SAE - Automation, s.r.o. (Ltd.)

OpcDbGateway, Version 3.16.01

Release: 3.16.01.0 (10th August 2011)
Release: 3.16.00.0 (23th June 2011
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Release: 3.14.02.0 (21th September 2010)
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Release: 3.14.00.0 (2th June 2010)
Release: 3.13.00.0 (22th March 2010)
Release: 3.12.00.0 (18th August 2009)
Release: 3.11.00.0 (27th March 2008)
Release: 3.10.03.0 (19th December 2007)
Release: 3.10.02.0 (8th October 2007)
Release: 3.10.01.0 (6th December 2006)

This file provides information about removed bugs, changes, file versions and location of installed files.

CONTENS

1. INSTALLATION

You can install OpcDbGateway using setup program **Setup.exe.** This way, you will be able to communicate with internal OPC server of the OpcDbGateway over OPC DA and OPC AE interfaces. If you wish using also OPC XML DA and OPC UA interfaces for the internal OPC server, wrappers as described in paragraph 2 have to be installed as well.

2. HOW TO EXTEND THE COMMUNICATION INTERFACES?

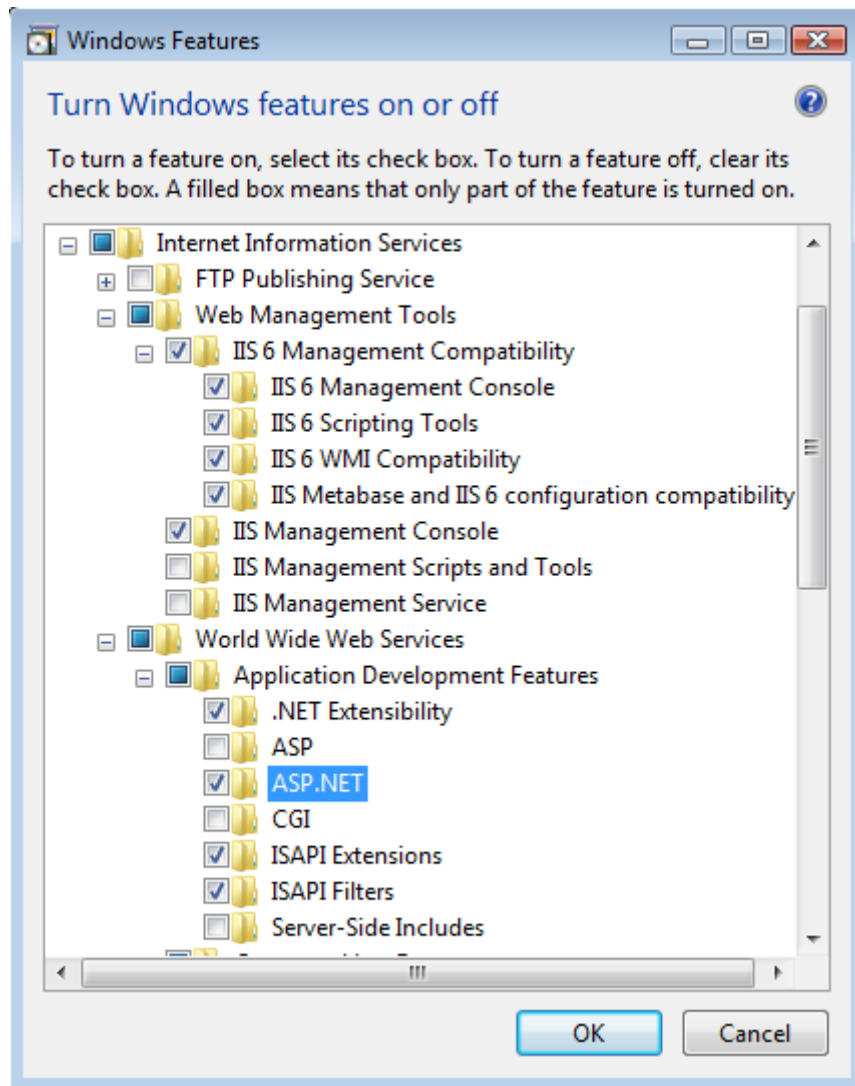The OpcDbGateway is possible to extend about following communication interfaces:

> ➢ **OPC UA**
>> 1. Please open folder where you have installed the OpcDbGateway (e.g. C:\Program Files\OpcDbGateway) and open subfolder **OPC UA Wrapper**
>> 2. Please run the file **Setup.exe** for starting the installation process
>> 3. Now you have installed two Windows Services - **UA COM Server Wrapper** and **UA Local Discovery Server**
>> 4. You can use our simple SAEAUT UA Data Access Client – please start the client application from menu: **Start – Programs – SAEAUT UA Data Access Client**

➢ XML-DA

1. Please open folder where you have installed the OpcDbGateway (e.g. C:\Program Files\OpcDbGateway) and open subfolder **XML-DA Wrapper**
2. Please run the file **Setup.exe** for starting the installation process

   Note that: If the Setep.exe installation terminates with "Installation incomplete" dialog then you should add in the "Programs and Features ⇨ Turn Windows Features on or off" items according to figure below.

3. Now you can communicate with OpcDbGateway via XML-DA interface. You can check the test link: http://localhost/XML-DA/SAEAutomation.OpcDbGatewayDA.3.asmx

3.   HOW TO ACTIVATE YOUR PRODUCT TO FULL VERSION?

In order to activate your software product to full version you will need to enter a name and the license key. Please start the product you want to activate and click Enter key when asked about product registration. You will see the dialog window that shows hardware fingerprint. Please e-mail us this fingerprint and tell us the Name under which you'd like to activate your product. Based on this information we will send you back the license key that can be used to activate your product.

To activate **OpcDbGateway** version:

1. Install application OpcDbGateway on PC where it will run.

2. Launch the OpcDbGateway Configurator (Start ⇨ Program Files ⇨ OpcDbGateway ⇨ OpcDbGateway Configurator).
3. Click on button „Enter key".
4. Make a copy of your PC „Hardware fingerprint" (for example: Hardware fingerprint: 2950-8AA7)
5. Please send us your „Hardware fingerprint" to e-mail sae-automation@saeautom.sk.

On the basis of your PC „Hardware fingerprint", we will generate the valid „Enter key" for your PC and send it back to you.

4. NEW FEATURES

Version 3.16.01

- The OpcDbGateway version 3.16.01 brings enhanced checker functionality into OpcDbGateway Configurator.

Version 3.16.00

- The OpcDbGateway version 3.16.00 brings a new possibility to access the Microsoft SQL Server process databases. Using the *Microsoft OLEDB Provider for SQL Server*, the SQL Server distributed queries can query data in both local and remote instances of SQL Server.

- External DLL interface is enhanced about three following functions:
   - OnInitMemory – This function enables direct access to Memory operands in OpcDbGateway.

   Please read more about this in User's Guide topic "*External DLL - usage*".

Version 3.15.00

- Sending of alarm and user messages by SMS or e-mail easily configurable by check box in the message definition dialog box. The functionality is enabled by the product SAEAUT SMS Service which is installed with OpcDbGateway but licensed independently.

- Faster starting of OpcDbGateway due to not opening database tables at the beginning

Version 3.14.02

- Deleting of a Trend item and its associated objects from the configuration in one common step. If the Trend item is removed from the OpcDbGateway configuration then automatic are removed also all its associated objects (Trigger, Event, Queries, Process Table, etc.).

- User's Guide was enhanced about new topics and pictures which more detail explains important issues as are:
   - Functionality,
   - Runtime,
   - Integration of Applications,

   More details about product the OpcDbGateway you can find on web www.saeautom.sk.

Version 3.14.01

- The installation package OpcDbGateway version 3.14.01 contains also the OPC UA COM Server Wrapper service. Installation of this service is optional and it can be installed together with OpcDbGateway application. After service installation, the service is not immediately started if you prefer to use the OPC UA interface then please start the OPC UA COM Server Wrapper service from OpcDbGateway application menu (Windows Start ⇨ *OpcDbGateway* ⇨ Start UA Wrapper). The same way, you can stop the service (Windows Start ⇨ *OpcDbGateway* ⇨ Stop UA Wrapper).

