

Acquire images in LabView from DirectShow Interface

The LabView Module Version 8.2 or later offers the possibility to acquire images from the Direct Show interface. As uEye cameras are compatible to DirectShow, this interface can be used to access uEye cameras from LabView.

This application note shows which components are required to access uEye cameras in the LabView Measurement & Automation Explorer with the DirectShow interface, and where all the required components can be downloaded.

Condition is a correctly installed uEye Driver. The use of the current uEye driver is recommended. The latest uEye driver can be downloaded here:

<https://de.ids-imaging.com/download-ueye.html>

1) Installing the uEye DirectShow Driver

If not already done, download the uEye DirectShow Interface. The current interface version can be downloaded on the IDS download area:

<https://en.ids-imaging.com/ueye-interface-direct-show.html>.

Run the downloaded .exe-file as shown in Figure 1.

| Name | Änderungsdatum | Typ |
|---------------------------|------------------|-----------|
| uEye_DirectShow_48100.exe | 08.06.2016 11:55 | Anwendung |

Figure 1: The uEye DirectShow.exe

The uEye Setup will be started.

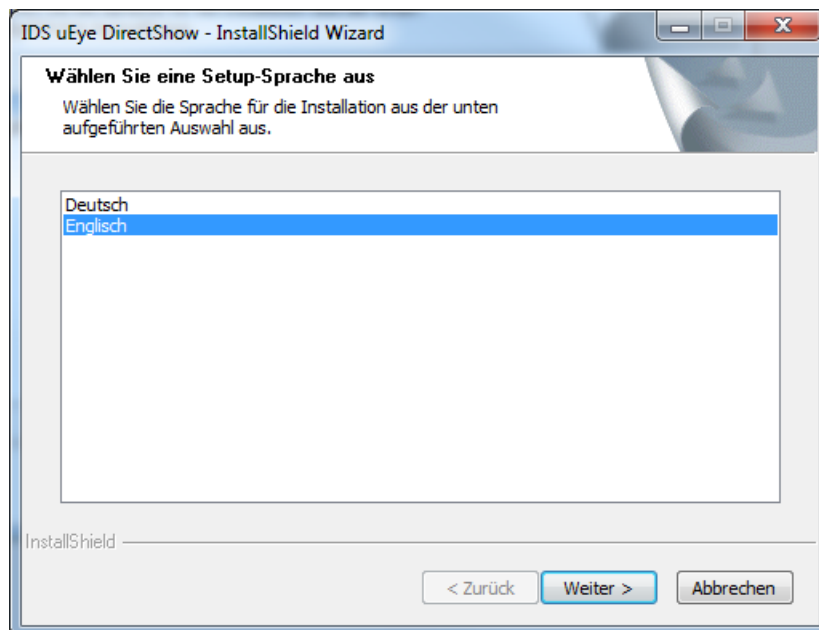


Figure 2: Choose the language



Figure 3: IDS uEye DirectShow Setup

Follow the steps; you are guided through to install the uEye DirectShow Interface (see Figure 4).

