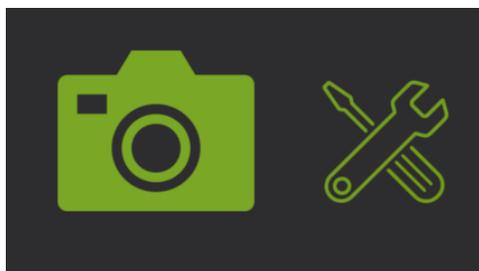




Camera Installation



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Camera driver installation

Preparation

- Download the camera drivers

Caution

- Before proceeding, please check your PC's bit architecture (32 or 64 bits?). Refer to section "How to check bits architecture" for details.
- Before installing the driver, make sure the camera's USB cable is not connected.

Procedure

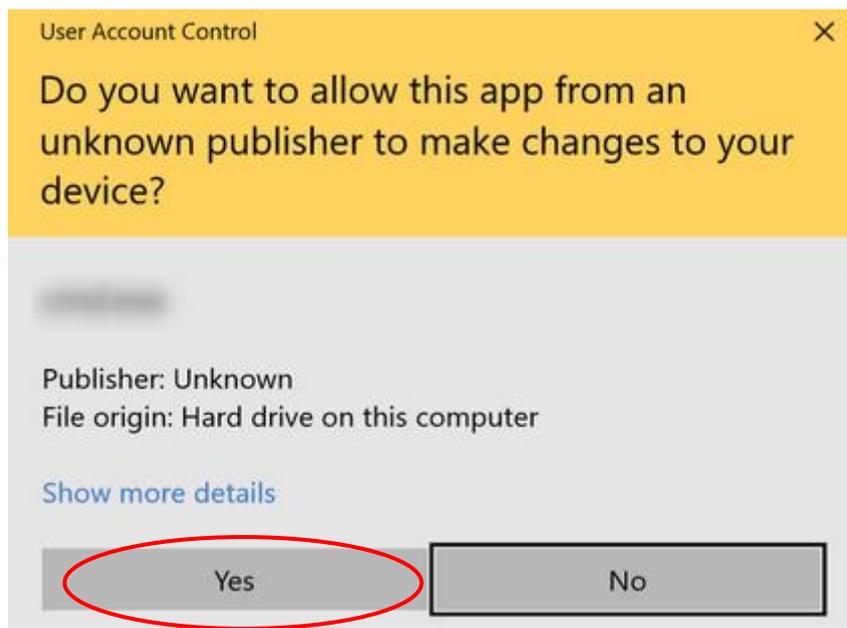
Check your bit number (32 or 64) and download the adequate driver package.

Open the executable installer:

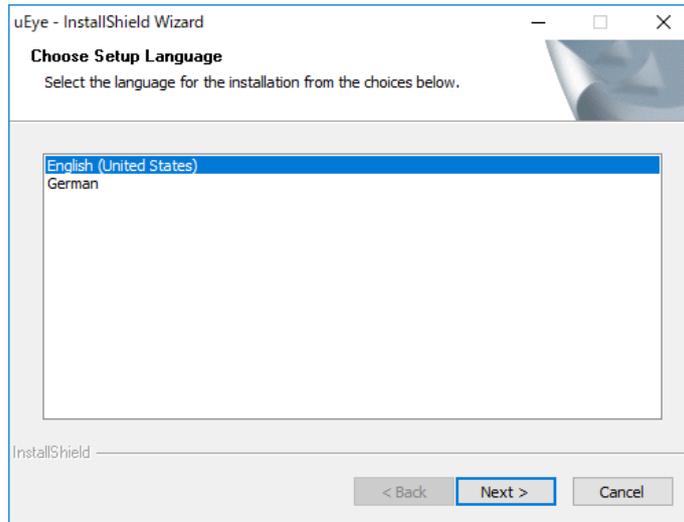
For 32bits architecture: 

For 64bits architecture: 

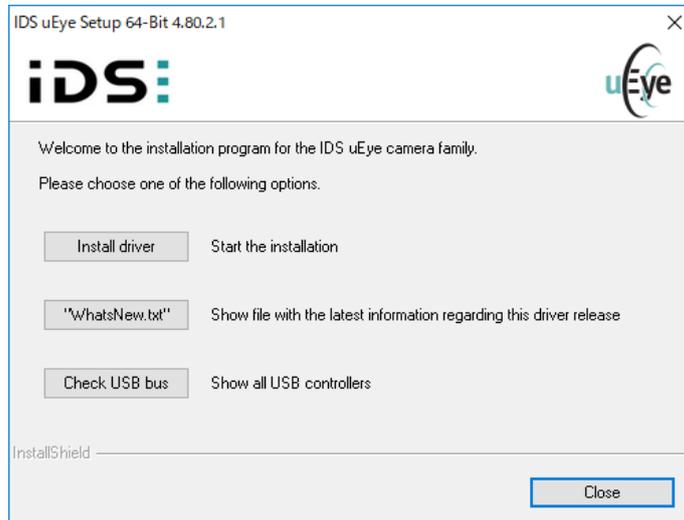
If the following security warning displays, please allow in order to continue.



