SILICON**SOFTWARE**

Using Virtual COM Ports

Camera Link Product Family

Quick Start Guide

SILICONSOFTWARE

Imprint

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Content

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, virtual COM ports are set up automatically:

- after installation of the Runtime, and
- at each system start.

What happens after the installation / on each 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, directly after system start, you 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 promt.

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).

All virtual COM ports are now 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 (Clser 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.

> **Note**
>
> 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 [ClSerCom Wrapper Installation and User Guide](#)).

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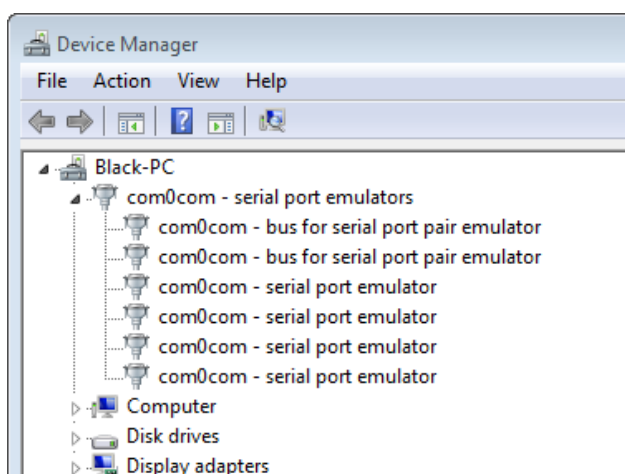
**Figure 1: Virtual COM ports as displayed in the Windows Device Manager**

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 Clser and a COM port). In addition, for each virtual COM port one bus is displayed (bus between Clser 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)
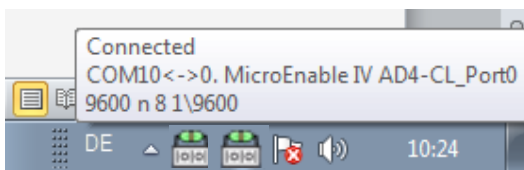
Figure 2: Mouse over information on prticular connection

1. Right-click on the COM port symbol in the Windows task bar.
    A menu displaying all available options appears:
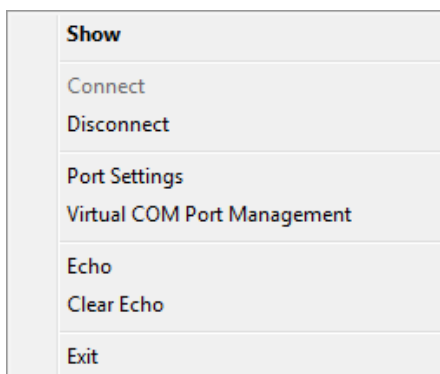
Show:
> Opens a GUI window for adapting port settings.

Connect / Disconnect:
> Connect to/disconnect from the Camera Port

Port Settings:
> Set the parameters for Com port and Clser port (also refer to **ClSerCom Wrapper Installation and User Guide**).

Virtual COM Port Management:

Install/uninstall virtual COM ports manually (also refer to **ClSerCom Wrapper Installation and 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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