



Machine Vision Camera SDK Plugin (Sherlock)

User Manual

User Manual

About this Manual

This Manual is applicable to Machine Vision Camera SDK Plugin (Sherlock).

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website.

Please use this user manual under the guidance of professionals.

Legal Disclaimer

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Chapter 1 Overview

This manual mainly introduces the used plugin of connecting machine vision camera based on Sherlock system.

Chapter 2 Configuration

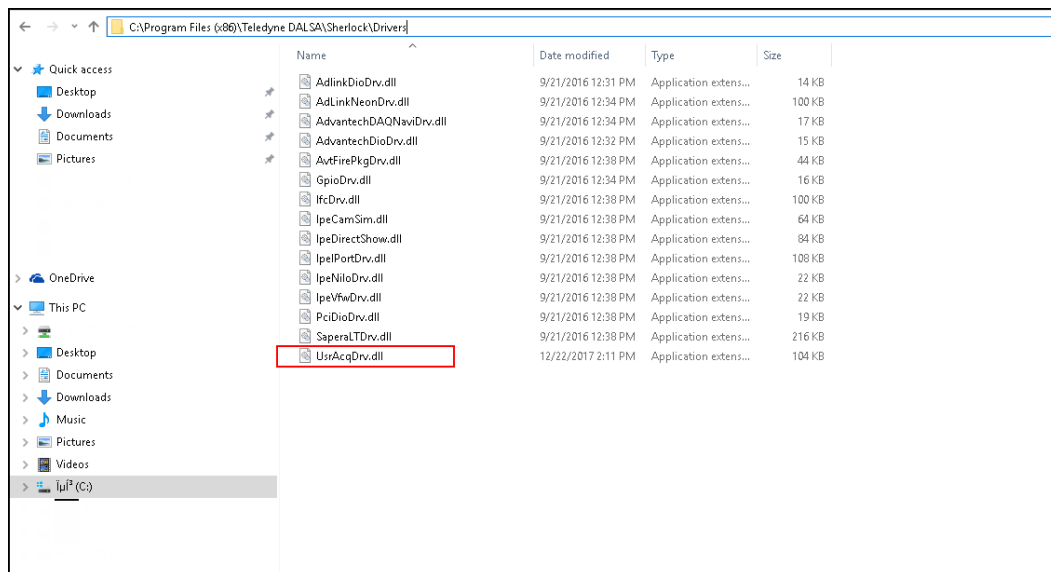
2.1 Copy Dynamic Link Library

Steps:

1. Copy the file `UsrAcqDrv.dll` to corresponding directory: `C:\Program Files (x86)\Teledyne DALSA\Sherlock\Drivers`.

Note:

The destination directory depends on the installation directory. If the system is 64-bit, copy the file to the corresponding directory.



2.2 Configure Camera Parameters

Steps:

1. Open MVS, and configure the IP address and parameters of machine vision camera.

Note:

Ensure that PC and camera are on the same network segment, and camera can get streams from MVS.

2.3 Configure Camera Driver

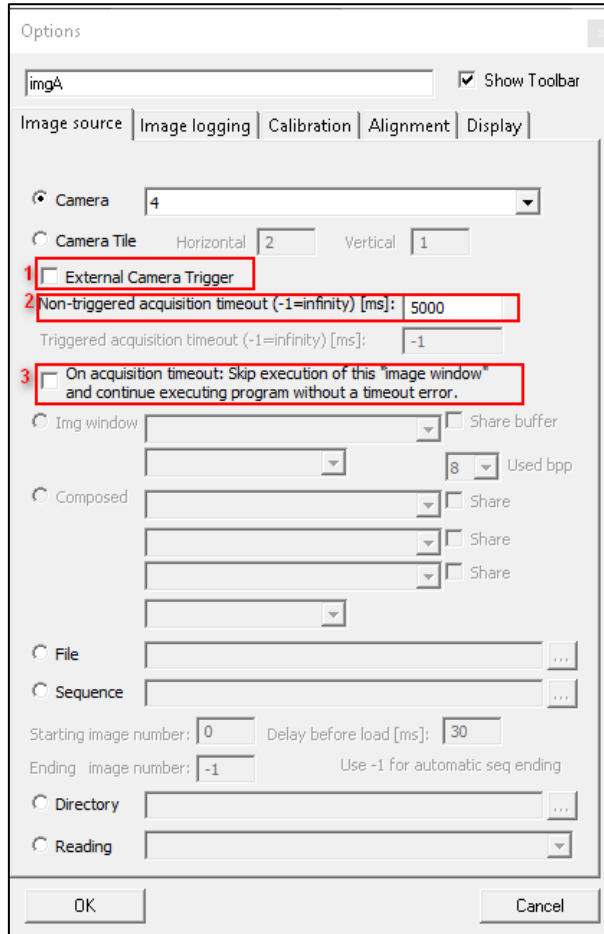
Steps:

1. Click **Options** and **Acquisition** on the menu bar of Sherlock window.
2. Select **Sample driver** and enable it.
3. Close the Sherlock system and restart it to take effect.

