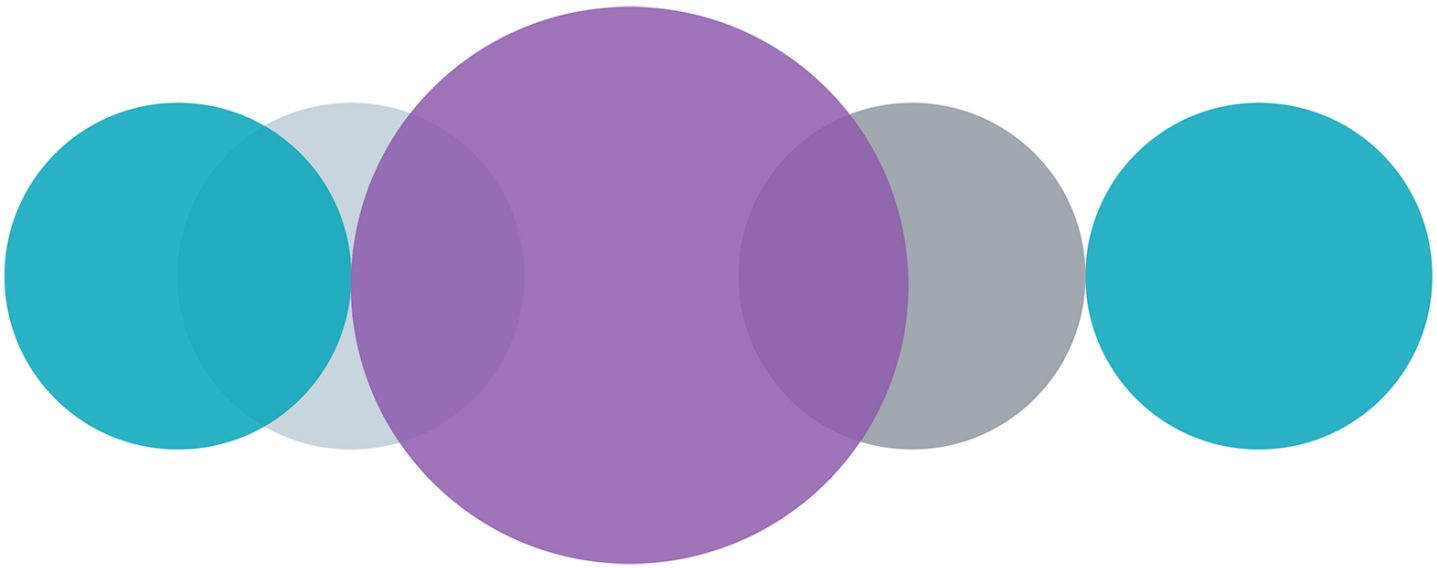

ClonePix™ 2

Clone Picking Software

Version 1.6

Software Installation Guide

FORTÉBIO
Biologics by Molecular Devices

5054890 C
May 2019

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Chapter 1: Installing ClonePix 2 Software

The ClonePix™ 2 Clone Picking Software controls the ClonePix™ 2 Mammalian Colony Picker. This document describes how to install the software for the first time.

The following topics are included in this document:

- Computer System Requirements on page 3
- For 32-Bit Systems on page 4
- For 64-Bit Systems on page 10
- Installing Microsoft DirectX (Nov 2007) on page 21
- Installing the ClonePix 2 Software on page 22
- Updating the System Firmware on page 22
- Obtaining a License for the Software on page 23
- Loading the ClonePix 2 Standard Configuration on page 27
- Obtaining Support on page 29

Computer System Requirements

The ClonePix 2 Software requires the following computer specifications:

Table 1-1: Computer System Requirements

Item	Description
Operating system	Windows 10, 64-bit Windows 7, 32-bit
Memory	4 GB RAM or more
Data Connection	10/100 Ethernet port
Camera Connection	SBIG: USB 2.0 port Basler Pylon: USB 3.0 port

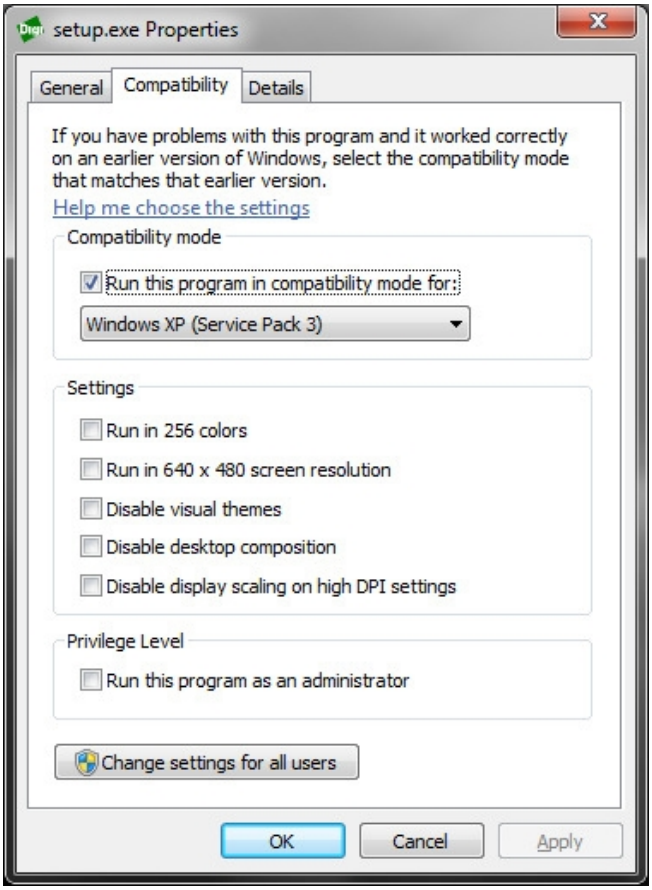
CAUTION! Do Not replace the computer operating system with one of your own computers. The computer supplied with your system includes hardware components specifically configured to control your instrument.

For 32-Bit Systems

Installing the Digi PortServer TS

Note: The following procedures are for 32-bit systems only.

1. Plug in the Ethernet cable.
2. In the installation files folder that you downloaded to the system computer, navigate to the **Drivers > Digi** folder.
3. Right-click on **setup.exe**, and then select **Properties**.
4. Click the **Compatibility** tab, then select **Run this program in compatibility mode for**, then select **Windows XP (Service Pack 3)**, and then click **OK**.

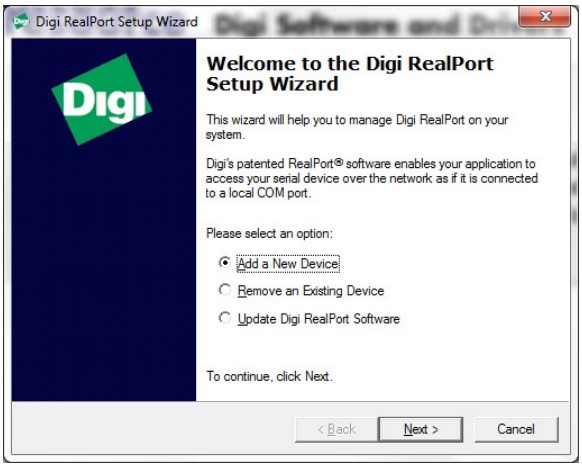


5. Double-click the **setup.exe** file to install the driver.

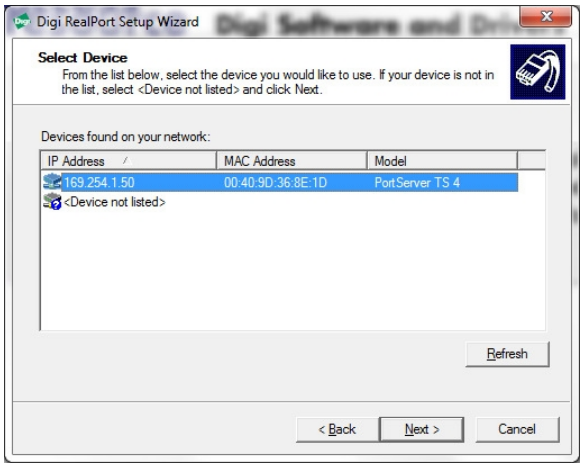
6. On the first installer dialog, select the following:
   - **Operating System—Microsoft Windows**
   - **Hardware—PortServer TS**
   - **Software—RealPort**

     And then click **Install Software**.

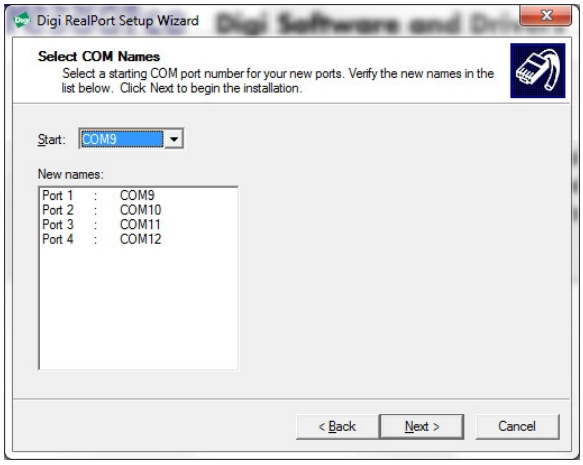
7. Select **Add a New Device**, and then click **Next**.



