DUCX USB Driver Installation

20161028 v1.0

Scope

This document describes the process for driver installation on a clean, patched, installation of Windows Vista, Windows 7, Windows 8, Windows 8.1 and Windows 10 both 32 and 64-bit versions.
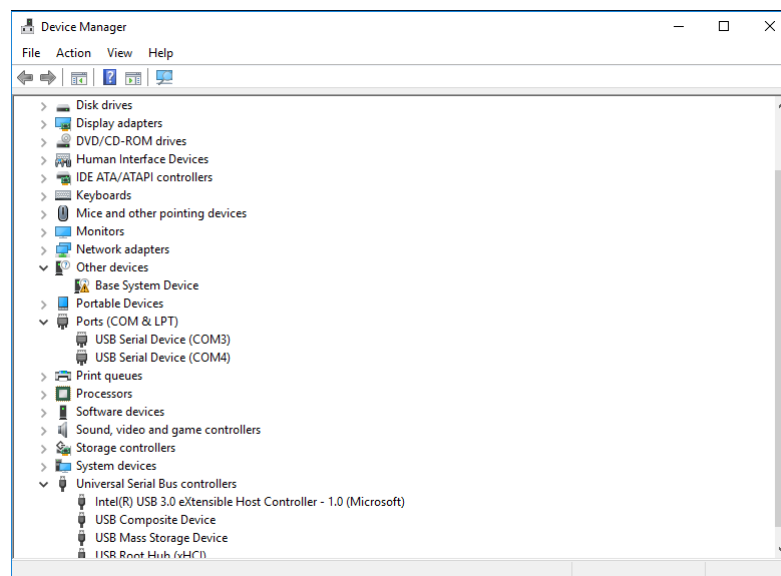
Overview

From Windows Vista onwards Windows includes USB class device drivers[1] for standard USB functions including the CDC serial port function used by DUCX. There is therefore no need any longer to include a modified ST Microelectronics VCP driver we simply provide an INF file describing the two CDC device endpoints and use the standard Windows driver usbser.sys to service the ports.

The bespoke INF file is signed by LeoTel Software Systems Limited so that it can be used on both 32 and 64 bit platforms directly.

USB Composite and USB CDC Serial Drivers

Windows 10

On first connecting the Mega Link USB interface to a clean, patched, installation of Windows 10 Windows will recognise the Mega Link USB interface as a USB composite device (Hardware IDs VID 0483 and PID 5740) with two USB class 02 CDC functions/devices:

The two Mega Link Virtual COM Ports appear above as standard USB Serial Devices (COM3 & COM4). You can identify which ports are the Mega Link ports by looking at the device 'Hardware Ids' and confirming they have VID 0483 and PID 5740.

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1 https://msdn.microsoft.com/en-us/library/windows/hardware/ff538820(v=vs.85).aspx
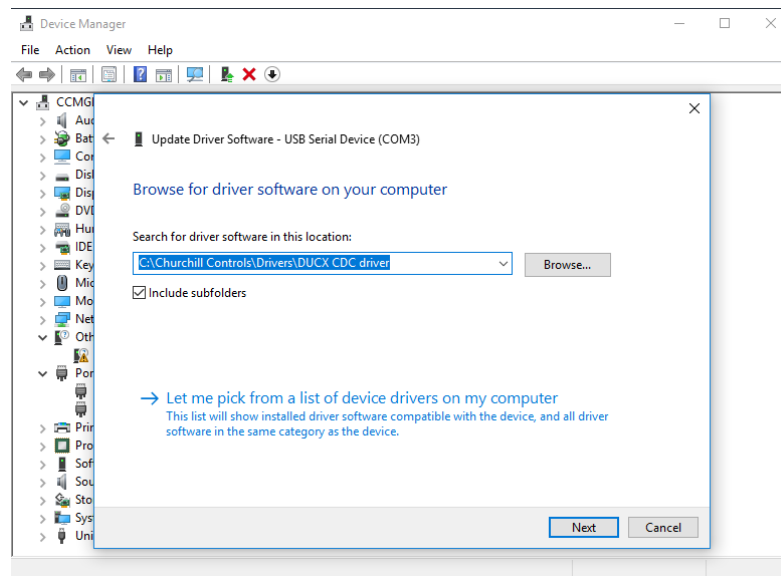
In order to enumerate these two devices as working Mega Link serial ports the following process should be followed:

Select one of the 'USB Serial Device' devices, right click on the mouse and select 'Update Driver Software...'
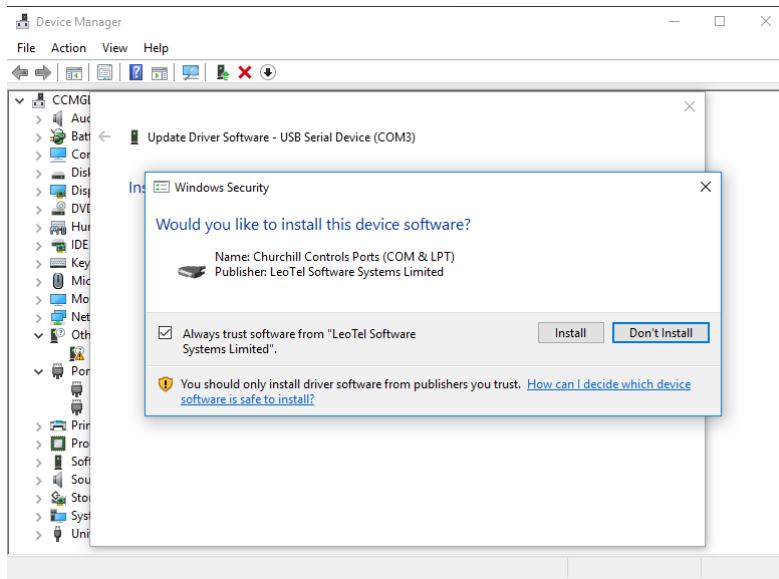
Select 'Browse my computer for driver software'

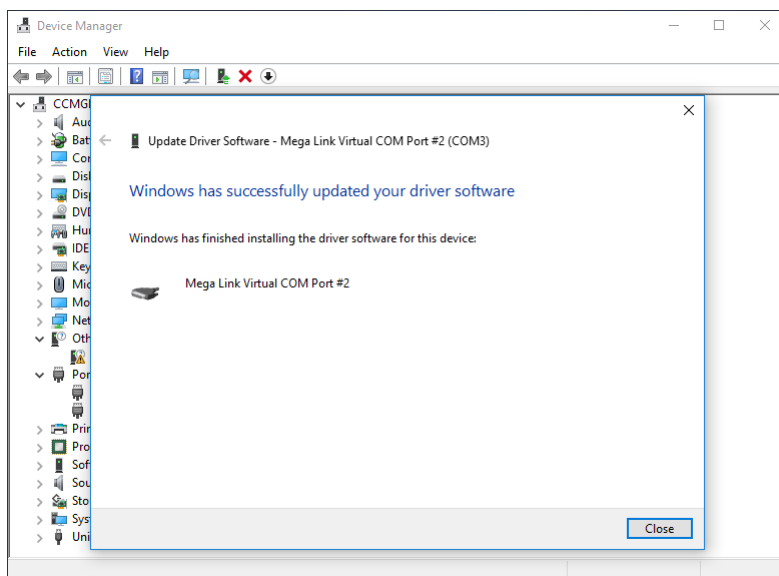Select 'Let me pick from a list of device drivers on my computer'

Browse to the 'Churchill Controls\Drivers\DUCX CDC driver' installation directory:

Press 'Next' and Windows should locate the file 'cdc-ducx.inf' in the indicated directory and confirm that you wish to install that device driver:
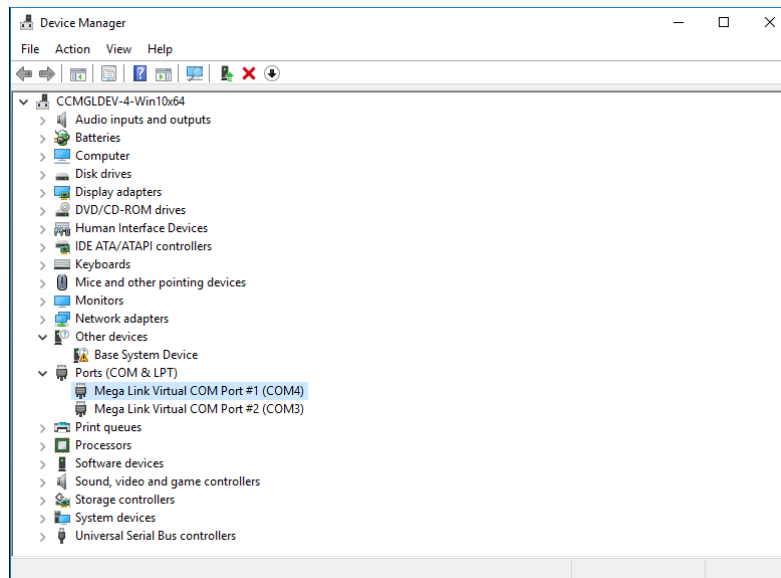