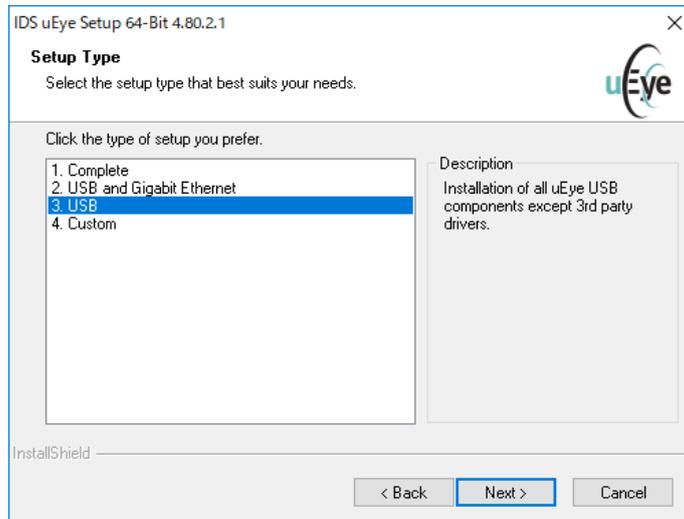
Setup is starting. Choose your language for installation, English (United States), and click Next.



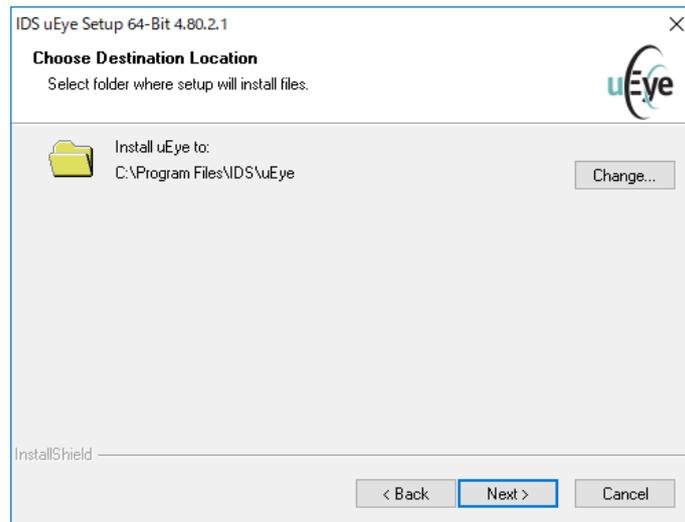
Click on "Install driver".



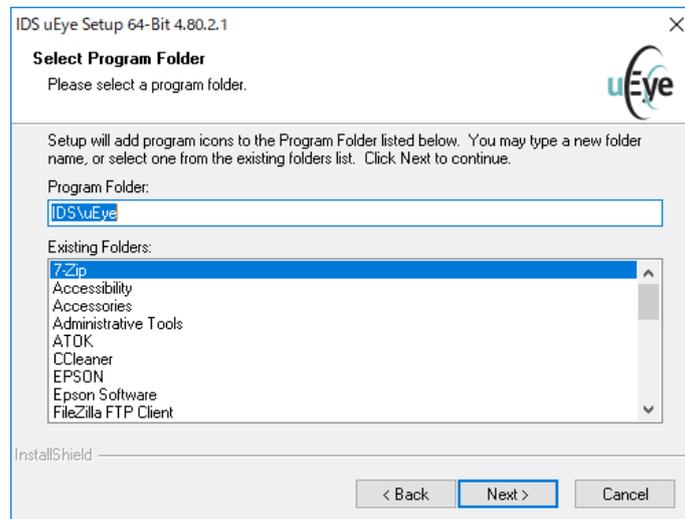
Select "3. USB" and click Next.



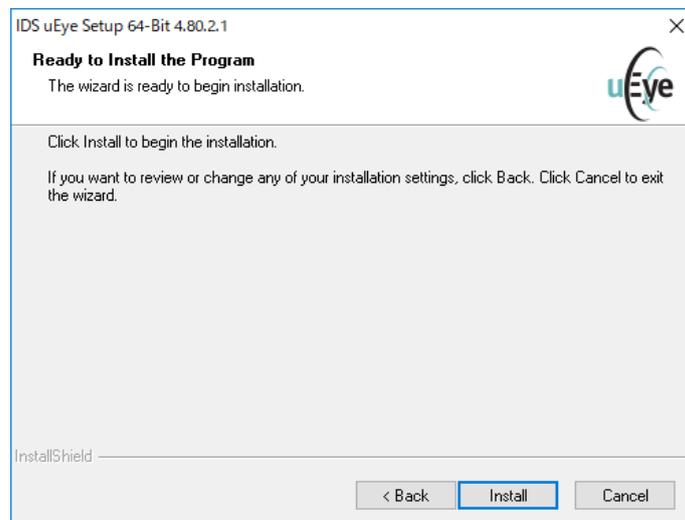
Click Next.



