

Version	Date	Release Note
V2.90.0	28.05.2021	<p>The PubSub Library was removed from the OPC UA .NET Standard SDK. The <i>PubSub</i> implementation is now part of OPC UA .NET Standard Stack from OPC Foundation and the <i>Publisher</i> and <i>Subscriber</i> sample applications were modified accordingly.</p> <ul style="list-style-type: none"> Note: PubSub Library from OPC UA .NET Standard Stack from OPC Foundation is currently in beta version because there will be breaking changes in future release. For applications developed with OPC UA .NET Standard SDK version 2.90 it is mandatory to add reference to <code>OPCFoundation.NetStandard.Opc.Ua.PubSub</code> - version 1.4.366.38-beta NuGet package. <p>The <i>Publisher</i> and <i>Subscriber</i> sample applications were modified to include handling for the implementation of MQTT with JSON and UADP encoding that was recently added to OPC UA .NET Standard Stack from OPC Foundation.</p> <p>- OPC UA .NET Standard SDK Server Library:</p> <ul style="list-style-type: none"> The custom structure data type was extended to support fields that have the <i>ValueRank</i> greater than <i>OneDimension</i>. SampleServer project provides sample code for creating a structured value with <i>TwoDimension</i> fields and also it creates a <i>Variable</i> node that uses this data type for its value. In <i>NodeManager</i> class: <ul style="list-style-type: none"> The <i>NodeManager.CreateDataType()</i> method was modified to add also the <i>Default XML</i> encoding node for the newly created data type node. <p>Note: This change is possible to shift node ids if they are created using the default <i>New()</i> method.</p> <ul style="list-style-type: none"> The <i>NodeManager.GetDefaultValueForDatatype()</i> method can create values with <i>ValueRank</i> greater than <i>OneDimension</i>. Bug fixes. <p>- OPC UA .NET Standard SDK Client Library:</p> <ul style="list-style-type: none"> The <i>ClientSession.GetDefaultValueForDatatype()</i> method can create values with <i>ValueRank</i> greater than <i>OneDimension</i>. Bug fixes. <p>SDK libraries are compiled using NuGet package <code>OPCFoundation.NetStandard.Opc.Ua</code> - version 1.4.366.38. When using OPC UA .NET Standard SDK version 2.90 it is mandatory to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.80.0	30.03.2021	<p>Integrates the new version of OPC UA .NET Standard Stack from OPC Foundation (NuGet package <code>OPCFoundation.NetStandard.Opc.Ua</code> - version 1.4.365.48) which includes:</p> <ul style="list-style-type: none"> The fixes for the following cybersecurity vulnerabilities: CVE: 2021-27432, CVE: 2020-29457.

		<ul style="list-style-type: none"> TranslateBrowsePathsToNodeIds fix: In RelativePathElement objects the IncludeSubtypes should be ignored when the ReferenceTypeId is not specified. <p>- dataFEED OPC UA .NET Standard SDK Server Library:</p> <ul style="list-style-type: none"> In NodeManager class: The existing ReportEvent method became obsolete and a new version of ReportEvent method was created with a different set of parameters. SampleServer project was modified to reference the fine grained OPCFoundation.NetStandard.Opc.Ua.* nuget packages as described in Reduce Server's Output Folder Size section. Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK Client Library:</p> <ul style="list-style-type: none"> SampleClient project was modified to reference the fine grained OPCFoundation.NetStandard.Opc.Ua.* nuget packages as described in Reduce Client's Output Folder Size section. Bug fixes <p>SDK libraries are compiled using NuGet package OPCFoundation.NetStandard.Opc.Ua - version 1.4.365.48. When using dataFEED OPC UA .NET Standard SDK version 2.80 it is mandatory to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.70.0	05.02.2021	<p>- dataFEED OPC UA .NET Standard SDK Server Library:</p> <ul style="list-style-type: none"> Include the Amendment OPC 10001-13: Ordered List. Import NodeSet2 XML sets the Parent node for nodes that have ParentNodeId property. The XamarinSampleServer target android version was upgraded to version 9.0 (Pie). Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK Client Library:</p> <ul style="list-style-type: none"> Support for Register and Unregister Nodes. The XamarinSampleClient target android version was upgraded to version 9.0 (Pie). Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK PubSub Library:</p> <ul style="list-style-type: none"> Bug fixes. <p>- Support for VisualStudio 2019. SDK libraries are compiled using NuGet package OPCFoundation.NetStandard.Opc.Ua - version 1.4.364.40. When using dataFEED OPC UA .NET Standard SDK version 2.70 it is important to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.60.0	16.10.2020	<p>- dataFEED OPC UA .NET Standard SDK Server Library:</p> <ul style="list-style-type: none"> Support for reverse connectivity. In <i>NodeManager</i> class:

		<ul style="list-style-type: none"> - The <i>CreateObjectFromType()</i> and <i>CreateVariableFromType()</i> methods were enhanced with an additional parameter (<i>createOptionalProperties</i>) that specifies if the properties that have optional modelling rule are instantiated when creating an object/variable. Note that the types from OPC UA .NET Standard Stack from OPC Foundation will not create optional properties. - The <i>ReportEvent</i> method was enhanced to accept also the node id of the event type that will be reported. • Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK Client Library:</p> <ul style="list-style-type: none"> • Support for reverse connectivity. • Asynchronously methods added for Connect (<i>ConnectAsync</i>), Disconnect (<i>DisconnectAsync</i>), GetEndpoints (<i>GetEndpointsAsync</i>), DiscoverServers (<i>DiscoverServersAsync</i>) and DiscoverServersOnNetwork (<i>DiscoverServersOnNetworkAsync</i>). • Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK PubSub Library:</p> <ul style="list-style-type: none"> • Bug fixes. <p>SDK libraries are compiled using the NuGet package OPCFoundation.NetStandard.Opc.Ua - version 1.4.363.49. When using dataFEED OPC UA .NET Standard SDK version 2.60 it is important to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.50.0	09.07.2020	<p>- dataFEED OPC UA .NET Standard SDK Server Library:</p> <ul style="list-style-type: none"> • Internal support for AccessRestrictions, RolePermissions and UserRolePermissions attributes. • Support for GDS and Push Management of application certificates and trust lists. • Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK Client Library:</p> <ul style="list-style-type: none"> • Support for GDS and Pull Management of application certificates and trust lists. • ReadNode method from <i>ClientSession</i> will not throw a ServiceResultException when the node is not found, but will return an instance of <i>VariableNodeEx</i>. Status codes for each attribute are available via <i>GetStatusCode()</i> method. • Bug fixes. <p>- dataFEED OPC UA .NET Standard SDK PubSub Library:</p> <ul style="list-style-type: none"> • Bug fixes. <p>- .NET Framework support updated to version 4.6.2 in accordance with <i>OPC UA .NET Standard Stack from OPC Foundation</i> .</p> <p>- Support for Visual Studio 2015 was removed.</p>