Confirm the install and Windows will install one of the two 'Mega Link Virtual COM Port' instances:

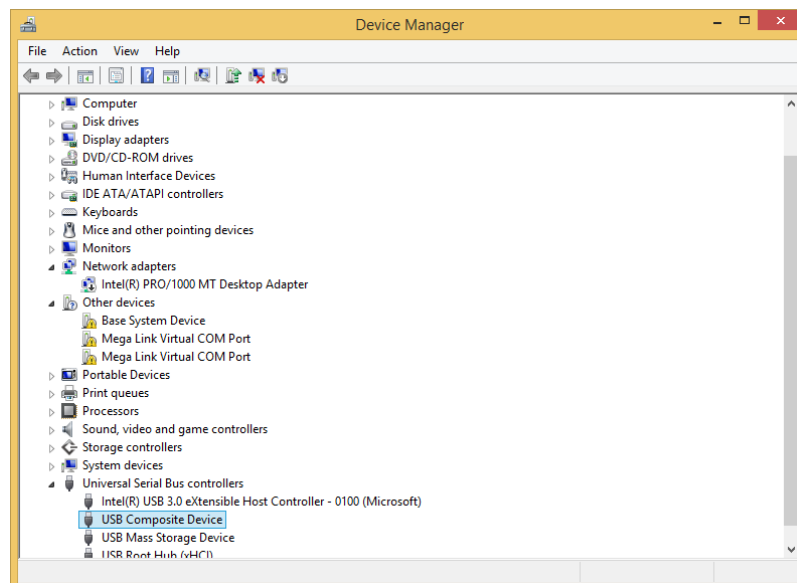Repeat the process for the other 'USB Serial Device' device.

Your final 'Drivers' window should look something like this:

Windows 7, 8 and Windows 8.1

Scenario #1

On first connecting the Mega Link USB interface to a clean, patched, installation of Windows 8.1 without Internet access Windows will recognise the Mega Link USB interface as a USB composite device (Hardware IDs VID 0483 and PID 5740) with two USB class 02 CDC functions/devices:

The two Mega Link Virtual COM Ports appear above as unrecognised devices (yellow explanation mark) named 'Mega Link Virtual COM Port'.
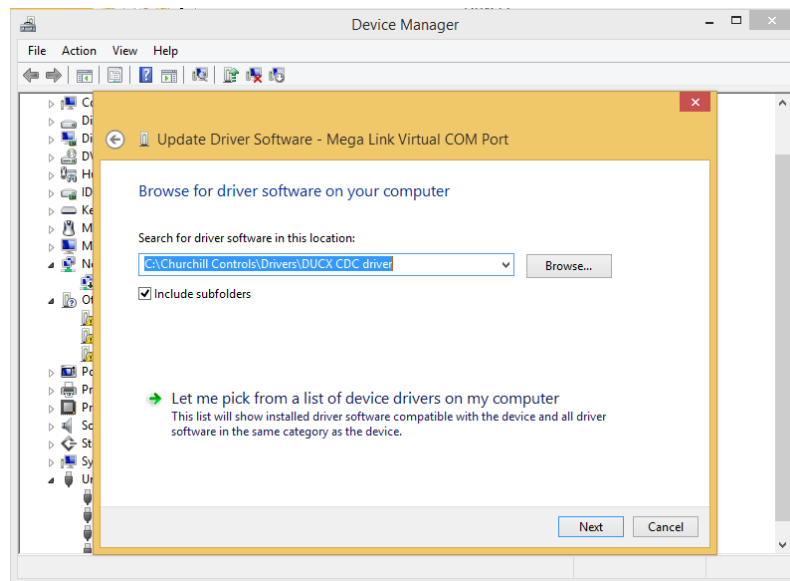
In order to enumerate these two devices as working Mega Link serial ports the following process should be followed:

Select one of the 'Mega Link Virtual COM Port' devices, right click on the mouse and select 'Update Driver Software...'
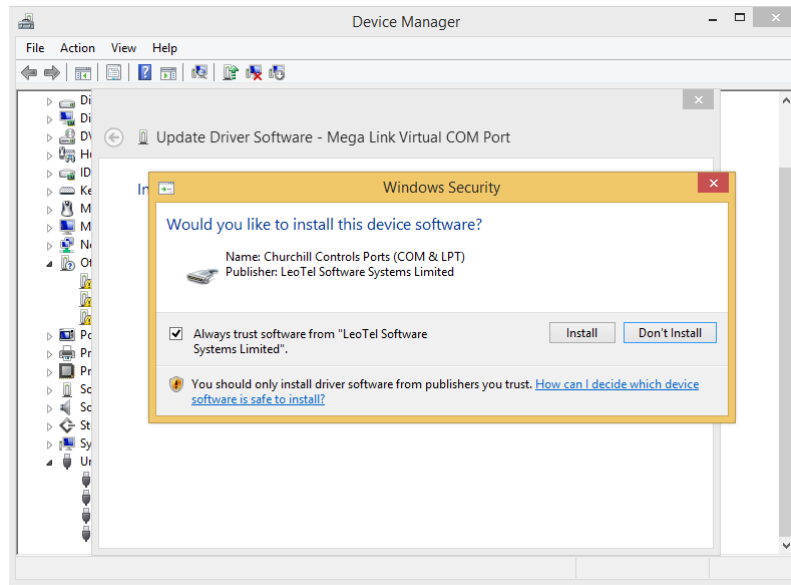
Select 'Browse my computer for driver software'

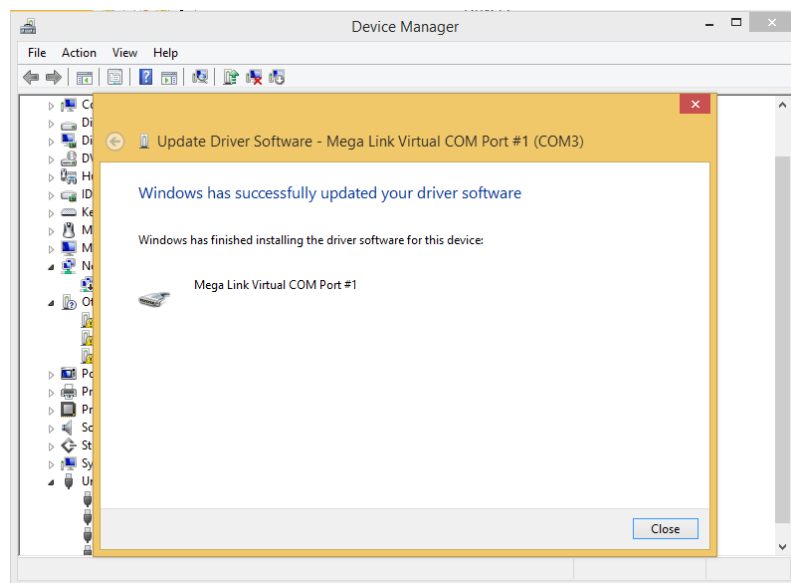Select 'Let me pick from a list of device drivers on my computer'

Browse to the 'Churchill Controls\Drivers\DUCX CDC driver' installation directory:

Press 'Next' and Windows should locate the file 'cdc-ducx.inf' in the indicated directory and confirm that you wish to install that device driver:
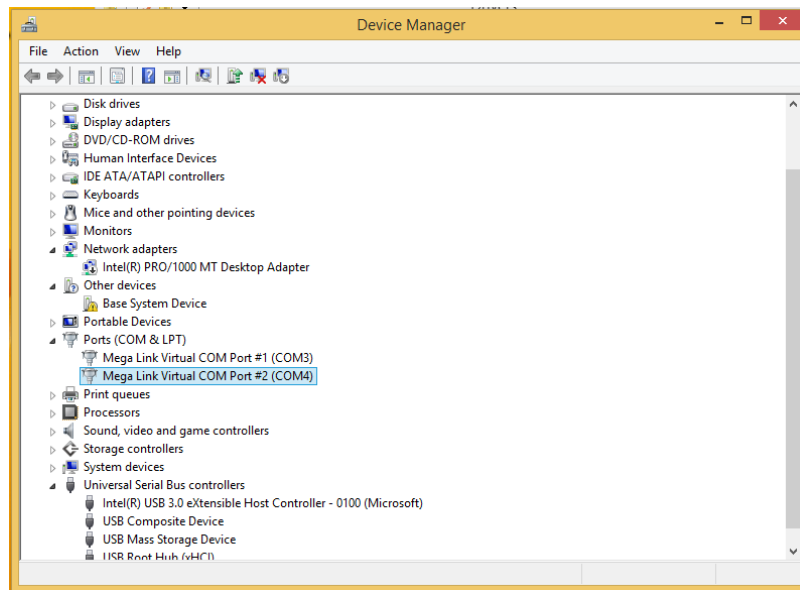