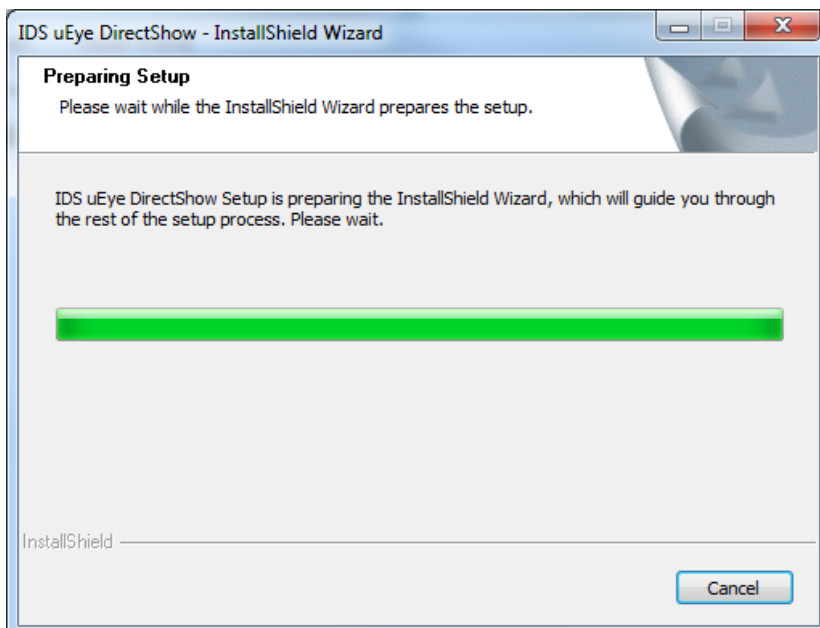


Figure 4: Preparing setup

If necessary select “Register cameras on connect” or “Use camera names” (Figure 5) in this step. These settings can also be changed afterwards.

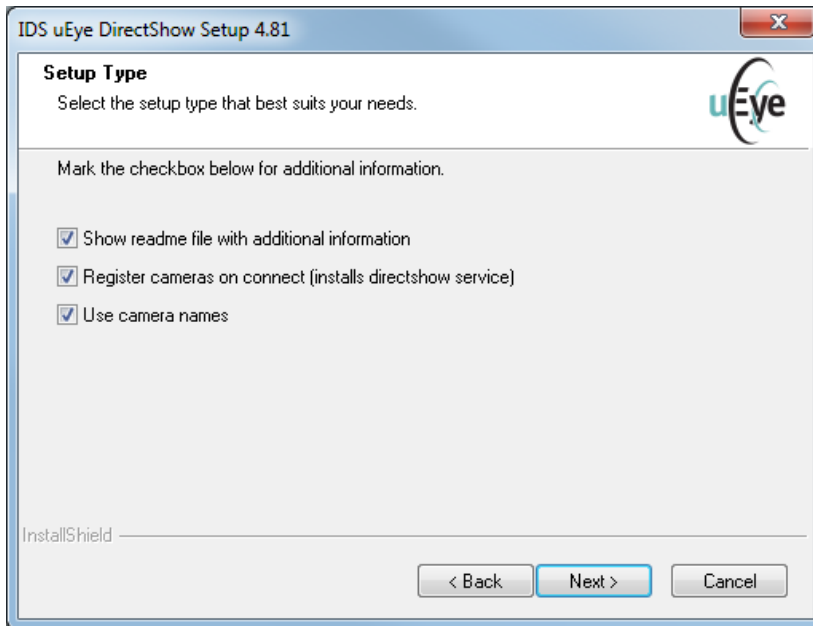


Figure 5: Select the Setup Type

Wait until the installation is completely done.

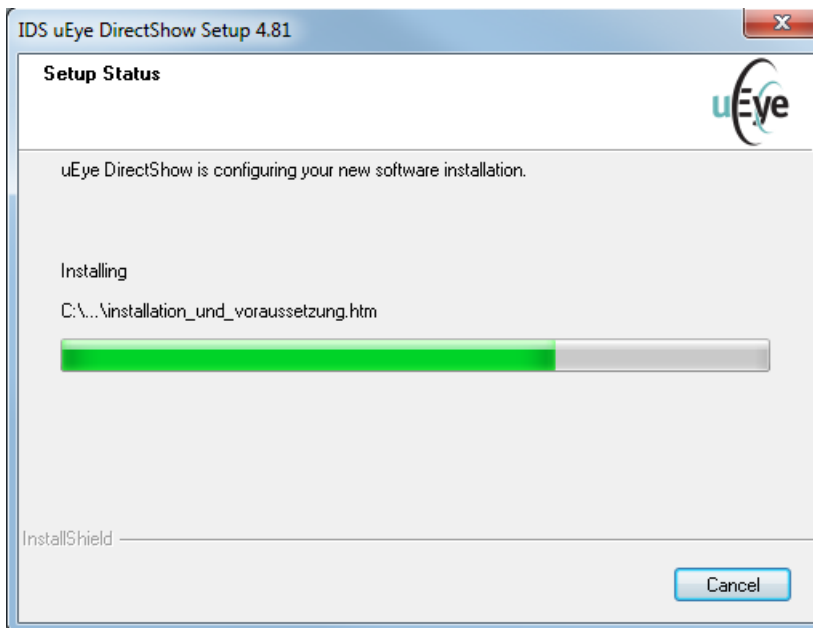


Figure 6: Installing uEye DirectShow Interface

Click "Finish" to complete the installation and exit the wizard (Figure 7).