Version 3.14.00

- The application OpcDbGateway version 3.14.00 brings the possibility to access all available data even via the latest OPC standard called Unified Architecture (UA). The Unified Architecture is the next generation OPC standard that provides a cohesive, secure and reliable cross platform framework for access to real time and historical data and events.

- The installation package includes a new version of OPC UA COM Server Wrapper. The OPC UA COM Server Wrapper provides immediate access to all data of SAEAUT OpcDbGateway via UA interface.

  Please Read more about Configuring DCOM for using of OPC UA COM Wrapper with OPC servers from SAE-Automation, Ltd. in the document available in Windows Start ⇨ SAEAUT OpcDbGateway ⇨ Configuring OPC UA COM Wrapper for SAE products.

- The installation package includes a new SAEAUT UA Data Access Client version 1.00.00. The application gives the end-user possibility to make first attempts and connections to SAEAUT OpcDbGateway via UA interface. Therefore, this product will be very useful for you.

  The application SAEAUT UA Data Access Client version 1.00.00 includes already predefined links for connecting to SAEAUT OpcDbGateway through UA COM Server Wrapper interfaces:
  - http://localhost:48401/UA/ComServerWrapper
  - opc.tcp://localhost:48400/UA/ComServerWrapper

  This feature is available only in the version SAEAUT OpcDbGateway version 3.14.00.

Version 3.13.00

- A new Server Status dialog. In the External OPC Server View is available a new button Server Status. This button starts a new Server Status dialog with information about a OPC DA Server. The essential information in the dialog as following:

  - OPC Version,
  - Vendor Info,
  - Product Version,
  - Server State,
  - Server start time,
  - Etc.

  Please read more about this issue in User's Guide topics "*External OPC Servers*" and associated sub-topics.

- A new RND operation. This operation is a random number generator designed to generate a sequence of numbers. Please read more about this issue in User's Guide topics "*Configuring and programming*" and associated sub-topics.

- A new CALLREV operation. This operation is very similar to CALL operation, but a function block is executed only if a condition for execution of the operation has just False (zero) value. Please read more about this issue in User's Guide topics "*Configuring and programming*" and associated sub-topics.

Version 3.12.00

- Re-connecting of external OPC Servers. In the case, the OpcDbGateway lost connection to an external OPC Server then the OpcDbGateway attempts in regular periods to establish the connection again. Please read more about this issue in User's Guide topics "*External OPC Servers*" and associated sub-topics.

  If an external OPC Server is not available then all its mapped OPC items in the OpcDbGateway are set to BAD quality (NOT CONNECTED).

- The application OpcDbGateway version 3.12.00 was tested with OPC Compliance Test Tool (OPC Foundation) for verification the correct operation of this product for following interfaces:
  - OPC Data Access 3.0 ⇨ Test passed.

  OPC Compliance Test Tool parameters*:*
  GUI Version: 2.15.0.1152
  CTT Data Control Version: 2.00.15.1152

  OPC Data Access 3.0 Compliance Test*:*
  Test Control Version: 1.00.15.1152
  Test Settings Version: 1.15.0.1152

  All test details are available on OPC Foundation web site in the OpcDbGateway product detail list.

- The OpcDbGateway version 3.12.00 has no backward compatibility to the older projects.

  The configuration projects created in the OpcDbGateway version 3.12.00 has a new different structure in compare with the previous released versions of the OpcDbGateway. *At the moment, no already existing project can be open in the OpcDbGateway version 3.12.00. It means that there is no backward compatibility to the older projects. We recommend you to rewrite your existing projects to new projects.*

  There is a possibility to contact us and send your existing projects to our company. We can try to convert these existing projects to new structure.

Version 3.11.00

- Added a new interface for communication with external DLL modules which may be written in some language more close for software developers (C++, Delphi, etc.).
  From now, OpcDbGateway can call exported DLL functions and can process all needed data (Input & Output) of these DLL modules. The new feature facilitates even a relative complicated functionality to remove to DLL and make it simpler for implementation. DLL module is possible to use for implementing complicated algorithms, database access, communication protocols, I/O modules, drivers, etc.
- The simple DEMO application of OpcDbGateway was enhanced about a new part which shows how to call and use external DLL modules. Please read more about this issue in User's Guide topic "*The first start of OpcDbGateway application*".
- The installation package includes one example of external DLL source code. It is possible to find the DLL source code directly under application directory and use that as template for implementing your own external DLLs.

