AD\ANTECH Enabling an Intelligent Planet

Advantech AE Technical Share Document

Date	2015/12/04	SR#	1-2307488871		
Category	□FAQ ■SOP	Related OS	N/A		
Abstract	ADAM-4000, How to test the ASCII function with library sample code				
Keyword	.NET class library, ASCII mode, I/O test, C#, VB. NET				
Related	ADAM-4000				
Product					

Problem Description:

This documentation explains the procedure to test I/O function of ADAM-4000 series with sample code of .NET class library provided by Advantech.

Steps:

1. Download the newest version of .NET class library.

User can download the newest version of the library with the following link. Please make sure your OS support .NET Framework 2.0. <u>http://support.advantech.com.tw/Support/DownloadSRDetail_New.aspx?SR_ID=1-1WMBN3</u> <u>&Doc_Source=Download</u> 2. Check the COM port setting with utility.

ADVANTECH

User can check the detail communication parameter and settings through the Adam/Apax .NET utility. (*Figure 1*)

(Please make sure the protocol is set to the "Advantech" for ASCII communication tests.) In this demonstration, we set the address to 1, baudrate to 9600 bps and disable the checksum function.

🔀 Advantech Adam/Apax .NET Utility (Win32)) Version 2.05.09 (B05)
File Tools Setup Help	
Serial COM1 COM1 COM3 COM7 COM7 COM7 COM7 COM7 COM7 COM7 COM7	ADAM-4055 Module setting Data area Address: 01 Hex 1 Dec Apply change Baudrate: 9600 bps Checksun: Enabled Firmware version: A2.05 Protocol: Advantech Save Load
ADAM-4055:	

Figure 1

3. Open the sample code.

AD\ANTECH

Once the library is installed successfully, user can find the sample code in the folder as shown in the Figure 2.

In this document, we will demonstrate with ADAM-4055, so please open the project

"Adam40XXDIO.sln" for following test.

(Please make sure you already installed Microsoft Visual Studio 2008 or newer version in the

吉理 🎽 词 開刷	加入主味證櫃 ▼ 共用到案 ▼ 焼類	* 新埔員科炎				
我的最愛	名稱	修改日期	類型	大小	_	
Dropbox	Adam40XXDIO	2015/12/4 下午 0	檔案資料夾			
下載	📕 Adam4011_12_13	2015/6/16 上午 1	檔案資料夾			
桌面	🚆 📕 Adam4015_15T	2015/10/1下午 0	檔案資料夾			
最近的位置	🌗 Adam4016	2015/6/16 上午 1	檔案資料夾			
Google 雲端硬碟	🌗 Adam4017_18	2015/6/16 上午 1	檔案資料夾			
	퉬 Adam4017P_18P_19_19P	2015/6/16 上午 1	檔案資料夾			
課題 櫃	🚽 🔒 Adam4018M	2015/6/16 上午 1	檔案資料夾			
PPTV视频	퉬 Adam4021	2015/6/16 上午 1	檔案資料夾			
文件	🌗 Adam4022T	2015/6/16 上午 1	檔案資料夾			
音继	🌗 Adam4024	2015/6/16 上午 1	檔案資料夾			
道知	🌗 Adam4080	2015/6/16 上午 1	檔案資料夾			
圖片	🍌 Adam4080D	2015/6/16 上午 1	檔案資料夾			

test platform.)

4. Modify the setting of sample code accordingly

Modify the parameter like COM port number, slave address, checksum.....according to the setting of ADAM module.(Figure 3)

pr	ivate AdamCom adamCom;
pu	blic Form1()
i	InitializeComponent();
	<pre>m_iCom = 7; // using COM? m_iAddr = 1; // the slave address is 1 m_iCount = 0; // the counting start from 0 m_bStart = false; //m_Adam4000Type = Adam4000Type.Adam4050; // the sample is for ADAM-4050 //m_Adam4000Type = Adam4000Type.Adam4051; // the sample is for ADAM-4051 //m_Adam4000Type = Adam4000Type.Adam4052; // the sample is for ADAM-4052 //m_Adam4000Type = Adam4000Type.Adam4055; // the sample is for ADAM-4055 m_Adam4000Type = Adam4000Type.Adam4055; // the sample is for ADAM-4055 m_Adam4000Type = Adam4000Type.Adam40563; // the sample is for ADAM-4055 //m_Adam4000Type = Adam4000Type.Adam40563; // the sample is for ADAM-4056S //m_Adam4000Type = Adam4000Type.Adam40563; // the sample is for ADAM-4056S //m_Adam4000Type = Adam4000Type.Adam40563; // the sample is for ADAM-4056S //m_Adam4000Type = Adam4000Type.Adam40663; // the sample is for ADAM-40668 //m_Adam4000Type = Adam4000Type.Adam4068; // the sample is for ADAM-4060 //m_Adam4000Type = Adam4000Type.Adam4068; // the sample is for ADAM-4060 //m_Adam4000Type = Adam4000Type.Adam4069; // the sample is for ADAM-4069 m_iDITotal = DigitalInput.GetChannelTotal(m_Adam4000Type); m_iDOTatal = DigitalOntput GetChannelTotal(m_Adam4000Type);</pre>
	if (m_Adam4000Type = Adam4000Type.Adam4050) InitAdam4050();

Figure 3

5. Build solution and test the I/O

ADVANTECH

After all the related setting and modification are done, please save the project and build the solution again. (*Figure 4*)

(Please make sure you close the Adam/Apax .NET class library before running the sample code to release the COM port.)

Adam400XXDIO Microsoft Visual Studio (Administrator) File Edit View Refactor Project Build Debug Data Tools Test Build Solution Ctrl+Shift+B ObjectBrowser Form1.cs* Build Adam400XDIO Rebuild Adam400XDIO Build Adam400XDIO Image: System Configuration Manager Build Adam400XDIO Build System Draw System Text ObjectBrowser Form1.s* Build Adam400XDIO Image: System Draw Configuration Manager Configuration Manager Using System Draw Image: System Draw Sing System Common; Image: System Draw Configuration Manager Image: System Draw Sing System Draw; Image: System Draw; Using Advantech.Adam; Image: System Draw; Sing System Draw; Imamespace	Window Help Any CPU Form10	

Figure 4

Use should be able to monitor the status of digital input and control the status of digital output with the sample code. (*Figure 5*)

ſ	Adam40XXDIO sample program (C#)			
	Module name:	Adam4055		Stop
	Read count:	Polling 11 times]	
	DI 0	False	DO 0	False
	DI 1	False	DO 1	False
	DI 2	False	DO 2	False
	DI 3	False	DO 3	False
	DI 4	False	DO 4	False
	DI 5	False	DO 5	False
	DI 6	False	DO 6	False
	DI 7	False	DO 7	False

Figure 5