2.4 Configure Camera Connection

Steps:

1. Enable/Disable the trigger mode.
 - 1) Click **Image window** and click **Options**.



- 2) Set the mode as trigger mode or continuous mode.

Note:

Trigger mode line0: Select **External Camera Trigger**.

Continuous mode: Not select **External Camera Trigger**.

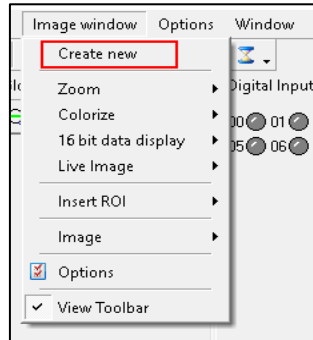
- 3) (Optional) Set the timeout period according to your requirement.
 - 4) Select **On acquisition timeout: Skip execution of this “image window” and continue executing program without a timeout error**.
2. Set the camera IO output
 - 1) Click **View** in the menu bar.
 - 2) Select **Digital Outputs** to display the IO output status.
 - 3) Enable or Disable IO output.

Note:

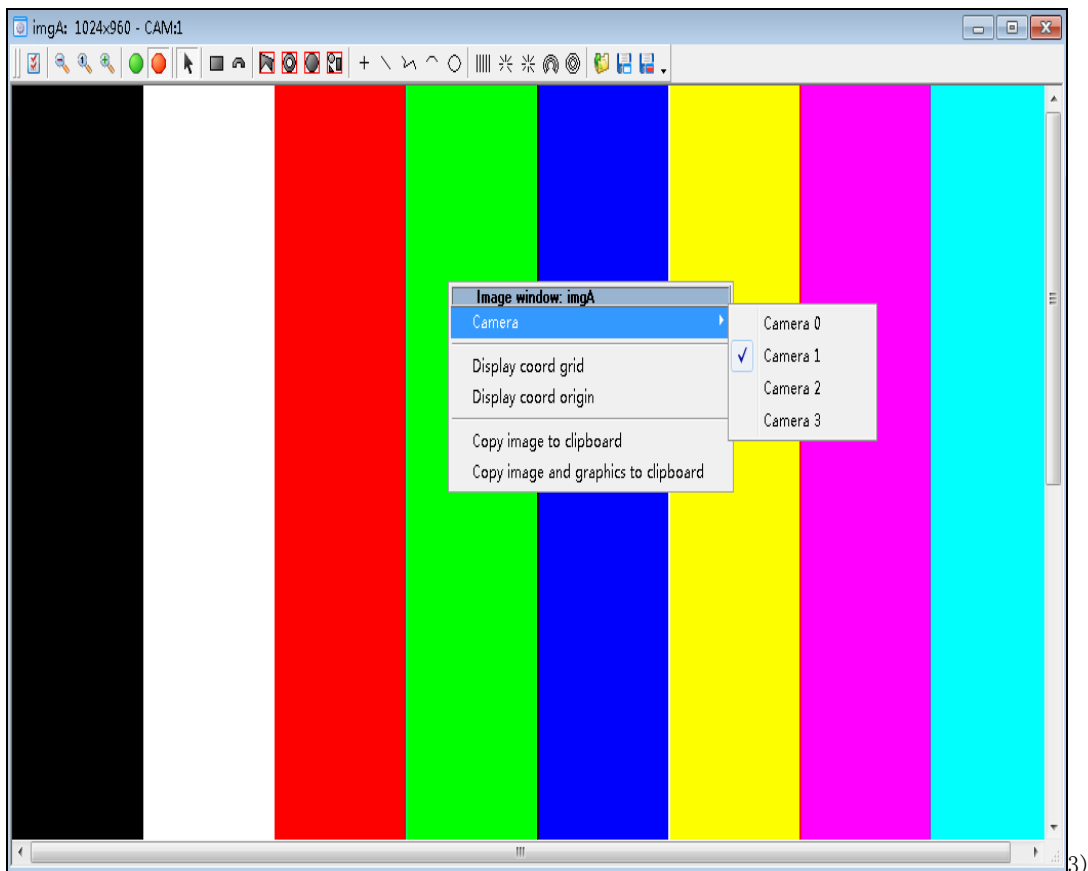
When IO output is ON, the camera will output IO signal, and line inverter will be selected.