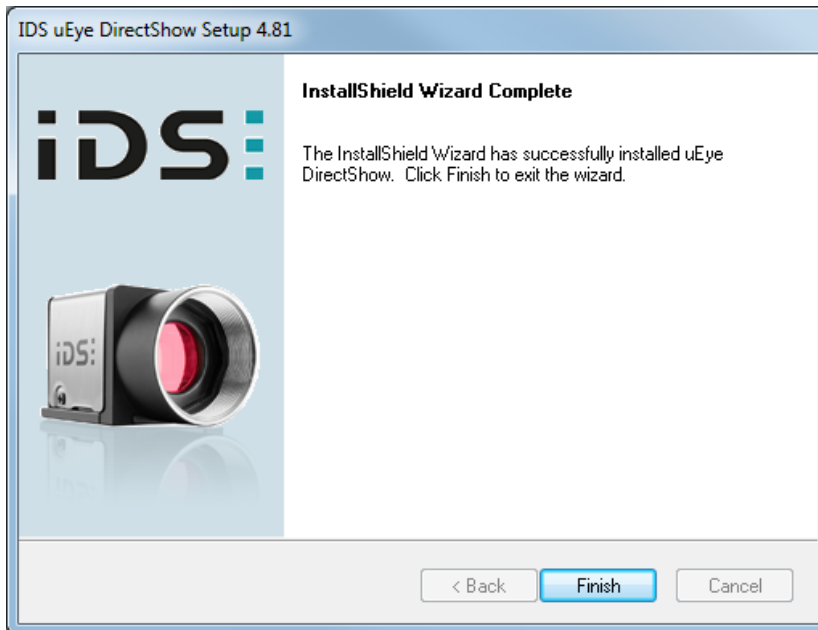


Figure 7: Finish the installation

The correct installation of the uEye DirectShow Interface can be rechecked in the IDS Camera Manager → Additional Information.

2) Installing the LabView DirectShow components

After having successfully installed the uEye DirectShow interface, the **LabView DS components** have to be installed.

For doing so the following link can be used:

<http://www.ni.com/download/ni-vision-acquisition-software-august-2016/6306/en/>

This link will lead to the download area of the **NI Vision Acquisition Software 2016.08**.

Click on the **VAS_2016_08_downloader.exe**.

The **VAS_2016_08.zip** file will be downloaded.

Open the zipped folder that is called "**VAS_2016_08**" and double-click the **setup.exe** (see Figure 8).

| Name | Größe | Gepackt | Typ |
|-----------------|-----------|-----------|-----------------|
| .. | | | Dateiordner |
| Bin | | | Dateiordner |
| Licenses | | | Dateiordner |
| Products | | | Dateiordner |
| autorun.exe | 343.064 | 169.058 | Anwendung |
| autorun.inf | 542 | 253 | Setup-Inform... |
| nidist.id | 344 | 242 | ID-Datei |
| patents.txt | 23.978 | 6.234 | Textdokument |
| readme_VAS.html | 48.047 | 11.922 | Firefox HTML... |
| setup.exe | 1.471.560 | 1.421.698 | Anwendung |
| setup.ini | 165.772 | 30.542 | Konfiguratio... |

Figure 8: Running the setup.exe

The NI Vision Acquisition Software Setup will guide you through the installation (see Figure 9).

