1-207-775-1660

kepware TECHNOLOGIES
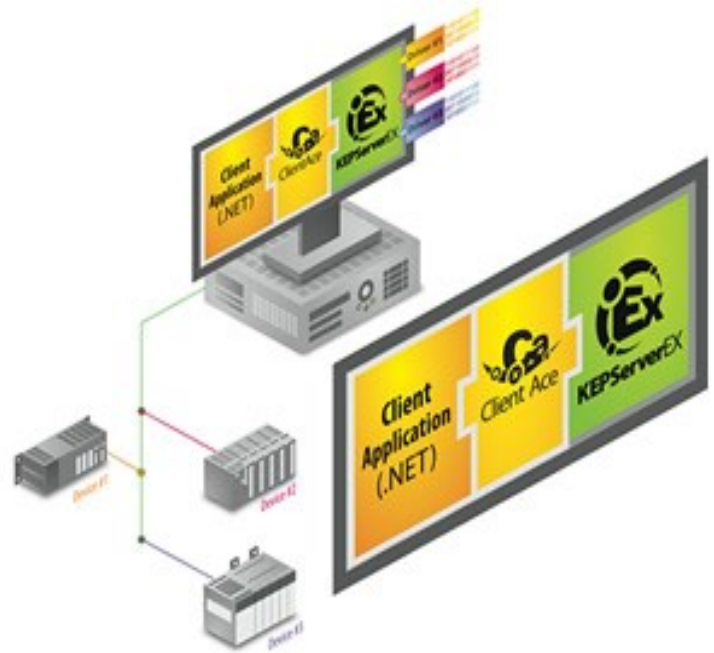
"THE WORLD LEADER IN COMMUNICATIONS FOR AUTOMATION"

ClientAce - OPC .NET Toolkit

OPC-enable your .NET applications with ClientAce. ClientAce provides a drag-and-drop interface to quickly and easily attach OPC items to any property or custom control built in Visual Studio. Furthermore, its full-featured .NET API provides effortless access to OPC UA, OPC DA, and OPC XML-DA server applications without previous knowledge of the OPC standard.
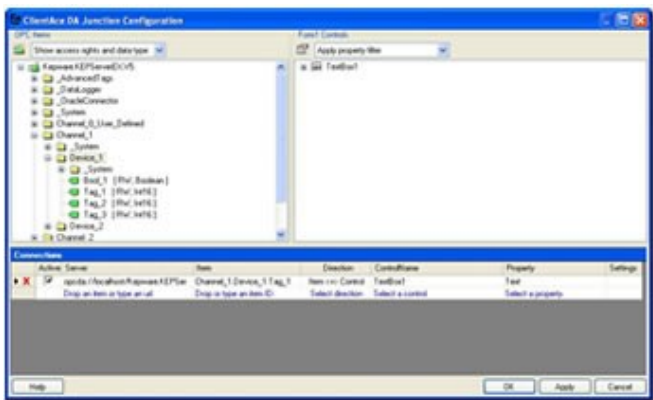

DA Junction Control

The DA Junction control is a customized .NET control that enables Visual Basic .NET and C# programmers to easily develop OPC client applications that access any OPC UA, OPC DA, and XML DA servers. No detailed knowledge of OPC Data Access interfaces is required. The DA Junction will perform the connection handling procedure between your custom client application and the OPC server, as well as monitor and reconnect when necessary.

Channel Settings Control

The Channel Settings control provides functionality to view and make certain changes to the properties of a channel and devices within an OPC server provided by Kepware Technologies. The ability to write to System level tags must be enabled in the server.

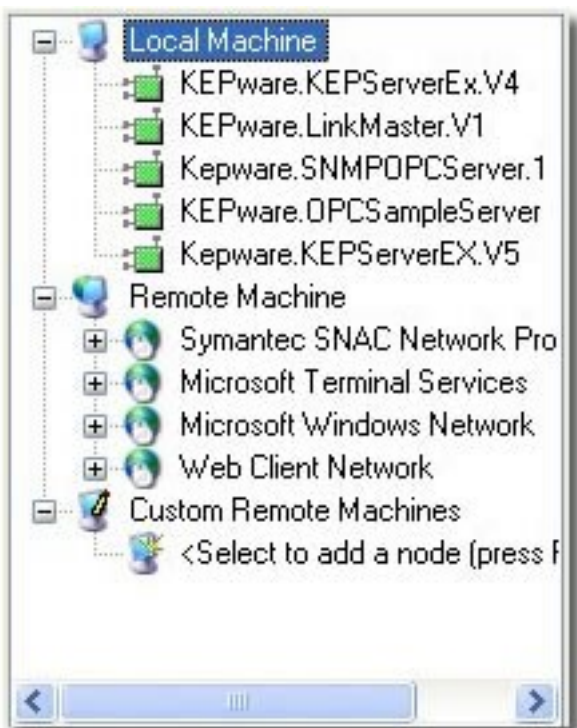| Channel Settings	Diagnostics	Device_1	Device_2
Channel Name:	Channel_1		
Network Adapter:			
W/R Duty Cycle:	10		
Enable Diagnostics	☑		

ClientAce DA Junction Features:

- The component completely covers the connection handling procedure for one or multiple OPC servers.