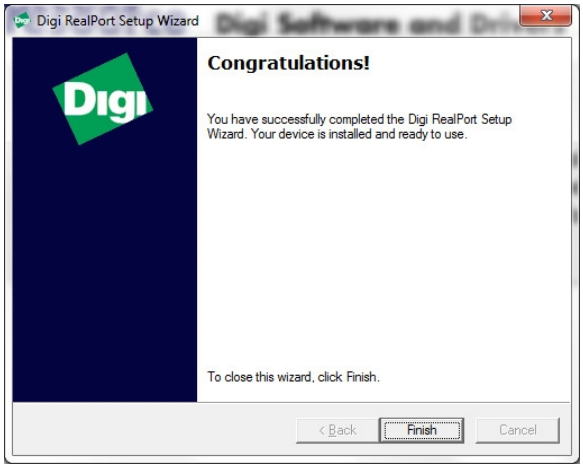
8. The **PortServer TS 4** should be listed, select it and click **Next**, otherwise contact Technical Support.



9. For the **Start** COM port number, select **COM9**, and then click **Next**.



10. When installation ends, click **Finish**.



Installing the SBIG ST-3200 Camera

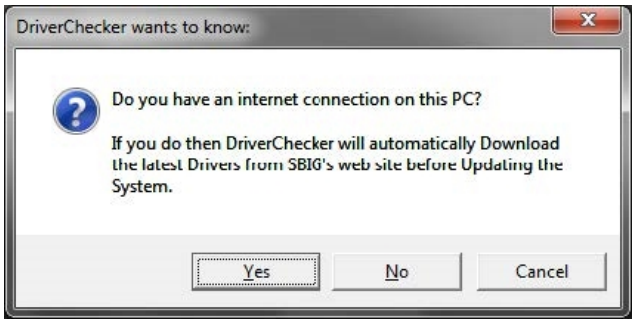
Note: The following procedures are for 32-bit systems only.

1. In the installation files folder that you downloaded to the system computer, navigate to the **Drivers > SBIG ST-3200 > SetupDriverChecker1r50B7** folder.
2. Double-click the **SetupDriverChecker.exe**file to install the driver checker.
3. When the **SBIG Driver Checker** dialog appears, click **Next** for all of the checker dialog steps that have a **Next** button.

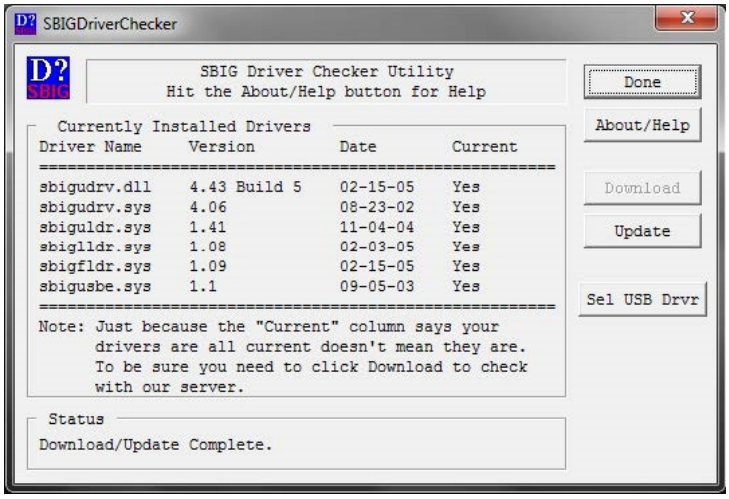
   Note: Do not change any options or directories.

4. On the last checker installation screen, select **Launch SBIG Driver Checker**, and then click **Finish**.

5. When the **DriverChecker wants to know** message appears, click, **No** to continue.



6. Verify at the end of the installation that all of the drivers are listed as current, otherwise contact Technical Support.

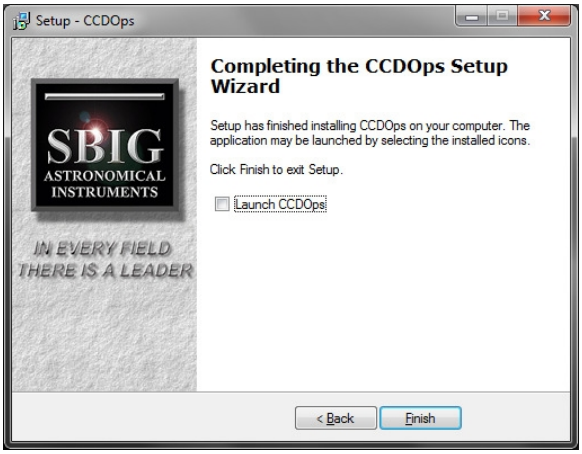


7. Click **Done** to finish.
8. In the installation files folder that you downloaded to the system computer, navigate to the **Divers > SBIG ST-3200 > InstOps5R37** folder.
9. Double-click the **InstOps.exe** file.

10. When the **Setup CCDOps** dialog appears, click **Next** for all of the dialogs that have a **Next** button.

Note: Do not change any options or directories.

11. On the last installation screen, click **Finish**.



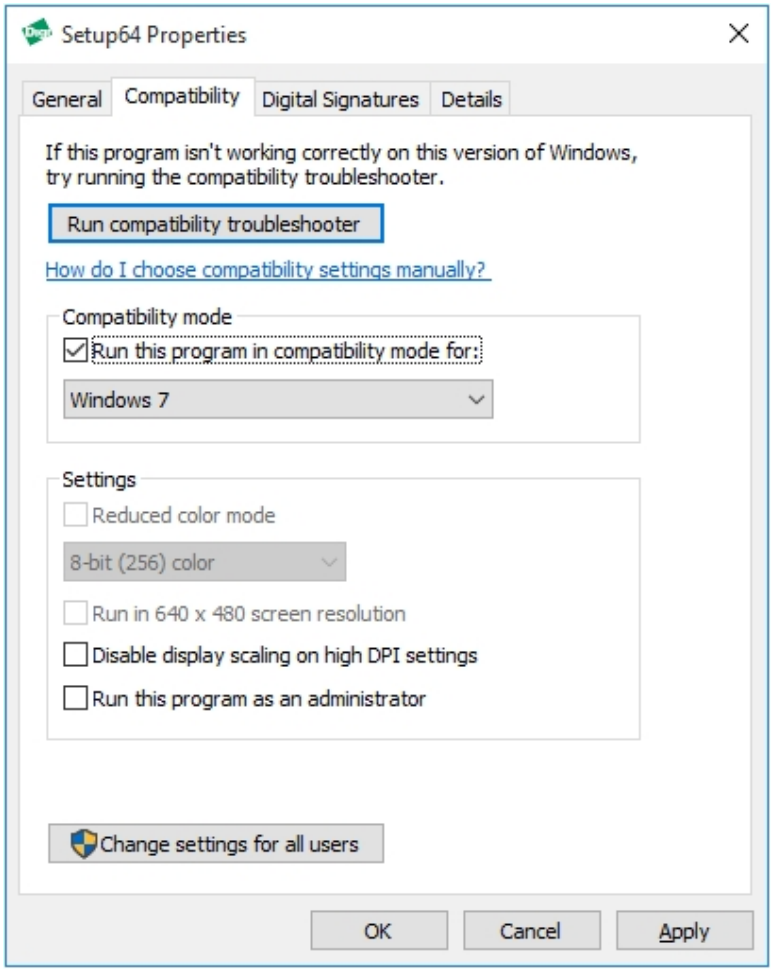
12. On the camera, plug in the USB cable, then test the camera by taking a test image with CCD Ops software.

For 64-Bit Systems

CAUTION! Two camera drivers are provided with the software installer. Only install the correct camera driver for your system. To determine which camera you have installed in your instrument, contact Molecular Devices Technical Support. See Obtaining Support on page 29.