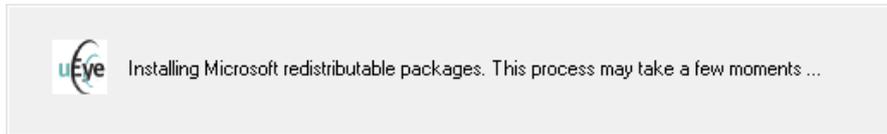
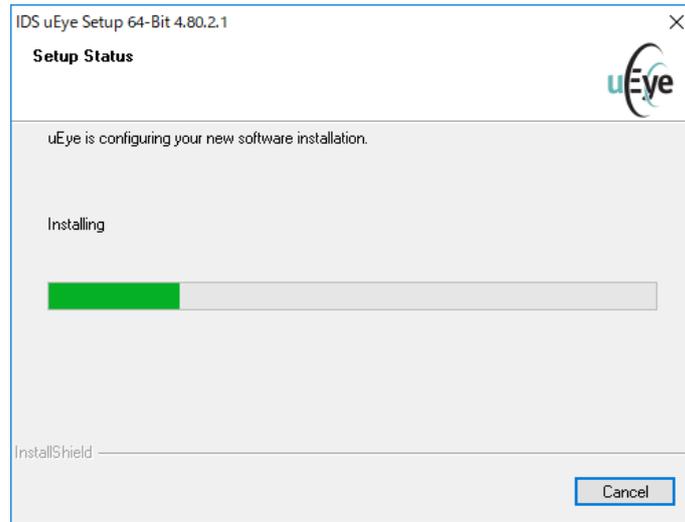
Click Next.



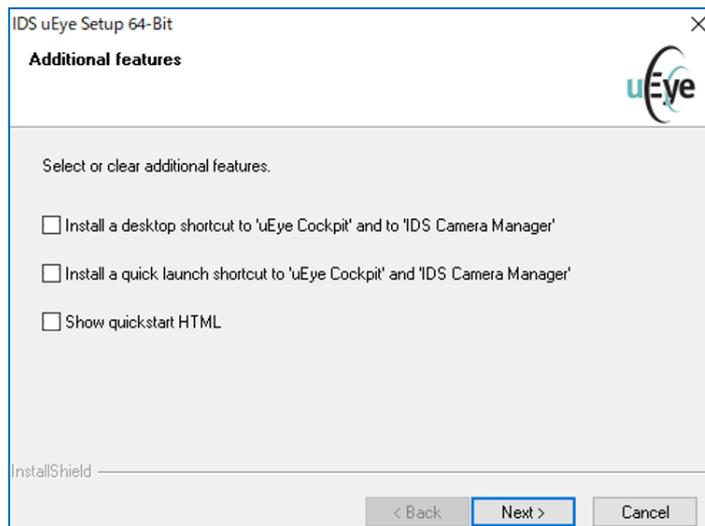
Click Install.



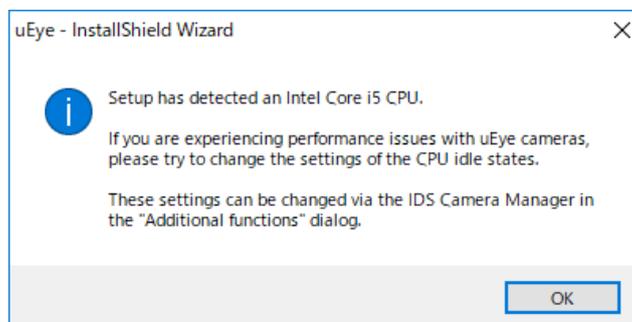
The installation carries on.



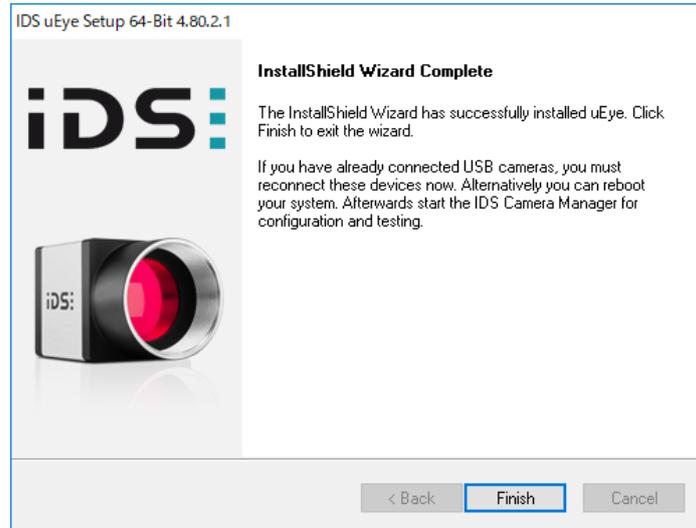
Un-check all three boxes and then click Next.



If a CPU-related information box displays, just click OK to proceed.



