

Description: Guide to setting up OPC-XML-DA for GENESIS32.

OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7

General Requirement: .NET Framework v1.1 with SP1 + IIS 5.0 (or greater) installed on the machine. The OPC server should support XML DA. The machine should also have ICONICS Simulator 3.1x OPC Server installed.

Introduction

Following steps of this App Note will help you to setup IIS and DCOM correctly so that OPC XML-DA Servers will be able to provide OPC data to clients without problems.

Due to different IIS versions (different OSs), user has to install/configure XML-DA server differently. For this reason this application note is divided into 2 parts:

- 1st part – Configuration steps for PC with IIS v5-6 (Windows XP / Windows 2003)
- 2nd part - Configuration steps for PC with IIS v7 (Windows Vista / Windows 2008)

Configuration for IIS v5/v6

1. During installation of the ICONICS Simulator 3.12 OPC Server, you will see a window prompting you to Install XML-DA. Check the radio button to install it and then click “Next”.

NOTE: You will only see this window come up if .NET Framework v1.1 + IIS are already installed on the machine.

2. You should see a message box informing you that XML DA is being installed.
3. After the installation is complete, open your IIS Manager from Start → Control Panel → Administrative Tools → Internet Information Services.
4. Expand **Default Website**, you should see a virtual directory **Simulator-XML-DA** created there as shown on figure below.

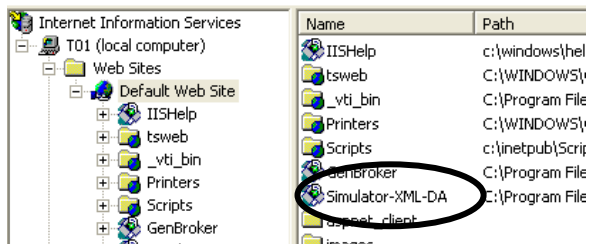


Figure 1 - Simulator-XML-DA Virtual Directory

5. Go to the folder where the ICONICS Simulator 3.12 OPC server is installed and make sure there is a file with the

extension ***.asmx**. The name of this .asmx file is usually the ProgID of the OPC Server. In this case, the name of the .asmx file is **ICONICS.SimulatorOPCDA.asmx**.

Setting up DCOM Permissions

To ensure that the server starts automatically when an OPC client application requests data from the OPC XML-DA server you have to set lower restrictions in default DCOM setting. To properly setup DCOM please refer to the application note *GENESIS32 - DCOM on Windows XP and Windows Server 2003 in a Workgroup*.

Viewing Data from a Client

1. Open DataWorX32 Configurator from Start → Programs → ICONICS DataWorX32.
2. Add a **register** to the DataWorX32 configuration by choosing Inputs → OPC Point. Click the “...” button to open the **Unified Data Browser**.
3. In the **OPC DA** tab, right-click on **Favorites** and select **New Data Server**.



Figure 2 - New Data Server

4. In the **Add Data Server** window, type: **http://localhost/Simulator-XML-DA/ICONICS.SimulatorOPCDA.asmx** (If your OPC server is on a remote machine, type in the name of the remote machine instead of **localhost**).

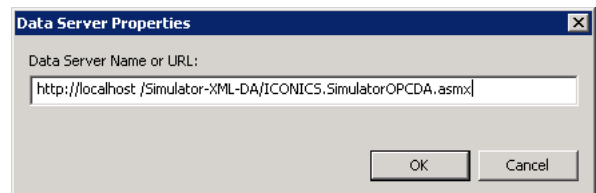



Figure 3 - New Data Server

5. **Simulator-XML-DA** is the name of the virtual directory created for you during the installation if the OPC Server. **ICONICS.SimulatorOPCDA.asmx** is the name of the .asmx file you are referring to for data.
6. Click on **OK**. Now if you expand **Favorites**, you should be able to see the tags present in the OPC Server.
7. Select a tag and click on **OK**. Click on **Apply** in DataWorX32. You can monitor the tag in DataWorX32 to see the value by clicking on the Monitor View  icon.

