Video-to-FireWire converter
Adjusting the parameters

We are used to adjusting analog devices with DIP switches and volumes. This is anachronistic from the point of view of the modern digital image processing. In the following text, we offer some general advice on how to adjust the parameters of the Video-to-FireWire converter DFG/1394-1e.

Please note:

- It is the responsibility of an on-site engineer to correctly integrate the Video-to-FireWire converter in the context of real applications.

Content

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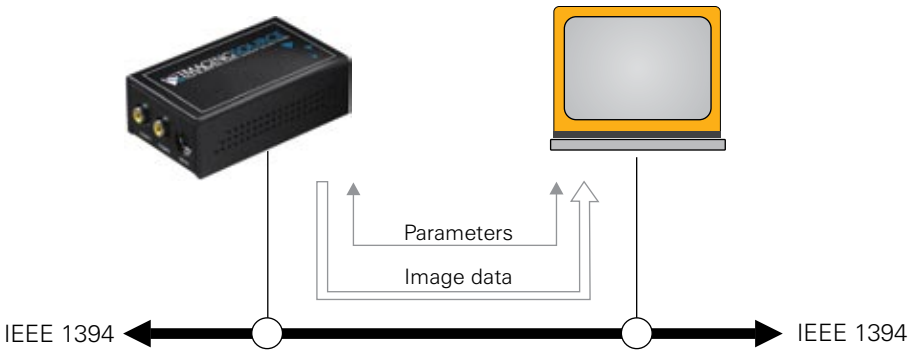
Overview

Video-to-FireWire converters are controlled by computers via the FireWire bus. In the case of digital image processing, two types of computers dominate:

(1) Computers with a standard operating system as Windows, Linux, Mac OS, etc

(2) Proprietary image processing systems of various manufacturers.

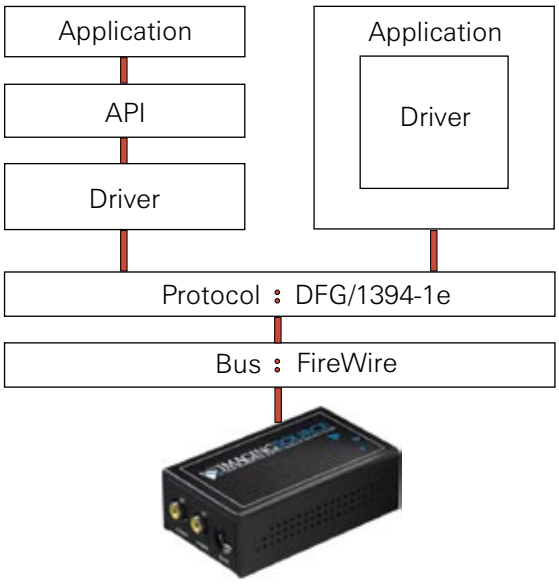


Accessing the Video-to-FireWire converter

There are two modes for application software to access Video-to-FireWire converters. The advocats of the "classic method" write their own driver (see the figure's right part). In this way the application "talks" - figuratively speaking - "DFG/1394-1e".

The advocats of the "operating system method" develop hardware independent application software. Such software is only allowed to access an API of the operating systems, and this API in turn is allowed to access the driver.

The Imaging Source follows the "operating system method"; offering these Windows® components for this purpose:



