Guide for Cameras Used with Basler's pylon API* contains complete instructions for installing the pylon 2.0 SDK and your Basler camera. The guide is available at Basler's website: www.basler-vc.com.

If you do not have version 2.0 of the SDK, please contact Basler technical support for assistance.

Step 2: Install Microsoft Visual C++ Express Edition (available free of charge)

For an English Version of Visual C++ 2005 Express, use the following download link*:

http://www.microsoft.com/express/2005/download/default.aspx#

For a German Version of Visual C++ 2005 Express, use the following download link*:

http://www.microsoft.com/germany/msdn/vstudio/products/express/download.mspx

* These links may become invalid over time, so we do not guarantee their availability.

After downloading the executable file, run it and follow the installation instructions. At the end of the installation procedure, you will be requested to register your product. You must register the product within 30 days - if you do not, it will stop working at the end of the 30 day period. Click on Register Now and follow the registration procedure.

You will eventually be given a 14 number registration key. You need the key to register and to continue using Visual C++ 2005 Express beyond the initial 30 day period.

Step 3: Install the Microsoft Platform SDK

Install the Platform SDK via the Web from the Microsoft Download Center. Follow the instructions and install the SDK for the x86 platform (Microsoft® Windows Server® 2003 R2 Platform SDK Web Install):

http://www.microsoft.com/downloads/details.aspx?FamilyId=0BAF2B35-C656-4969-ACE8-E4C0C0716ADB&displaylang=en

You will be required to let Microsoft validate that you are running a genuine version of Microsoft Windows. To do so, click the Continue button.

After successfully passing the validation procedure, you will be given access to download the Platform SDK compatible with your system.

Files in This Download

The links in this section correspond to separate files available in this download. Download the files most appropriate for you.

File Name:	File Size	
PSDK-amd64.exe	1.2 MB	Download
PSDK-ia64.exe	1.3 MB	Download
PSDK-x86.exe	1.2 MB	Download

After downloading the executable file, run it and follow the installation instructions.

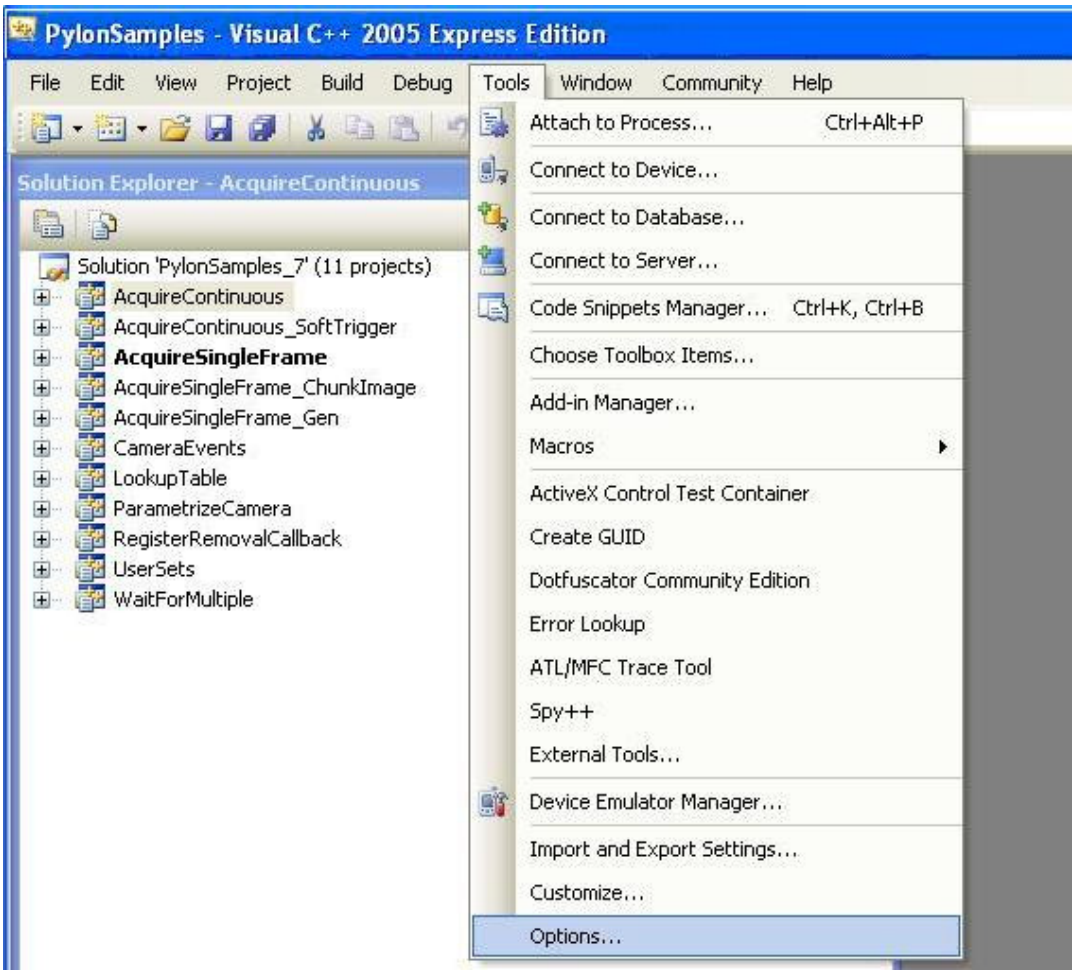
Step 4: Update the Visual C++ directories in the Projects and Solutions section of the Options dialog box

