OpcObjectNode Class

Namespace: Opc.UaFx
Assemblies: Opc.UaFx.Advanced.dll

Defines a logical unit to represent more complex information as a OpcVariableNode. Objects are used to represent systems, system components, real-world objects and software objects.

C#

```
public class OpcObjectNode : OpcInstanceNode, IOpcNode, IOpcNodeInfo
```

Inheritance Object › OpcNode › OpcInstanceNode › OpcObjectNode

Derived

- OpcAggregateConfigurationNode
- OpcEventNode
- OpcFileNode
- OpcFolderNode
- OpcHistoryConfigurationNode
- OpcStateMachineNode

Implements IOpcNode, IOpcNodeInfo

Remarks

From a more abstract point of view objects are used to group variables and other objects in the address space. Therefore objects should be used when some common structures/groups of objects and/or variables should be described.

Simple objects only having one value (e.g. a simple heat sensor) can also be modelled as variables. However, extensibility mechanisms should be considered (e.g. a complex heat sensor subtype could have several values) and whether that object should be exposed as an object in the client's GUI or just as a value. Whenever a modeller is in doubt as to which solution to use the object having one variable should be preferred.

Constructors

Name	Description
OpcObjectNode(IOpcNode, OpcName)	Initializes a new instance of the OpcObjectNode class accessible by the `name` specified as a child node of the `parent` node given.
OpcObjectNode(IOpcNode, OpcName, OpcInstanceNode)	Initializes a new instance of the OpcObjectNode class accessible by the `name` specified as a child node of the `parent` node given and with the initial child nodes specified by `children`.

Name	Description
OpcObjectNode(IOpcNode, OpcName, OpcNodeId)	Initializes a new instance of the OpcObjectNode class accessible by the `name` and `id` specified as a child node of the `parent` node given.
OpcObjectNode(IOpcNode, OpcName, OpcNodeId, OpcInstanceNode)	Initializes a new instance of the OpcObjectNode class accessible by the `name`, `id` specified as a child node of the `parent` node given and with the initial child nodes specified by `children`.
OpcObjectNode(OpcName)	Initializes a new instance of the OpcObjectNode class accessible by the `name` specified.
OpcObjectNode(OpcName, OpcInstanceNode)	Initializes a new instance of the OpcObjectNode class accessible by the `name` and with the initial child nodes specified by `children`.
OpcObjectNode(OpcName, OpcNodeId)	Initializes a new instance of the OpcObjectNode class accessible by the `name` and `id` specified.
OpcObjectNode(OpcName, OpcNodeId, OpcInstanceNode)	Initializes a new instance of the OpcObjectNode class accessible by the `name`, `id` and with the initial child nodes specified by `children`.

Events

Name	Description
AfterApplyChanges	Occurs after one or more changes on the node has been notified. (Inherited from OpcNode)
BeforeApplyChanges	Occurs before one or more changes on the node are notified. (Inherited from OpcNode)

Properties

Name	Description
Category	Gets the NodeCategoryOpcAttribute which identifies the kind of node and is therefore used to classify the node regarding its use and purpose. (Inherited from OpcNode)
DefaultReferenceTypeId	Gets the default identifier which identifies the type that defines the underlying node reference within this OpcInstanceNode is referenced by its parent node.
DefaultReferenceTypeId	Gets the default identifier which identifies the type that defines the underlying node reference within this OpcInstanceNode is referenced by its parent node. (Inherited from OpcInstanceNode)
DefaultTypeDefinitionId	Gets the default identifier which identifies the node that defines the underlying node type from that this OpcInstanceNode has been created.
DefaultTypeDefinitionId	Gets the default identifier which identifies the node that defines the underlying node type from that this OpcInstanceNode has been created. (Inherited from OpcInstanceNode)
Description	Gets or sets the value of the optional DescriptionOpcAttribute which shall explain the meaning of the node. (Inherited from OpcNode)
Descriptions	Gets the OpcNodeGlobalization instance used to control the localization and other globalization related tasks for the Description attribute of the current node. (Inherited from OpcNode)