Application: IC Capture

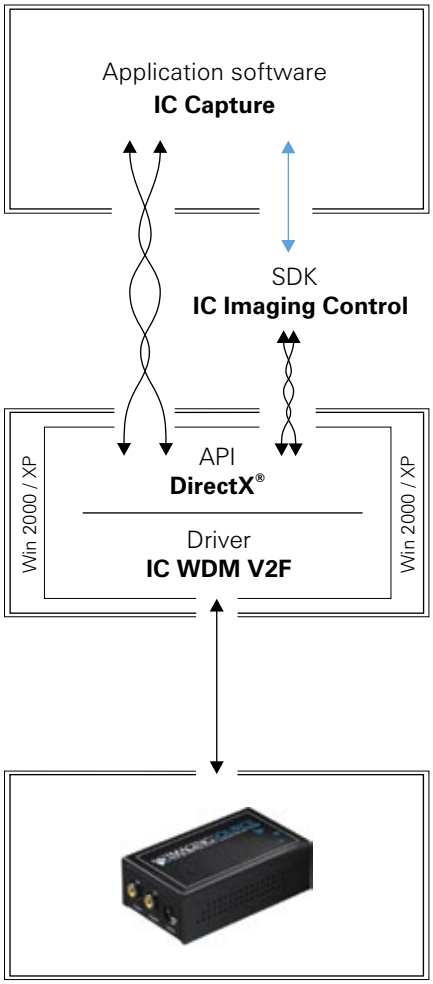
API: IC Imaging Control / DirectX®

Driver: WDM Stream Class driver "talking DFG/1394-1e".

Applications for Windows®

Users do not like to agonize over protocols or drivers. They want to adjust their Video-to-FireWire converter's parameters with a simple application software viewing the results in live mode. The Imaging Source offers the software **IC Capture** for this purpose.

Please find details as well as a trial version at www.1394imaging.com/en/products/software/windows_apps/iccapture/overview/.



SDKs for Windows®

Programmers access operating system APIs to write hardware independent software (please see Accessing the Video-to-FireWire converter). Windows® provides the API DirectX® for image data streams. The Imaging Source offer the SDK **IC Imaging Control** to simplify the access to DirectX®. This SDK offer programming tools as .NET component, ActiveX and C++ Class Library.

Please find details as well as a trial version at www.1394imaging.com/en/products/software/windows_sdks/icimagingcontrol/overview/.

Drivers for Windows®

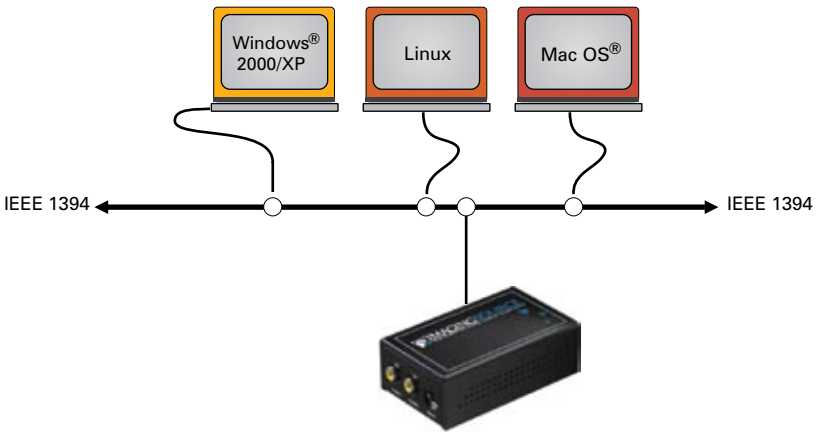
Obviously a computer has to "talk DFG/1394-1e" to communicate with the Video-to-FireWire converter. Thus, its operating system needs a DFG/1394-1e driver.

The Imaging Source offers the driver **IC WDM V2F** for Windows® 2000 and XP that supports all parameters of the Video-to-FireWire converter. Following Microsofts® specification, it is a WDM Stream Class driver.

Please find details as well as a trial version at www.1394imaging.com/en/products/software/windows_drivers/icwdmv2ftis/overview/.

How are Linux, Mac OS and other systems supported?

Video-to-FireWire converters do not "prefer" a special operating system. Although the previous pages focussed on Windows also other systems support the DFG/1394-1e:



For **Linux** there are various Open Source projects:

- sourceforge.net/projects/unicap

Apple, as a FireWire pionier, obviously supports the DFG/1394-1e:

- http://www.outcastsoft.com/ASCDFG1394.htm