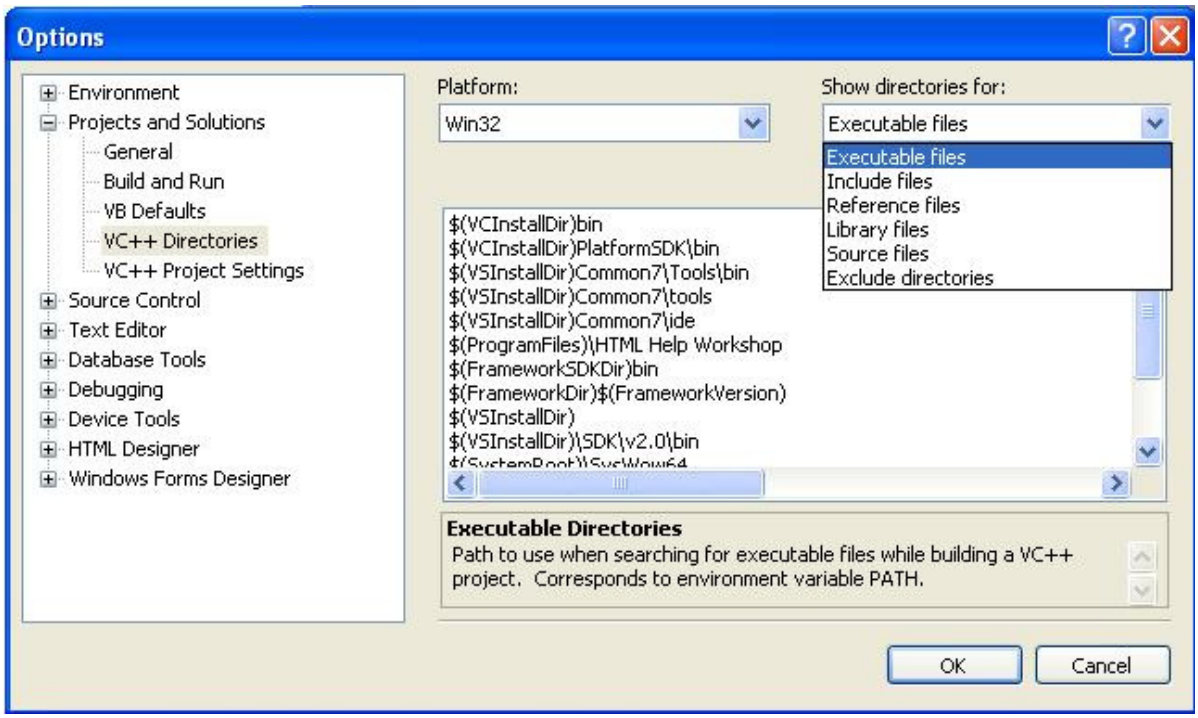
Add the paths to the appropriate subsection:

Executable files: C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\Bin

Include files: C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\Include

Library files: C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\Lib





Note: Alternatively, you could update the Visual C++ Directories by modifying the VCProjectEngine.dll.express.config file located in the \vc\vcpackages subdirectory of the Visual C++ Express install location. If it exists, make sure that you also delete the file "vccomponents.dat" located in the "%USERPROFILE%\Local Settings\Application Data\Microsoft\VCExpress\8.0" before restarting Visual C++ Express Edition.

Step 5: Update the corewin_express.vsprops file

One more step is required to make the Win32 template work in Visual C++ Express. You must edit the corewin_express.vsprops file (found in C:\Program Files\Microsoft Visual Studio 8\VC\VCProjectDefaults) and change the string that reads:

AdditionalDependencies="kernel32.lib"

To:

AdditionalDependencies="kernel32.lib user32.lib gdi32.lib winspool.lib comdlg32.lib advapi32.lib shell32.lib ole32.lib oleaut32.lib uuid.lib"

Step 6: Generate and build a Win32 application to test your paths

In Visual C++ Express, the Win32 Windows Application type is disabled in the Win32 Application Wizard. To enable that type, you must edit the AppSettings.htm file located in the folder:

\ProgramFiles\Microsoft Visual Studio 8\VC\VCWizards\AppWiz\Generic\ Application\html\1033\

Or the folder:

\Program Files\Microsoft Visual Studio 8\VC\VCWizards\AppWiz\Generic\Application\html\1031\

In a text editor, comment out lines 441 - 444 by putting a // in front of them as shown here:

// WIN_APP.disabled = true;

// WIN_APP_LABEL.disabled = true;

// DLL_APP.disabled = true;

// DLL_APP_LABEL.disabled = true;

Save and close the file and open Samples VS 2005 under:

Start > **All Programs** > **Basler Vision Technologies** > **Pylon 2.0**

To test your project now, simply click the Start button in the IDE or press F5. Your Win32 pylon sample programs should build and run.

If you want to start a new project, open Visual C++ Express and do the following:

1. From the **File** menu, click **New Project**.
2. In the **New Project** dialog box, expand the **Visual C++** node in the **Product Types** tree and then click **Win32**.
3. Click on the **Win32 Console Application** template, give your project a name, and click **OK**.
4. In the **Win32 Application Wizard** dialog box, make sure that **Windows application** is selected as the **Application type** and that the **ATL** is not selected.
5. Click the **Finish** button to generate the project.

As a final step, test your project by clicking the Start button in the IDE or by pressing F5. Your Win32 application should build and run.

Revision History

Doc. ID Number	Date	Changes
AW00064401000	1 Apr 2008	Initial release of this document.
AW00064402000	30 Jul 2008	Updated contact addresses and phone numbers.