



Application Note

AN_319

Windows CE Driver Catalog Item Usage

Version 1.0

Issue Date: 2014-07-01

FTDI offer two driver variants to support their USB chipset on WinCE:- VCP (Virtual Com Port) and D2xx (Direct Bus driver). This guide documents how to install and use the Catalog Items for installing both the VCP and D2XX drivers on Windows Compact Embedded 6.0 and Windows Embedded Compact 7 platforms.

Use of FTDI devices in life support and/or safety applications is entirely at the user's risk, and the user agrees to defend, indemnify and hold FTDI harmless from any and all damages, claims, suits or expense resulting from such use.

Future Technology Devices International Limited (FTDI)

Unit 1, 2 Seaward Place, Glasgow G41 1HH, United Kingdom

Tel.: +44 (0) 141 429 2777 Fax: + 44 (0) 141 429 2758

Web Site: <http://ftdichip.com>

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1 Introduction

FTDI offer two driver variants to support their USB chipset on WinCE:- VCP (Virtual Com Port) and D2xx (Direct Bus driver). This guide documents how to install and use the Catalog Items for installing both the VCP and D2XX drivers on Windows Compact Embedded 6.0 and Windows Embedded Compact 7 platforms.

1.1 Overview

System builders of WinCE devices are able to add third party drivers to their system image that are not part of the original Platform Builder catalog items. There are a few ways in which the system builder can add the FTDI drivers to their image; the simplest way, but not conducive to creating a mass produced product, is to manually copy the files into the Windows directory of the system and then the driver will add the contents of the INF file to the registry the first time a FTDI based device is connected to the system. A more elegant method is to create a Subproject that contains the DLL(s), BIB, REG, DAT, etc. files so that when the system is built the driver is added to the image. To make this method simpler a catalog file is used, this allows the developer to add the driver from the catalog items list.

1.2 Scope

This document is intended for developers of WinCE systems who wish to add the FTDI VCP and/or D2XX driver(s) to their system.

2 Installation

The compilation tool required for WinCE 6.0 is Windows Embedded CE 6.0 Platform Builder which is a Visual Studio 2005 plug in. For WinCE 7 the Windows Embedded Compact 7 Platform Builder plug in for Visual Studio 2008 is required.

Once the relevant Visual Studio and Platform Builder have been configured it is possible to add the FTDI catalog items. FTDI provide eight catalog items in total, see Table 2.1 FTDI Catalog Items, they add both VCP and D2XX functionality for ARM and x86 architecture devices.

WinCE Version	Processor	Functionality	Catalog Item Name
6.0	ARM	VCP	FTDI_VCP_ARM_CE600
6.0	X86	VCP	FTDI_VCP_x86_CE600
6.0	ARM	D2XX	FTDI_D2XX_ARM_CE600
6.0	X86	D2XX	FTDI_D2XX_x86_CE600
7	ARM	VCP	FTDI_VCP_ARM_CE700
7	X86	VCP	FTDI_VCP_x86_CE700
7	ARM	D2XX	FTDI_D2XX_ARM_CE700
7	X86	D2XX	FTDI_D2XX_x86_CE700

Table 2.1 FTDI Catalog Items

Unzip the folder structure from the relevant catalog item package into the C:\WINCE600 or C:\WINCE700 directory. For the WinCE 6.0 ARM VCP Catalog Item the resulting directory should be C:\WINCE600\3rdParty\FTDI_VCP_ARM_CE600.

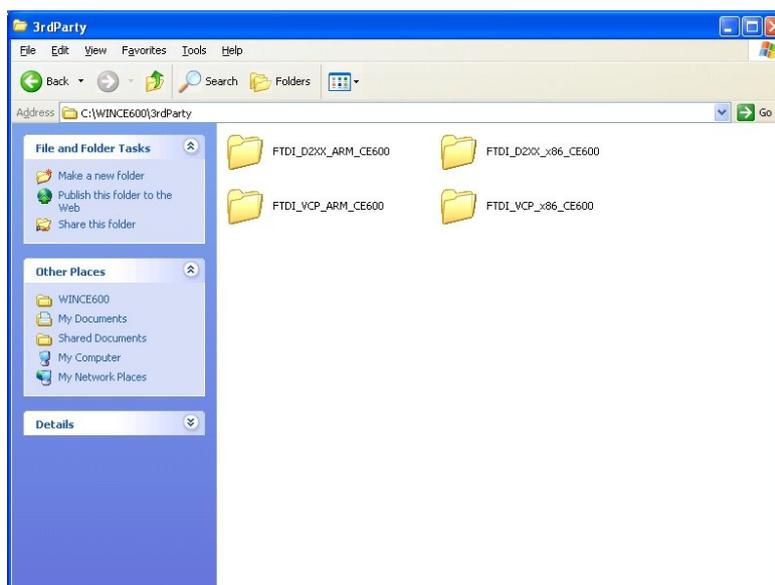


Figure 2.1

Once all of the catalog item packages that are going to be used have been unzipped into the C:\WINCE600\3rdParty directory open Visual Studio and either create a new OSDesign or open an existing one. Go to the Catalog Items View and click the Refresh catalog tree button, shown in Figure 2.2. The list should update to include all of the Catalog Items that have been copied into the C:\WINCE600\3rdParty directory, as shown in Figure 2.3.