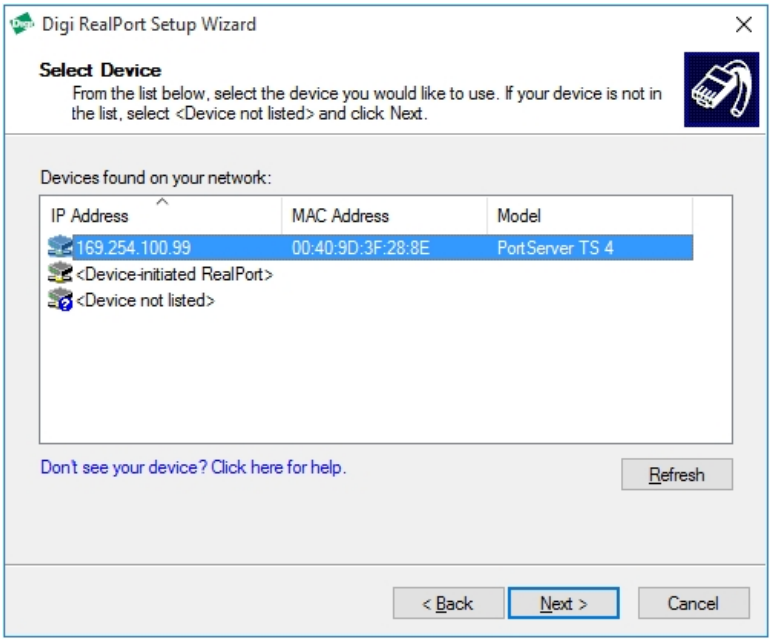
Installing the Digi PortServer TS

1. Plug in the Ethernet cable.
2. In the installation files folder that you downloaded to the system computer, navigate to the **Drivers > Digi** folder.
3. Right-click on **Setup64.exe**, and then select **Properties**.
4. Click the **Compatibility** tab, then select **Run this program in compatibility mode for**, then select **Windows 7**, and then click **OK**.

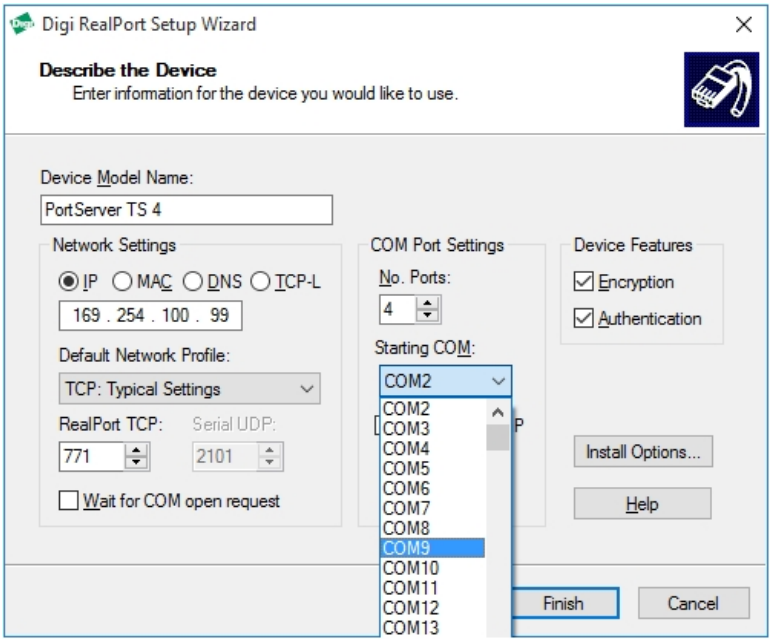


5. Double-click the **setup64.exe** file to install the driver.

6. The **Digi RealPort Setup Wizard** lists the PortServer TS. Click **Next**, otherwise contact Molecular Devices Technical Support. See Obtaining Support on page 29.



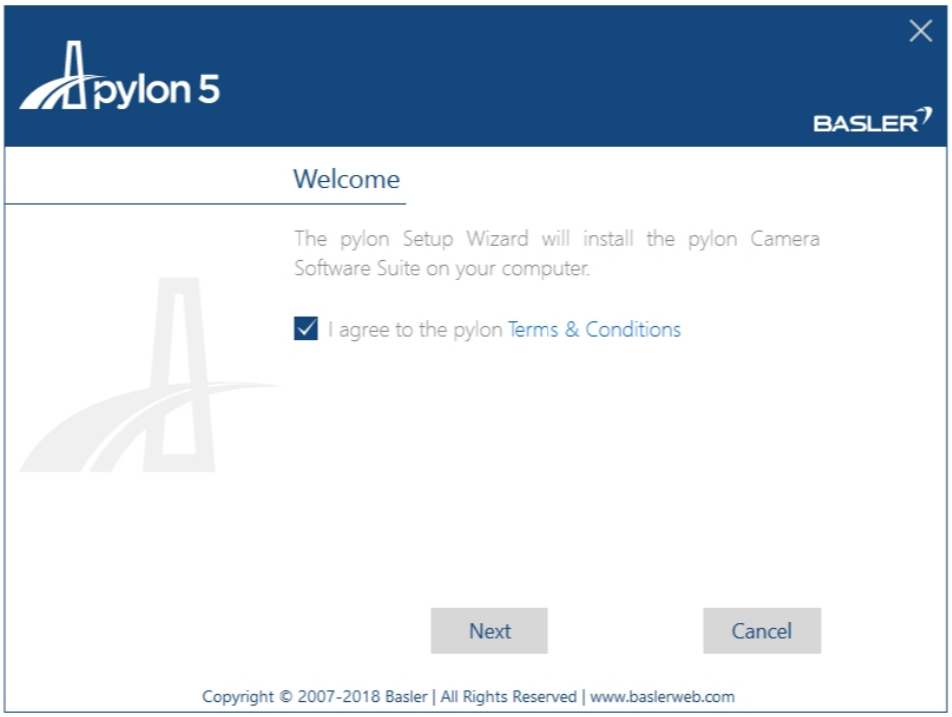
7. In **Starting COM**, select **COM9** from the pull-down menu and click **Finish**.



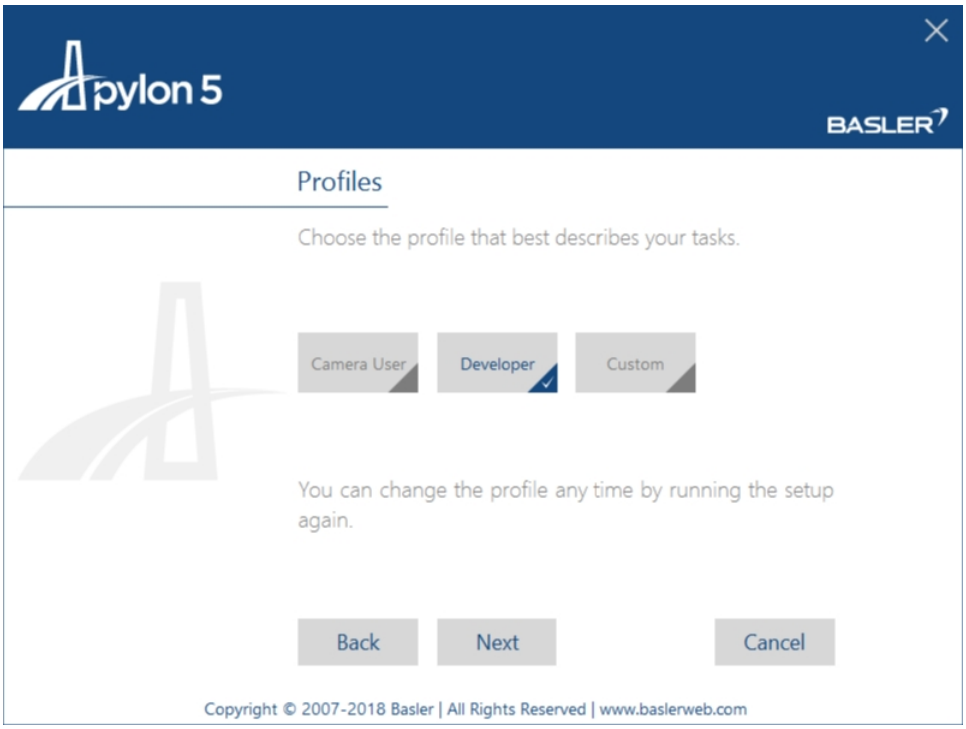
Installing the Basler Pylon Camera Driver

CAUTION! Before following these procedures, verify that this is the camera installed in your instrument. Contact Molecular Devices Technical Support. See Obtaining Support on page 29.