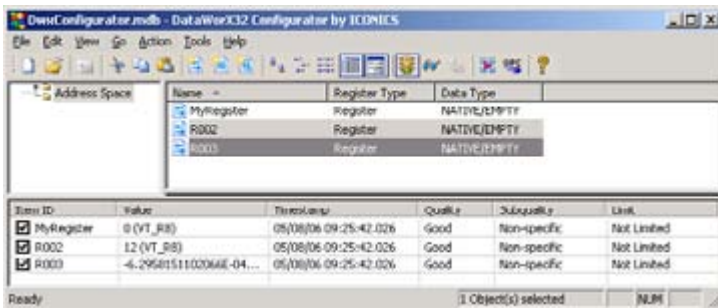


Figure 4 - Monitoring Data in DataWorX32

8. You can also see the tags in GraphWorX32. Add the point as explained above and put GraphWorX32 into runtime.

Configuration for IIS v7

Please notice that Microsoft .NET Framework 1.1 with SP1 need to be installed on Vista or Windows 2008 where you want to have XML-DA Server working. Please refer to the Microsoft Download Center to download installation packages.

Installation and Configuration

To properly run OPC XML-DA Server on Vista or Windows 2008 you have to do these steps in following order:

- Install .NET Framework 1.1 and update it with SP1**
- Install an OPC Server with enabled XML-DA support (ICONICS Simulator 3.12, ICONICS Modbus Ethernet OPC Server, etc.)**
- Reconfigure IIS 7**
- Properly set up DCOM permissions for OPC Server**

After successful installation of .NET Framework 1.1 SP1 and XML-DA enabled OPC Server follow the steps:

1. Open IIS 7 console by pressing WIN+R buttons and running command 'inetmgr'.
2. Go to the very top level of left-side tree.
3. Open **'ISAPI and CGI Restrictions'** in IIS Area.
4. Allow ASP.NET v1.1.4322 by double-clicking to row and in opened dialog window by checking 'Allow extension path to execute' checkbox as shown on figure below.

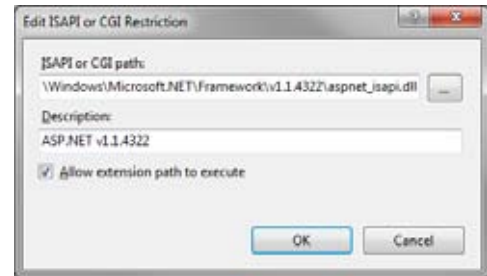


Figure 5 - ISAPI/CGI Restriction in IIS v7 Manager

5. Go back to the very top level of the left-side tree again and open 'ISAPI Filters' in IIS Area.
6. **Add New ISAPI Filter** there, name it 'ASP.NET 1.1' and as executable enter %windir%\Microsoft.NET\Framework\v1.1.4322\aspnet_filter.dll
7. Now expand Sites → Default Web Site in the left-side tree and select your XML-DA Server (e.g. Simulator-XML-DA, ModbusEthernet-XML-DA).
8. Open **Basic Settings** (by clicking option in right Action pane).
9. In the dialog window change Application Pool (click 'Select...' button) to ASP.NET 1.1, confirm all changes.
10. Go back to the level of your XML-DA Server and select Authentication.
11. Enable 'Anonymous Authentication'.
12. Press WIN+R Restart IIS by running 'iisreset' command.

Setting up DCOM permissions

To ensure that the server starts automatically when an OPC client application requests data from the OPC XML-DA server you have to set lower restrictions in default DCOM setting:

To properly set up DCOM please refer to the app note "DCOM on Windows XP and Windows 2003 Server", where the setting are same as in Vista or Windows 2008 Server

NOTE: There's bug in IIS 7 that it does not save all settings sometimes. After the restart please try to connect by any client to the XML-DA server. If it does not succeed please check all IIS 7 and DCOM settings again. Also do not forget to properly set up the firewall.