		<p>SDK libraries are compiled using NuGet package OPCFoundation.NetStandard.Opc.Ua - version 1.4.362.42. When using dataFEED OPC UA .NET Standard SDK version 2.50 it is important to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.40.0	26.02.2020	<p>- dataFEED OPC UA .NET Standard SDK Server Library:</p> <p>Support for creating custom DataType, VariableType and ObjectType nodes and instances Extended support for complex data types:</p> <ul style="list-style-type: none"> • Support for custom <i>Structure</i>, <i>StructureWithOptionalFields</i>, <i>Union</i>, <i>Enumeration</i> and <i>OptionSet</i> types. • Expose <i>DataTypeDefinition</i> attribute of DataType nodes to allow clients to read custom data types. • Enhanced ImportNodeSet functionality for reading the <i>DataTypeDefinition</i> attribute of DataType nodes. • Sample code for creating and handling custom types. <p>Support for creating custom variable and object types. Bug fixes. .NET Standard 1.4 support removed.</p> <p>- dataFEED OPC UA .NET Standard SDK Client Library:</p> <p>Extended support for complex data types:</p> <ul style="list-style-type: none"> • Support for custom <i>Structure</i>, <i>StructureWithOptionalFields</i>, <i>Union</i>, <i>Enumeration</i> and <i>OptionSet</i> types. • Load server custom data types by reading the <i>DataTypeDefinition</i> attribute of DataType nodes for V1.04 servers. • Sample code for handling custom data types. • Bug fixes <p>.NET Standard 1.4 support removed.</p> <p>- dataFEED OPC UA .NET Standard SDK PubSub Library:</p> <ul style="list-style-type: none"> • Bug fixes <p>SDK libraries are compiled using the NuGet package OPCFoundation.NetStandard.Opc.Ua - version 1.4.359.31. When using dataFEED OPC UA .NET Standard SDK version 2.40 it is important to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.30.0	06.08.2019	<p>- dataFEED OPC UA .NET Standard SDK PubSub Library:</p> <ul style="list-style-type: none"> • Provides simplified API for configuring a PubSub application. SampleServer provides a new dedicated node manager that uses dataFEED OPC UA .NET Standard SDK PubSub Library and behaves like a Publisher and Subscriber. • Implemented PubSubState State Machine. Implemented Unicast and Multicast communication for <i>OPC UA UDP Transport Protocol</i>. • Changes in licensing namespaces: In version 2.20 the <i>PubSub</i> licensing classes were part of <i>Softing.Opc.Ua.Private</i> namespace. Starting with version 2.30 the <i>PubSub</i> licensing classes are part of <i>Softing.Opc.Ua.PubSub</i> namespace. Please change your code to point to the new namespace.

		<p>- dataFEED OPC UA .NET Standard SDK Server Library:</p> <ul style="list-style-type: none"> · Bug fixes. · Changes in licensing namespaces: In version 2.20 the <i>Server</i> licensing classes were part of <i>Softing.Opc.Ua.Private</i> namespace. Starting with version 2.30 the <i>Server</i> licensing classes are part of <i>Softing.Opc.Ua.Server</i> namespace. Please change your code to point to the new namespace. <p>- dataFEED OPC UA .NET Standard SDK Client Library:</p> <ul style="list-style-type: none"> · Bug fixes. · Changes in licensing namespaces: In version 2.20 the <i>Client</i> licensing classes were part of <i>Softing.Opc.Ua.Private</i> namespace. Starting with version 2.30 the <i>Client</i> licensing classes are part of <i>Softing.Opc.Ua.Client</i> namespace. Please change your code to point to the new namespace. <p>SDK libraries are compiled using NuGet package OPCFoundation.NetStandard.Opc.Ua - version 1.4.356.27. When using dataFEED OPC UA .NET Standard SDK version 2.30 it is important to use the same version of OPC UA .NET Standard Stack from OPC Foundation.</p>
V2.20.0	15.05.2019	<ul style="list-style-type: none"> • The initial version of dataFEED OPC UA .NET Standard SDK PubSub Library: <ul style="list-style-type: none"> ○ Provides an API for simplified OPC UA Publisher and Subscriber development using UDP transport and binary encoded messages. ○ Provides SamplePublisher and SampleSubscriber projects that use the simplified API from dataFEED OPC UA .NET Standard SDK PubSub Library. • dataFEED OPC UA .NET Standard SDK Server Library: <ul style="list-style-type: none"> ○ Enhanced ImportNodeSet functionality that allows instantiating data types loaded from dictionaries. ○ New method GetDefaultValueForDatatype was added to NodeManager. It creates and returns the default value for the specified data type , including data types imported from NodeSet2 XML files. ○ Added support for Aes256_Sha256_RsaPss security policy. • dataFEED OPC UA .NET Standard SDK Client Library: <ul style="list-style-type: none"> ○ ClientSession.KeepAlive handling was moved on a separate thread to avoid possible deadlocks.

