

Name

Getting started: uEye SDK with C

Programming language and interface

IDS Software Suite:	4.90.6
Operating system	<input checked="" type="checkbox"/> Windows <input type="checkbox"/> Linux

Description

The uEye API is part of the comprehensive IDS Software Suite for uEye cameras which is available as a free download.

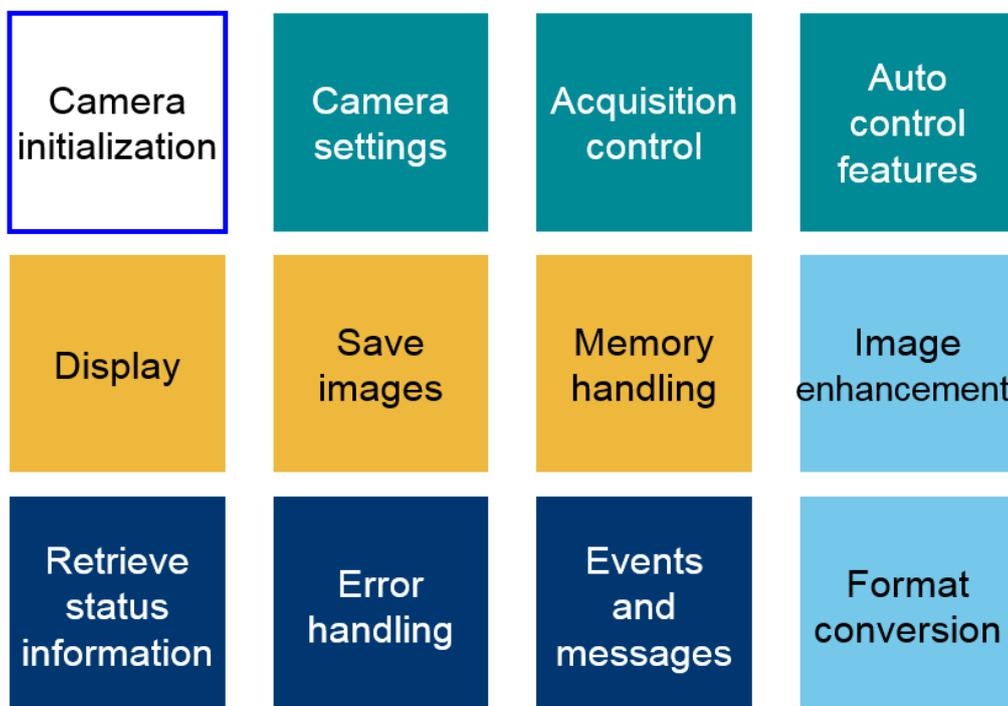
In addition to the drivers, the IDS Software Suite features the IDS Camera Manager, the uEye Cockpit and a software development kit (SDK) for creating your own uEye programs.

Numerous demo applications make it easy for you to get started with uEye programming. If the IDS Software Suite was installed to the default directory those programming examples can be found here:

C:\Program Files\IDS\uEye\Develop\Source

For detailed information about requirements, installation and programming, please refer to the uEye manual: <https://en.ids-imaging.com/manuals-ueye-software.html>

uEye API function range



Getting Started

Below you find a step-by-step explanation on implementing a simple console application that will control your uEye camera.

Prerequisites

Before starting, make sure the following components are installed on your computer:

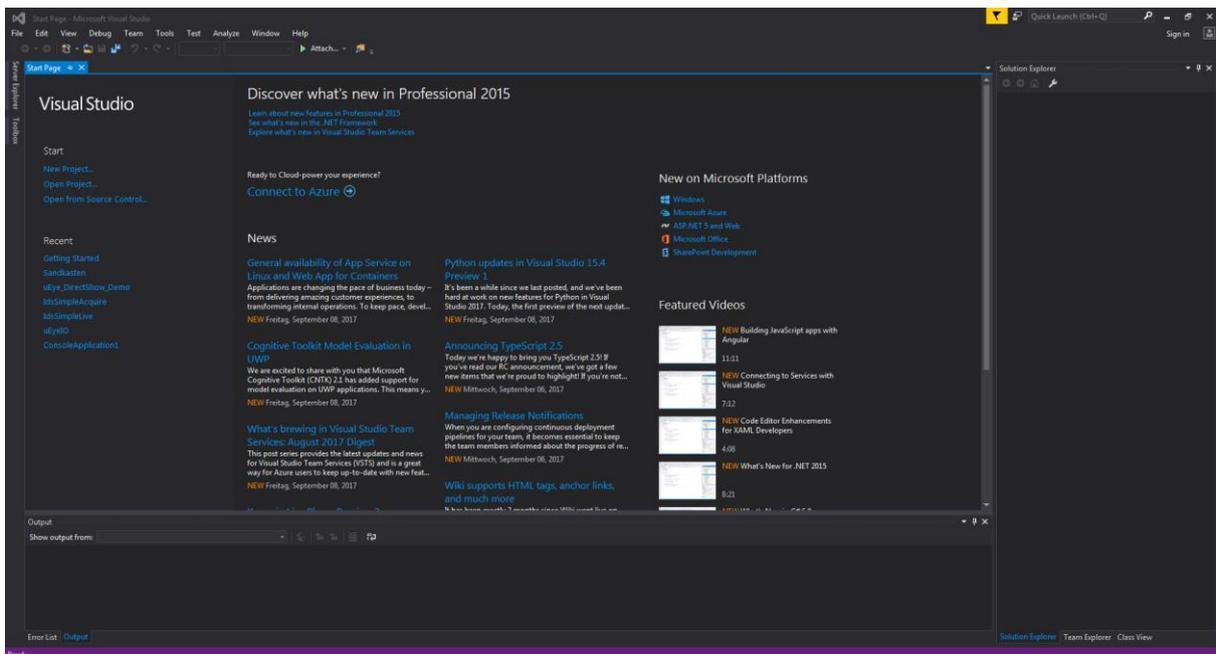
- IDE (e.g. Microsoft Visual Studio 2015)
- IDS Software Suite

Then connect your uEye camera to the computer.

To make sure the driver is properly installed and the camera is working, you can start the uEye Cockpit and try to get a live image (https://en.ids-imaging.com/manuals/uEye_SDK/EN/uEye_Manual_4.90.6/ueye-programs-windows.html).

