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your products and industry automation.

Running OPC Servers as a Windows service

OpcDbGateway, SAEAUT SNMP OPC Server and SAEAUT UNIVERSAL OPC Server can run as a Windows service or as an Interactive User.

Introduction

A service is an application type that runs in the system background without a user interface. Services provide core operating system features, such as Web serving, event logging, file serving, printing, and error reporting.

Running an OPC sever as a NT service is important to provide a functionality even when none OPC client use it. For example, it can provide an activity logging continually. Other reasons for running it as a Windows service can be (1) use of the security context of a specific user account that is different from the logged-on user or the default computer account, or (2) providing that the OPC server is started automatically when computer is started.

Running OPC server as Windows service, it has provided the highest rights within system. On the other hand, it brings also higher security risks.

Windows service installation and using

Our products - OpcDbGateway™, SAEAUT UNIVERSAL OPC Server™, SAEAUT SNMP OPC Server Professional™ enable to install them as Windows service by checking a check box "Run as Windows service" within installation dialog box.

To configure OPC servers running as the service standard operating system mean - Microsoft Management Console (MMC) snap-in can be used. This way you can provide:

- Start, stop, pause, resume, or disable services.
- Set up recovery actions to take place if a service fails — for example, restarting the service automatically or restarting the computer.
- View the service dependencies.
- Run services in the security context of a specific user account
- Enable or disable services for a particular hardware profile.
- Export and save service information to a .txt or .csv file.
- View the status and description of each service.

It is not always necessary to install OPC server to run as a service even if you like to use some features of the Windows service. For instance, an OPC UA wrapper according to the specification OPC UA 1.01 is installed together with above mentioned products and implemented as Windows service. When you start this wrapper, the built-in OPC client automatically starts OPC server application implemented in interactive user mode. This way, the aggregate providing functionality of the OPC UA server is running as a Windows service. Our OPC client product OPCAdapter Enhanced™ is a Windows service runtime application without user interface plus configuration and visualisation

application. Therefore it can be used to start an application containing a few OPC servers implemented as interactive user applications to run in service mode.

Start and stop OPC server installed as service can be done also another way (not only from MMS service snap-in) – from the start menu of the installed product in subsection "Windows service" using icons Start and Stop. But, you need to do it "as administrator". It means – click on the icon with right mouse taste and choose "as administrator" in context menu.

Difference in behaviour

The fact that OPC server product is installed as Windows service does not mean that it cannot be started by an OPC client. But, if the OPC client is stopped then, differently as in interactive user mode, the Windows service continues to run.

Running as windows service can sometimes cause problems by newer operating systems (above MS Windows Vista). Together with OpcDbGateway™, SAEAUT UNIVERSAL OPC Server™, a DDE client enhancement is delivered. If one of mentioned products is started as Windows service then communication between connected DDE servers and built-in DDE client will not run, if DDE servers are not started as Windows service.

Remark: other info to Windows service can be found in http://msdn.microsoft.com/en-us/library/ms685141.aspx.