- Conversion of OPC data from different OPC Data Access interfaces into .NET data types.
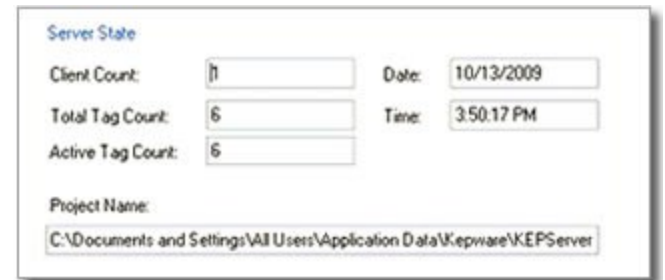
Server Browser Control

The Server Browser control provides functionality to browse OPC Data Access servers on local and remote machines. The Server URL is returned in an event to be used in the application for establishing connections and data acquisition.

Server State Control

The Server State control provides functionality to view the properties of a Kepware OPC Server project. The Properties include, the number of Clients connected to the server, total number of tags added by the clients and the total number of tags that are actively being polled.
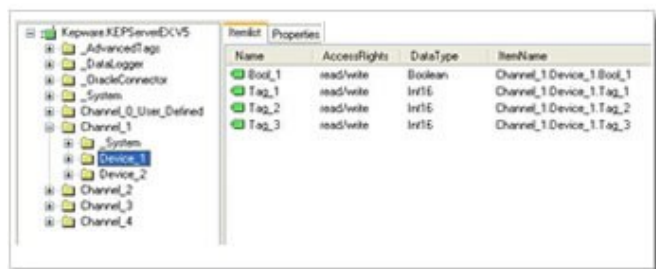

ClientAce .NET API

The ClientAce .NET Application Programming Interface (API) provides users of languages such as C# and Visual Basic .NET with a simple, intuitive and optimized class library to quickly develop OPC client applications for accessing OPC servers.

ClientAce .NET API Features:

- A simple, intuitive .NET interface.

- The OPC UA, DA, and XML DA interfaces have been simplified down to the major functions.

- No detailed knowledge of the different OPC Data Access interfaces is required.

- The API covers the different base technologies of OPC, for example, COM and DCOM.

- The API completely covers the connection handling to one OPC Server.

- The development of OPC Client applications with C# or Visual Basic .NET becomes very simple using ClientAce.

- Conversion of OPC data from different OPC Data Access interfaces into .NET data types.

- Fast and simple search for OPC COM Servers, both local and remote.

Item Browser Control

The Item Browser control provides functionality to browse Tags/Items in an OPC Data Access server on local or remote machines. Items/Tags are selected and their information is returned to the application. The selections are used to request updated data from the server.

- High performance and optimized Client-Server communication by using kernel functionality implemented in C++.

Development Environment Support

Visual Studio	OPC UA	OPC DA	OPC XML-DA	IDE Integration	.NET Framework
2013	✔	✔	✔	✔	4.0/4.5
2012	✔	✔	✔	✔	4.0/4.5
2010	✔	✔	✔	✔	4.0/4.5
2008	✖	✔	✖	✔	3.5
2005	✖	✔	✖	✖	2.0
2003	✖	✔	✖	✖	2.0

PC Hardware Requirements

Refer to Microsoft's .NET Framework hardware requirements for the version that will be used in the Visual Studio project:

- 100 MB available disk space
- Microsoft Visual Studio Requirements

When deploying the custom client applications created using ClientAce, the .NET Framework requirements depend on the version of Visual Studio that was used for development. For more information, refer to the appropriate section in Deploying Your Client Application.

PC Software Requirements

The following requirements must be met in order for the application to operate as designed:

- Microsoft Windows operating system requirements are the same for both ClientAce and the Microsoft Visual Studio development environment that is used to develop ClientAce applications. If the operating system's requirements for the version of Visual Studio being used does not list the operating system intended for use, then ClientAce is not supported for use on that operating system.
- UAC on Windows Vista and Windows 7
- To ensure that all components function correctly in the design environment, turn UAC off on machines being used to develop applications with ClientAce.
- UAC limits access to folders and files in the design environment, which will affect some objects in the design environment. UAC does not affect these objects in the Runtime environment.

Runtime Requirements

Visual Studio 2010 C++ Runtime Redistributables
- Part of the low-level OPC layer for ClientAce is written using C++ in Visual Studio 2010. As such, ClientAce has a dependency on the redistributables for that version. It is important that these files be present when deploying a custom client application created using ClientAce. The installer for the redistributables can be found in the ClientAce Install folder.

OPC Foundation Core Redistributables

- OPC DA client/server connectivity requires the OPC Foundation Core Redistributables, which are usually installed when an OPC client or server is installed to an operating system. When deploying a custom client application created using ClientAce to a PC that has never had an OPC client or server installed, the components must be installed for it to work. The installer for the OPC Foundation Core Redistributables can be found in the ClientAce Install folder.