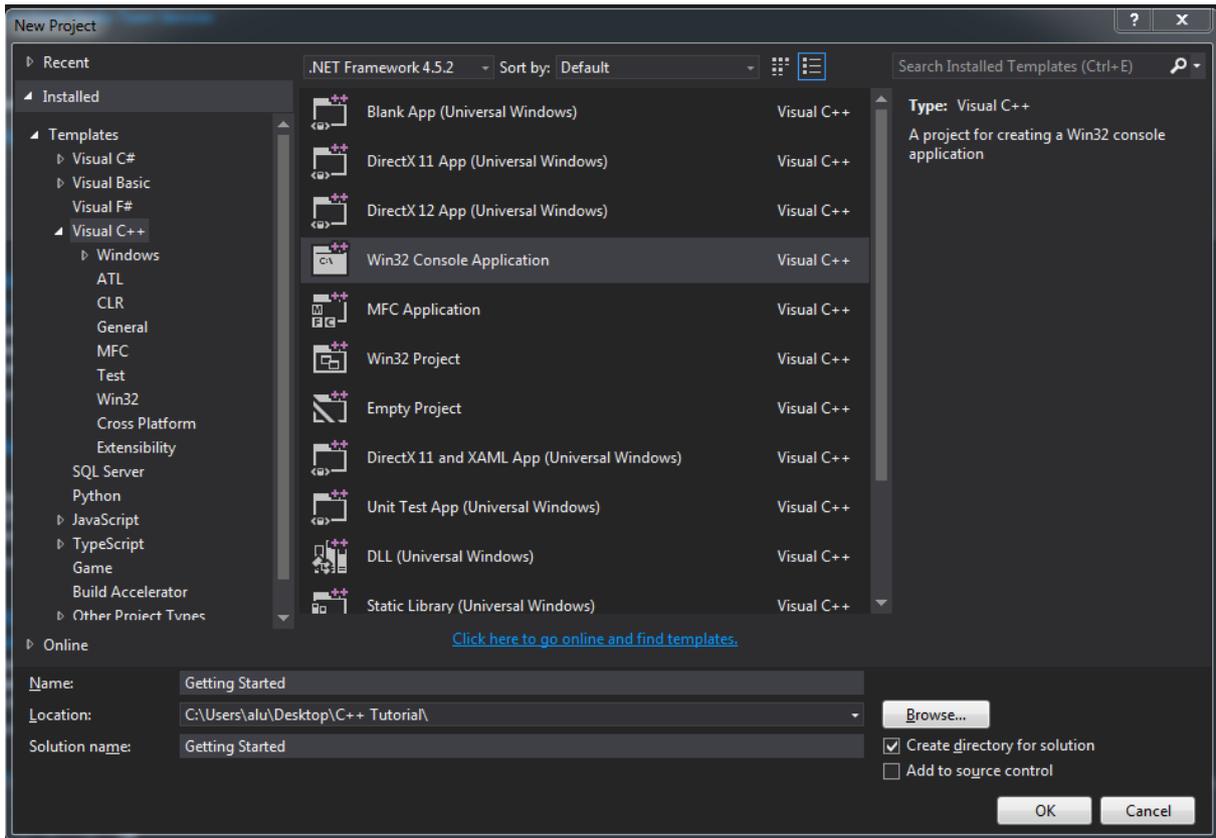
In the following example, we use Microsoft Visual Studio 2015 and IDS Software Suite 4.90.

First Step: Creating a console application



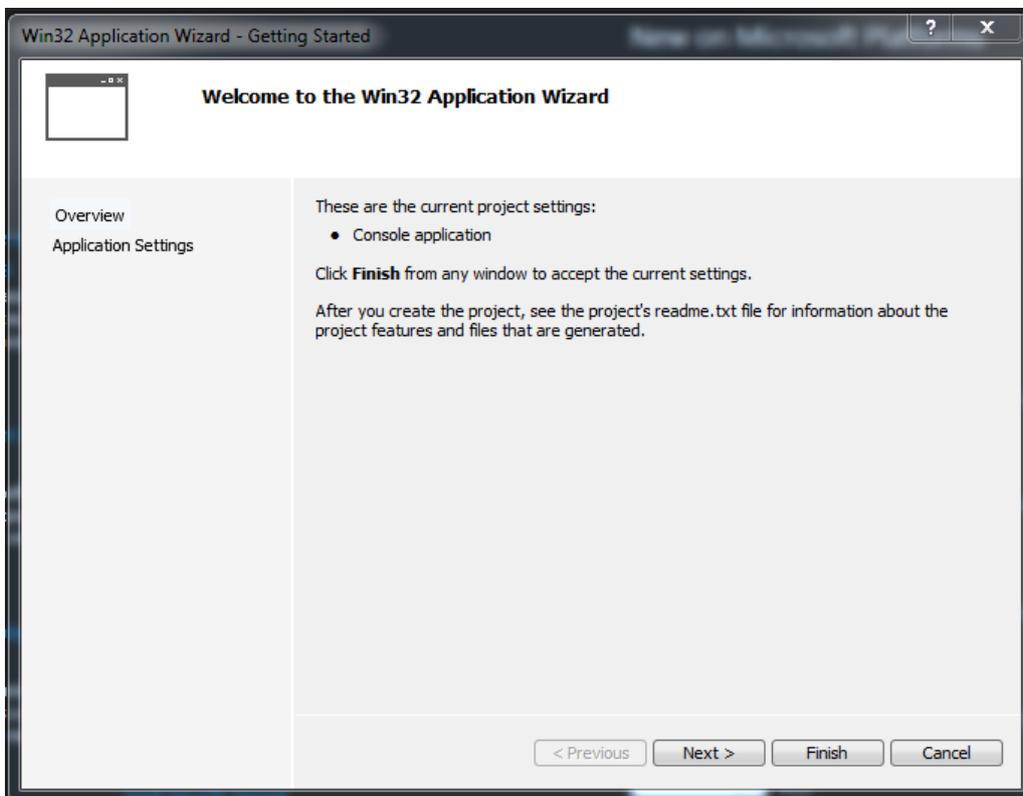
After entering the main menu of Visual Studio 2015, go to **File > New > Project...**

