OPC DA/AE Sample Server

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The OPC DA/AE Sample Server can be used to test the compliance of the OPC DA/AE Server SDK C++ and can also be used to test OPC DA 2.0 / OPC DA 3.0 client applications.

The server is delivered as 32bit executable build with Visual Studio 2010 and can be used on the following operating systems:

- ↗ Windows XP (32bit and 64bit)
- ↗ Windows Server 2003 (32bit and 64bit)
- ↗ Windows Server 2008 (32bit and 64bit)
- ↗ Windows Server 2012 (32bit and 64bit)
- ↗ Windows Vista (32bit and 64bit)
- ↗ Windows 7 (32bit and 64bit)
- ↗ Windows 8 (32bit and 64bit)
- ↗ Windows 8.1 (32bit and 64bit)

It supports the following OPC specifications:

- ↗ OPC Data Access (DA) 2.05 and OPC DA 3.0
- ↗ OPC Alarms&Events (AE) 1.00 and OPC AE 1.10

Usage

Server Executable: OpcDaAeServer.exe
Registration: OpcDaAeServer.exe –regserver
Unregistration: OpcDaAeServer.exe - unregserver

OPC DA Server Name: Technosoftware.DaSample.70
OPC AE Server Name: Technosoftware.AeSample.70

Startup Behaviour

As soon as the first client connects to the server starts up. The server returns immediately to the client and the creation of the address space is done within a separate thread. During the startup phase the state of the server is shown as Not Configured and as soon as all items are created the server switches to state Running. The client can see this in GetStatus() calls.

Shutdown Behaviour

As soon as the last client disconnects the server shutdowns and the process of the server is terminated. If a client forgot to remove references to items or groups the server can't terminate and stays in memory.

Address Space

The server's address space is shown in the picture on the right. Important item are:

Commands.RequestShutdown:
Writing on this item requests the server to send a Shutdown request to all connected clients. The string value of this item is used as reason in the shutdown request.

SimulatedData.NumberItems
This item has the number of items created in total. Only during startup this number is increasing.

SimulatedData.Ramp
SimulatedData.Random
SimulatedData.Sine
A few simulated and changing items

CTT
The branches and items under the branch CTT are used for compliance testing. Items of all supported data types with different access rights are created as well as some special items with analog and custom specific properties.

MassItems
This branch includes some more items. It's usage is not yet fully implemented and in one of the next version a configurable number of items are created under this branch.