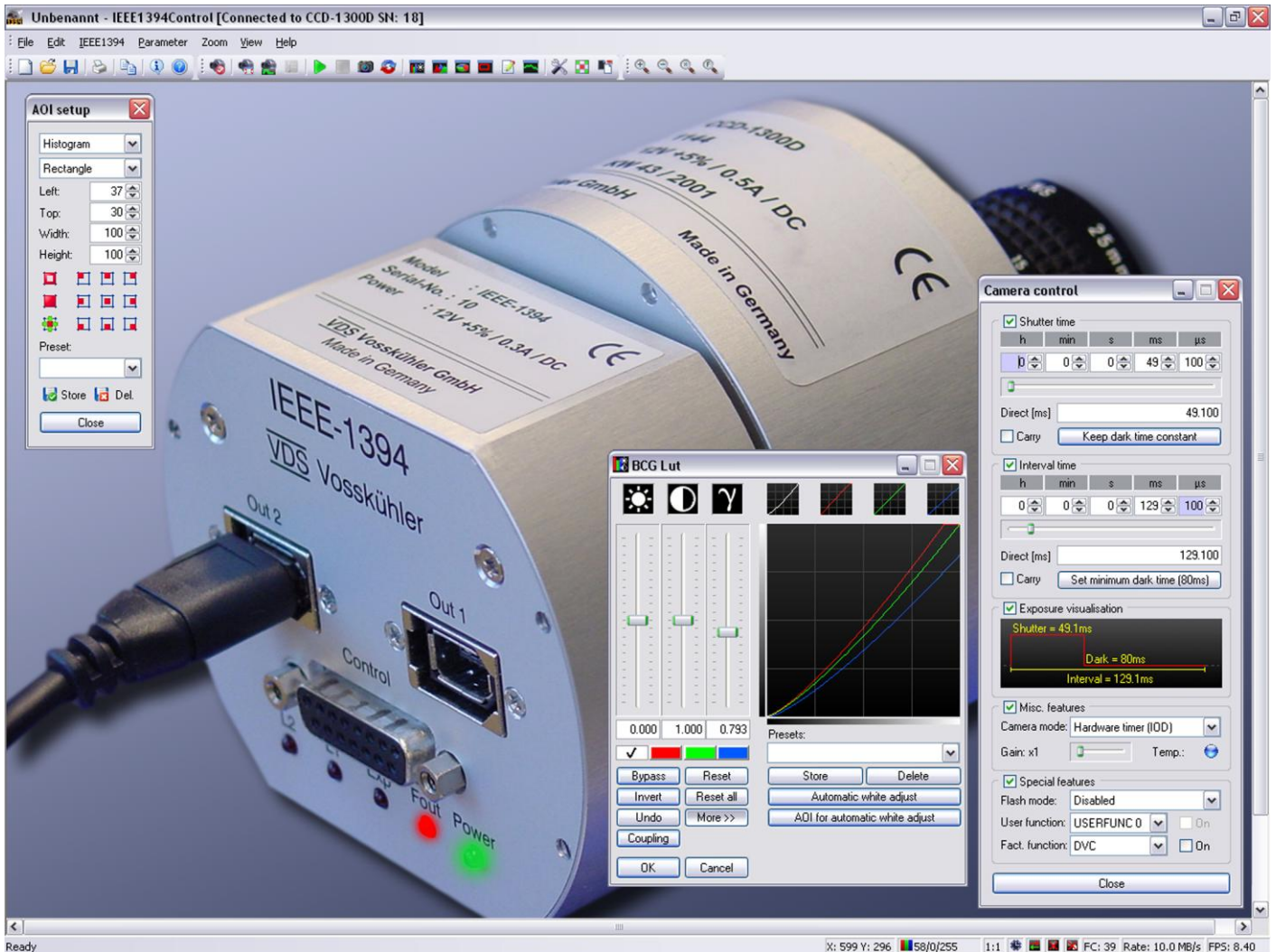


IEEE1394 Software

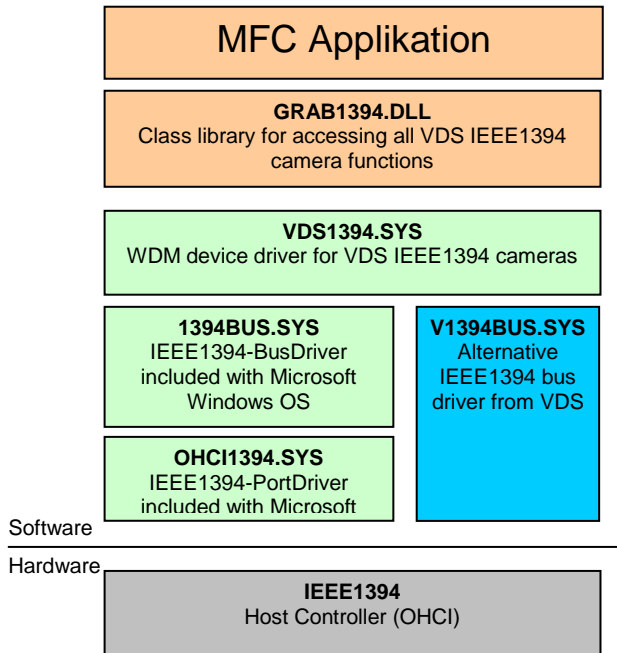
for VDS IEEE1394 Interfaces



Features

- IEEE1394Control stand-alone software
- GRAB1394 software development kit
- TWAIN driver for easily accessing VDS IEEE1394 cameras from every TWAIN compatible software
- Support of nearly every digital camera of VDS Vosskühler (b/w and color)
- Adjustment of camera resolution, bit depth and transfer speed
- Various record modes like: Continuous, hardware trigger, hardware timer
- Real time statistics and histogram
- LUT with integrated white balance
- Support for Windows® 2000, XP, XP x64, Vista, Vista x64, 7 and 7 x64

The **IEEE1394Control** software works with every OHCI compatible IEEE1394 and various Microsoft Windows® operating systems. The software offers complete control over a connected VDS IEEE1394 camera and various adjustment and analysis features. The following graphic illustrates the different soft- and hardware layers:



Microsoft Windows® operating systems include a bus driver and various class drivers to support the IEEE1394 high performance serial bus. Unfortunately there are known bugs and stability issues that cause problems in industrial and professional applications with high reliability demands. VDS Vosskühlers alternative **V1394Bus** driver provides a solution to these problems. It replaces the Microsoft driver. The bus driver supports OHCI-compliant host controllers. Its implementation conforms to the PCI driver model defined by WDM and is optimized for high-throughput, low CPU load and fault-tolerant operation.

The **VDS Twain driver** allows easy access to a VDS IEEE1394 camera from any Twain compatible application.

VDS TWAIN Software Features

- Easy selection of all VDS IEEE1394 cameras connected to the local IEEE1394 bus.
- Easy adjustment of the camera resolution, bit depth and frame rate.
- Live preview image at high frame rates (depends on camera capabilities and PC hardware).
- Adjustment of exposure- and period time.
- Adjustment of camera gain value.
- Different record modes like: Continuous, hardware trigger and hardware timer
- Support for monochrome and color images
- Repeated transfer of the last snapped image

IEEE1394Control Software Features

- Easy selection of all VDS IEEE1394 cameras connected to the local IEEE1394 bus.
