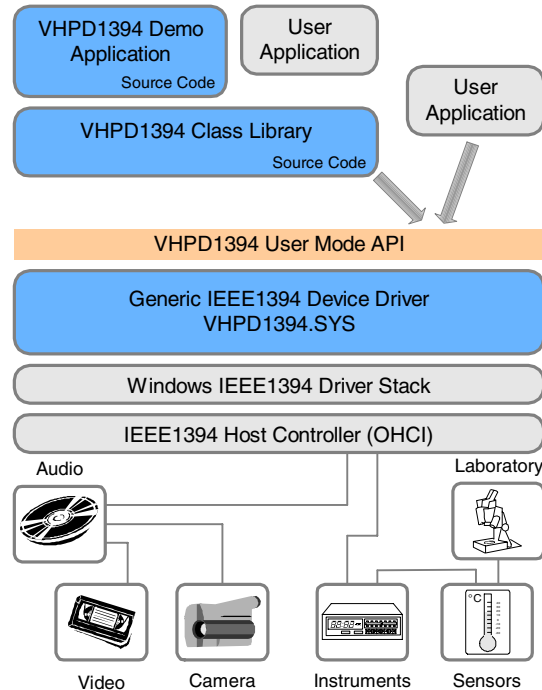


VHPD1394 Development Kit

IEEE 1394 Device Driver Toolkit for Windows

The IEEE 1394 High Performance Serial Bus (also known as FireWire or i.Link) is supported in all current Windows operating systems. The operating system provides device drivers for various IEEE 1394 host controllers and a bus driver, the central component which manages the IEEE 1394 bus. Windows applications running in user mode are not able to access the programming interface to this driver architecture.

It is for this reason that communication between Windows applications and IEEE 1394 devices requires an additional kernel-mode device driver. This driver must conform to the Windows Driver Model (WDM) which defines a uniform device driver architecture for Windows operating systems. Developing a kernel-mode WDM driver requires specialist knowledge in kernel-mode programming and a deep understanding of operating system internals. The development and debugging process can be very time-consuming. These development efforts can be avoided using the VHPD1394 Development Kit. The kit also includes additional software components, thereby providing a complete development environment for creating IEEE 1394 solutions.



The VHPD1394 Device Driver

The core component of the VHPD1394 development kit is the Versatile High Performance device Driver **VHPD1394.SYS**. It provides Win32 applications with **direct access** to IEEE 1394 devices, enabling application developers to control any kind of IEEE 1394 device available. The VHPD1394 driver provides an extensive programming interface based on standard Windows API functions such as DeviceIoControl. It supports the complete IEEE 1394 functionality and is optimized for maximum efficiency.

Easy Installation

The **Virtual IEEE 1394 Device Wizard** allows creation and deletion of virtual devices.

The **VHPD1394 Installation Wizard** allows quick and easy installation of the VHPD1394 driver for a particular device. The wizard creates a setup information file (INF) adapted for the selected device.

Using TheSycon's **PnP Driver Installer** it is very easy to create a specific setup wizard that handles driver installation, un-installation and update in a comfortable and reliable way. For more information on PnP Driver Installer, check out <http://www.thesycon.de/pnpinstaller>.

Features

- ❑ All kernel-mode IEEE 1394 functions are available at the Win32 API level
- ❑ VHPD1394 device driver provides an intuitive and convenient programming interface
- ❑ Programming interface supports C, C++ and Delphi
- ❑ Full support for both asynchronous and isochronous data transmission, with PC acting as data source or data sink
- ❑ Supports virtual devices to provide a network-level programming interface that is independent of available physical devices
- ❑ Design and implementation is optimized for efficient transmission of broadband data streams
- ❑ Supports IEEE 1394b OHCI host controllers
- ❑ Supports vendor-specific customization
- ❑ Microsoft WHQL certification supported