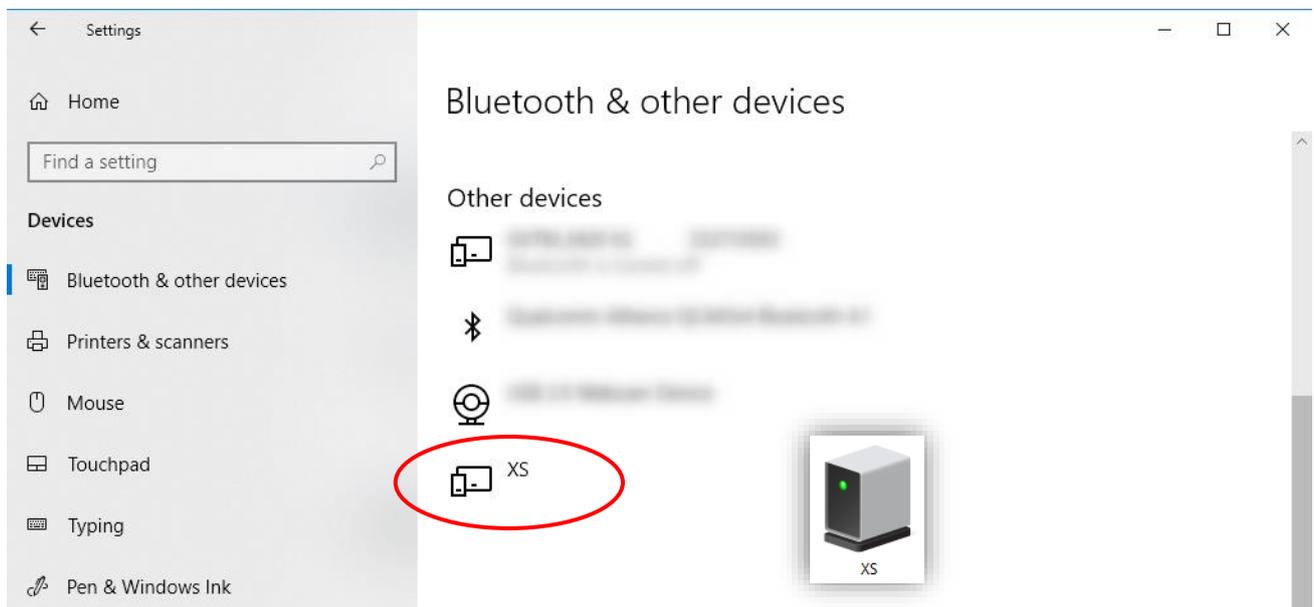
The installation is now finished so click Finish.



(A PC reboot is recommended at this stage)

Now please connect the camera USB cable to the PC and wait for setup to complete.

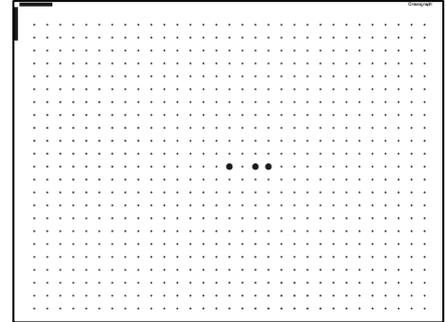
When looking at the “devices” screen (in PC’s settings), the camera should appear whenever connected. If the camera model name is displayed it indicated a proper installation.



Camera calibration: make the calibration grid

Preparation

- Get an engravable substrate providing high contrast when marked. Recommended material is Gravoply Laser white/black, 1.6mm (1/16in) thick. Sheet size must be at least 200x150mm (7.9x5.9in).
- Get the calibration grid pdf file.



