OpcAddVariableTypeNode Members

Namespace: Opc.UaFx
Assemblies: Opc.UaFx.Advanced.dll, Opc.UaFx.Advanced.dll
The OpcAddVariableTypeNode type exposes the following members.

Constructors

OpcAddVariableTypeNode(OpcName)

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add. The according OpcNodeId to identify and access the new node is determined by the service. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, Object)

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add. The according OpcNodeId to identify and access the new node is determined by the service. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, object value)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, Object, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add. The according OpcNodeId to identify and access the new node is determined by the service. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, object value, params OpcAddVariableNode[]
children)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add. The according OpcNodeId to identify and access the new node is determined by the service. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, params OpcAddVariableNode[] children)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, OpcNodeId)

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, OpcNodeId nodeId)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, OpcNodeId, Object)

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, OpcNodeId nodeId, object value)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, OpcNodeId, Object, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, OpcNodeId nodeId, object value, params
OpcAddVariableNode[] children)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcName, OpcNodeId, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the VariableTypeIds.BaseVariableType node using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcName name, OpcNodeId nodeId, params OpcAddVariableNode[]
children)
```

Parameters

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcNodeId, OpcName, OpcNodeId)

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the node identified by `superTypeId` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcNodeId superTypeId, OpcName name, OpcNodeId nodeId)
```

Parameters

`superTypeId` OpcNodeId

The OpcNodeId of the super type node to reference using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

Exceptions

ArgumentException

The `superTypeId` is equals Null or `name` is equals Null.

ArgumentNullException

The `superTypeId`, `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcNodeId, OpcName, OpcNodeId, Object)

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the node identified by `superTypeId` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcNodeId superTypeId, OpcName name, OpcNodeId nodeId, object value)
```

Parameters

`superTypeId` OpcNodeId

The OpcNodeId of the super type node to reference using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

Exceptions

ArgumentException

The `superTypeId` is equals Null or `name` is equals Null.

ArgumentNullException

The `superTypeId`, `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcNodeId, OpcName, OpcNodeId, Object, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the node identified by `superTypeId` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcNodeId superTypeId, OpcName name, OpcNodeId nodeId, object value, params OpcAddVariableNode[] children)
```

Parameters

`superTypeId` OpcNodeId

The OpcNodeId of the super type node to reference using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `superTypeId` is equals Null or `name` is equals Null.

ArgumentNullException

The `superTypeId`, `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcNodeId, OpcName, OpcNodeId, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the `name` of the variable type node to add, which shall be additionally accessible by the `nodeId` defined. The new node will be a child of the node identified by `superTypeId` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcNodeId superTypeId, OpcName name, OpcNodeId nodeId, params
OpcAddVariableNode[] children)
```

Parameters

`superTypeId` OpcNodeId

The OpcNodeId of the super type node to reference using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `superTypeId` is equals Null or `name` is equals Null.

ArgumentNullException

The `superTypeId`, `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcVariableType, OpcName, OpcNodeId)

Initializes a new instance of the OpcAddVariableTypeNode class using the specified `superType` to inherit from by the variable type node to add, which shall be accessible by the `name` and `nodeId` defined. The new node will be a child of the node identified by the `superType` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcVariableType superType, OpcName name, OpcNodeId nodeId)
```

Parameters

`superType` OpcVariableType

One of the members defined by the OpcVariableType enumeration which identifies the predefined underlying super type node the new node will represent a subtype of. The super type node is referenced using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name`, `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcVariableType, OpcName, OpcNodeId, Object)

Initializes a new instance of the OpcAddVariableTypeNode class using the specified `superType` to inherit from by the variable type node to add, which shall be accessible by the `name` and `nodeId` defined. The new node will be a child of the node identified by the `superType` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcVariableType superType, OpcName name, OpcNodeId nodeId,
object value)
```

Parameters

`superType` OpcVariableType

One of the members defined by the OpcVariableType enumeration which identifies the predefined underlying super type node the new node will represent a subtype of. The super type node is referenced using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcVariableType, OpcName, OpcNodeId, Object, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the specified `superType` to inherit from by the variable type node to add, which shall be accessible by the `name` and `nodeId` defined. The new node will be a child of the node identified by the `superType` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcVariableType superType, OpcName name, OpcNodeId nodeId,
object value, params OpcAddVariableNode[] children)
```

Parameters

`superType` OpcVariableType

One of the members defined by the OpcVariableType enumeration which identifies the predefined underlying super type node the new node will represent a subtype of. The super type node is referenced using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`value` Object

The initial value of new variable node instances created from the type of variable node to add.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name` or `nodeId` is a null reference (Nothing in Visual Basic).

