

Advantech AE Technical Share Document

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Category	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> 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 Product	ADAM-4000		

■ 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.

http://support.advantech.com.tw/Support/DownloadSRDetail_New.aspx?SR_ID=1-1WMBN3&Doc_Source=Download

2. Check the COM port setting with utility.

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.

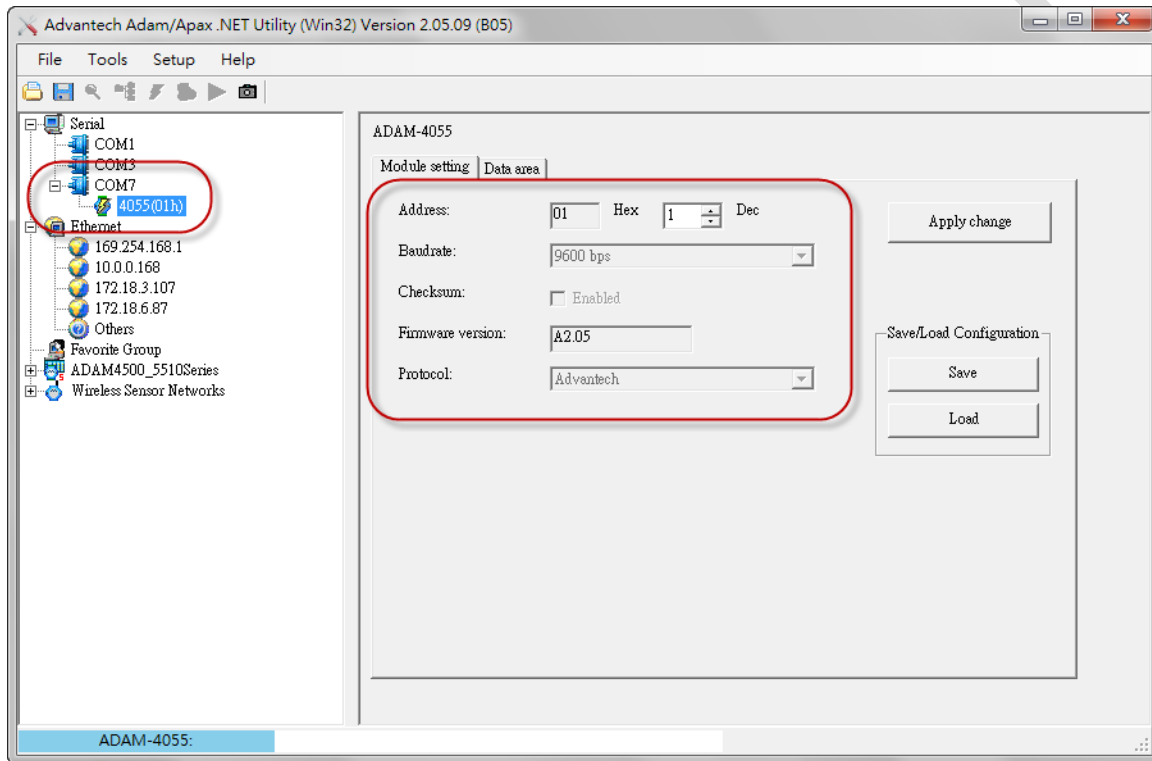


Figure 1

3. Open the sample code.

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

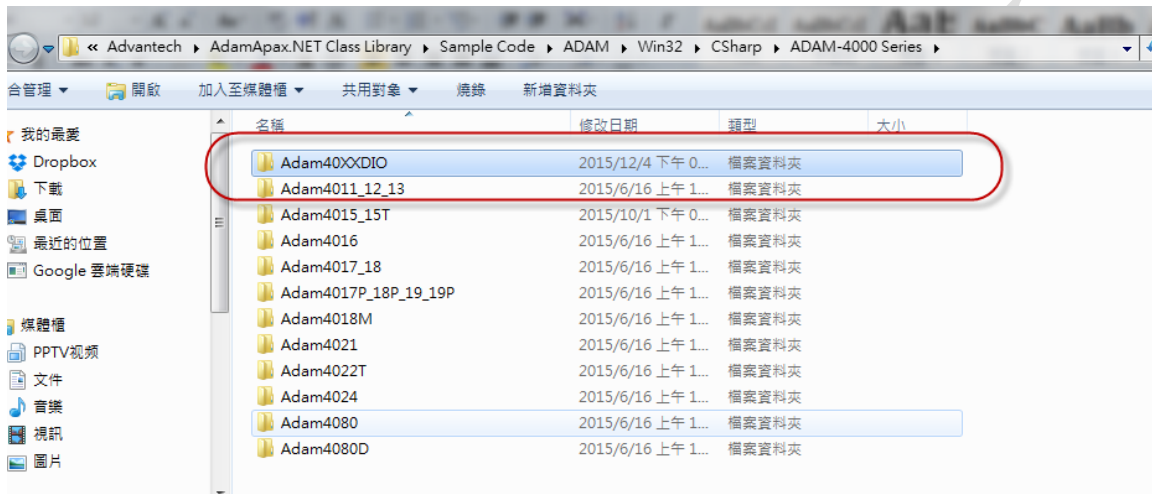


Figure 2

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*)

```
private AdamCom adamCom;
public Form1()
{
    InitializeComponent();

    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.Adam4053; // the sample is for ADAM-4053