Confirm the install and Windows will install one of the two 'Mega Link Virtual COM Port' instances:
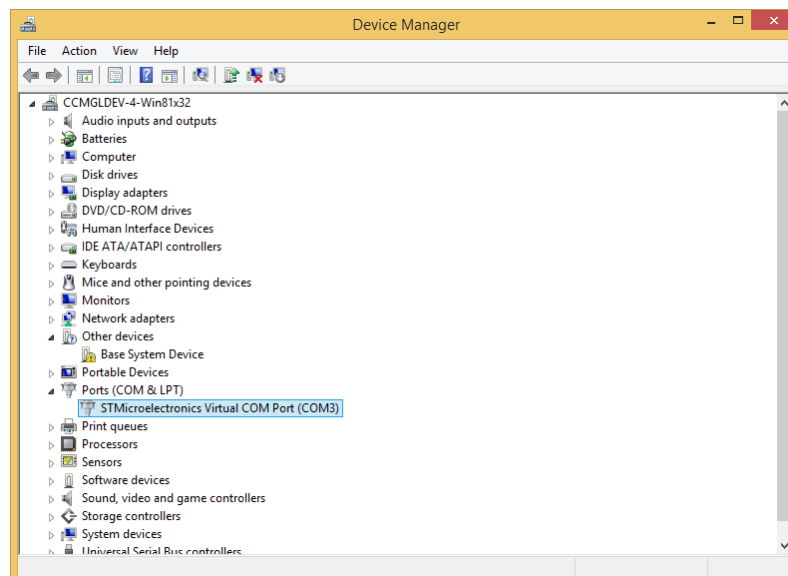

Repeat the process for the other Mega Link Virtual COM Port.

Your final 'Drivers' window should look something like this:

Scenario #2

On first connecting the Mega Link USB interface to a clean, patched, installation of Windows 8.1 with Internet access and drivers set to automatically download and install Windows will recognise the Mega Link USB interface as a single 'STMicroelectronics Virtual COM Port' instance (Hardware IDs VID 0483 and PID 5740) having downloaded that driver from the Microsoft update site:
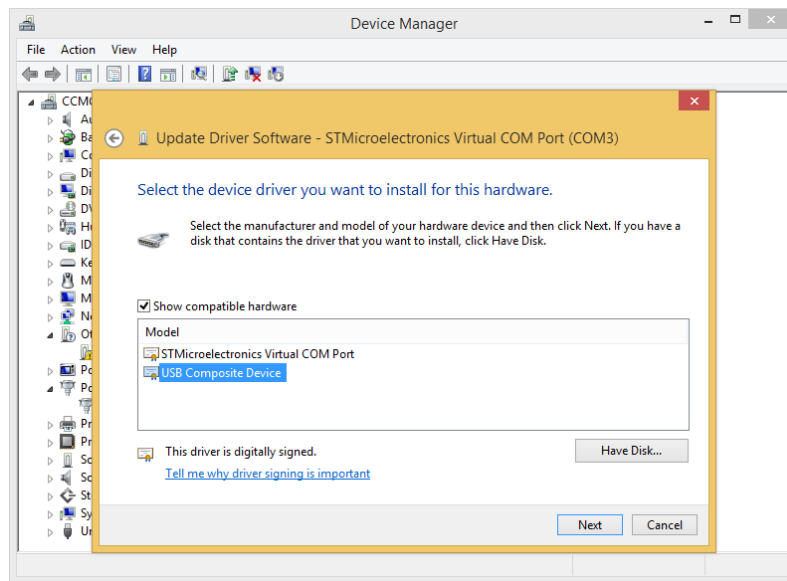

In order to enumerate the device as a USB composite device the following process should be followed.

Select the 'STMicroelectronics Virtual COM Port' devices, right click on the mouse and select 'Update Driver Software...'

Select 'Browse my computer for driver software'

Select 'Let me pick from a list of device drivers on my computer'

Select 'USB Composite Device':

Press 'Next' and Windows should change drivers to use the USB composite device driver. From this point on continue as per Scenario #1.