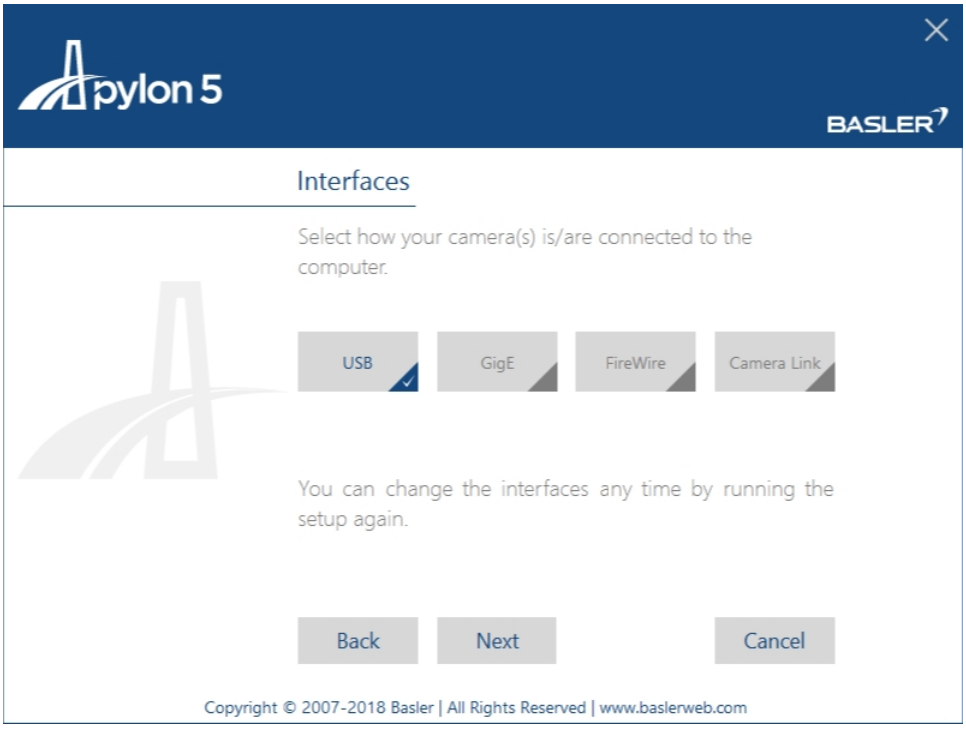
1. In the installation files folder that you downloaded to the system computer, navigate to the **Drivers > Basler_pylon** folder.
2. Double-click on the provided **Basler_pylon_5.1.0.12681.exe**file to start the installation.
3. When the **pylon 5** installation dialog appears, select **I agree to they pylon Terms & Conditions**, and then click **Next**.



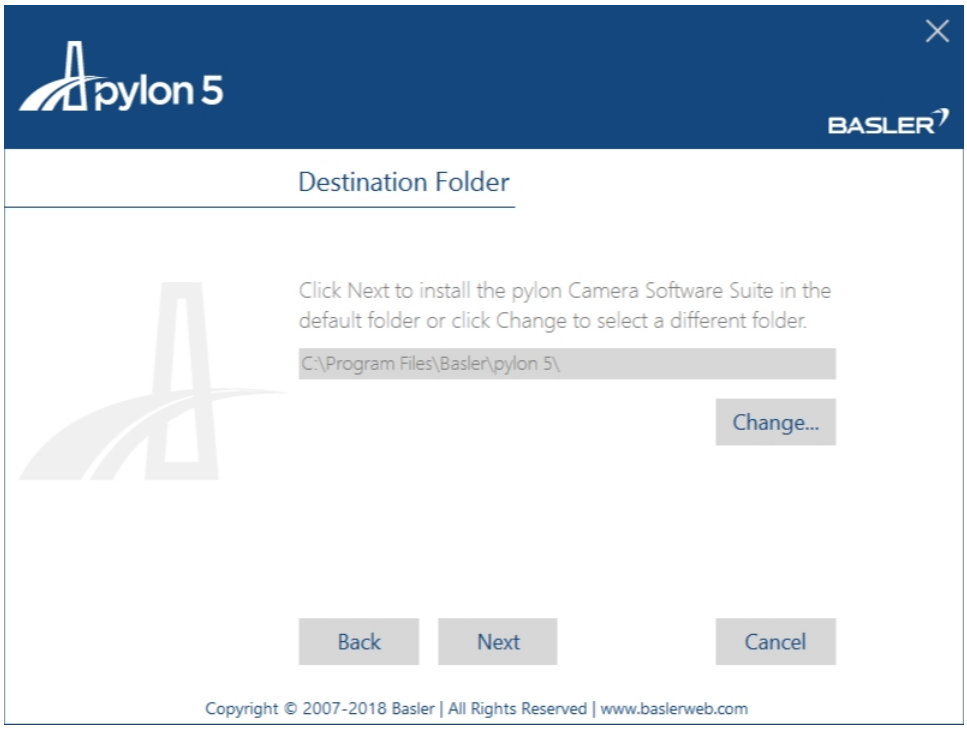
4. Select **Developer**, and then click **Next**.



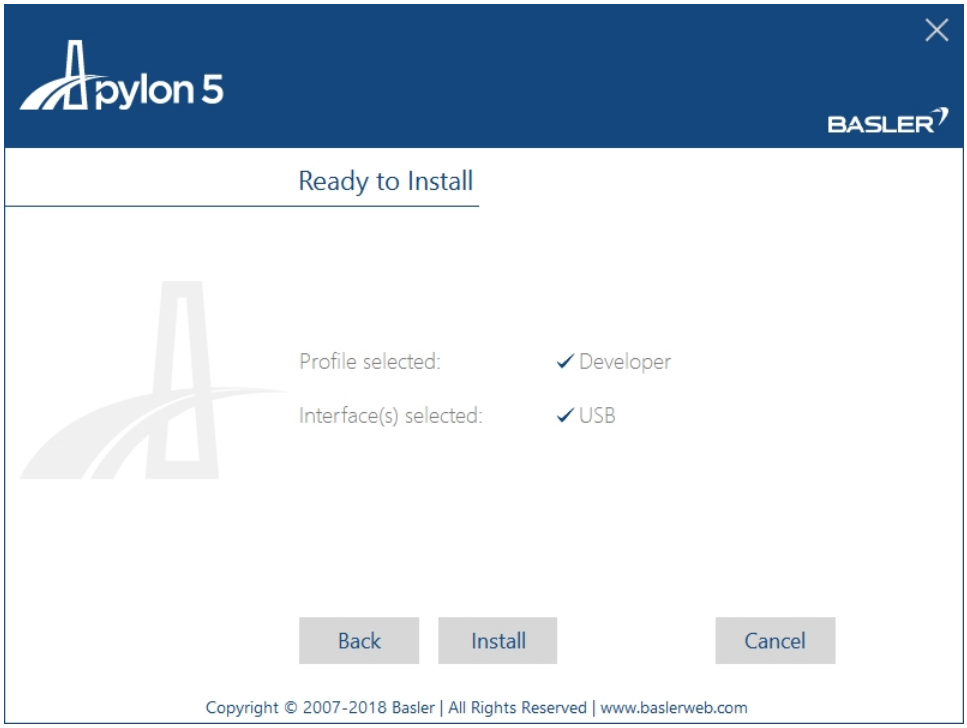
5. Select **USB**, and then click **Next**.



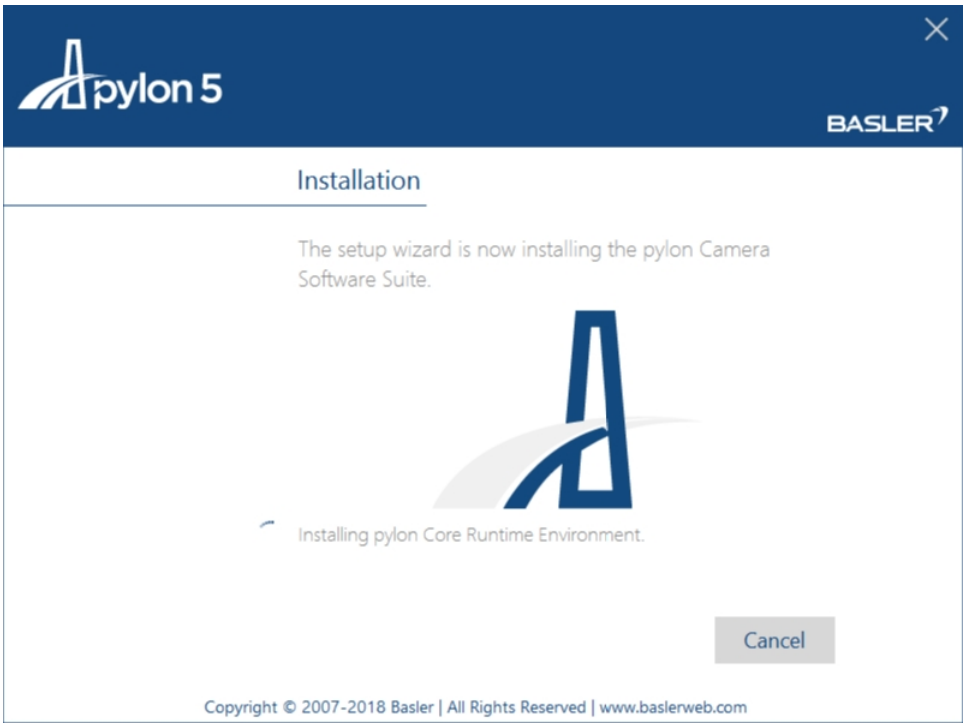
6. Keep the default **Destination Folder** setting, and then click **Next**.