Go to **Installed > Templates > Visual C++ > Win32 Console Application.**

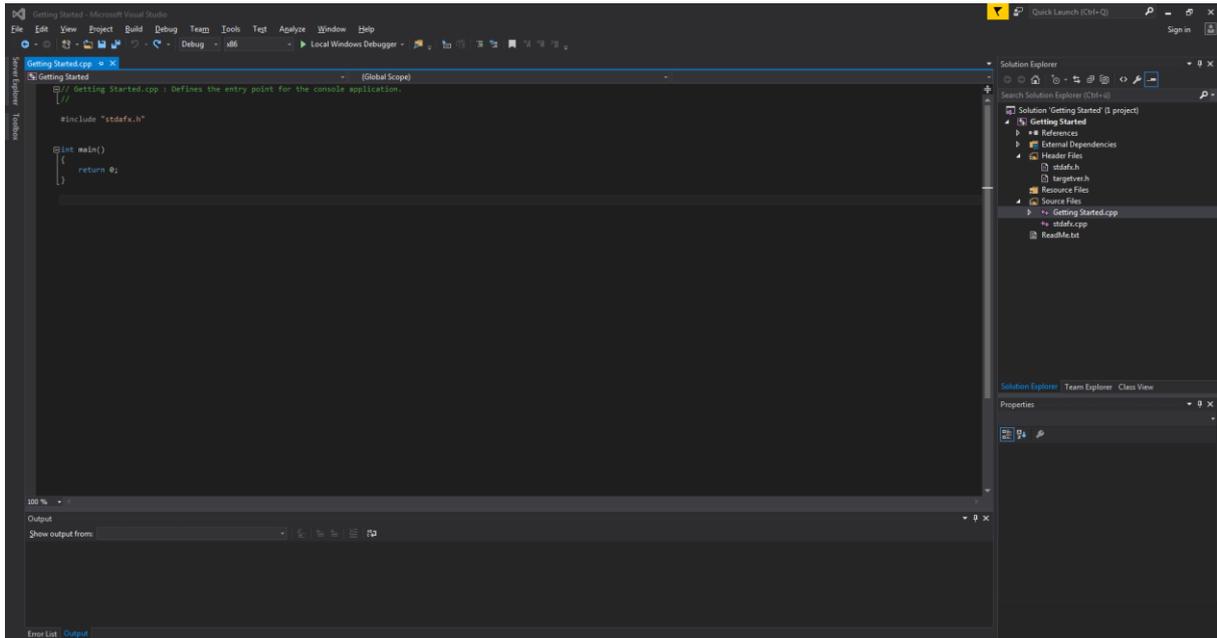


Give the Project a name and choose a location. Push the **OK** button.

The following window opens. Push the **Finish** button.



