

Description: Guide to use the OPC UA Discovery Server in installation of GENESIS64

OS Requirement: Windows Server 2003 x64/Vista x64/ Server 2008 x64/Windows 7 x64/ Server 2008 R2 x64

General Requirement: Installation of GENESIS64 or Hyper Historian standalone installation and connectivity to a third party OPC UA Server or another installation of GENESIS64 (Hyper Historian).

Introduction

GENESIS64 supports connections to various OPC UA Servers in network. A part of the GENESIS64 installation is the OPC UA Discovery Server that helps to establish the connection to a local or a remote OPC UA server. The OPC UA Discovery Server is periodically checking all of the OPC UA Servers in network and exposes them in a browse-able fashion so that users do not need to manually type the address of the OPC UA Server into the Data Browser. For more details about OPC UA Servers please refer to the GENESIS64 Help documentation.

OPC UA Discovery Server

As it was written previously, the OPC UA Discovery Server's purpose is to provide "browse-ability" of the OPC UA Servers across the network. You **must** run the OPC UA Discovery Server on **each** computer where some OPC UA Server is running to make it available to browse in Data Browser. The main feature of OPC UA Discovery Server is Discover - the process by which OPC Unified Architecture Clients obtain information about OPC Unified Architecture Servers, including endpoint and security information.

Starting OPC UA Discovery Server

1. In almost all cases the OPC UA Discovery server is started automatically and user can check this in Task Manager under Processes (Opc.Ua.DiscoveryServer.exe). If it happens that OPC UA Discovery server is not running please continue with point 2.
2. Before starting the OPC UA Discovery Server, make sure that the UAC (User Account Control) is **disabled** and you are logged in as User with Administrators rights.

NOTE: You can disable the UAC in User Accounts window under Control Panel of your Windows operating system., by clicking on Change User Account Control settings and dragging the slider all the way to Never Notify

3. All computers where some OPC UA Server is running and the clients which are accessing them, should have the clock synchronized. This is necessary for UA to work. You can verify this by clicking on the time in the bottom right corner

of the desktop and going to "change date and time settings." Click the Internet Time tab and verify it is synchronized. If it is not, you can do so here.

4. Next, browse to "C:\Program Files (x86)\Common Files\OPC Foundation\UA\v1.0\Bin" and run Opc.Ua.DiscoveryServer.exe.
5. It may inform you, that the Application does not have an instance certificate and ask you if you want to create it automatically. Select Yes.

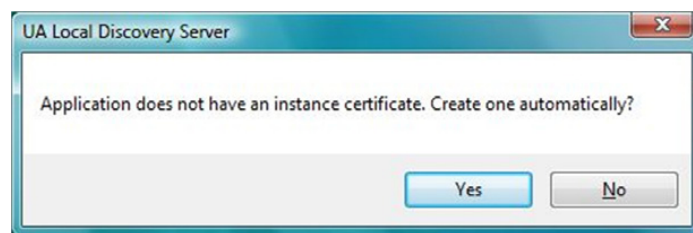


Figure 1 - Creating Certificates for the OPC UA Discovery Server

6. You should now see the Tray icon of the OPC UA Discovery Server



Figure 2 - OPC UA Discovery Task Tray Icon

7. Now, your OPC UA Discovery Server is running and you can easily browse the all OPC UA Servers on that computer from remote computers in network.

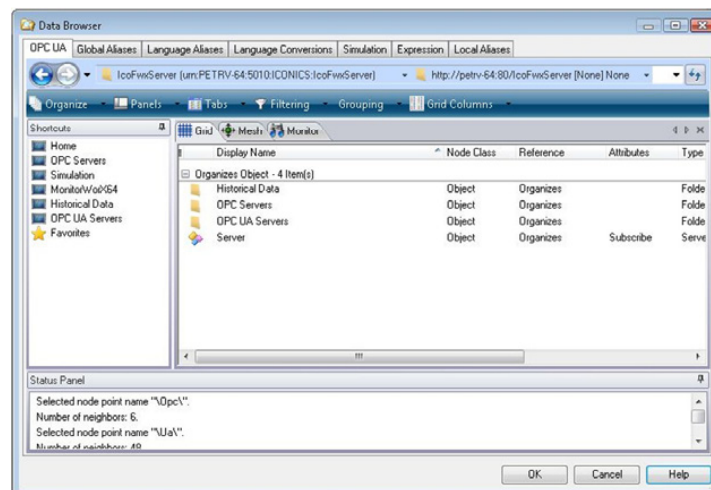


Figure 3 - OPC UA Server in the Data Browser