

OpcDbGateway - Application Integration

OpcDbGateway Use

OpcDbGateway is a **software product** that can communicate with a variety of communication devices, software applications and databases, as well as configure and / or program your own application logic.

It applies to the integration of business applications, building and home automation, and implementing SCADA systems. It is preferred **to use it especially in those applications where it is necessary to provide access to real time data and, in the same time, data stored in various database systems.** To access the data in real time, mostly the proven technologies to ensure interoperability according to classical OPC or new OPC UA standard are used. Database access is provided by using different database drivers e.g. ODBC.

In a corporate environment, there are applications for working with data in real time from different machines, production lines, sensors of physical values, bar code scanners, monitoring of energy consumption, and also database applications for inventory management, personnel management, monitoring communications infrastructure, production planning, evaluation of the use of production devices, facilities management ... The interconnection of these applications using OpcDbGateway ensures data consistency, reduce duplication and labor intensity of their input.

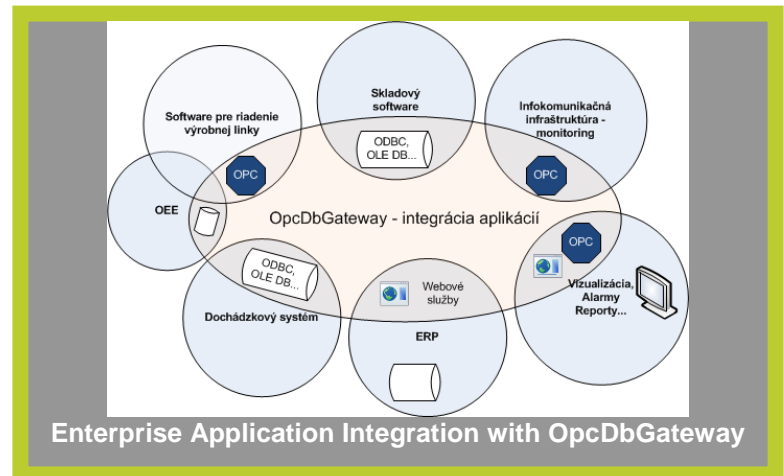
From what constitutes OpcDbGateway

It consists of configuration and runtime applications for MS Windows operating systems.

Runtime application provides executing of functionality configured and stored in the configuration database by configuration application. Configuring of integrated applications is usually less labor- and knowledge-intensive than their programming. Configurable functionality can be extended by **custom program modules (dll)** that extends configuration options for different application domains.

It is delivered with two other applications - SMS / E-mail server and OPC SAEAUT WebView, which provides standard views of data through the web.

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Use and properties OpcDbGateway

- Integration of communication, database, control and monitoring applications,
- configurable run of external applications, scripts and stored database procedures,
- configurable logging to files and databases,
- alarms - 2 alarm systems - (1) by OPC AE standard, (2) proprietary with alarm history, multi-source activation and quitting, visualization in the configurator,
- reports - txt, html, xml, xls, snv,
- developing of SOA applications
- parallel processing of function blocks analogous to the programmable logic controllers (PLC)
- sequential and event oriented processing,
- interface with SMS and E-mail server,
- linking with MS Excel and other DDE servers.

HIGH PRODUCTIVITY

- Parameterization instead of programming,
- automatic mapping of external data sources – OPC and DDE servers, and database tables,
- effective debugging tools – configuration checker, "on line" monitoring of the log file,
- software wizards for common tasks,
- graphic editor of application structure.

How does this work

Linking of data sources

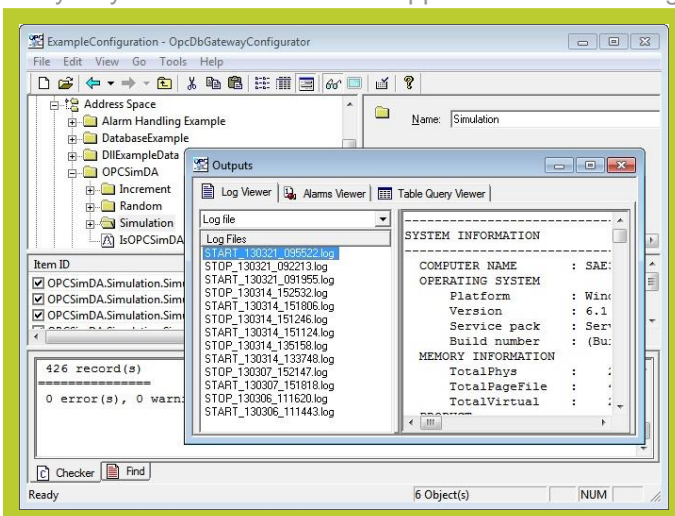
For connecting external devices and various software applications in integrated application, it is ideal if communication software drivers - **OPC servers** for them are available. OpcDbGateway configurator can **automatically import data items** of such OPC servers **in application configuration**. This feature is particularly important when you consider that there can be thousands of such data items in more complex applications. Similar import functionality is provided to the **structure of the database tables** for connected process databases, and also for **applications containing a DDE server** such as MS Excel. In case that for a device an OPC server is not available, the communication driver can be included to user software module - enhancing DLL. Data links from external data sources are mapped to the so-called memory operands.

Configuring and programming of application logic

Application logic can be implemented either by using **configurable commands that work with mentioned memory operands**, or can be **programmed in enhancing DLL**. Programming is particularly useful when it comes to the implementation of complex and fast algorithms. To **work with databases**, you can use either the aforementioned configurable commands, **SQL commands** that can be inserted into the configuration, or **procedures stored on external databases**. It is also possible to configure and parameterize to start external programs and scripts.

Execution of integrated application

Runtime application without user interface provides an **environment for the running of integrated applications** while **debugging of the applications** is done using configuration application with user interface. The configuration application has built-in OPC client that can connect to the **internal OPC server of the runtime application**. In the same way, during normal operation, various custom client applications with OPC client can be connected. An example of such an application is also together delivered application **SAE AUT OPC WebView**. It is a web application programmed in ASP.NET providing standard data views in the tree or list. The user has the option to extend it as needed to complete visualization application or use another application with built-in OPC client. There is also another easy way to create visualisation application – connecting of MS Excel to the runtime application over DDE interface.



Configuration application of the OpcDbGateway allows to configure the interconnection of data sources and by user programmed modules, business logic and also debugging of the integrated applications.

**“INTEROPERABILITY FOR
YOUR EQUIPMENT AND
SOFTWARE APPLICATIONS”**



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