Caution

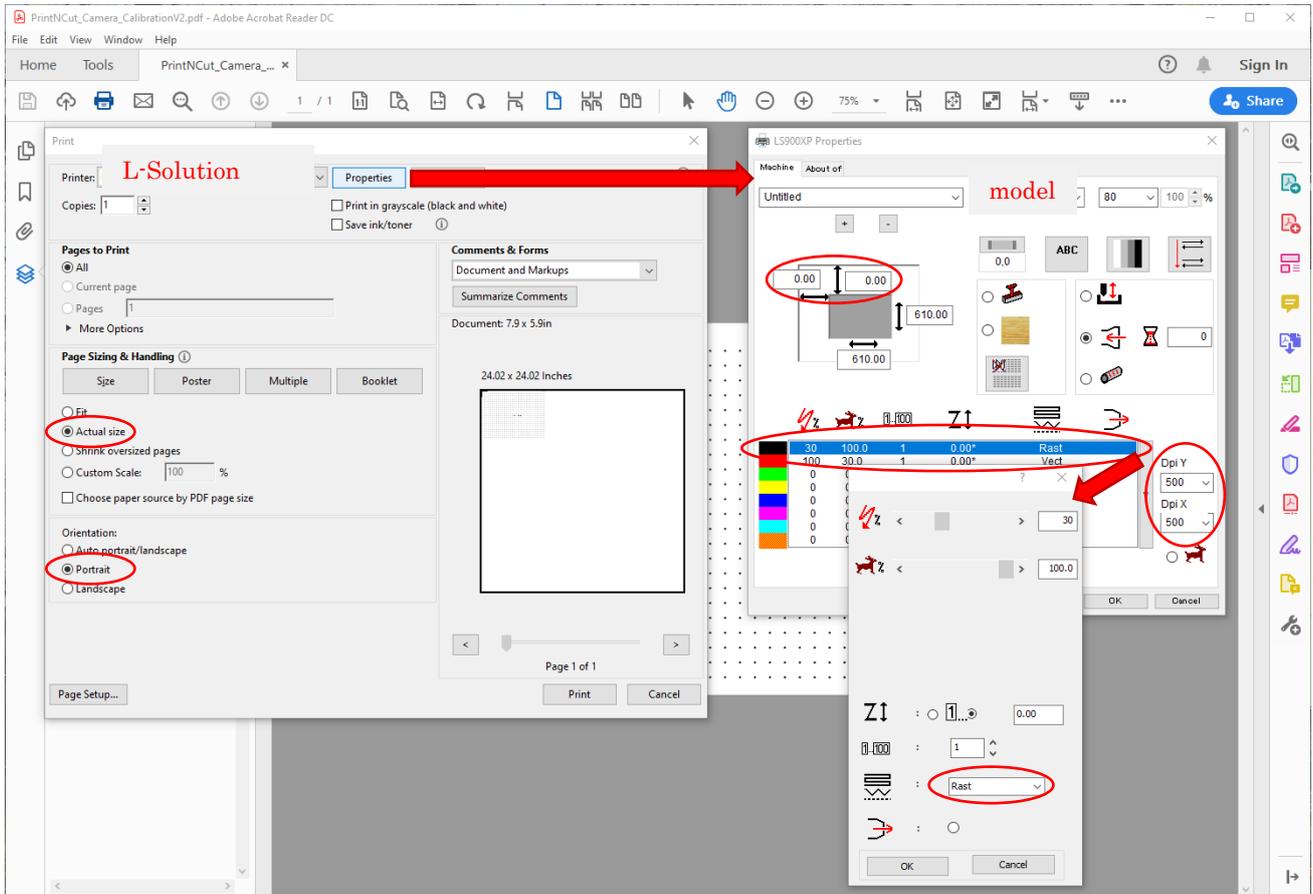
- Camera and laser machine drivers must have been correctly installed prior to camera calibration.
- Laser machine must be correctly adjusted prior to camera calibration.
- If the machine is re-adjusted (i.e.: origin adjustment, laser beam, etc), or the camera is moved, the calibration grid must be re-created, and recalibration is necessary.

Procedure:

On the computer

1. Open pdf (via Acrobat reader or Adobe Illustrator or others)
2. Go to print menu
3. Adjusting printing settings
 - a. Select printer: Gravograph LS series model
 - b. Size: actual size (no re-size or scaling)
 - c. Orientation: portrait
 - d. Location: top left corner (X=0 Y=0)
4. Go in the properties of the printer to adjust marking parameters. Laser power and speed parameters depend on the model. For a LS900IQ 40W model, the guideline is typically: power 30%, speed 100%, DPI 500. These settings must be applied to the black color, in raster mode, with origin set to 0,0. Power should be adjusted depending on the model's rated power. Models labelled as "XP" being faster, speed parameter should be reduced to approx. 60%.
5. Send document to printer.

Print settings may vary from a software to another, but here is an illustration of the parameters when using Adobe Acrobat Reader (free and commonly used pdf reader):



On the laser machine

6. Set the engravable material on the machine's table, well-adjusted in the top left corner. Any protection film on top of the engravable material should be removed first. Plate must oriented with its long side along X (horizontal) and its short side along Y (vertical) (resp. 200x150mm; 7.9in x 5.9in).

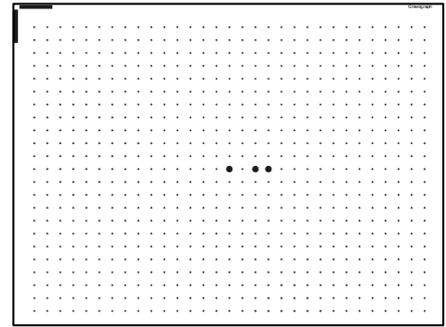
7. Perform a Z autofocus manually on top of the material ()

8. Engrave ()

Camera calibration: perform a calibration

Preparation

- Have the proper calibration grid for that machine.

