OPC Classic Core Components

Overview

These packages provide the OPC Classic (COM/DCOM) proxy stub libraries and the .NET wrappers that allow .NET applications to communicate with OPC Classic applications.

Release Notes

The 109 release has these changes:

- Changed default dwAuthLevel to RPC_C_AUTHN_LEVEL_PKT_INTEGRITY; https://opcfoundation.org/forum/classic-opc-da-ae-hda-xml-da-etc/opcnetapi-and-dcom-hardening/

The 108 release has these changes:

- The .NET RCW and .NET API assemblies now support .NET Standard 2.0 and 2.1;
- The COM Core Components MSIs should now upgrade previous versions.

The 107 release has a number of significant improvements:

- All binaries are signed with SHA256. For backwards compatibility the binaries also have a SHA1 signature, however, SHA256 is now required to pass Windows Authenticode verification.
- The dependencies on .NET Framework have been removed from the Core Components Installers and Merge Modules. The x64 Installer always installs the x86 version so only one version of the MSI is required for any system (both can still be installed but it is redundant).
- The .NET RCW and .NET API assemblies are now distributed as nuget packages which support .NET 3.5/2.0 and .NET 4.0. The sample client code illustrates how to use these packages. The Core Components Installers no longer install the assemblies the GAC.
- The Core Components Merge Modules now use the MSI Component IDs that match the 105 release. This should prevent necessary components from being uninstalled when an application that uses the Merge Modules is uninstalled. This problem will still exist if a product uses the 106 release, however, there should be a smaller number of those products. Version 106 has been removed from the website because of the inconsistent Component IDs.

Contents

The OPC Core Components includes the following packages:

Package	Contents
OPC COM ProxyStub MergeModule (x86)	Installs the DCOM proxy/stub libraries for all of the OPC Classic specifications and the OPCEnum service. If the 'OPC_INSTALL_SDK' property is set to true the headers for x86 and x64 development are installed as are the nuget packages needs for development with .NET.

OPC COM ProxyStub MergeModule (x64)	Installs the 64-bit versions of the DCOM proxy/stub libraries for all of the OPC Classic specifications and a component that allows OPCEnum to see x64 bit servers.
OPC Core Components Redistributable (x86)	Installs the OPC COM ProxyStub MergeModule (x86). If the 'Install Headers' option is checked the headers for x86 and x64 development are installed as are the nuget packages needs for development with .NET.
OPC Core Components Redistributable (x64)	Installs OPC COM ProxyStub MergeModule (x86) and OPC COM ProxyStub MergeModule (x64). If the 'Install Headers' option is checked the headers for x86 and x64 development are installed as are the nuget packages needs for development with .NET.
OPC COM Sample Servers	A ZIP file containing the code needed build the COM sample servers. The projects require Visual Studio 2008.
OPC NET API Sample Clients	A ZIP file containing the code needed build the sample client using the OPC Classic .NET API. The projects require Visual Studio 2013 or later. This ZIP also contains the nuget packages which are installed by the OPC COM ProxyStub MergeModule (x86).

The COM proxy/stubs are shared components so all vendors are expected to the use the Merge Module to ensure conflicts do not occur.

The ProxyStub Merge modules define a property "OPC_INSTALL_SDK" which will install the C++ headers, IDLs and TypeLibs needed to build application that use the OPC Classic COM interfaces. This optional also installs the nuget packages in %ProgramFiles(x86)%\OPC Foundation\NuGetPackages.

The NuGetPackages allow developers to choose the .NET framework needed for their application. The sample client projects illustrate how to add the correct references using the nuget package manager.

The .NET sample client code includes a COM DA server which is an in-process DLL. This DLL cannot be used directly because of differences between OPC Classic and the .NET marshalling conventions. A wrapper which can host the .NET server is part of the COM sample server code.

Problem Reporting

Problems should be reported to the OPC Foundation Forum:

https://opcfoundation.org/forum/classic-opc-da-ae-hda-xml-da-etc/