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	Title:	<b>USB-RS232 adapters</b>				
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	Validated:	<b>NN /</b>		Date:	<b>Date 2</b>	
	Revision:			Replaces:		

## Background

For OriLink® the recommended is always a true hardware serial port because it always works, it is screwed to the computer so it cannot fall off and it has its own resources not shared with other devices.

If a computer does not have a serial port the recommended solution is to use an add-on serial port I/O-card or for laptops a PC/PCMCIA card.

There are several different USB-serial port adapters and some works well, some works fair and some does not work at all.

This document aims to give some info about USB to serial port adapters.

## Basics

Since a USB connector is only a connector among several other connected to the same physical USB “router” any USB device connected gets a virtual port assignment and this is what causes most issues with USB devices.

To create USB adapters there are several models of chip available on the market.

When checked on internet there seems to be 3 more commonly used chips.

- FTDI - has chip names like Dxxx.
- ARDUINO - has chip names like CHxxxx
- Prolific - has chip names like PLxxxx

All of them seem to be used in adapters that work in Windows XP, 7, 8, 8.1 and 10 but how good they work is very dependent on the driver installed for them.

FTDI based adapter seems to be the ones most internet links recommend.

## Some example of tested adapters

We have bought these and tested them in several PC models and Windows versions

### DIGITUS 2.0, p/n DA-70156


(179SEK at LionTech in Sweden)

FTDI chip works excellent in all Windows.  
Windows 7, 8, 8.1 and 10 finds and updates the driver by itself through Windows update.

A CD is also included.

Flashing and scripting has been tested in all Windows.



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## Genuine FTDI

(Bought on internet)

FTDI chip works excellent in all Windows.

Windows 7, 8, 8.1 and 10 finds and updates the driver by itself through Windows update.

Flashing and scripting has been tested in all Windows.



## MarQuant

(199SEK at Julia in Sweden)

ARDUINO CHM340 Chip

Windows 7, 8, 8.1 and 10 finds and updates the driver by itself through Windows update.

A CD is also included.

Flashing and scripting has been tested in all Windows.

It works but communication is intermittent and slow.



This brand seems to not have any home page so it seems very difficult to find drivers for it.

Is Ok for demonstration and temporary use. It can probably perform "ok" in standard not so big installations but it is not recommended.

## Plexgear

(289SEK Kjell&Company in Sweden)

Prolific PL2032 chip

Windows 7, 8, 8.1 and 10 finds and updates the driver by itself through Windows update.

A CD is also included.

Flashing and scripting has been tested in all Windows.

It works but communication is intermittent and slow it is a little better than the Marquant.



Is Ok for demonstration and temporary use. It can probably perform "well" in standard not so big installations but it is not recommended.

## Conclusions

Most USB to RS232 adapters will work at least in smaller standard systems.

Models that uses a FTDI chip seems to be the ones that generally works best

Since the functionality is very software driver dependent it is always good to try getting the latest/best version of the driver for the adapter. It also very probable that the functionality of the adapter can be improved later when the supplier releases a newer driver.