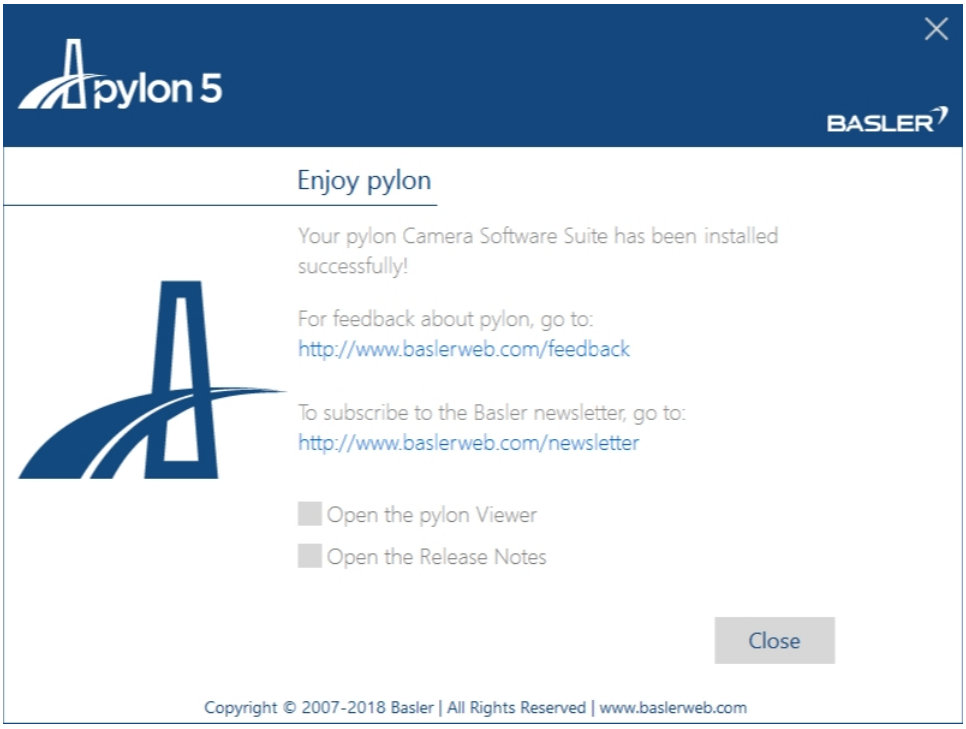
7. When the **Ready to Install** screen appears, click **Install**.



8. On the next screen, click **Yes** to start the installation.



9. When the installation finishes successfully, click **Close**.

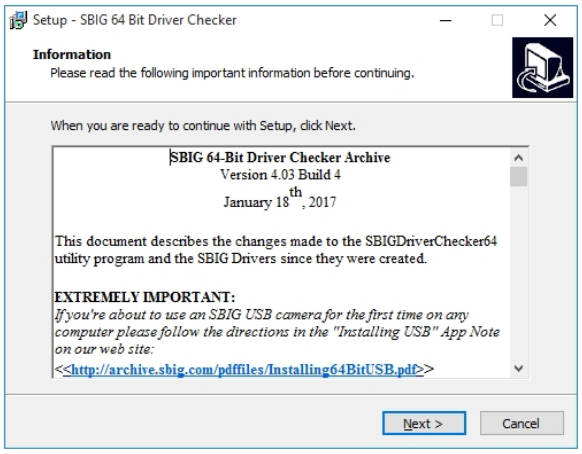


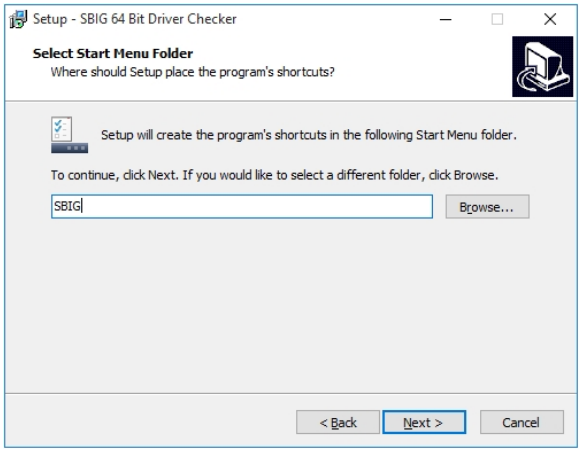
Installing the SBIG ST-3200 Camera Driver

CAUTION! Before following these procedures, verify that this is the camera installed in your instrument. Contact Molecular Devices Technical Support. See Obtaining Support on page 29.

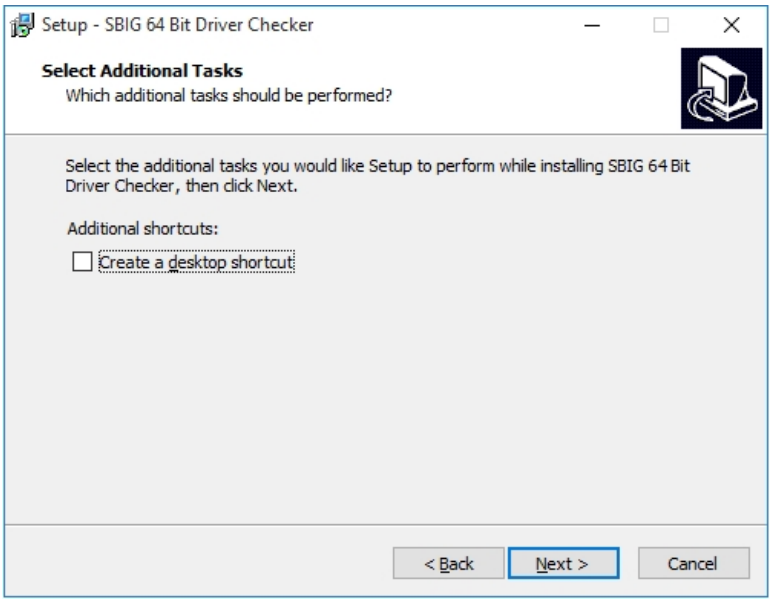
1. In the installation files folder that you downloaded to the system computer, navigate to the **Drivers > SBIG ST-3200 > SetupDriverChecker1r50B7** folder.
2. Double-click the **SetupDriverChecker64.exe**file to install the driver checker.
3. When the **SBIG Driver Checker** dialog appears, click **Next** for all of the checker dialog steps that have a **Next** button.

Note: Do not change any options or directories.

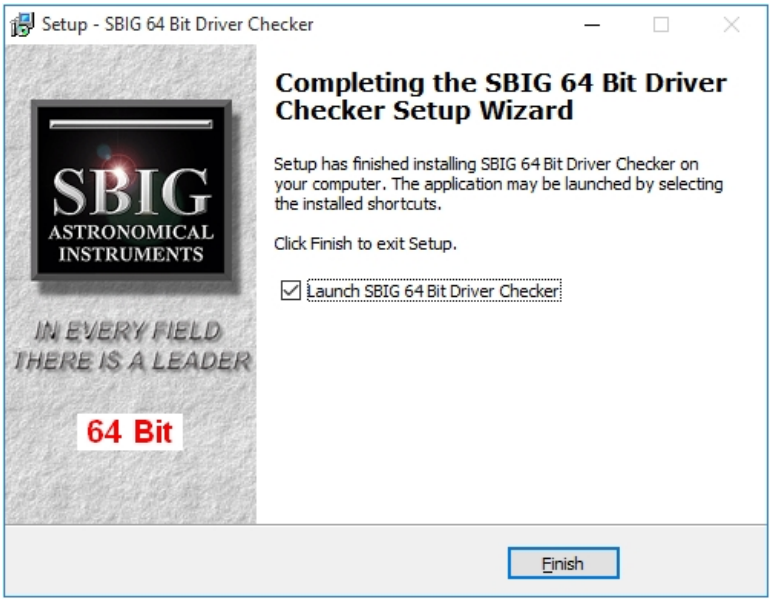




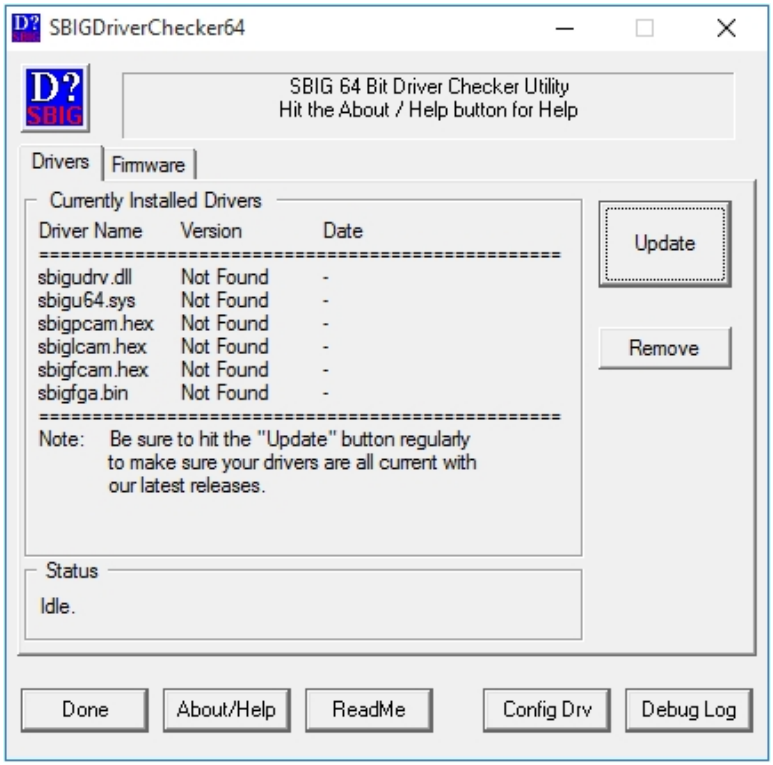
4. Deselect **Create a desktop shortcut**, and then click **Next**.



