

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 [VariableTypelds.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 [VariableTypelds.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 `VariableTypepelds.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 `VariableTypepelds.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](#) \leftarrow 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.

Data Type

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 sets 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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