Name	Description
DisplayName	Gets or sets the value of the DisplayNameOpcAttribute which defines the localizable name of the node. (Inherited from OpcNode)
DisplayNames	Gets the OpcNodeGlobalization instance used to control the localization and other globalization related tasks for the DisplayName attribute of the current node. (Inherited from OpcNode)
HasPendingChanges	Gets a value indiciating whether there exists any pending change on the node. (Inherited from OpcNode)
Id	Gets the value of the NodeIdOpcAttribute which unambiguously identifies the node. (Inherited from OpcNode)
ModellingRuleId	Gets or sets the identifier which defines how the OpcInstanceNode is used for instantiation. (Inherited from OpcInstanceNode)
Name	Gets or sets the value of the BrowseNameOpcAttribute which defines the non-localizable human-readable name used when browsing the address space. (Inherited from OpcNode)
Namespace	(Inherited from OpcNode)
Parent	Gets the parent node of the node. (Inherited from OpcNode)
Parent	Gets the parent node of the node. (Inherited from OpcInstanceNode)
PendingChanges	Gets a value indicating the most recent changes performed on the node since their last notification. (Inherited from OpcNode)
QueryEventsCallback	Gets or sets a callback used to query any event information which belongs to the node. (Inherited from OpcNode)
ReadDescriptionCallback	(Inherited from OpcNode)
ReadDisplayNameCallback	(Inherited from OpcNode)
ReadUserWriteAccessCallback	(Inherited from OpcNode)
ReadWriteAccessCallback	(Inherited from OpcNode)
ReferenceType	Gets a value which defines a pre-defined used ReferenceTypeId as one of the members defined by the OpcReferenceType enumeration to simplify querying standard reference types. (Inherited from OpcInstanceNode)
ReferenceTypeId	Gets or sets the identifier which identifies the node that defines the semantic of the reference between a source and a target node and generally reflects an operation between the two, such as “A contains B”. (Inherited from OpcInstanceNode)
SymbolicName	(Inherited from OpcNode)
Tag	Gets or sets the object that contains additional user data about the node. (Inherited from OpcNode)
TypeDefinitionId	Gets or sets the identifier which identifies the node that defines the underlying node type from that this OpcInstanceNode has been created. (Inherited from OpcInstanceNode)
UserWriteAccess	Gets or sets the value of the optional UserWriteAccessOpcAttribute which exposes the possibilities of a client to write the attributes of the node taking user access rights into account. (Inherited from OpcNode)

Name	Description
WriteAccess	Gets or sets the value of the optional WriteAccessOpcAttribute which exposes the posibilities of a client to write the attributes of the node. (Inherited from OpcNode)
WriteDescriptionCallback	(Inherited from OpcNode)
WriteDisplayNameCallback	(Inherited from OpcNode)
WriteUserWriteAccessCallback	(Inherited from OpcNode)
WriteWriteAccessCallback	(Inherited from OpcNode)

Methods

Name	Description
AddChild(OpcContext, OpcInstanceNode)	(Inherited from OpcInstanceNode)
AddNotifier(OpcContext, IOpcNode)	
AddNotifier(OpcContext, IOpcNode)	(Inherited from OpcNode)
ApplyChanges(OpcContext)	Notifies about changes performed on the node since the last notification and resets the pending changes to None. (Inherited from OpcNode)
ApplyChanges(OpcContext, Boolean)	Notifies about changes performed on the node (and optionally on its children) since the last notification and resets the pending changes to None. (Inherited from OpcNode)
AttributeValue(OpcAttribute)	Retrieves the value of the `attribute` specified. (Inherited from OpcNode)
AttributeValue``1(OpcAttribute)	Retrieves the value of the `attribute` specified. (Inherited from OpcNode)
Child(OpcContext, OpcName)	Retrieves the child node its Name property matches exactly the `name` specified. (Inherited from OpcNode)
Children(OpcContext)	Retrieves a sequence of all nodes organized as children of this node. (Inherited from OpcNode)
InitializeDefaults	Initializes the default values used by the node implementation represented / required. (Inherited from OpcNode)
InitializeDefaults	Initializes the default values used by the OpcInstanceNode. (Inherited from OpcInstanceNode)
IsChangePending(OpcNodeChanges)	(Inherited from OpcNode)
OnAfterApplyChanges(OpcNodeChangesEventArgs)	Raises the AfterApplyChanges event using the event data specified. (Inherited from OpcNode)

Name	Description
OnBeforeApplyChanges(OpcNodeChangesEventArgs)	Raises the BeforeApplyChanges event using the event data specified. (Inherited from OpcNode)
QueryEventsCore(OpcNodeContext, OpcEventCollection)	(Inherited from OpcNode)
ReadAttributeValueCore``1(OpcReadAttributeValueContext, OpcAttributeValue)	(Inherited from OpcNode)
RemoveChild(OpcContext, OpcInstanceNode)	(Inherited from OpcInstanceNode)
RemoveNotifier(OpcContext, IOpcNode)	
RemoveNotifier(OpcContext, IOpcNode)	(Inherited from OpcNode)
RemoveNotifier(OpcContext, IOpcNode)	(Inherited from OpcInstanceNode)
ReportEvent(OpcContext, OpcEvent)	(Inherited from OpcNode)
UpdateChanges(OpcContext, OpcNodeChanges)	Notifies about the `changes` on behalf of the node and removes pending changes which intersect with the `changes` specified. (Inherited from OpcNode)
UpdateChanges(OpcContext, OpcNodeChanges, Boolean)	Notifies about the `changes` on behalf of the node (and optionally on its children) and removes pending changes which intersect with the `changes` specified. (Inherited from OpcNode)
WriteAttributeValueCore``1(OpcWriteAttributeValueContext, OpcAttributeValue)	(Inherited from OpcNode)

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