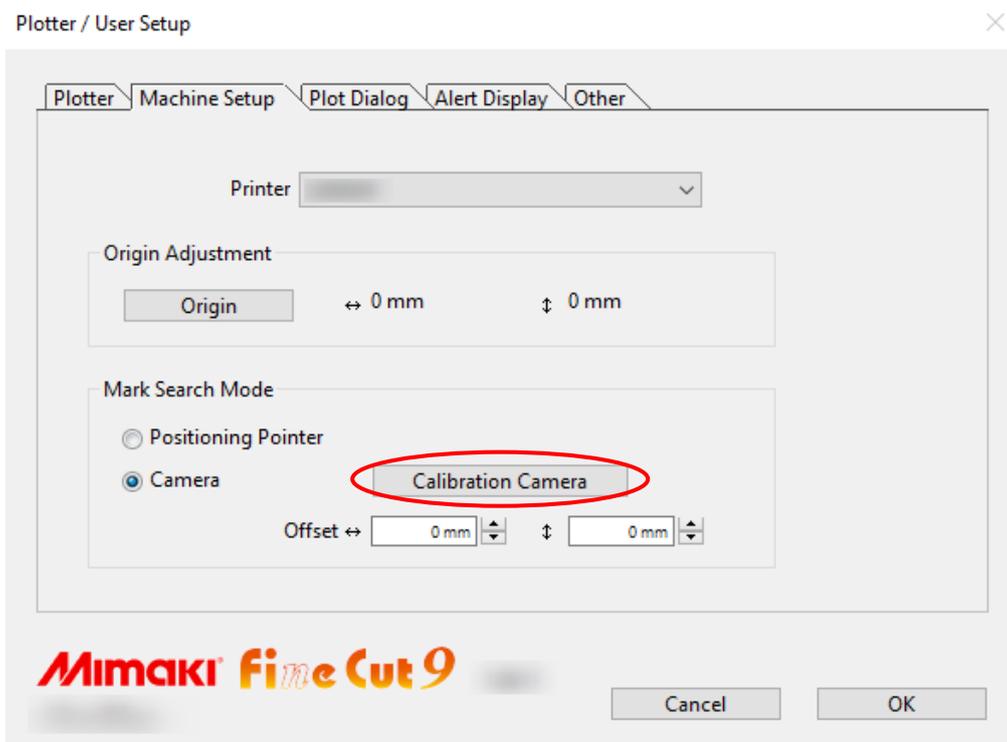


Caution

- Camera calibration files are stored on the operating computer. If erasing them or if using another computer, recalibration is necessary.
- Camera calibration files are linked to a specific machine. If working with another machine, camera calibration must be performed again for that different machine.
- If the machine is re-adjusted (i.e.: origin adjustment, laser beam, etc), or the camera is moved, the calibration grid must be marked again, and recalibration is necessary.

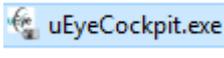
Procedure:

1. Set the calibration grid on the machine's table, well-adjusted in the top left corner.
2. In FineCut settings, under the "Machine Setup" tab, click "Calibration Camera" to perform the calibration.

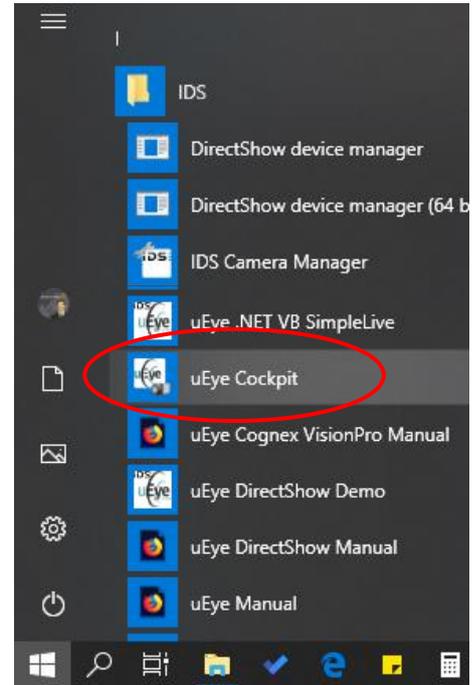
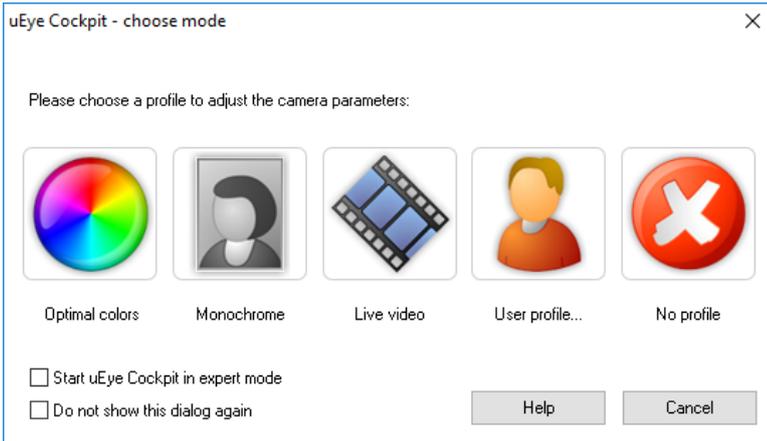