You have successfully created a new console application:



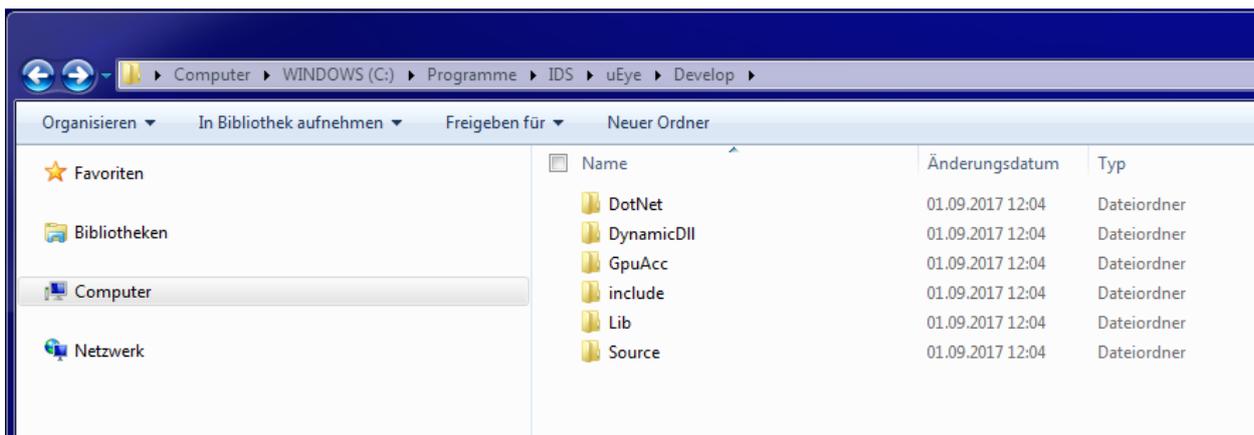
Second step: Include the uEye library

To be able to use all functions from the uEye API, you have to include the uEye library in your application.

If the IDS Software Suite was installed to the default directory, the library and include files can be found here:

C:\Program Files\IDS\uEye\Develop

You will need the folders **lib** and **include**.

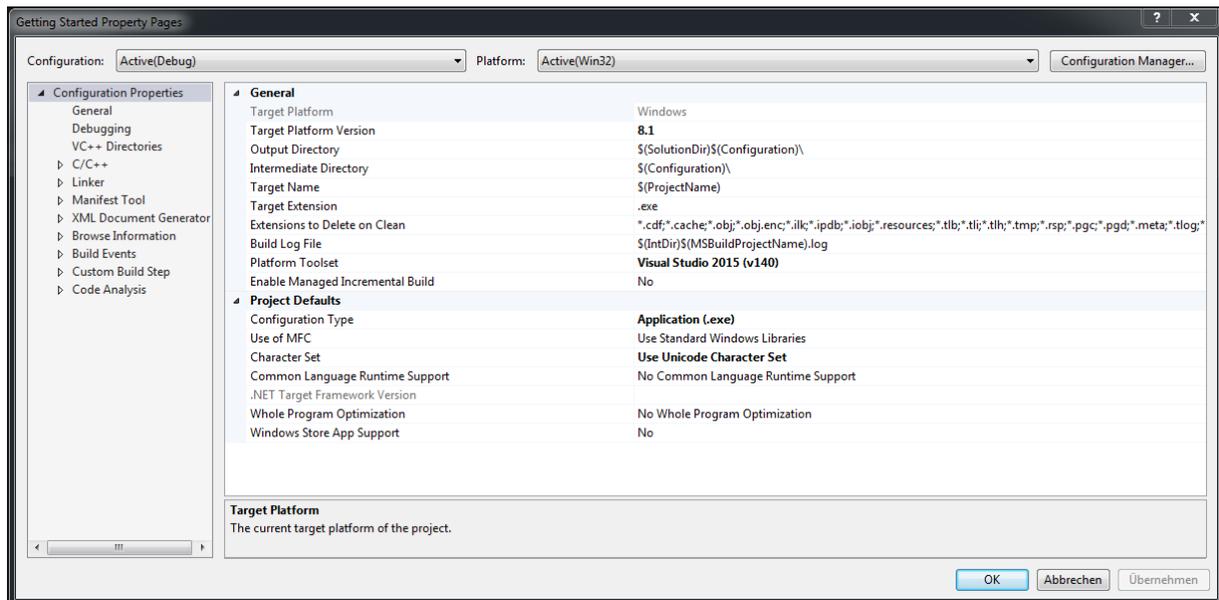


Reopen your project in Microsoft Visual Studio.