Version 3.10.03

- A new system variable: System.LocalTime (The current date and time from computer where OpcDbGateway is installed.)
- The default AlarmStatus table includes two new columns (AlarmSourceID, AlarmSourceName), which exactly determine each alarm source.
- A new default AlarmStatusHistory table. All alarms will be written to the AlarmStatusHistory table too (because of history of alarms). The table has the same structure as AlarmStatus table.

Version 3.10.02

- User's Guide was enhanced about new topic "*The first start of OpcDbGateway application*". The simple DEMO application of OpcDbGateway which is set as active project during OpcDbGateway installation time.
- Overall, the User's Guide was renewed.

Version 3.10.01

- Historic Trends Wizard. This wizard will guide you through the creation of a new Historic Trend.

5. START OF PROGRAMS

OpcDbGateway Configurator
start⇨All Programs⇨OpcDbGateway⇨ OpcDbGateway Configurator

OPC UA Wraper - Start
start⇨All Programs⇨OpcDbGateway⇨UA Wrapper⇨Start UA Wrapper

OPC UA Wrapper - Stop
start⇨All Programs⇨ OpcDbGateway⇨UA Wrapper⇨Stop UA Wrapper

SAEAUT UA Data Access Client
start⇨All Programs⇨SAEAUT UA Data Access Client⇨SAEAUT UA Data Access Client

SAEAUT OPC DA and XML DA Client
start⇨All Programs⇨SAEAUT OPC DA and XML DA Client⇨SAEAUT OPC DA and XML DA Client

User's Guide
start⇨All Programs⇨ OpcDbGateway⇨Help⇨User's Guide

6. CORRECTED ERRORS

Version 3.16.01 - *Fixed bugs*
- Validation of input values in the Historical Trend Wizard.
- Validation of input values in the Trigger definition view.
- Creating of parameterized Queries. The issue relates with decimal separator of numerical values.
- Conversion of numerical values to string values.

Version 3.16.00 - *Fixed bugs*
- The transfer of OPC values from external OPC Clients to external OPC Servers.
- Calling of Function Blocks through command CALL with no defined condition.
- Disabling of Access Rights property for mapped variables of External OPC Servers.
- Calling of Function Blocks through Event. The Function Block definition is mandatory.

Version 3.14.01 - *Fixed bugs*
- Historic Trends Wizard: Creation of trends fails in each new configuration for OpcDbGateway.

Version 3.13.00 - *Fixed bugs*
- Resolved a memory leak in methods for reading of server status.
- Browsing of OPC items from an external OPC Servers.
- Refresh of OPC items if the Asynchronous update on an external OPC Server is selected.
- Error messages are written to log file in a bad format.
- Adding a new OPC group to OPC Server.
- Maximal value of the process image memory.

Version 3.12.00 - *Fixed bugs*
- Resolved a memory leak in methods for reading and writing of OPC item.
- Resolved possible deadlock when unloading the OPC server.
- Resolved possible deadlock when rapidly removing multiple groups at the same time.

- Resolved an issue with server not shutting down after an error had occurred during a creation of OPC group object.
- Changed default good quality for manual tags to OPC_QUALITY_GOOD.

Version 3.11.00 - *Fixed bugs*
- External OPC Servers: The Browse OPC Server dialog shows only few accessible computers in the Network Neighborhood item.
- External OPC Servers: The Browse OPC Server dialog shows accessible computers in the Network Neighborhood item several times.
- External OPC Servers: The remote external OPC server connection.

Version 3.10.03 - *Fixed bugs*
- Historic Trends Wizard: The Memory Operands are displayed in the lists in the short form (the memory operand is listed without his parent folder).
- Historic Trends Wizard: The current date and time in Query is optimized for Microsoft Jet database. (From now, the current date and time in Query is optimized by used database provider, which is one of ODBC or Microsoft Jet).
- Historic Trends Wizard: Parameters in Query refer to an incorrect Memory Operands.
- Historic Trends Wizard: The wizard supports all Memory Operands data types. (From now, the wizard will support all Memory Operands data types except for 'STRING' and 'DATE'.)
- Historic Trends Wizard: The possibility of duplicity between selected Memory Operands.