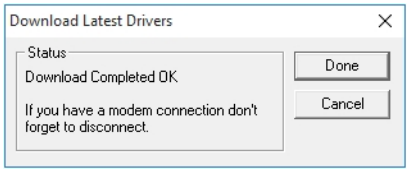
5. On the last checker installation screen, select **Launch SBIG Driver Checker**, and then click **Finish**.



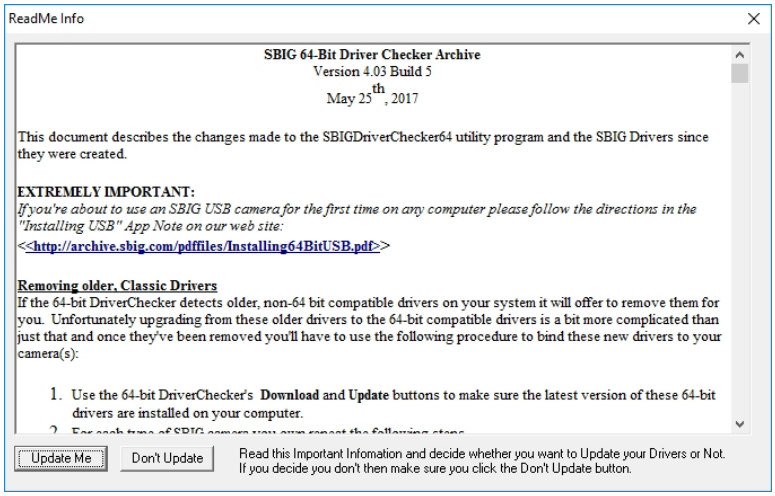
6. In the **SBIGDriverChecker64** dialog, click **Update**.



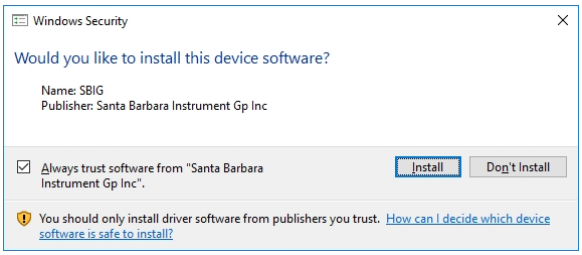
7. Verify that the download is complete, and then click **Done**.



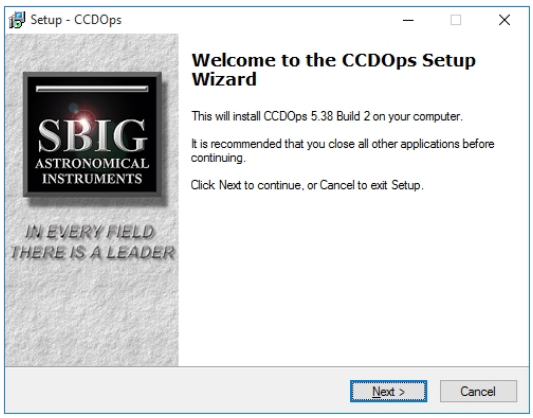
8. Click on **Update Me** button.



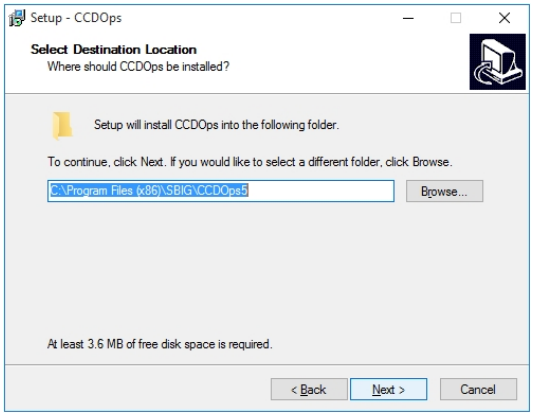
9. If the **Windows Security** message appears, click the **Install** button.



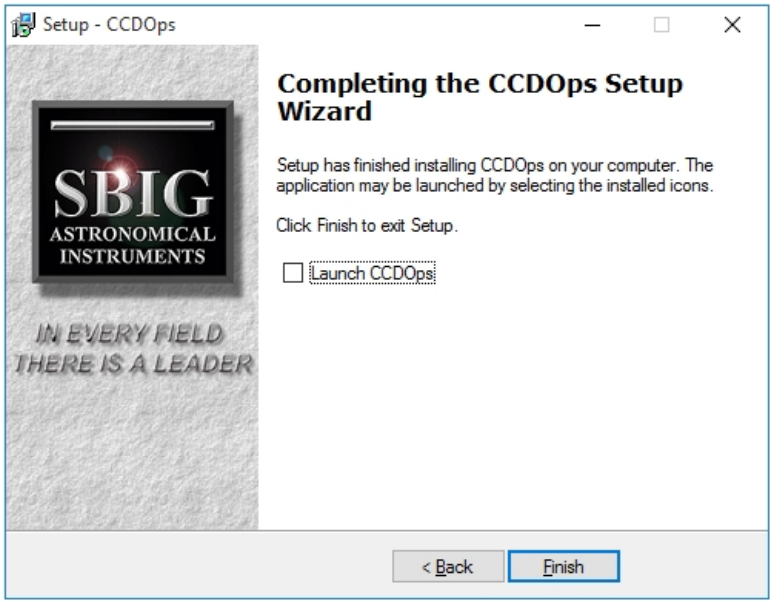
10. Click **Done** to continue.
11. In the installation files folder that you downloaded to the system computer, navigate to the **Drivers > SBIG ST-3200 > InstOps5R37** folder.
12. Double-click the **InstOps.exe** file.
13. When the **Setup CCDOps** dialog appears, click **Next** for all of the dialogs that have a **Next** button.



Note: Do not change any options or directories.



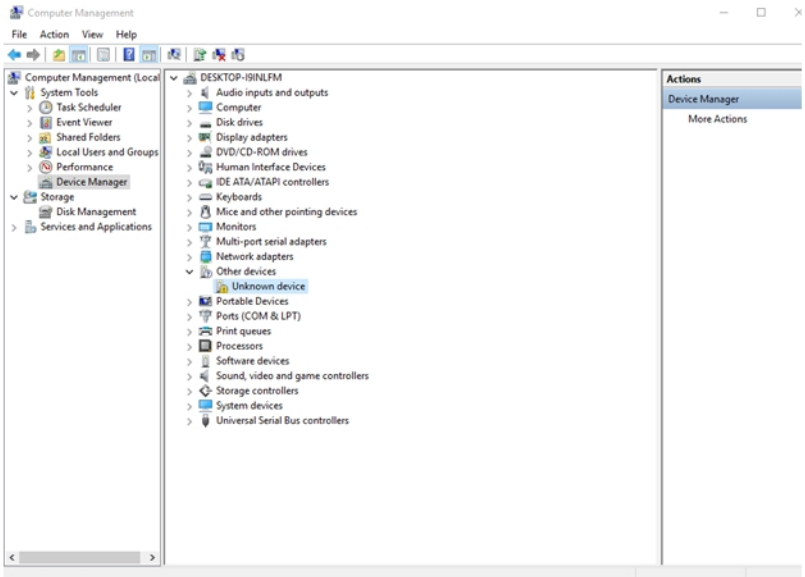
14. On the last installation screen, click **Finish**.