- Easy adjustment of the camera resolution, bit depth and frame rate.
- Live preview image at high frame rates (depends on camera capabilities and PC hardware).
- Adjustment of exposure- and period time.
- Adjustment of camera gain value.
- Different record modes like: Continuous, hardware trigger and hardware timer
- Real time statistics and histogram display
- LUT with integrated white balance
- Cooling status (COOL-1300 series only)
- Support for monochrome and color images
- Saving single frames (BMP, TIF, RAW)
- Repeated transfer of the last snapped image
- Easy driver management
- Median filter
- Background correction

The **GRAB1394 software development** kit is a Microsoft® Visual® C++ MFC class library for easy access to any VDS Vosskühler IEEE1394 digital camera. The class library allows to access all hardware features of a VDS IEEE1394 interface. A detailed API documentation and source code examples are included in the SDK.

CGrab1394ClassExp

Main class which implements all necessary access functions to VDS cameras. This class provides functions for e.g. enumerating all VDS cameras, DCAM mode selection, grab buffer management, continuous and single snapping, IEEE1394 bus reset handling, timer programming.

CDeviceSelectDlg

Additional CDialog derived class for simply displaying all found VDS cameras in a list.

CDeviceModeDlg

Additional CDialog derived class for selecting a camera mode and framerate.

CConfigDlg

Additional CDialog derived class for configuration of a camera.

CDeviceControlDlg

Additional CDialog derived class for accessing all camera control functions like exposure time and gain.

Operating system compatibility:

Architecture Platform	vds1394 Device Driver + Microsoft Bus Driver (NOT Runtime-Based)			vds1394 Device Driver + v1394bus Bus Driver (Runtime-Based)	
	x86	x64 (< 4GB RAM)	x64 (≥ 4GB RAM)	x86	x64
Windows 7	✓	✓	–	✓	✓
Windows Vista	✓	✓	–	✓	✓
Windows Server 2003	✓	✓	–	✓	✓
Windows XP	✓	✓	–	✓	✓
Windows 2000	✓	–	–	✓	–

Supported Cameras (among others)

- CCD-1300QB/QD/QLN/QCB: mono./color, 8/12bit
- CCD-1300QF: monochrome, 8 bit
- COOL-1300Q/QC: monochrome/color, 8/12 bit
- CCD-1020: monochrome, 8/12 bit
- CCD-2000/C: monochrome/color, 8 bit
- CCD-4000/C: monochrome/color, 8 bit
- CCD-11000/C: monochrome/color, 8 bit