You should see the **Solution Explorer** on the right side.

Right-click on your project and select **Properties**.

The following window opens:

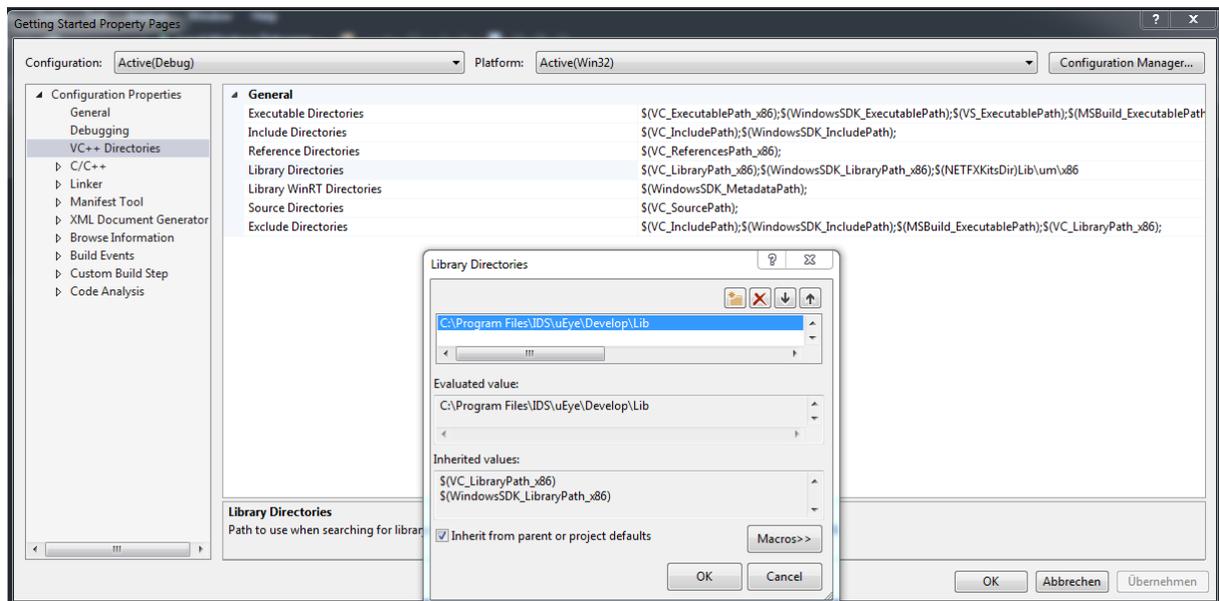


Go to **Configuration Properties** and select **VC++ Directories**.

Go to **Library Directories**, open the drop-down menu and select **Edit**.

Click on the Button **New Line** and enter the path to the **Lib Folder**.

Press **OK**.