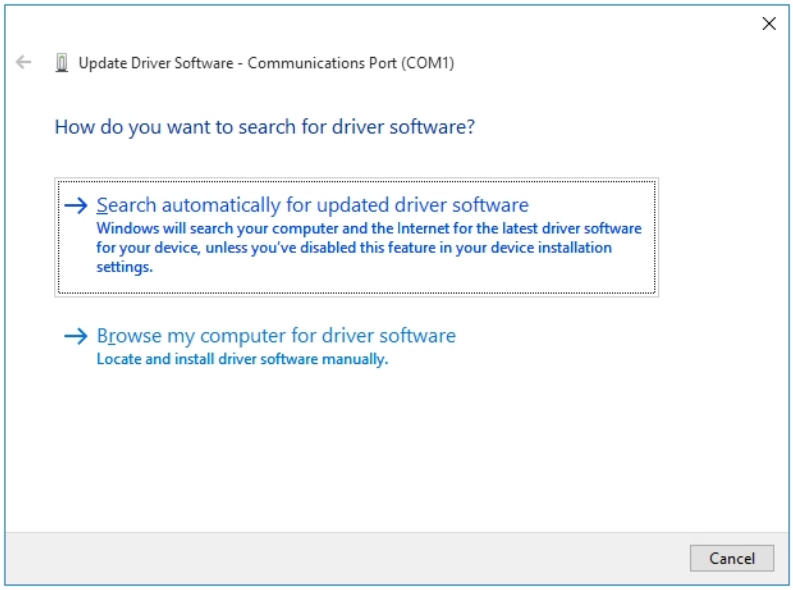
Go to the Windows **Device Manager**

If you see **Other Devices > Unknown Device**:

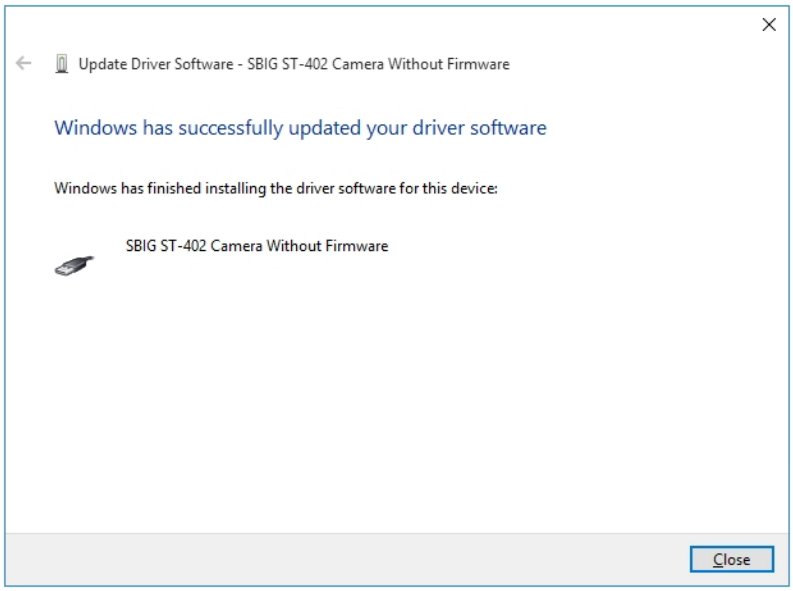
1. Right-click on the item and select **Update Software Driver**.



2. Select **Search Automatically for updated driver software**.



Windows should find the SBIG ST-402 Camera driver.



3. Click **Close** to continue.

If you have problems, contact Molecular Devices Technical Support. See Obtaining Support on page 29.

Installing Microsoft DirectX (Nov 2007)

1. In the installation files folder that you downloaded to the system computer, navigate to the **Prerequisites > DirectX 9.0c (November 2007)** folder.
2. Double-click the **DXSETUP.exe** file.

3. When the **Installing Microsoft DirectX** dialog appears, select **I accept the agreement**, and then click **Next**.
4. Click **Next**.
5. When the installation ends, click **Finish**.

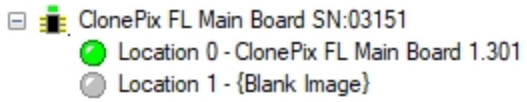
Installing the ClonePix 2 Software

1. Download the upgrade installation file to the system computer.
2. Double click the **ClonePix 2 v.1.6.msi** file to start the installation program.
3. Follow the on-screen instructions to finish installing the software.
4. Start the software and continue with Obtaining a License for the Software on page 23.

Updating the System Firmware

To view the current firmware version:

1. In the ClonePix 2 Software window, click **Tools > Configuration**.
2. In the **Edit Configuration** window, double-click **Cold Fire Devices**.
3. Under **ClonePix FL Main Board**, view the firmware version for the listing next to the green dot.

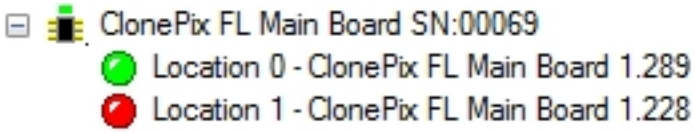


The firmware should be version 1.301 or higher. If you have an older version of the firmware, contact technical support to obtain a file containing the latest version of the firmware. See Obtaining Support on page 29.

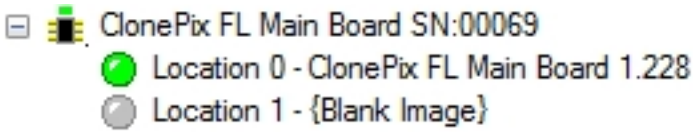
To update the firmware:

1. Power on the ClonePix 2 system computer and instrument.
2. Save the firmware-update file on the system computer.
3. In the ClonePix 2 Software window, click **Tools > Configuration**.
4. In the **Edit Configuration** window, double-click **Cold Fire Devices**.

5. Under **Main Board**, right-click the listing next to the red dot and then click **Update Firmware**.



If there is no red dot, then right-click the listing next to the gray dot.

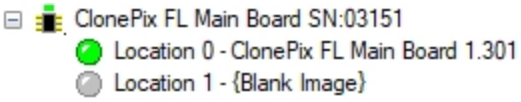


CAUTION! Do not update the firmware for the listing next to the green dot, since this is the version that is currently running on the system.

6. In the **Open** dialog, navigate to and select the firmware-update file you saved in step 1.
7. Click **Open** to start the firmware update.
   An hourglass replaces the icon next to **Main Board**.
8. After the icon is restored next to **Main Board**, click **Close**.
9. Exit the software.
10. Turn off and restart the instrument.
11. Restart the software.

To confirm the updated firmware version:

1. In the ClonePix 2 Software window, click **Tools > Configuration**.
2. In the **Edit Configuration** window, double-click **Cold Fire Devices**.
3. Under **Main Board**, view the firmware version for the listing next to the green dot.



The firmware should be version 1.301 or later.

Obtaining a License for the Software

The first time that you start the ClonePix 2 software after completing the installation, the software prompts you for a license.

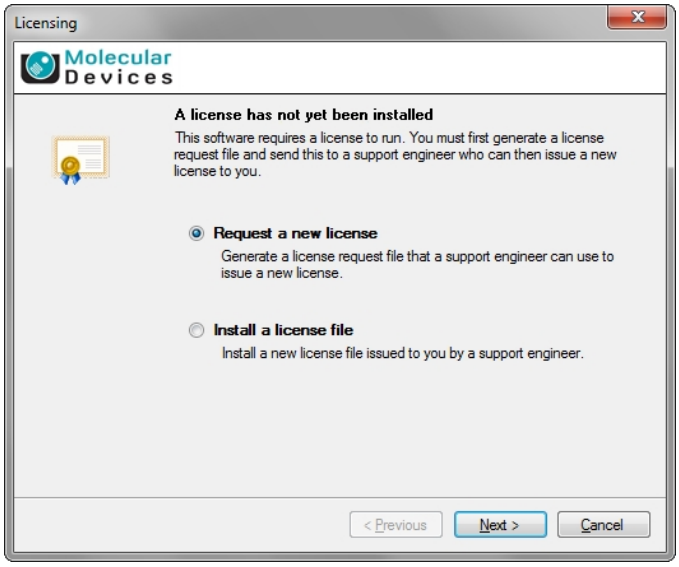
Licensing is a two step process:

1. Requesting a Software License on page 24
2. Installing a Software License on page 26

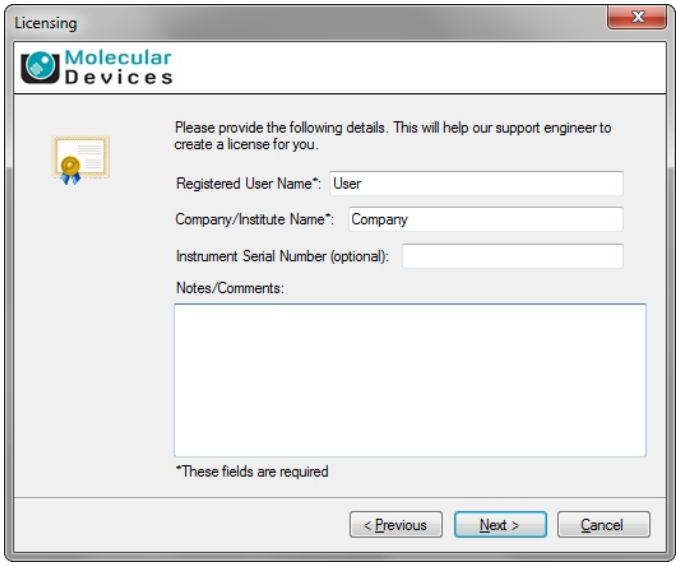
Requesting a Software License

To request a new software license:

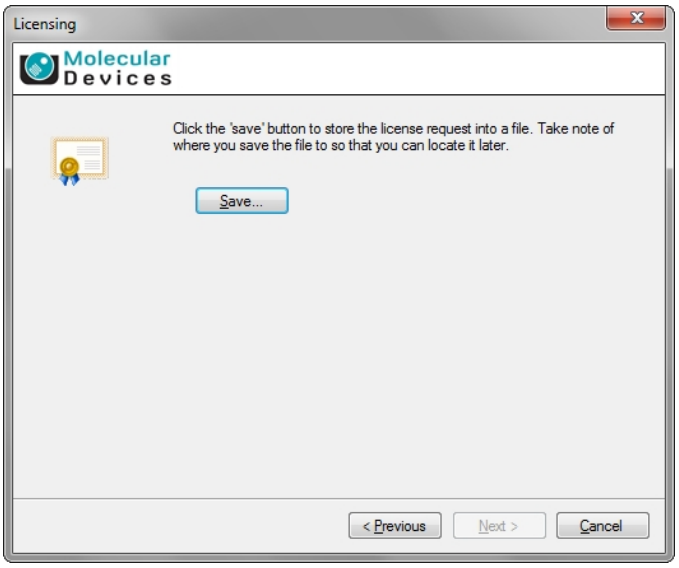
1. In the license message dialog, click **Yes**.
2. In the license request wizard, select **Request a new license**, and then click **Next**.



