

OPC Toolbox C++ XML DA

OPC without Limits



New OPC XML-DA Toolkits

Softing has enhanced its OPC Toolbox by adding powerful tools that enables rapid development of OPC XML-DA clients and servers. The new products are fully compatible with Softing's globally used OPC DCOM toolkits and allow client and server applications to communicate via the Internet and on Non-Windows platforms.

Technical Background

OPC specifications define software interfaces for data exchange in industrial automation applications. So far, these specifications have been based exclusively on Microsoft's DCOM as their underlying technology. Consequently, OPC applications have existed only under Windows platforms. Distributed applications via the Internet have not been supported. A migration to Web Services as the basic foundation underneath the new OPC XML specifications will cause a revolution in OPC's functionality. In the future, OPC XML products will permit horizontal and vertical communication between applications running under different operating systems. This will also enable

communication over the Internet between OPC XML products used for remote control and monitoring applications. As a result, OPC's application area will increase significantly.

What are Web Services?

As the name implies, "Web Services" has its seeds in the Internet. An application that provides services via the Internet is referred to as a Web Service. This application is able to run on different hardware and software platforms and provide different object and application models. The Simple Object Access Protocol (SOAP) is used as an interaction protocol to allow other applications to use Web Services. SOAP connects XML and HTTP. XML is used to describe the functions and their parameters. HTTP will be used as the transport protocol for the transmission of the XML documents. The functionality of a Web Service that can be used by a program is described in a WSDL (Web Service Description Language) file.

The Internet is the main application space for Web Services. If the Web Service architecture is going to be used, characteristics that are important to secure applications on the Internet have to be considered as part of the OPC XML-DA application.

Softing OPC Toolkits

Currently OPC is an essential means of communication between many products, but implementing its functionality is very complex. Toolkits provide great assistance, because they encapsulate the specifics of DCOM and the OPC specifications. Many users develop their OPC solutions using Softing toolkits. This shortens development time, provides high flexibility, and guarantees compliance with the specifications. Over the last five years Softing has supplied more than 500 OPC toolkits worldwide.

Softing's Current OPC Products:

- OPC Toolbox C++ Server for Data Access and Alarms and Events
- OPC Toolbox C++ Client for Data Access and Alarms and Events
- OPC Toolbox XPress Server for Data Access and Alarms and Events
- OPC Toolbox ActiveX Client Controls for Data Access and Alarms and Events
- OPC Toolbox .NET Data Access Client

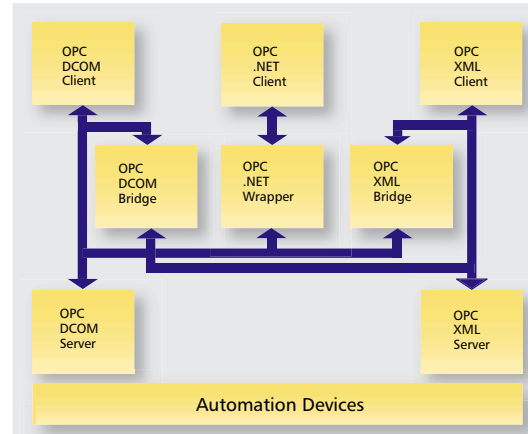
The OPC Toolbox will soon be upgraded with tools that support the OPC XML-DA specification 1.0.

What will Softing's new XML Tools contain?

The **OPC Toolbox C++ XML DA Server** is a portable solution to develop OPC XML-DA Servers on any platform. This product offers the same standard C++ interface as Softing's OPC DCOM-DA toolkits. This simplifies migration for Softing's existing Toolbox customers. The OPC Toolbox C++ XML DA Server will support multiple HTTP servers. Initially, solutions for Linux and Windows operating systems will be available. A sample server built with Softing's OPC Toolbox C++ XML DA Server will be tested for compliance.

The **OPC Toolbox C++ XML DA Client** is a portable solution for developing OPC XML-DA Clients on any platform. This product offers the same C++ interface as Softing's OPC DCOM-DA toolkits. This simplifies migration for Softing's existing Toolbox customers. Initially, solutions for Linux and Windows operating systems will be available.

The **OPC Toolbox .NET XML DA Client** offers an interface based on the OPC Toolbox .NET DA Client for applications. With this toolkit OPC XML-DA Clients can easily be developed for Microsoft .NET.



Using these new products based on OPC XML-DA for specific applications will require a migration path from the old DCOM OPC world to the new Web Services-based OPC world.

Consequently, Softing can provide an OPC-XML-DCOM Bridge. It allows data exchange between OPC DCOM-DA Clients and OPC XML-DA Servers as well as the exchange between OPC XML-DA Clients and OPC DCOM-DA Servers. Because it requires DCOM, the OPC XML DCOM Bridge will require that it will run on a platform with a Windows operating system.

Leadership from Experience

The new Softing OPC XML-DA toolkits will allow developers to provide OPC communication between clients and servers via the Internet and on Non-Windows platforms.

These enhancements are based on Softing's expertise in providing world-class OPC development tools for over five years. Ensuring maximum compatibility with the latest version of the OPC specifications and to Softing's established DCOM toolkits will be the hallmark of the newest generation of Softing's products.

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