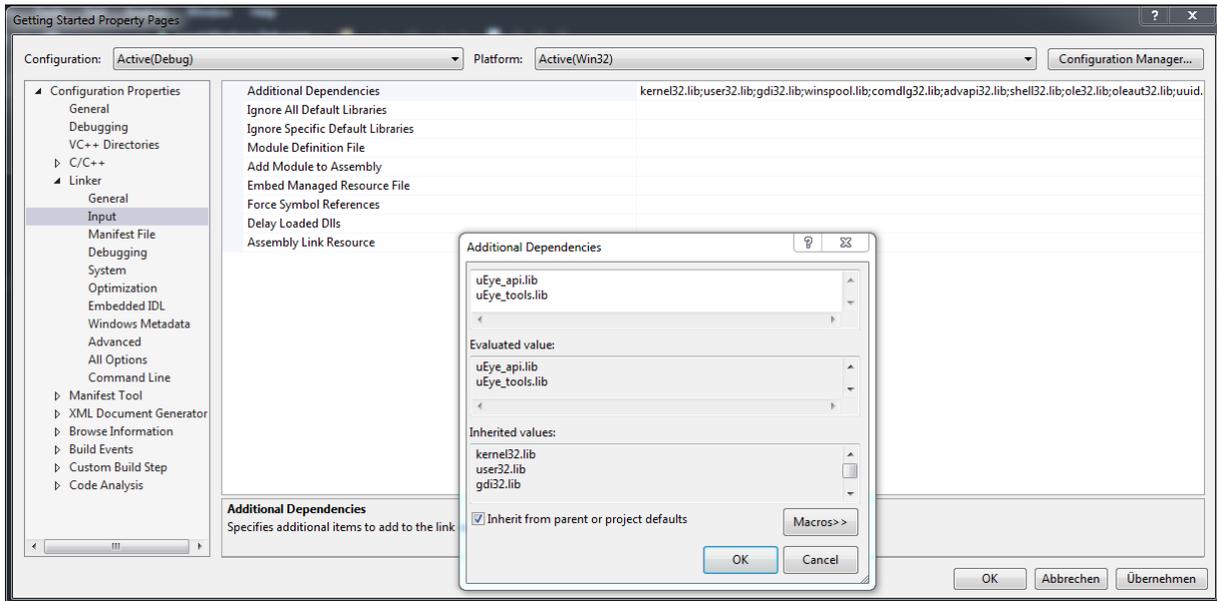


You must now enter the name of all necessary libraries for the project.

Go to **Configuration Properties** → **Linker** → **Input** → **Additional Dependencies** → **Drop-down** → **Edit** and add the library(s).

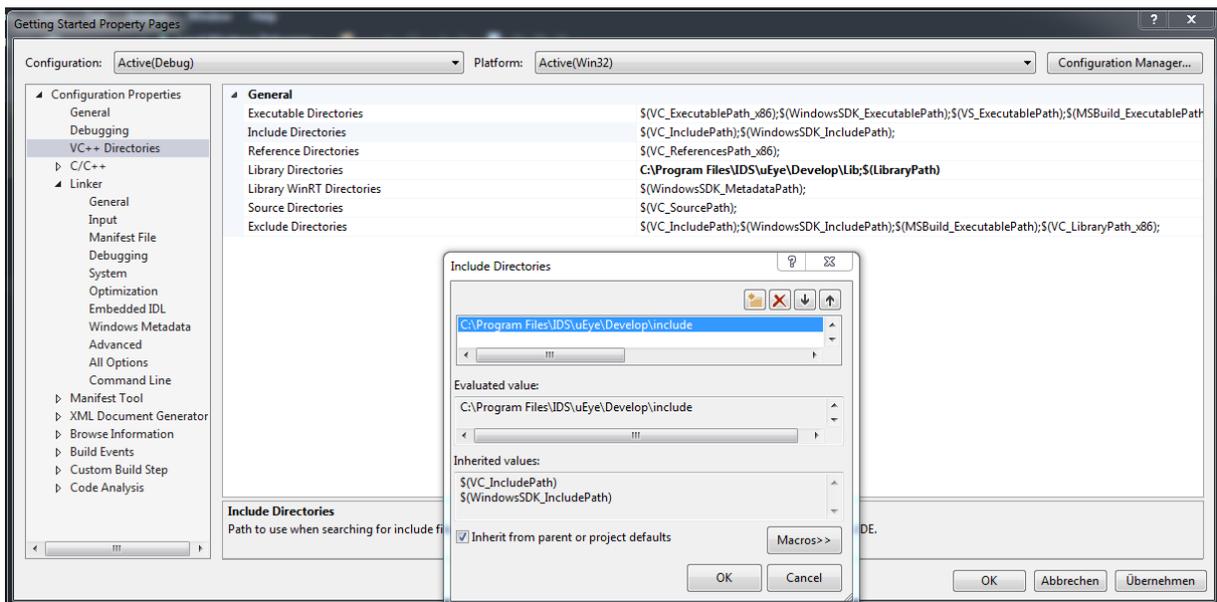
In our case this would be `uEye_api.lib`.