3. Enter the requested information, and then click **Next**.



4. To save the request file to a location on your computer for attaching it to an email, click **Save**.



5. In the **Save the request to a file** dialog, save the file in a location where you can easily find it.
6. To close the wizard, click **Finish**.
7. Change the **LicenseRequest.req** file name to a **LicenseRequest.txt** file, and then email it to Molecular Devices Technical Support. See www.moleculardevices.com/service-support.
8. After you receive the license file, save it on the system computer where it is easily accessible, and then install the license.

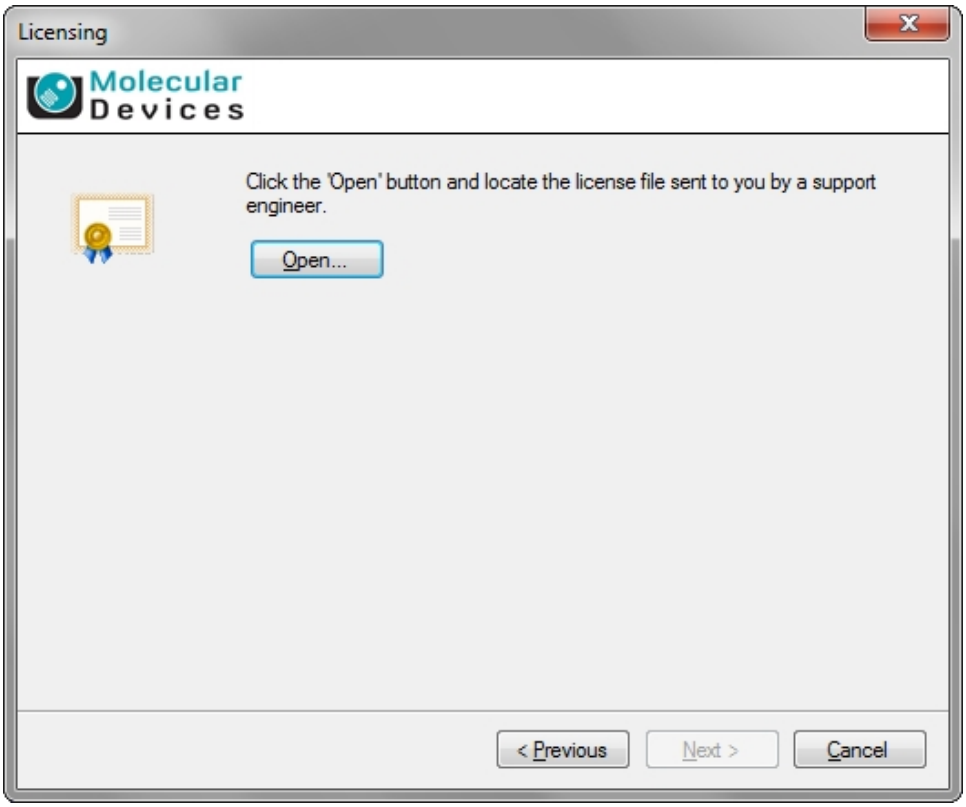
Installing a Software License

After you receive your license from Molecular Devices Technical Support, do the following:

To install a software license:

1. From the computer desktop, double-click the ClonePix 2 icon to start the software.
2. In the **Licensing** dialog, select **Install a license file** and then click **Next**.

3. Click **Open**.



4. In the **Select the License File to install** dialog, locate and select the license file you previously saved, and then click **Open**.
5. After the license file automatically installs, click **Finish**.

Loading the ClonePix 2 Standard Configuration

1. In the installation files folder that you downloaded to the system computer, navigate to the **Configuration Template** folder.
2. From the Windows **Start** menu, double-click **All Programs > Molecular Devices > ClonePix 2 >Configuration Backup**.
3. In the **Fusion Configuration Manager**, click **Restore From File**, select the .fcb file from the **Configuration Template** folder, and then click **Open**.
4. When the **Continue with restore** message appears, click **OK**.
5. When the **Restore Complete** message appears, click **OK**.
6. Close the **Fusion Configuration Manager**.
7. To start using the system, continue to Powering On the System on page 29.

Before You Start

Before you power on the ClonePix2 instrument and start the software, do the following:

- Verify that the instrument and compressor are plugged in.
- Verify that the correct picking pins are installed in the picking head for the type of cells to be picked.

  Tip: The picking pin type is engraved at the base of each pin. You might need to remove the pin from the head to confirm the pin type.

  - **F1 Picking Pins** (400µm internal diameter; X4961) for suspension cell picking from semi-solid medium.
  - **F2 Picking Pins** (700µm internal diameter; X4962) for adherent cell picking from liquid medium.

    Before a Pick Run, picking pins should be cleaned by sonication in a 2% solution of QuClean (K2505) and autoclaved. It is advisable to autoclave the Picking Pin Removal Key (X4948) at the same time.

    If the picking pins need to be changed, remove the Picking Head and swap the pins. To do this, click on the Picking Head Management icon, then the Replace Head icon and follow the on-screen instructions.
- Verify that instrument bed is clear of obstructions and loose items.
- Verify that all motor tracks are free of obstruction.
- Verify that there are no obstructions to movement of the picking head.
- Verify that the main instrument axes, XY, are roughly in the center of their respective travel positions. The axes need to be away from their respective end-stops on start up so that they can reference themselves correctly to their home positions.
- Wipe the instrument bed with 70% ethanol using a lint-free cloth.
- Verify that no plates or cassettes are in the stackers.
- Verify that the **Emergency Stop** button on the front panel of the instrument is pulled out.
- Fill the ethanol feed bottle with 70% ethanol and empty the ethanol waste bottle, as needed.
- Separately autoclave the picking feed bottle and cap assembly, then fill the Picking Feed bottle with sterile deionized water and cap the bottle in a sterile tissue culture hood.
- Ensure that your picking waste bottle is empty before continuing.
- Verify that the enclosure front door is closed.
- Wait for approximately 2 minutes after the instrument is powered on before opening the software to ensure that all drives ‘home’ correctly. See .

WARNING! For safety reasons the front door interlock should never be interfered with or overridden. If the door is opened at any stage, this triggers the actuator head or germicidal lamp to stop until the door is closed.

Powering On the System

Before continuing, do as instructed in Before You Start on page 28.

Every time the instrument is used, the three axes sequentially run through their "Initialize drives" routine. This enables the drives to find their respective home positions. The system must complete this routine without interference to ensure that there is no damage to the instrument or its auxiliary equipment.

To power on the system:

1. Power on the compressor and ensure compressed air gauge is set to 80 psi (5.5 bar).
2. On the front panel of the instrument, push the **Start** button.
   The **Power On** light illuminates.

   Tip: If the power to the system does not turn on, make sure that the door is closed and the **Emergency Stop** button is pulled out.

   The instrument cycles through various start-up processes indicated on the front indicator panel.
3. Power on the computer and wait for it to finish initializing.
4. From the computer desktop, double-click on the ClonePix 2 icon.

Obtaining Support

Molecular Devices is a leading worldwide manufacturer and distributor of analytical instrumentation, software, and reagents. We are committed to the quality of our products and to fully supporting our customers with the highest level of technical service.

Our Support website, www.moleculardevices.com/service-support, has a link to the Knowledge Base, which contains technical notes, software upgrades, safety data sheets, and other resources. If you still need assistance after consulting the Knowledge Base, you can submit a request to Molecular Devices Technical Support.

You can contact your local representative or Molecular Devices Technical Support at 800-635-5577 (North America only) or +1 408-747-1700. In Europe, call +44 (0) 118 944 8000.

Please have your instrument serial number or Work Order number, and your software version number available when you call.

WARNING! BIOHAZARD. It is your responsibility to decontaminate components of the instrument before you return parts to Molecular Devices for repair. Molecular Devices does not accept items that have not been decontaminated where it is applicable to do so. If parts are returned, they must be enclosed in a sealed plastic bag stating that the contents are safe to handle and are not contaminated.

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Visit our website for a current listing of worldwide distributors.

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