Troubleshoot the camera

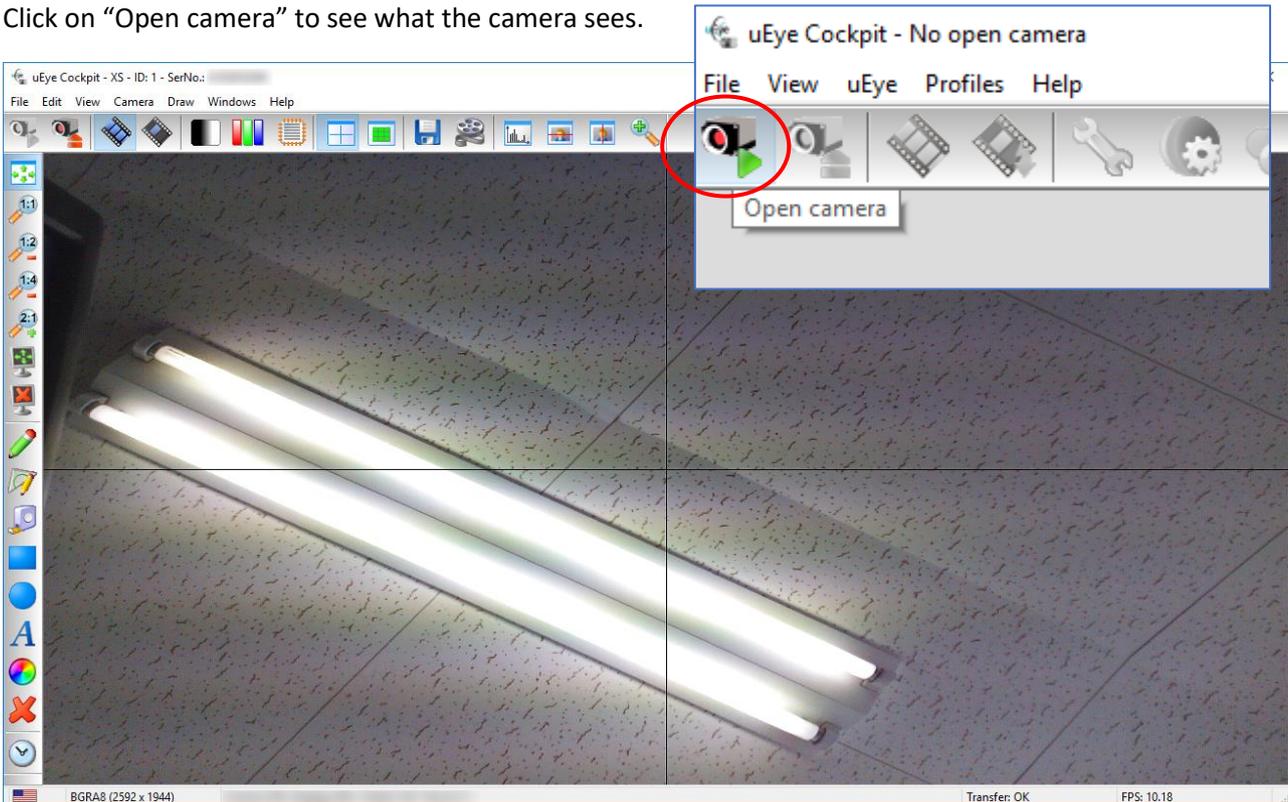
To use the camera, either search windows for uEye Cockpit or directly browse to **C:\Program Files\IDS\uEye\Program**

to execute uEyeCockpit.exe 

At launch, a profile selection window appears. Select “no profile”:



Click on “Open camera” to see what the camera sees.



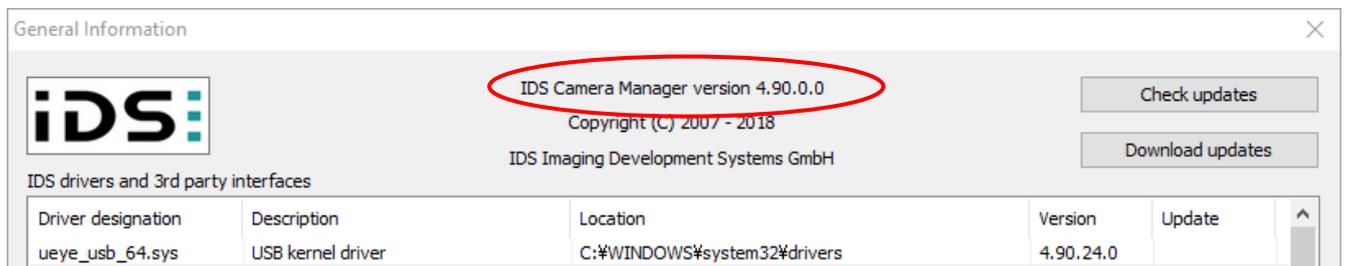
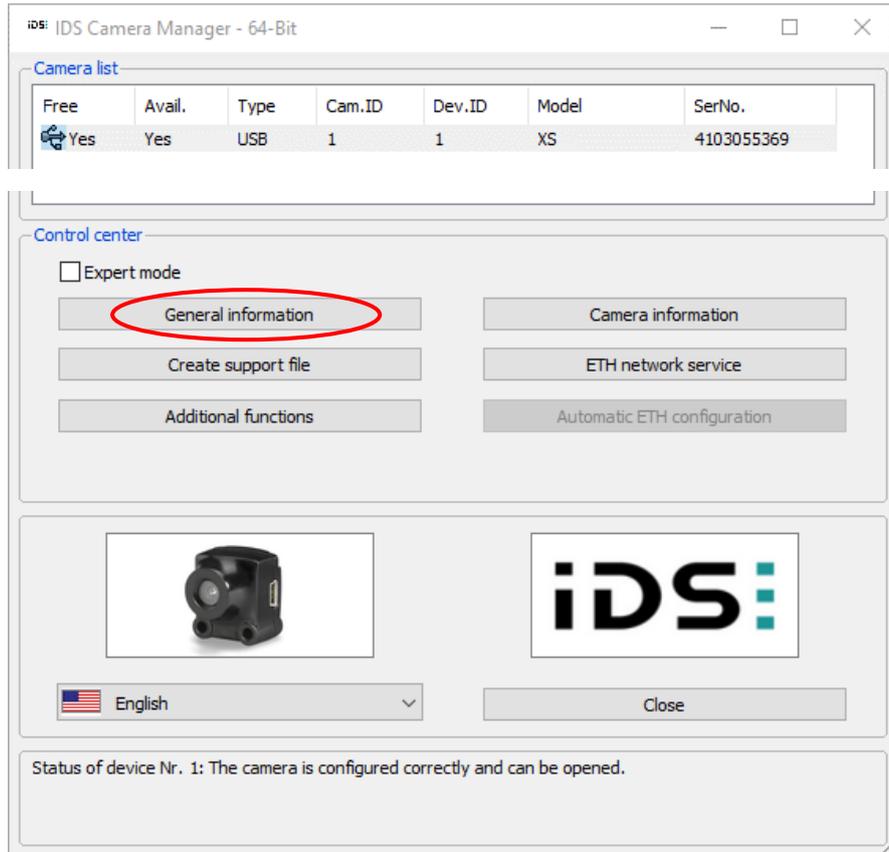
If the camera feed displays it indicates the camera is working and properly installed.