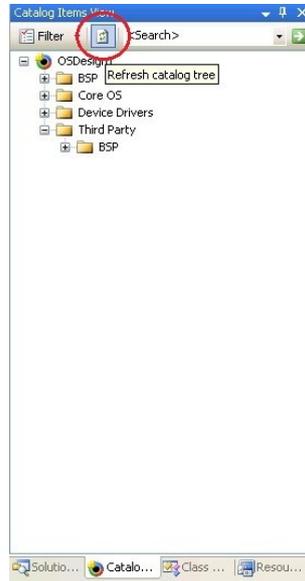


Figure 2.2

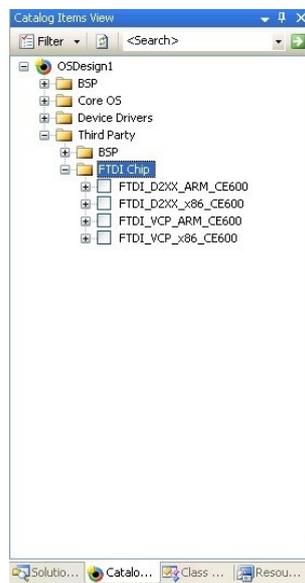


Figure 2.3

3 Driver Integration

3.1 Adding the Driver(s)

To add the VCP and D2XX drivers to an OSDesign select the required drivers for the processor architecture being used.

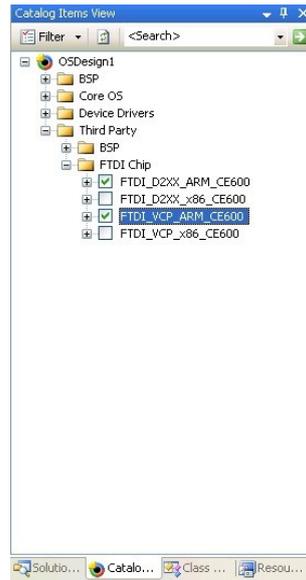


Figure 3.1

This will automatically cause a Subproject(s) to be added to the solution and can be seen in the Solution Explorer.

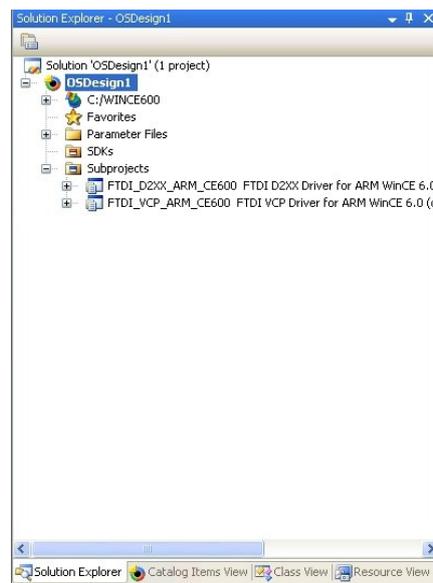


Figure 3.2

3.2 Using Both Drivers

When using both drivers in the same OSDesign the REG file for each driver will have to be altered to remove the entry(ies) that will conflict with each other, as it is not possible for the system to use different drivers for devices with the same VID & PID. Therefore to use two devices with the same VID & PID with the two drivers at least one of the devices will need to be reconfigured with a custom VID & PID.

It should be noted that editing the REG file overwrites the file within the Subproject for that catalog item and therefore any subsequent OSDesign that uses the catalog item will have the same registry settings.

4 Contact Information

Head Office – Glasgow, UK

Future Technology Devices International Limited
Unit 1, 2 Seaward Place, Centurion Business Park
Glasgow G41 1HH
United Kingdom
Tel: +44 (0) 141 429 2777
Fax: +44 (0) 141 429 2758

E-mail (Sales) sales1@ftdichip.com
E-mail (Support) support1@ftdichip.com
E-mail (General Enquiries) admin1@ftdichip.com

Branch Office – Tigard, Oregon, USA

Future Technology Devices International Limited (USA)
7130 SW Fir Loop
Tigard, OR 97223-8160
USA
Tel: +1 (503) 547 0988
Fax: +1 (503) 547 0987

E-Mail (Sales) us.sales@ftdichip.com
E-Mail (Support) us.support@ftdichip.com
E-Mail (General Enquiries) us.admin@ftdichip.com

Branch Office – Taipei, Taiwan

Future Technology Devices International Limited
(Taiwan)
2F, No. 516, Sec. 1, NeiHu Road
Taipei 114
Taiwan, R.O.C.
Tel: +886 (0) 2 8791 3570
Fax: +886 (0) 2 8791 3576

E-mail (Sales) tw.sales1@ftdichip.com
E-mail (Support) tw.support1@ftdichip.com
E-mail (General Enquiries) tw.admin1@ftdichip.com

Branch Office – Shanghai, China

Future Technology Devices International Limited
(China)
Room 1103, No. 666 West Huaihai Road,
Shanghai, 200052
China
Tel: +86 21 62351596
Fax: +86 21 62351595

E-mail (Sales) cn.sales@ftdichip.com
E-mail (Support) cn.support@ftdichip.com
E-mail (General Enquiries) cn.admin@ftdichip.com

Web Site

<http://ftdichip.com>

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Appendix A – References

Document References

[AN_124 User Guide For FT_PROG](#)

[TN_100 USB VID-PID Guidelines](#)

Acronyms and Abbreviations

Terms	Description
USB	Universal Serial Bus
USB-IF	USB Implementers Forum
WinCE	Windows Compact Embedded

Appendix B – List of Tables & Figures

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Appendix C – Revision History

Document Title: AN_319 Windows CE Driver Catalog Item Usage
Document Reference No.: FT_001031
Clearance No.: FTDI# 396
Product Page: <http://www.ftdichip.com/FTProducts.htm>
Document Feedback: [Send Feedback](#)

Revision	Changes	Date
1.0	Initial Release	2014-07-01