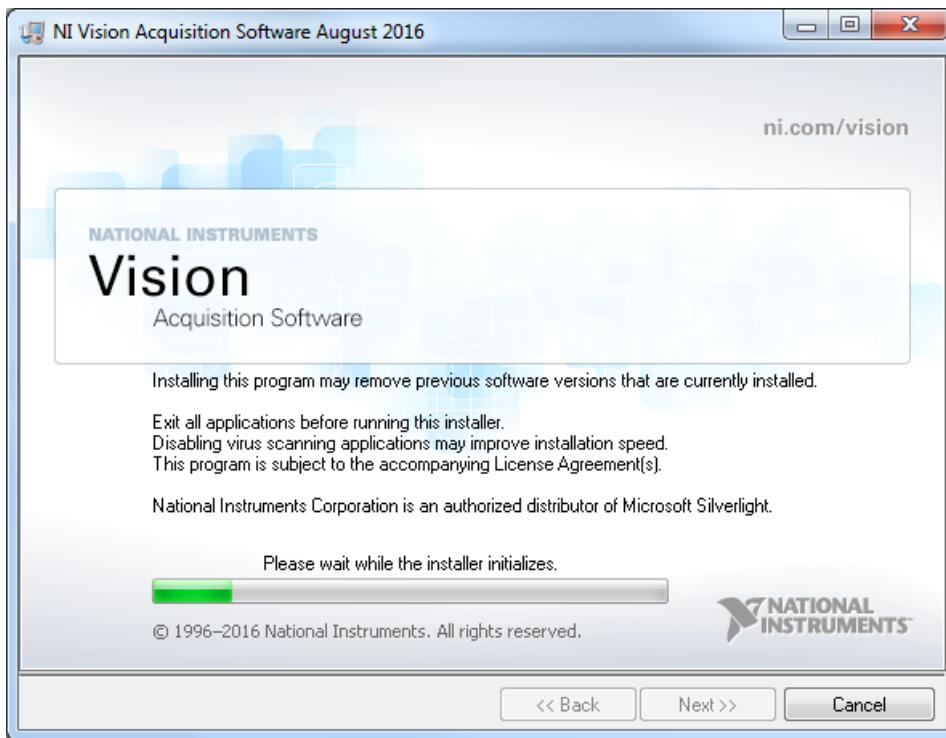


Figure 9: NI Vision Acquisition Software Installer

Follow the steps to install the NI Vision Acquisition Software.



Figure 10: Click "Next" to go ahead

Select the required features to install (Figure 11). If clicking the button “Restore Features Defaults” some default features will be chosen. These features will be required to acquire images from the DS interface. No changes have to be made here.

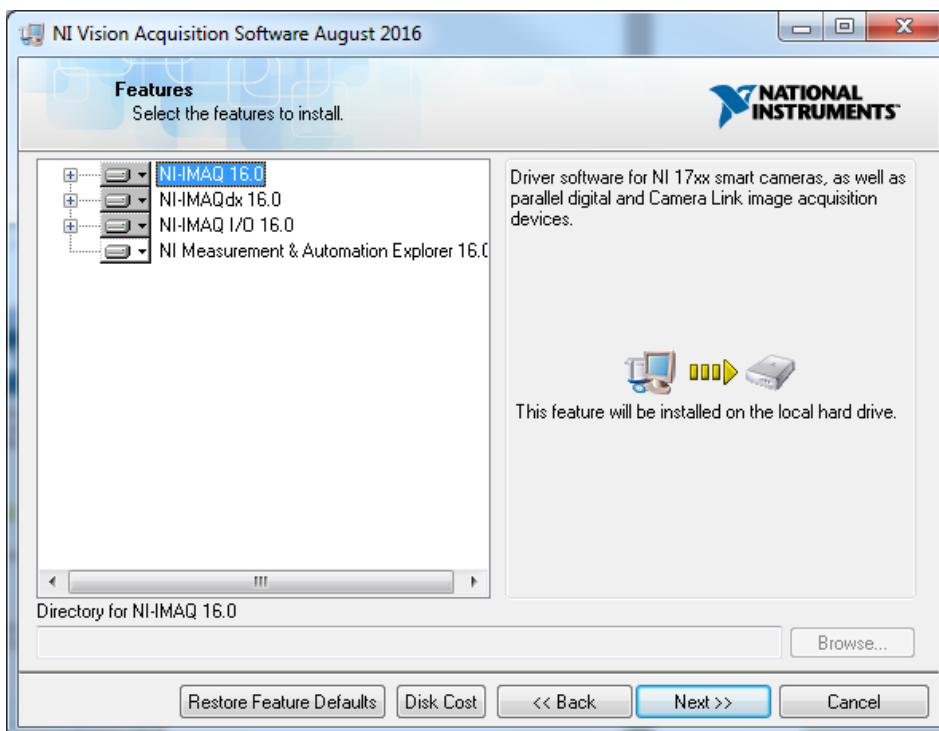


Figure 11: Select the features to install

Click “Next” to go ahead.