Version 3.10.02 - *Fixed bugs*
- Historic Trends Wizard: Selecting memory operands through button.
- Process database: Selecting a data source from ODBC.
- External OPC Servers: If the OPC Server with ProgID is not available, then browsing of its OPC items is refused.
- Events: Setting active dialog (view) for objects (Trigger, Query, Function Block) selected by associated property button.
- Triggers: Setting active dialog (view) for object (Memory operand) selected by associated property button.
- Memory operands: Setting active dialog (view) for object (Alarm Definition MOP) selected by associated property button.
- Alarm Definition MOP: Setting active dialog (view) for object (Messages, Memory operand) selected by associated property button.
- Objects (Triggers, Events, etc.): It is possible to insert an empty name.
- Objects (Triggers, Events, etc.): It is possible to insert already existing name.
- Incorrect version of OpcDbGateway Runtime module in About dialog.

7. FILELIST AND FILEINFORMATION

OpcDbGateway
Name: OpcDbGateway.exe
Version: 3.16.1.0
Location: ..\OpcDbGateway\
Description: The main runtime module of OpcDbGateway application.

Name: OpcDbGatewayConfigurator.exe
Version: 3.16.1.0
Location: ..\OpcDbGateway\
Description: The module is used for creating configuration for OpcDbGateway runtime module.

Name: OpcDbGateway.chm
Location: ..\OpcDbGateway\Help\
Description: The User's Guide for OpcDbGateway application.

Documents

Name: License.pdf
Location: ..\OpcDbGateway\
Description: The software license agreement for end-user for software from company.

Name: Relnotes.pdf
Location: ..\OpcDbGateway\
Description: This file provides information about removed bugs, changes, file versions and location of
                installed files.

Name: OpcDbGateway.pdf
Location: ..\OpcDbGateway\Help\
Description: The User's Guide for OpcDbGateway application in PDF format.

Name: White Papers.pdf
Location: ..\OpcDbGateway \Help
Description: List of White Papers related to OpcDbGateway from SAE – Automation, s.r.o.

Name: opcuaforsaeproducts.pdf
Location: ..\OpcDbGateway\Help
Description: Configuring DCOM for using of OPC UA COM Wrapper with OpcDbGateway from SAE-
Automation, Ltd.

OPC UA Wrapper
Name: Setup.exe
Location: ..\OpcDbGateway\OPC UA Wrapper\
Description: The installation package includes OPC UA Wrapper and SAEAUT UA Data Access Client.
Please read more about this in User's Guide topic "*OPC via Internet*".

You can start this OPC UA Data Access Client from start⇨All Programs⇨SAEAUT UA Data Access
Client ⇨SAEAUT Data Access Client.

UA COM Interop
Name: Start.bat
Location: ..\OpcDbGateway\UA COM Interop\
Description: The batch file starts OPC UA Wrapper service.

Name: Stop.bat
Location: ..\OpcDbGateway\UA COM Interop\
Description: The batch file stops OPC UA Wrapper service.

XML-DA Wrapper
Name: XMLDAWrapperSetup.msi
Location: ..\OpcDbGateway\XML-DA Wrapper\
Description: The XML-DA Wrapper assembly which makes SAEAUT Universal OPC Server available
                through Web Services. It needs the Internet Information Services (IIS). Please read more
                about this issue in User's Guide topic "OPC via Internet".

Name: SAEAutomation.OpcDbGatewayDA.3.asmx
Location: ..\OpcDbGateway\Web Service\
Description: The Web Service which extends the SAEAUT Universal OPC Server application
                functionality about OPC XML DA interface. Please read more about this issue in User's
                Guide topic "OPC via Internet" and associated sub-topics".

SAEAUT OPC DA and XML DA Client
Name: OpcDAandOPCXMLDAClient.exe
Location: ..\OpcDbGateway\SAEAUT OPC DA and XML DA Client Setup\
Description: The OPC Data Access and OPC XML Data Access Client with predefined connection links
to SAE – Automation, s.r.o. products.