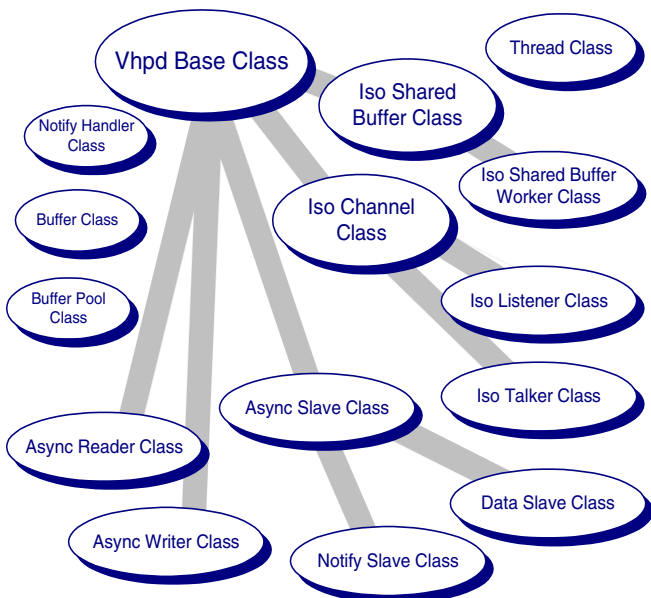
Supported platforms	x86	x64
Windows 2000	✓	—
Windows XP	✓	✓
Windows XP Embedded	✓	—
Windows Server 2003	✓	✓
Windows Vista	✓	✓
Windows 7	✓	✓

Application Examples

- ❑ PC-based image and video processing
- ❑ Digital audio and video devices
- ❑ Measuring devices
- ❑ Industrial control units
- ❑ High performance sensor/actor units
- ❑ Medical equipment

The VHPD1394 Class Library for C++

The VHPD1394 Development Kit includes the source code of a **C++ class library**, which simplifies the use of the VHPD1394 programming interface in applications. The library provides wrapper classes for all driver functions and some extended functionality, such as management of worker threads. The library can be easily enhanced by additional classes in order to meet the requirements of a particular application.

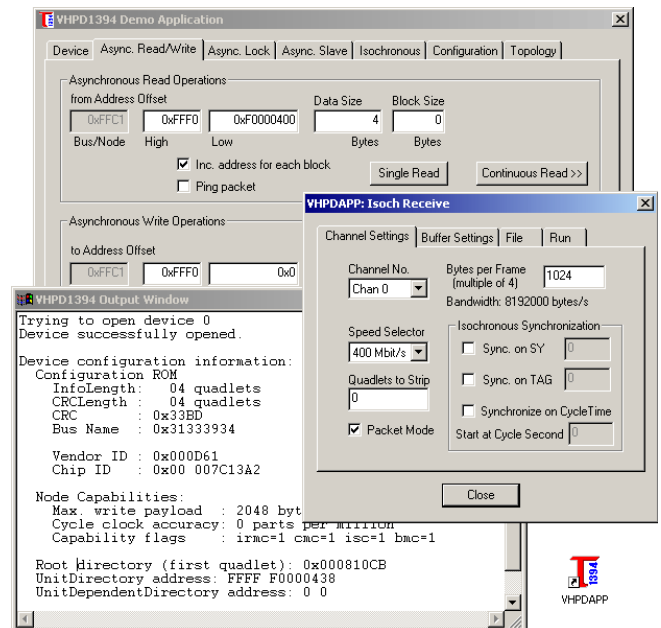


Test and Demo Application

The VHPD1394 Development Kit contains the source code of a fully-featured **test application**. The application, written in C++ using the MFC, is based on the class library. It allows interactive testing of individual device functions and is thus a useful test tool for developing IEEE 1394 devices and firmware.

Documentation

Extensive documentation is provided in PDF format. It includes a design guide, a description of the native Win32 programming interface of the driver and a function reference for the C++ class library. In addition, various C++ source code samples are included.



Free Evaluation Version

A free evaluation package is available for download at <http://www.thesycon.de>. It is intended to give a first insight into the development kit. The package contains the VHPD1394 driver, the class library and the demo application VHPDAPP (both with complete source code), the installation wizard and the documentation. The driver included in the evaluation package has full functionality but it is time-limited.

Licensing

There are various levels of licensing available:

- ❑ The **Developer License** allows use by one person on several computers during product development.
- ❑ The **Site License** allows use by any number of persons on several computers at one company site.
- ❑ The **Single Product License** allows royalty-free redistribution for use with a single hardware product.
- ❑ The **Unlimited Product License** allows royalty-free redistribution for use with multiple hardware products.
- ❑ The **VHPD1394 Driver Source Code License** includes the source code of the kernel-mode driver.

The complete license agreement and a current price list can be found on the TheSycon website.

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