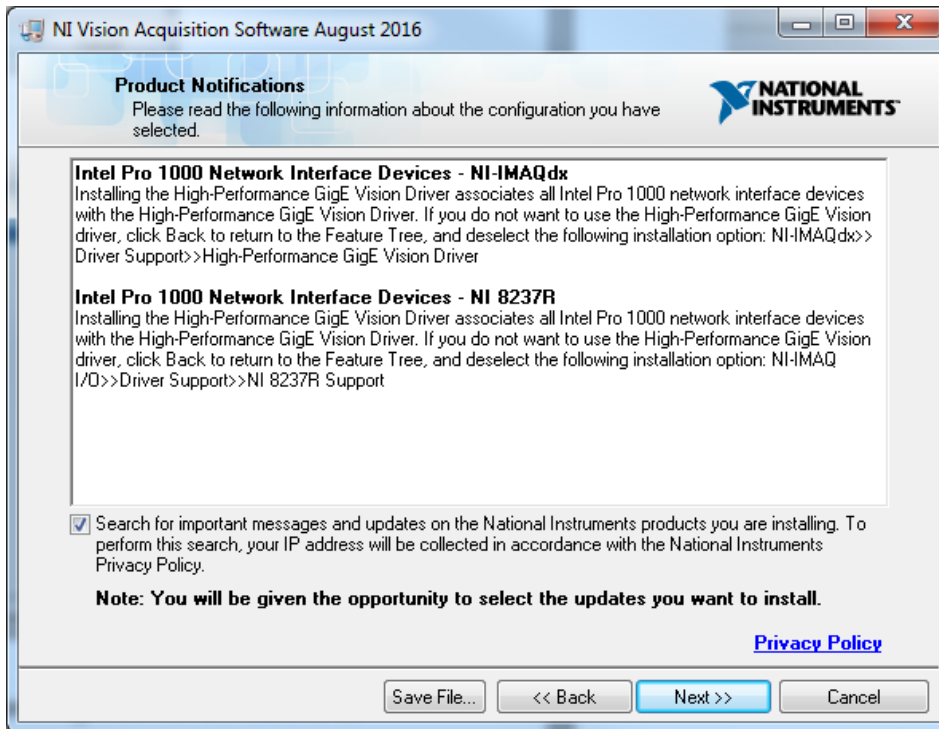


Figure 12: NI product notifications

Read the Product Notifications and click “Next”. There might be no notifications for this product.

Read the License Agreement and accept them (see Figure 13).