The IDS Software Suite also provides the library `uEye_tools.lib`. This is only of interest if you want to use some additional functions like AVI recording (https://en.ids-imaging.com/manuals/uEye_SDK/EN/uEye_Manual_4.90/sdk_avi_funktionen.html).

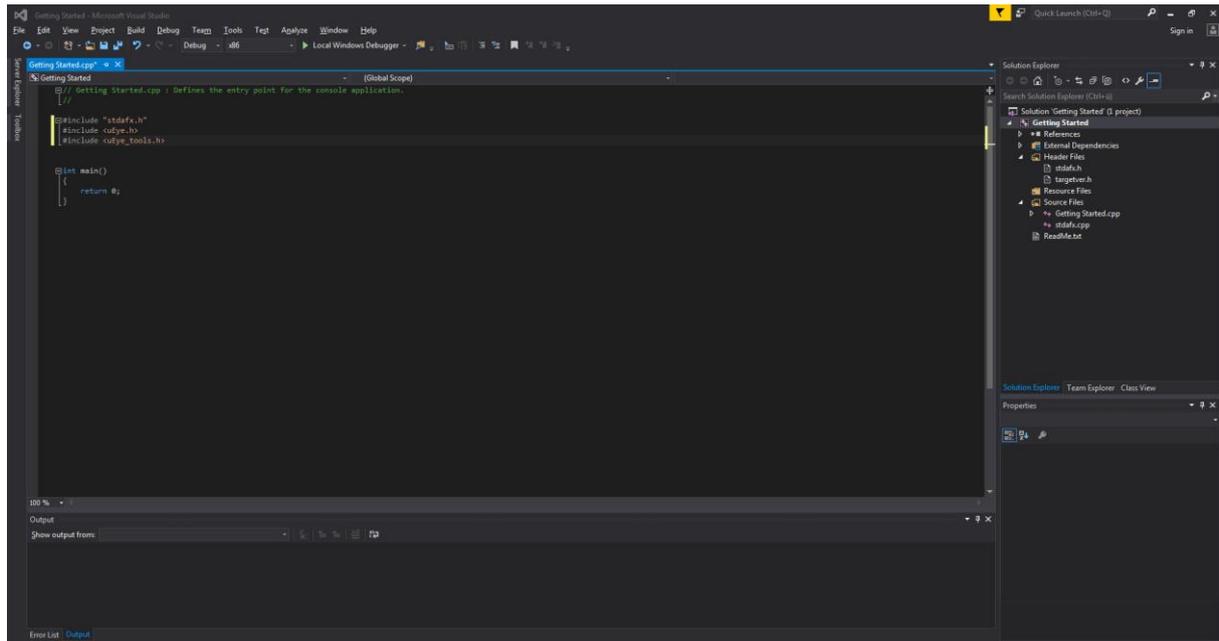


Finally, you just need to add the **include** path to your project.

Go to **Configuration Properties** → **VC++ Directories** → **Include Directories** → **Dropdownmenü** → **Edit** → **New Line** → **[...]** to add the path.



To make sure everything worked out correctly add **#include <uEye.h>** above the `main()` method of your project.



After that it should be possible to compile the program with the local Windows debugger or with **[F5]**.
Now take a look at the SimpleSingleGrab example to start with uEye programming. The example was kept as simple as possible to help you get started.

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