    m_Adam4000Type = Adam4000Type.Adam4055; // the sample is for ADAM-4055
    //m_Adam4000Type = Adam4000Type.Adam4056S; // the sample is for ADAM-4056S
    //m_Adam4000Type = Adam4000Type.Adam4056SO; // the sample is for ADAM-4056SO
    //m_Adam4000Type = Adam4000Type.Adam4060; // the sample is for ADAM-4060
    //m_Adam4000Type = Adam4000Type.Adam4068; // the sample is for ADAM-4068
    //m_Adam4000Type = Adam4000Type.Adam4069; // the sample is for ADAM-4069

    m_iDITotal = DigitalInput.GetChannelTotal(m_Adam4000Type);
    m_iDOTotal = DigitalOutput.GetChannelTotal(m_Adam4000Type);
    if (m_Adam4000Type == Adam4000Type.Adam4050)
        InitAdam4050();
}
```

Figure 3

5. Build solution and test the I/O

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.)

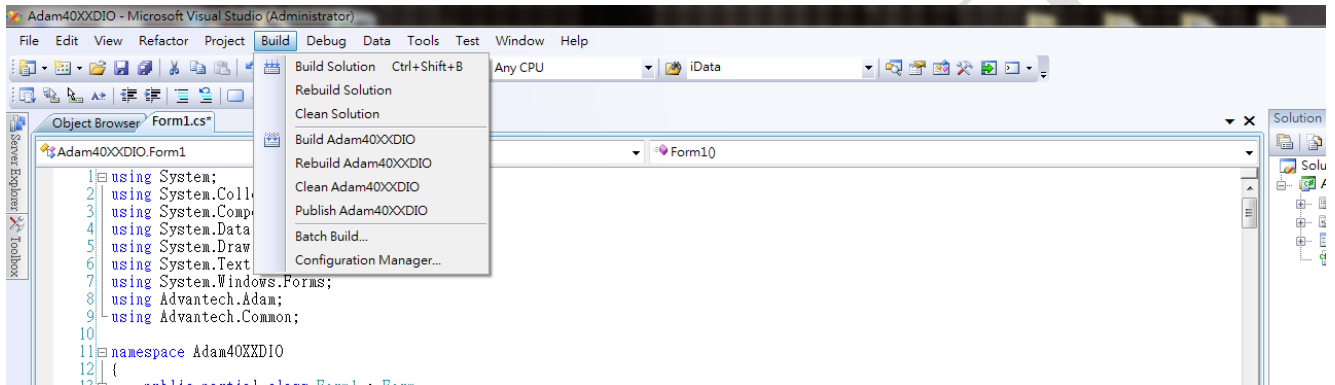


Figure 4

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

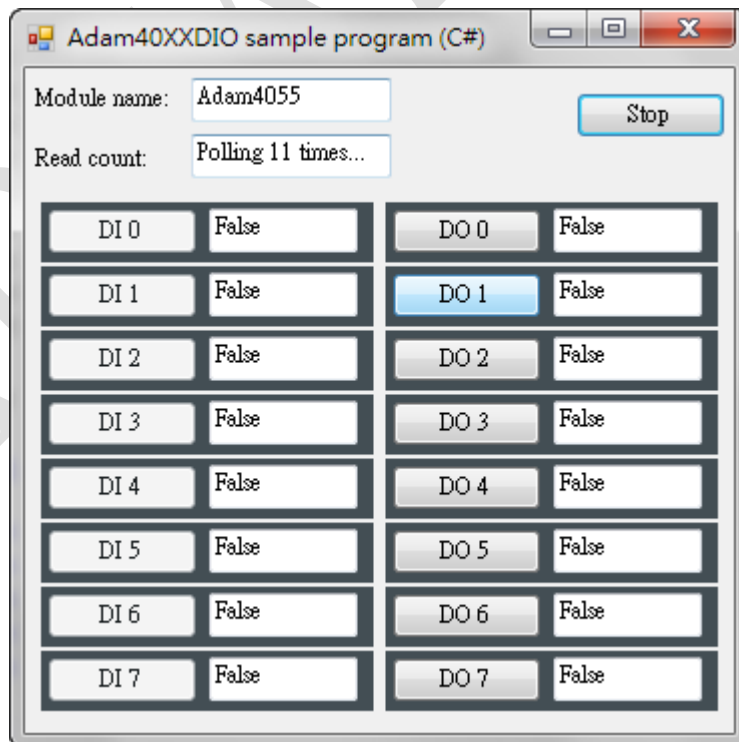


Figure 5