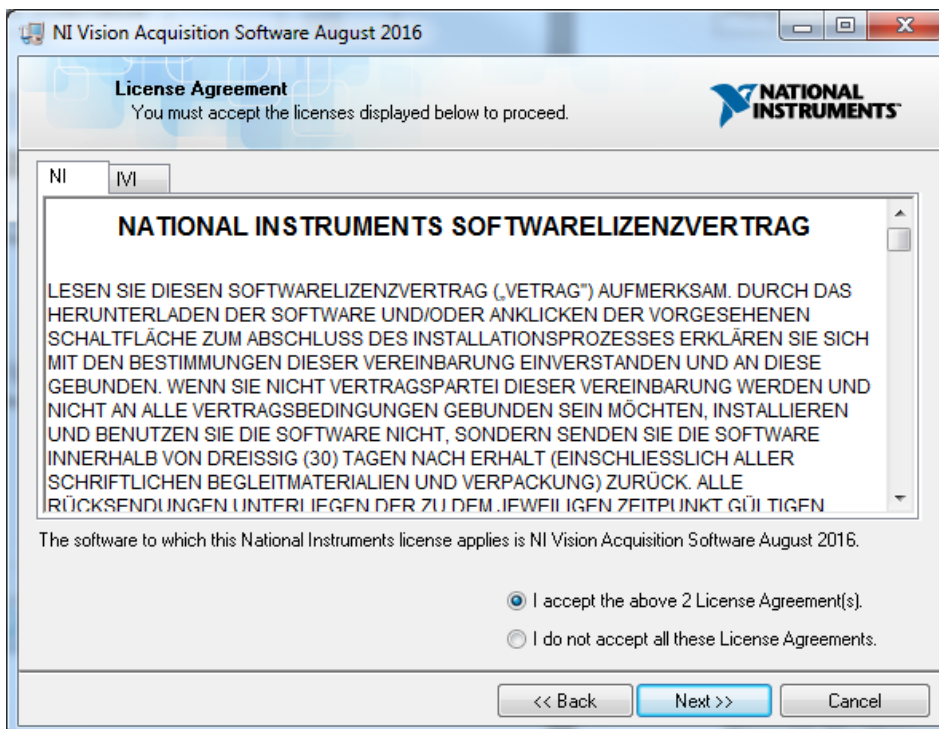


Figure 13: The NI License Agreement

Click “Next” to continue.

Recheck the installation components (see Figure 14).

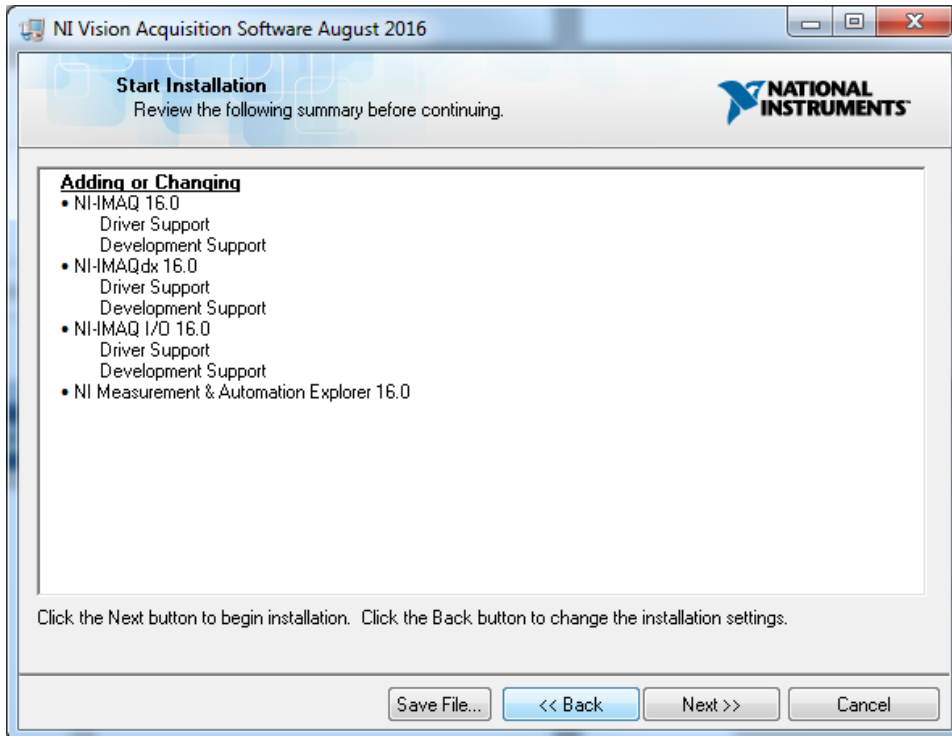


Figure 14: Summary of installation components

Click “Next” to go ahead. The installation process will be started automatically.