When IO output is Off, the camera will not output IO signal, and line inverter will not be selected.

3. Enable multiple cameras.



- 1) Click **Image window** on menu bar, and select **Create new** to open new window.
- 2) Right-click the image of new window, and select **Camera**.



- 3) Select the camera required for streaming.

2.5 Open Multiple Sherlock Softwares

Steps:

1. Set Drivers.ini file.
 - 1) Open the Drivers.ini file in the path: C:\ProgramData\Teledyne DALSA\Sherlock\Drivers.

Note:
The folder ProgramData is hidden by default. You should show the hidden files first.

 - 2) Set the ENABLED value of Sample driver as 1.

```

NAME      = Simulation driver
FILE      = IpeCamSim.dll
CONFIG    = IpeCamSim.ini
ENABLED   =0

[DRIVER7]
NAME      = Sample driver
FILE      = UsrAcqDrv.dll
CONFIG    = UsrAcqDrv.ini
ENABLED   =1

[DRIVER8]
NAME      = NI DAQmx ver 8.8 driver
FILE      = IpeNiIoDrv.dll
CONFIG    = IpeNiIoDrv.ini
ENABLED   =0

```

2. Create Drivers1.ini and Drivers2.ini files.

- 1) Create two copies of the Drivers.ini file in the directory: C:\ProgramData\Teledyne DALSA\Sherlock\Drivers.
- 2) Rename the two copies as Drivers1.ini, and Drivers2.ini.
- 3) Set the ENABLE value of Sample driver in file Drivers1.ini and Drivers2.ini as 1.

<pre> [DRIVER7] NAME = Sample driver FILE = UsrAcqDrv.dll CONFIG = UsrAcqDrv1.ini ENABLED =1 </pre>	<pre> [DRIVER7] NAME = Sample driver FILE = UsrAcqDrv.dll CONFIG = UsrAcqDrv2.ini ENABLED =1 </pre>
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- 4) Save and close Sherlock software.
3. Create UsrAcqDrv1.ini and UsrAcqDrv2.ini files.

- 1) Create two files (UsrAcqDrv1.ini and UsrAcqDrv2.ini) in the directory: C:\Program Files (x86)\Teledyne DALSA\Sherlock\Bin.

Note:

The name of created two *.ini files should correspond to the CONFIG value of Sample driver in above Drivers1.ini and Drivers2.ini

<pre> 1 [SerialNumber] 2 Cam1=00683207552 3 Cam2=00683207789 </pre>	<pre> 1 [SerialNumber] 2 Cam1=00654048175 3 </pre>
---	--

- 2) Input the serial number (SN number) of required cameras.

Note:

Up to 16 cameras can be added in each *.ini file.

- 3) Save and close Sherlock software.
4. Save MyTest.ivs file.
 - 1) Run Sherlock software.
 - 2) Click **Program** and click **Save As**.
 - 3) Set the file name as MyTest.ivs.
 - 4) Save the file to directory: C:\Program Files (x86)\Teledyne DALSA\Sherlock\Bin
 - 5) Close Sherlock software.
5. Create Cam1.Bat and Cam2.bat files.
 - 1) Create Cam1.bat and Cam2.bat files in the directory: C:\Program Files (x86)\Teledyne DALSA\Sherlock\Bin.

- 2) Edit the file Cam1.bat as: start "" "C:\Program Files (x86)\Teledyne DALSA\Sherlock\Bin\IpeStudio.exe" -acq:Drivers1.ini -load: MyTest.ivs
- 3) Edit the file Cam2.bat as: start "" "C:\Program Files (x86)\Teledyne DALSA\Sherlock\Bin\IpeStudio.exe" -acq:Drivers2.ini -load: MyTest.ivs

Notes:

- For different operating system the directory is different. The above directory (C:\Program Files (x86)\Teledyne DALSA\Sherlock\Bin) is for Windows 7 32-bit system. If the system is Windows 7 64-bit, the directory is: C:\Program Files\Teledyne DALSA\Sherlockx64\Bin.
 - The referenced*.ini and *.ivs files name should correspond to the previous settings.
6. Connect camera via multiple Sherlock systems.
 - 1) Double-click Cam1.bat to run the Sherlock software and connect the cameras, which are added in the Cam1.bat file.
 - 2) Double-click Cam2.bat to run the Sherlock software and connect the cameras, which are added in the Cam2.bat file.

Notes:

- If you want to change the connected cameras, edit the serial number in UsrAcqDrv*.ini files.
- If there is no UsrAcqDrv*.ini file or no keyword Cam* in UsrAcqDrv*.ini file, all the cameras will be enumerated by default.