OpcAddVariableTypeNode(OpcVariableType, OpcName, OpcNodeId, OpcAddVariableNode[])

Initializes a new instance of the OpcAddVariableTypeNode class using the specified `superType` to inherit from by the variable type node to add, which shall be accessible by the `name` and `nodeId` defined. The new node will be a child of the node identified by the `superType` using HasSubtype as the type of reference.

C#

```
public OpcAddVariableTypeNode(OpcVariableType superType, OpcName name, OpcNodeId nodeId,
params OpcAddVariableNode[] children)
```

Parameters

`superType` OpcVariableType

One of the members defined by the OpcVariableType enumeration which identifies the predefined underlying super type node the new node will represent a subtype of. The super type node is referenced using HasSubtype as the type of reference.

`name` OpcName

The OpcName through that the new variable type node can be accessed.

`nodeId` OpcNodeId

The OpcNodeId through that the new node can be identified and accessed. In case there Null is specified the server will determine the according OpcNodeId by its own.

`children` OpcAddVariableNode[]

The initial child nodes of the node to add.

Exceptions

ArgumentException

The `name` is equals Null.

ArgumentNullException

The `name`, `nodeId` is a null reference (Nothing in Visual Basic).

Properties

ArrayDimensions

Gets the number/lengths of dimensions for an array Value with one or more fixed dimensions.

C#

```
public OpcArrayDimensions ArrayDimensions { get; set; }
```

Property Value

OpcArrayDimensions

An instance of the OpcArrayDimensions class which offers the number/lengths of dimensions for an array Value.

Remarks

If the ValueRank does not identify an array of a specific dimension (i.e. ValueRank ⇐ 0) ArrayDimensions can be a null reference (Nothing in Visual Basic). In case of a null reference (Nothing in Visual Basic) the server defined default value of the attribute is used.

Children

Gets a collection of OpcAddVariableNode instances which define the sub-ordinated nodes to add as children to the node to add.

C#

```
public OpcAddNodeCollection Children { get; }
```

Property Value

OpcAddNodeCollection

An instance of the OpcAddNodeCollection class with the OpcAddVariableNode instances to process after the node defined by this OpcAddVariableTypeNode has been added.

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. A null reference (Nothing in Visual Basic) indicates that the attribute is undefined and its default value is used.

C#

```
public OpcDataType? DataType { get; set; }
```

Property Value

Nullable<OpcDataType>

One of the members defined by the OpcDataType enumeration.

DataTypeId

Gets or stets the identifier which identifies the node that defines the type of data represented by the variable type node. A null reference (Nothing in Visual Basic) indicates that the attribute is undefined and its default value is used.

C#

```
public OpcNodeId DataTypeId { get; set; }
```

Property Value

OpcNodeId

The OpcNodeId of the data type node which defines the type of data represented by the variable node. These data type node defines either a simple or a complex type of data accessible by the Value property.

IsAbstract

C#

```
public override bool IsAbstract { get; set; }
```

Property Value

Boolean

SuperType

Gets a value indicating the predefined underlying super type the new node will represent a subtype of.

C#

```
public OpcVariableType SuperType { get; }
```

Property Value

OpcVariableType

One of the members defined by the OpcVariableType enumeration or -1 in case of a custom type definition is used (see SuperTypeId).

Value

Gets or sets the value of the variable type node which may be simple or complex. A null reference (Nothing in Visual Basic) indicates that the attribute is undefined and its default value is used.

C#

```
public object Value { get; set; }
```

Property Value

Object

A Object representing the value of the variable type node.

ValueRank

Gets or sets a value which indicates whether the value attribute of the variable is an array and how many dimensions the array has.

C#

```
public int? ValueRank { get; set; }
```

Property Value

Nullable<Int32>

One of the values defined by the ValueRanks class or a null reference (Nothing in Visual Basic). In case of a null reference (Nothing in Visual Basic) the server defined default value of the attribute is used.

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