

OpcVariableNode Class

Namespace: Opc.UaFx

Assemblies: Opc.UaFx.Advanced.dll

Defines a node to use to represent values which may be simple or complex. Variables are always defined as properties or data variables of other nodes in the address space. They are never defined by themselves. A variable is always part of at least one other node, but may be related to any number of other nodes.

C#

```
public abstract class OpcVariableNode : OpcInstanceNode, IOpcNode, IOpcNodeInfo
```

Inheritance [Object](#) > [OpcNode](#) > [OpcInstanceNode](#) > [OpcVariableNode](#)

Derived

- [OpcDataVariableNode](#)
- [OpcPropertyNode](#)

Implements [IOpcNode](#), [IOpcNodeInfo](#)

Constructors

Name	Description
OpcVariableNode (IOpcNode , OpcName)	Initializes a new instance of the OpcVariableNode class accessible by the name specified as a child node of the parent node given.
OpcVariableNode (IOpcNode , OpcName , Object)	Initializes a new instance of the OpcVariableNode class accessible by the name specified with the initial value defined by value as a child node of the parent node given.
OpcVariableNode (IOpcNode , OpcName , OpcNodeId)	Initializes a new instance of the OpcVariableNode class accessible by the name and id specified as a child node of the parent node given.
OpcVariableNode (IOpcNode , OpcName , OpcNodeId , Object)	Initializes a new instance of the OpcVariableNode class accessible by the name and id specified with the initial value defined by value as a child node of the parent node given.
OpcVariableNode (OpcName)	Initializes a new instance of the OpcVariableNode class accessible by the name specified.
OpcVariableNode (OpcName , Object)	Initializes a new instance of the OpcVariableNode class accessible by the name specified with the initial value given by value .
OpcVariableNode (OpcName , OpcNodeId)	Initializes a new instance of the OpcVariableNode class accessible by the name and id specified.
OpcVariableNode (OpcName , OpcNodeId , Object)	Initializes a new instance of the OpcVariableNode class accessible by the name and id specified with the initial value given by value .

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
AccessLevel	Gets or sets a value which indicates in which ways the Value attribute of the variable node can be accessed (read/write) and if it provides current and/or historic data.
ArrayDimensions	Gets the number/lengths of dimensions for an array Value with one or more fixed dimensions.
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)
DataType	Gets or sets a value which defines a pre-defined used DataTypeId as one of the members defined by the OpcDataType enumeration to simplify querying standard data types.
DataTypeId	Gets or sets the identifier which identifies the node that defines the type of data represented by the variable 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.
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)
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 indicating whether there exists any pending change on the node. (Inherited from OpcNode)

Name	Description
HistoryConfiguration	
Id	Gets the value of the NodeIdOpcAttribute which unambiguously identifies the node. (Inherited from OpcNode)
IsArray	Gets a value indicating whether the Value of the OpcVariableNode represented is an array.
IsHistorizing	
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)
ReadAccessLevelCallback	
ReadArrayDimensionsCallback	
ReadDataTypeCallback	
ReadDescriptionCallback	(Inherited from OpcNode)
ReadDisplayNameCallback	(Inherited from OpcNode)
ReadIsHistorizingCallback	
ReadUserAccessLevelCallback	
ReadUserWriteAccessCallback	(Inherited from OpcNode)
ReadValueRankCallback	
ReadVariableValueCallback	Gets or sets a callback used to read the variable value.
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)
Status	
SymbolicName	(Inherited from OpcNode)
Tag	Gets or sets the object that contains additional user data about the node. (Inherited from OpcNode)
Timestamp	

Name	Description
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)
UserAccessLevel	Gets or sets a value which indicates in which ways the Value attribute of the variable node can be accessed (read/write) and if it provides current and/or historic data taking user access rights into account.
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)
Value	Gets or sets the value of the variable node which may be simple or complex.
ValueRank	
WriteAccess	Gets or sets the value of the optional WriteAccessOpcAttribute which exposes the possibilities of a client to write the attributes of the node. (Inherited from OpcNode)
WriteAccessLevelCallback	
WriteArrayDimensionsCallback	
WriteDataTypeCallback	
WriteDescriptionCallback	(Inherited from OpcNode)
WriteDisplayNameCallback	(Inherited from OpcNode)
WriteIsHistorizingCallback	
WriteUserAccessLevelCallback	
WriteUserWriteAccessCallback	(Inherited from OpcNode)
WriteValueRankCallback	
WriteVariableValueCallback	Gets or sets a callback used to write the variable value.
WriteWriteAccessCallback	(Inherited from OpcNode)

Methods

Name	Description
AddChild(OpcContext, OpInstanceNode)	(Inherited from OpInstanceNode)
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)

Name	Description
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 OpcVariableNode .
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)
OnBeforeApplyChanges(OpcNodeChangesEventArgs)	Raises the BeforeApplyChanges event using the event data specified. (Inherited from OpcNode)
QueryEventsCore(OpcNodeContext, OpcEventCollection)	(Inherited from OpcNode)
ReadAttributeValueCore`1(OpcReadAttributeValueContext, OpcAttributeValue)	
ReadAttributeValueCore`1(OpcReadAttributeValueContext, OpcAttributeValue)	(Inherited from OpcNode)
ReadValue(OpcReadVariableValueContext)	Reads the variable node value using the context specified.
ReadVariableValue(OpcReadVariableValueContext)	
ReadVariableValueCore(OpcReadVariableValueContext, OpcVariableValue)	Reads the value of the variable node using the context and value information specified.
RemoveChild(OpcContext, OpcInstanceNode)	(Inherited from OpcInstanceNode)
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)

Name	Description
WriteAttributeValueCore`1(OpcWriteAttributeValueContext, OpcAttributeValue)	
WriteAttributeValueCore`1(OpcWriteAttributeValueContext, OpcAttributeValue)	(Inherited from <code>OpcNode</code>)
WriteValue(OpcWriteVariableValueContext, Object)	Writes the <code>value</code> to the variable node value using the <code>context</code> specified.
WriteVariableValue(OpcWriteVariableValueContext, OpcVariableValue)	
WriteVariableValueCore(OpcWriteVariableValueContext, OpcVariableValue)	Writes the value of the variable node using the <code>context</code> and <code>value</code> information specified.

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