V2.10.0	06.02.2019	<ul style="list-style-type: none"> • "Softing OPC UA .NET Standard Toolkit" was renamed to "dataFEED OPC UA .NET Standard SDK". • OPC UA Server Compliance Certification. • dataFEED OPC UA .NET Standard Server SDK Library: <ul style="list-style-type: none"> ○ Enhanced ImportNodeSet functionality that handles duplicate nodes. ○ Added Export NodeSet functionality. ○ Added create instance from OPC UA type specified by Nodeld functionality. ○ Added sample code for file transfer. ○ Added sample code for temporary file transfer. • Added support for Aes128_Sha256_RsaOaep security policy. • Removed Windows 8.1 support due to known security limitations incompatible with dataFEED OPC UA .NET Standard SDK implementation. • Properties marked as deprecated in ServerToolkitConfiguration.
V2.00.0	31.07.2018	<p>Softing Client Toolkit Library:</p> <p>Dll name was changed from Softing.Opc.Ua.dll to Softing.Opc.Ua.Client.dll.</p> <p>Namespace changes:</p> <ul style="list-style-type: none"> • All entities from namespace Softing.Opc.Ua were moved to namespace Softing.Opc.Ua.Client (SecurityPolicy enum, ToolkitUtils and UaApplication classes) • All entities from namespace Softing.Opc.Ua.Private were moved to Softing.Opc.Ua.Client.Private (License class and LicenseFeature enum) • All entities from namespace Softing.Opc.Ua.Types were moved to Softing.Opc.Ua.Client.Types. • ApplicationConfigurationEx class available in version 1.00 and 1.10 in namespace Softing.Opc.Ua was removed. We are using the ApplicationConfiguration class available in OPC UA .NET Standard Stack from OPC Foundation . A new configuration class ClientToolkitConfiguration was added to the Softing Client Toolkit Library, it is used as a configuration extension as described in Client configuration section. <p>New method added to ClientSubscription class. ConditionRefresh method tells the server to refresh all conditions (alarms) being monitored by the subscription.</p> <p>Softing Server Toolkit Library - initial version:</p> <ul style="list-style-type: none"> • Provides an API for simplified server development. The Softing Server • Toolkit Library offers a simplified approach for Data Access, Methods and Standard Event Subscriptions <p>SampleServer and XamarinSampleServer are refactored to use the new Softing Server Toolkit Library (Softing.Opc.Ua.Server.dll).</p>
V2.00.0	31.07.2018	<p>Softing Client Toolkit Library:</p> <p>Dll name was changed from Softing.Opc.Ua.dll to Softing.Opc.Ua.Client.dll.</p> <p>Namespace changes:</p>

		<ul style="list-style-type: none"> • All entities from namespace Softing.Opc.Ua were moved to namespace Softing.Opc.Ua.Client (SecurityPolicy enum, ToolkitUtils and UaApplication classes) • All entities from namespace Softing.Opc.Ua.Private were moved to Softing.Opc.Ua.Client.Private (License class and LicenseFeature enum) • All entities from namespace Softing.Opc.Ua.Types were moved to Softing.Opc.Ua.Client.Types. • ApplicationConfigurationEx class available in version 1.00 and 1.10 in namespace Softing.Opc.Ua was removed. We are using the ApplicationConfiguration class available in OPC UA .NET Standard Stack from OPC Foundation . A new configuration class ClientToolkitConfiguration was added to the Softing Client Toolkit Library, it is used as a configuration extension as described in Client configuration section. <p>New method added to ClientSubscription class. ConditionRefresh method tells the server to refresh all conditions (alarms) being monitored by the subscription.</p> <p>Softing Server Toolkit Library - initial version:</p> <ul style="list-style-type: none"> • Provides an API for simplified server development. The Softing Server Toolkit Library offers a simplified approach for Data Access, Methods and Standard Event Subscriptions • SampleServer and XamarinSampleServer are refactored to use the new Softing Server Toolkit Library (Softing.Opc.Ua.Server.dll).
V1.10.0	13.04.2017	<ul style="list-style-type: none"> • Added support for Linux distributions. Ubuntu 16.04 and Debian 9.30. • Added support for Android. Sample Client and Sample Server for Android implemented with Xamarin Forms were added in the samples folder.
V1.00.0	31.12.2017	<ul style="list-style-type: none"> • Initial Version