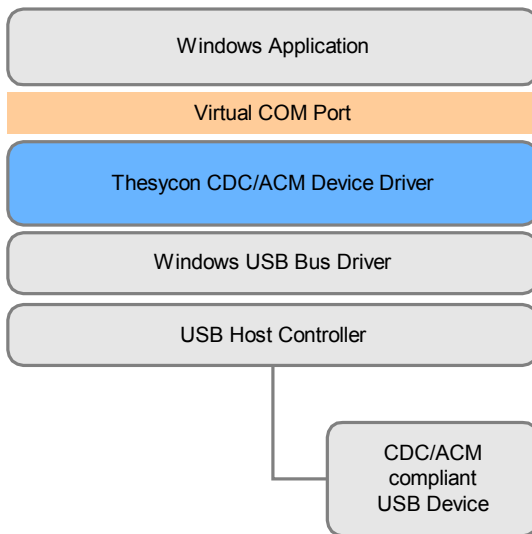


USB CDC/ACM Class Driver for Windows CE and Mobile



Thesycon's USB CDC/ACM Class Driver provides a serial port emulation on Windows CE by implementing a serial link emulation protocol on USB. The driver exposes a Win32-compatible COM port. The driver works with devices that are compliant to the Communication Device Class (CDC) specification, subclass Abstract Control Model (ACM). However, the driver supports three different USB protocol flavors which are described in more detail below.

CDC/ACM Compliant Protocol

The device needs to implement the Abstract Control Model (ACM) subclass defined in the USB Communication Device Class (CDC) specification. This protocol requires two USB interfaces, a data interface which consists of two endpoints (bulk in + bulk out) and a control interface which consists of one interrupt in endpoint. Furthermore, on EP0 the device needs to implement the class-specific requests defined by the CDC specification. Because this USB protocol is compliant to the CDC/ACM standard on some operating systems (e.g. Linux, MacOS) the device can work with in-box drivers.

Reduced CDC/ACM Protocol

This mode uses the CDC data interface (bulk in and out endpoint) only. No control interface (interrupt in endpoint) is required. The device needs to implement the CDC class-specific requests. So it is still possible to support baud rate settings and serial control/status lines. This mode is useful if the number of available endpoints is limited by hardware restrictions. However, as the protocol is proprietary a specific device driver is required for every operating system platform to be supported by the device.

Bulk-only Protocol

The device implements the data interface (bulk in and out endpoint) only. The device does not provide an additional control interface and does not need to implement any class-specific requests on EP0. Because bulk transfer mode provides flow control there is no need to support serial control/status lines. The advantage of the bulk-only protocol is that the implementation efforts on the device side are reduced to a minimum. However, because the protocol is proprietary a specific device driver is required for every operating system platform to be supported by the device.

Licensing

A full functional but time-limited demo version of the USB CDC/ACM Class Driver is available.

A Platform License permits royalty-free distribution of the driver together with a specified platform. In addition, a source code license is available. For complete license conditions, prices and free demo version please contact Thesycon.

Features

- ❑ Exposes a virtual COM port that is compatible with the Win32 serial port API
- ❑ COM port can be used by standard Windows programs such as terminal programs
- ❑ Can be used either as a serial port or a modem device (using unimodem driver)
- ❑ Hot plugging of devices is fully supported
- ❑ Provided as source code

Supported platforms

Windows Mobile 6.1	✓
Windows Mobile 6.0	✓
Windows Mobile 5.0	✓
Windows CE 6.0	✓
Windows CE 5.0	✓
Windows CE 4.2	on request
Windows SmartPhone 2003	on request
Windows Pocket PC	on request

A similar driver is also available for Windows 2000/XP/Vista/7.

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