

Using Virtual COM Ports

Camera Link

Quick Start Guide

Imprint

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Document Version: 3.0
Document Language: en (US)

Last Change: June 2015

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You may find this document useful if ...

- ◆ You want to program applications that offer configuration options for Camera Link cameras, and
- ◆ You prefer using a COM-based serial interface (instead of using the Camera Link serial interface directly)

Automatic Setup of Virtual COM Ports

When working with Runtime Version 5.2.2 or higher, your system is able to set up virtual COM ports automatically – at the click of a mouse. Alternatively, you can configure your system to start the virtual COM port setup directly at system start.

What happens (at mouse click / at system start) is the following:

- ◆ The system sets up as many virtual COM ports as there are camera ports on the frame grabber(s)
- ◆ It connects the virtual COM ports with the camera ports (via frame grabber), using default values for the connection (baud rate etc.)

Thus, you instantly have as many virtual COM ports available as you need. You can use these ports to connect your software to the frame grabber, i.e., the camera.



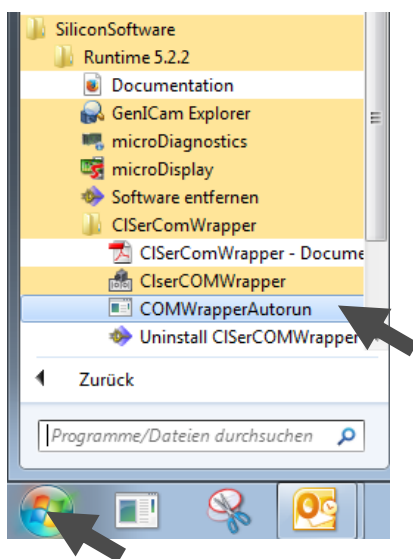
Administrator access rights required

Log on as administrator, since you need administrator access rights for installing virtual COM ports. If you are not logged on as administrator, you will get an according prompt.

Using the Virtual COM Ports

To use the virtual COM ports:

1. Start your system (with administrator access rights).
2. Install the Silicon Software Runtime (if not installed yet).
3. Start the COMWrapperAutorun application via mouse click (Start->All Programs ->SiliconSoftware->Runtime 5.2.2->CISerComWrapper->COMWrapperAutorun)



COM Port Setup At Each System Start



If you want to configure your system to set up and connect all virtual COM ports after each system start, just add the COMWrapperAutorun application to the Startup (AutoStart) folder of your system.

Now,

- ◆ the system sets up as many virtual COM ports as there are camera ports on the frame grabber(s), and
- ◆ connects the virtual COM ports with the camera ports (via frame grabber), using default values for the connection (baud rate etc.)

All virtual COM ports are displayed in the Windows task bar:




For each camera port on the frame grabber(s) of your system, one connected virtual COM port is available.

The default connection values are:

- ◆ baudrate=9600
- ◆ parity=n
- ◆ databit=8
- ◆ stopbit=1

Most of the Silicon Software Camera Link frame grabbers have two external Camera Link ports (A and B) for connecting one camera (Medium/Full) or two cameras (Base). The application uses the following COM port numbers as defaults when installing virtual COM ports and connecting them to the external Camera Link ports of the frame grabber(s):

COM Port Number	Frame Grabber	Camera Link Port of the Frame Grabber	Internal serial port (CI Ser port) number
10	Frame Grabber No. 1	Port A	0
11	Frame Grabber No. 1	Port B	1
12	Frame Grabber No. 2	Port A	2
13	Frame Grabber No. 2	Port B	3
14	Frame Grabber No. 3	Port A	4
15	Frame Grabber No. 3	Port B	5
etc.	etc.	etc.	etc.

	<p>Note</p> <p>If one/some of these default COM port numbers are already in use within your system, you will get an error message. In this case, you have to install virtual COM ports manually, using free port numbers (see Using Virtual COM Ports – User Guide).</p>
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Display of Virtual COM Ports in the Windows Device Manager

The installed virtual COM Ports are displayed in the device manager.

The following display informs that two virtual COM ports are available:

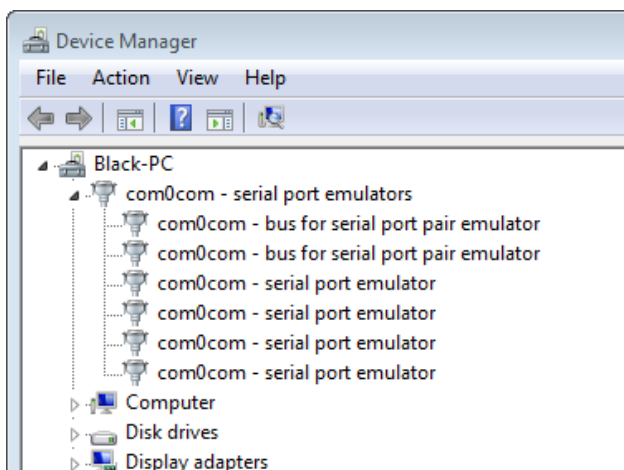


Figure 1: Virtual COM ports as displayed in the Windows Device Manager

Each virtual COM port is displayed with two serial port emulator entries (since the virtual COM port is actually a pair of ports, consisting of a CISer and a COM port). In addition, for each virtual COM port one bus is displayed (bus between CISer and COM port components).

Changing Connection Settings

If you want to change connection settings:

1. Place the mouse pointer on the COM port symbol in the Windows task bar. The mouse over informs about the connected ports, the frame grabber that provides the Camera Link port for this connection, and the port settings (baudrate, parity, databit, stopbit)

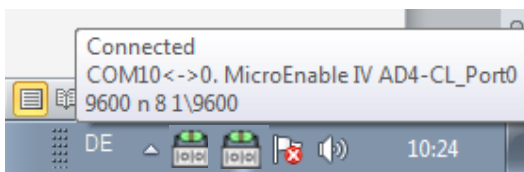
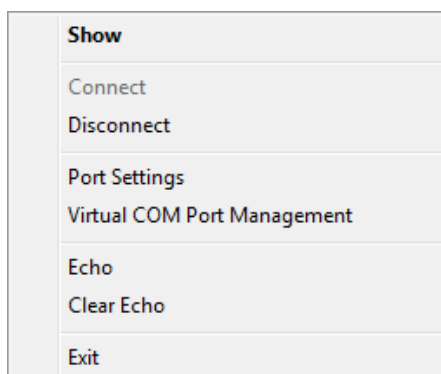


Figure 2: Mouse over information on particular connection

2. Right-click on the COM port symbol in the Windows task bar. A menu displaying all available options appears:



Show:

Opens a GUI window for adapting port settings.

Connect / Disconnect:

Connect to/disconnect from the Camera Port

Port Settings:


Set the parameters for COM port and CIsEr port (also refer to [Using Virtual COM Ports – User Guide](#)).

Virtual COM Port Management:

Install/uninstall virtual COM ports manually (also refer to [Using Virtual COM Ports – User Guide](#)).

Connection Protection



When clicking the **Show** button or double-clicking on a COM port symbol, a GUI window for configuring the individual virtual COM port connection opens. However, to avoid accidental disconnection, the connection is independent of this program window: If you close the program window by clicking the close button , the port stays connected.

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