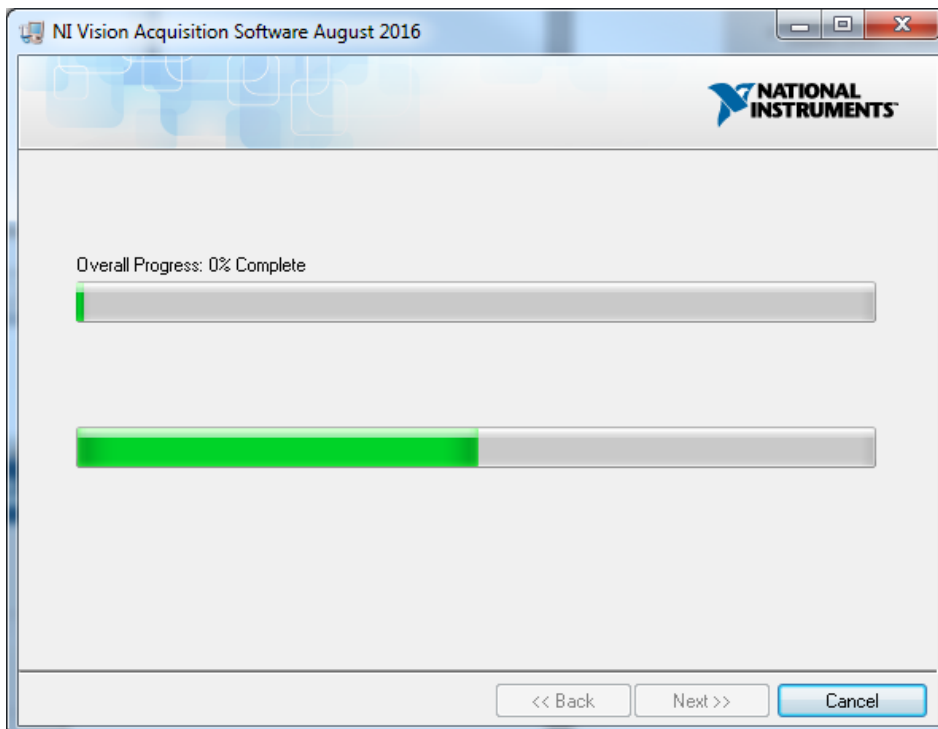


Figure 15: Current progress

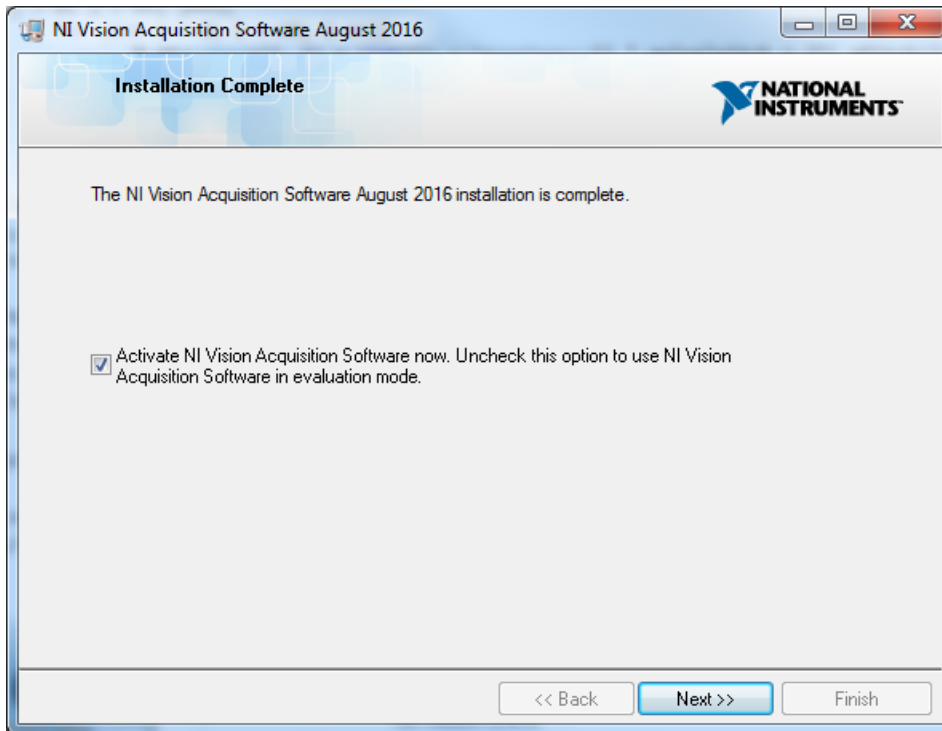


Figure 16: Completion of the installation

If not already done, activate the LabView license with the “NI License Manager” (see Figure 16). After the installation has been completed, finish the installation setup by clicking “Next” and “Finish”.

3) How to access a uEye camera in LabView via the DS interface

Make sure that all connected cameras are registered in the uEye DS interface. This can be done with the uEye DS Device Manager (Start → Programs → IDS → uEye → uEye DS Device Manager (run as admin)).