You can start this OPC UA Data Access Client from start⇨All Programs⇨SAEAUT UA Data Access Client ⇨SAEAUT UA Data Access Client.

OPC Core Components 3.00 (105.1)
Name: OPC Core Components Redistributable (x86).msi
Location: ..\OpcDbGateway\OPC Core Components Setup\
Description: These modules include DCOM proxy/stub libraries, the OPC Server Enumerator, .NET wrappers, etc.

SAEAUT OPCSim Server
Name: OPCSimRuntime.exe
Version: 3.1.0.0
Location: ..\OpcDbGateway\ExternalApp\
Description: The runtime module of SAEAutomation.OPCSimDA application which is started directly from DEMO application. Please read more about this issue in User's Guide topic "*The first start of OpcDbGateway application*".

Name: Demo.osd
Location: ..\My Documents\OpcDbGateway\ExternalApp\
Description: The example of SAEAutomation.OPCSimDA project file.

SAEAUT SMS Service
Name: Setup.exe
Location   ..\OpcDbGateway\SAEAUT SMS Service
Description: The installation Setup.exe file includes the SAEAUT SMS Service tools which can be used to sending warning information about Alarm or User Message by SMS or e-mal communication way. *This feature is available from the version OpcDbGateway version 3.15.00.*

Examples
Name: Live_xls_GrafRnd.odg
Location: ..\My Documents\OpcDbGateway\Configurations\
Description: The simple DEMO application of SAEAUT Universal OPC Server. This file is set as active project during SAEAUT Universal OPC Server installation time. Please read more about this issue in User's Guide topic "*OpcDbGateway - the first steps*".

Examples
Name: Example1xls.dll + Test.xls
Location: ..\OpcDbGateway\ExternalDll\
Description: The example of external DLL module. The SAEAUT Universal OPC Server communicates with Excel application. Please read more about this issue in User's Guide topic "*OpcDbGateway - the first steps*".

Name: Example1.dll
Location: ..\OpcDbGateway\ExternalDll\
Description: The example of external DLL module. Please read more about this issue in User's Guide topic "*OpcDbGateway - the first steps*".

Source codes
Name: Example1xls.dll
Location: ..\My Documents\OpcDbGateway\Examples\ExternalDlls\Example1xls\
Description: The example source codes of external DLL.

You can open source codes from start⇨All Programs⇨OpcDbGateway⇨ExternalDll Source Code Examples⇨Example1xls.sln

Name: Example1.dll
Location: ..\My Documents\OpcDbGateway\ExternalDlls\Example1\
Description: The example source codes of external DLL.

You can open this source codes from start⇨All Programs⇨OpcDbGateway⇨ExternalDll Source Code Examples⇨Example1xls.sln

8. FAQ

1. The first start of OpcDbGateway application.
Recommendation: Please read more about this issue in User's Guide topic "*The first start of OpcDbGateway application*".

2. The OpcDbGateway communicate via the following ports:
OPC communication (between OpcDbGateway and OPC Client, between OpcDbGateway and external OPC Servers):
- OPC (**TCP** 135)

XML-DA communication (between OpcDbGateway and XML-DA Client):
- XML-DA (**HTTP/SOAP** 80)

Be aware that according to required communication is necessary to permit a port in your firewalls. Settings of the standard operating system firewall are made automatic during installation.

3. What OPC interfaces are implemented in OpcDbGateway?
- OPC Data Access 3.0, 2.05 and 1.0.
- OPC Alarm and Events 1.0.
- OPC XML Data Access 1.01 *(Part of installation package is the OPC XML-DA Wrapper which provides an OPC XML-DA Web Service interface as a front-end to one or more OPC COM DA 2.x and 3.0 servers.)*
- OPC Unified Architecture 1.01 *(Part of installation package is the OPC UA COM Server Wrapper which provides an OPC UA interface.)*

4. How to configure OPC and DCOM?
Please refer to the document Configuring OPC and DCOM for OPC server and client applications from SAE – Automation, s.r.o. You can find it also in the application folder.