Remember to close this application before attempting to use the camera with another application.



On older operating systems (Windows 7, 8, 8.1), some computer brands have issues connecting the camera on a USB port type 3.0. In that case, please try connecting a USB type 2.0 HUB to the USB3.0 port, then connect the camera to the HUB.

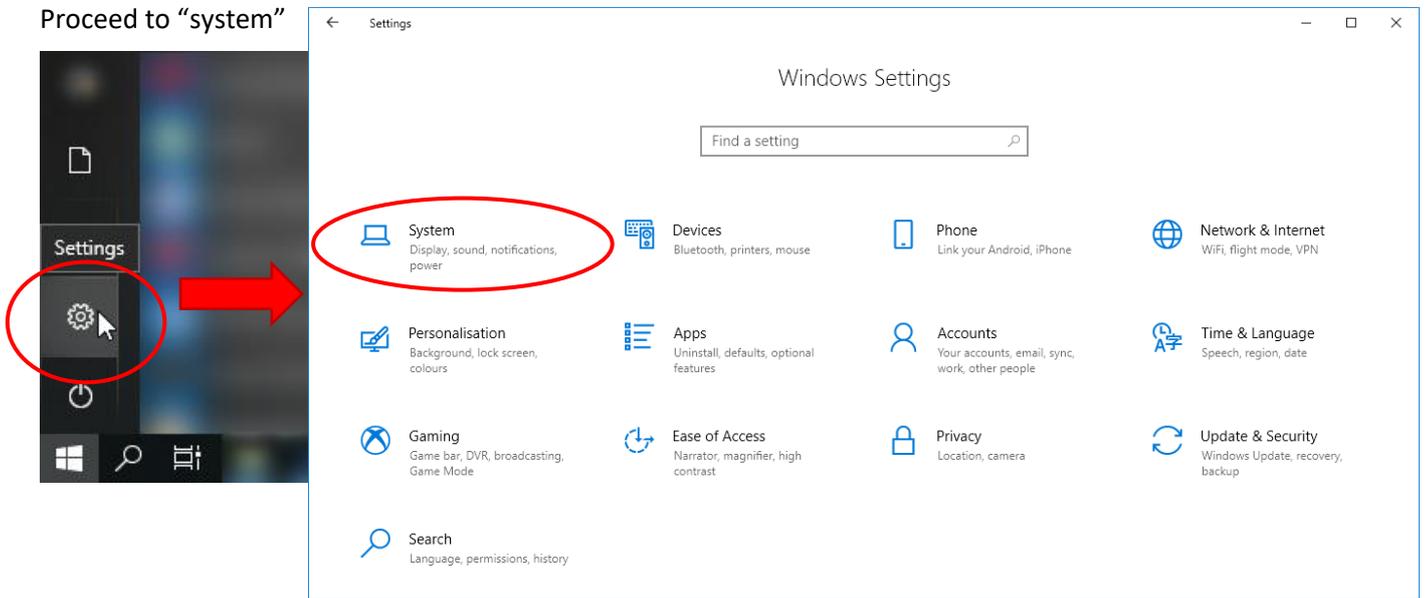
In order to check the installed version of the camera driver, use the “camera manager” (search windows for IDS) and click on “general information”. The driver version is displayed on the top.



How to check bits architecture

Click on the windows icon in the bottom left corner of the desktop to then access the settings menu.

Proceed to "system"



Under "About", the system type is displayed.