To acquire images from a uEye camera in LabView over the DS interface, the easiest way is to use the “Measurement and Automation Explorer” (NI MAX). This piece of software can be opened with an icon on your desktop (Figure 17), or Start → Programs → National Instruments → Measurement & Automation.



Figure 17: Desktop-Icon for the MAX

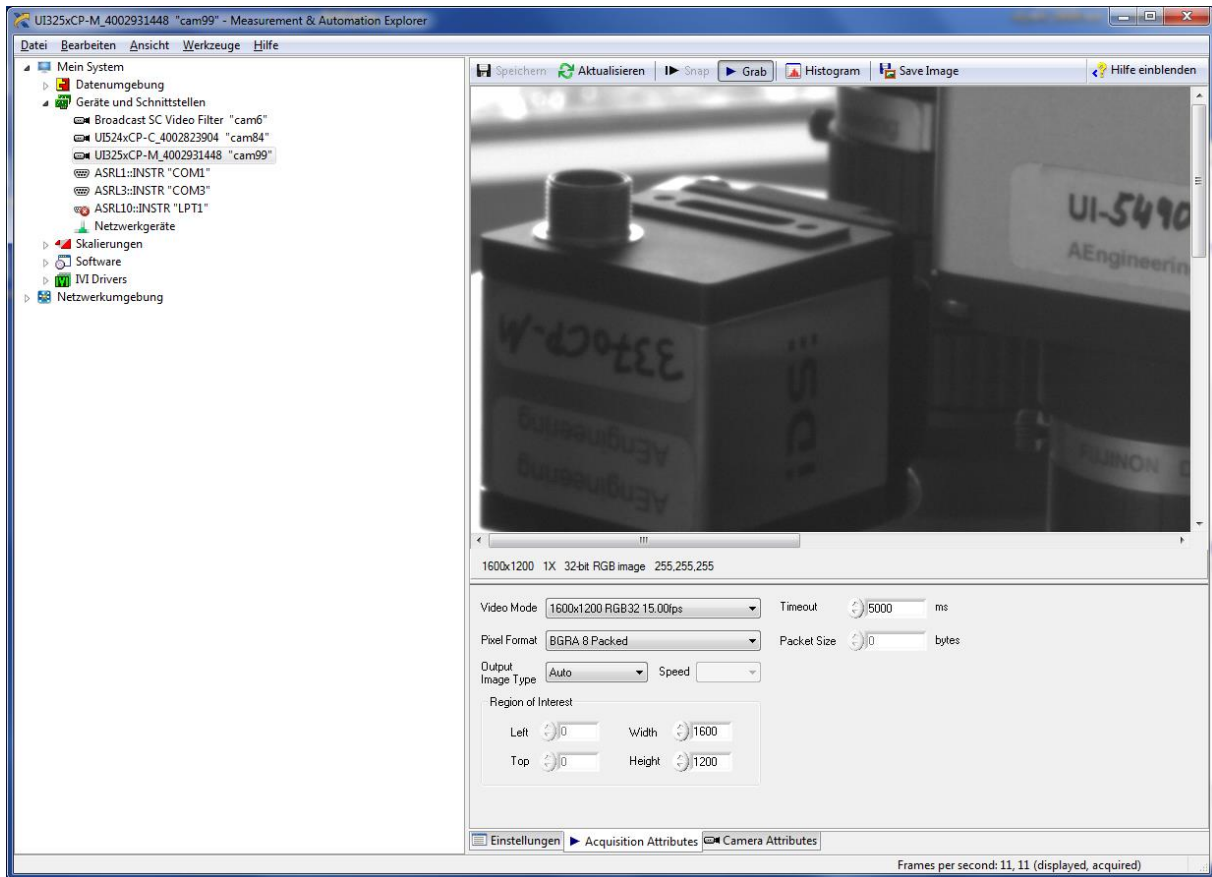


Figure 18: The Measurement & Automation Explorer

Once the NI MAX has been opened, select the configuration window to find a uEye camera. Open the path “My System” → “Devices and Interfaces” → “NI-DAQmx Devices” and select one of the uEye cameras. Click the button “Grab” to get a live video (see Figure 18).