5. Writing an OPC Value doesn't work.
Recommendation: Data item is probably read only. Check the rights of data items you are using. Open OpcDbGateway Configurator and choose data item. Change the rights to Read/Write.

6. How to make OpcDbGateway data available via Internet/Intranet?
Recommendation: Please read more about this issue in User's Guide topic "*OPC via Internet*".

7. How can you verify that the XML-DA wrapper has been installed correctly?
Recommendation: Please type the URL in the internet browser as follows: http://localhost/XML-DA/SAEAutomation.OpcDbGatewayDA.3.asmx. If the XML-DA wrapper is working correctly you will see a web service test page which will inform you about all operations which are supported (it is a standard test page for all ASP.NET web services).

8. How can you get XML-DA related web services' WSDL?
Recommendation: If the web service test page is working, just click on "Service Description" link on the top of the screen to display web service's WSDL or visit the following link
http://localhost/XML-DA/SAEAutomation.OpcDbGatewayDA.3.asmx?WSDL.

9. We have already created a project for OpcDbGateway. I want to ask whether the Function Blocks (e.g. Main, Start) are the items displayed on the web service page?
Recommendation: Function blocks are not items displayed on the web service page. They represent only a group of commands that can be executed sequentially in OpcDbGateway.

OPC XML-DA is universal OPC standard that provides interface for accessing OPC server's data through a web service (this means you can access items configured in the server's address space).

10. What to do if an OPC server is in the network but not in the available list of OPC servers?
Recommendation: Please type your OPC Server '*ProgID*' directly to the field '*OPC Server ProgID*' in format '*computer name:ProgID*' or '*IP address:ProgID*'.

E.g.
127.0.0.1:SAEAutomation.OPCSimDA.3
localhost:SAEAutomation.OPCSimDA.3
PC1:SAEAutomation.OPCSimDA.3

9.   KNOWN ISSUES

1.   *Accessing to a process database through ODBC interface.*
Recommendation: The database access through ODBC provider is optimized for SQL Server.
If you need to access other database e.g. ORACLE then please contact us and we may offer you additional possibilities how to solve your problem.

2.   *The* http://localhost/XML-DA/SAEAutomation.OpcDbGatewayDA.3.asmx *test page is not available.*

Recommendation A: Please make sure that are correct set COM Security for ASP.NET.

Recommendation B: Please make sure that the OpcDbGateway is installed on your computer correctly.

Recommendation C: Please make sure that your Web Service link is written right.

Recommendation D: Please make sure that the Internet Information Services (IIS) is started.

Recommendation E: Please make sure that .asmx file extension is registered in IIS server.

Recommendation F: Please make sure that Microsoft .NET Framework 1.1 or higher is installed on your computer correctly (you can see if .NET Framework is installed via Administrative Tools panel). If so, try to reinstall .NET Framework. You can download it at:
http://www.microsoft.com/downloads/details.aspx?FamilyID=262d25e3-f589-4842-8157-034d1e7cf3a3&displaylang=en

3.   *The OpcDbGateway data are not available via OPC UA COM Wrapper interface.*
Please refer to the document Configuring DCOM for using of OPC UA COM Wrapper with OPC servers from SAE-Automation, Ltd. that describes DCOM settings in detail - available in Windows Start ⇨ O*pcDbGateway* ⇨ Configuring OPC UA COM Wrapper for SAE products.

4.   *The refreshing of data in case of creating and deleting of Trends.*
This issue can be occurred in two following cases:
- Creating of Trends: If you create a new Trend via Historic Trend Wizard then this trend is not immediately shown in the main configuration three.
- Deleting of Trends: If you delete the current trend then some associated objects are not removed from the main configuration three.

The temporary solution is that you can refresh data manually in the OpcDbGateway Configurator via menu item View ⇨ Global Refresh. If the issue persists please try the manual refreshing again.

10.   SUPPORT

Telephone: +421/ 42 4450701 (Monday - Friday: 8:00 AM - 17:00 PM)
Fax: +421/ 42 4450702
Email: sae-automation@saeautom.sk

11. CONTACTS

SAE - Automation, s.r.o.
Trenčianska 19
018 51 Nová Dubnica, Slovakia
http://www.saeautom.sk, sae-automation@saeautom.sk