

OpcNodeReferenceSource Members

Namespace: Opc.UaFx

Assemblies: Opc.UaFx.Advanced.dll, Opc.UaFx.Advanced.dll

The [OpcNodeReferenceSource](#) type exposes the following members.

Constructors

OpcNodeReferenceSource(IOpcNode)

Initializes a new instance of the [OpcNodeReferenceSource](#) class using the **node** specified from which the references constructed originate from.

C#

```
public OpcNodeReferenceSource(IOpcNode node)
```

Parameters

node IOpcNode

The [IOpcNode](#) used as the source node of the references constructed.

Exceptions

[ArgumentNullException](#)

The **node** is a null reference (Nothing in Visual Basic).

OpcNodeReferenceSource(OpcNodeId)

Initializes a new instance of the [OpcNodeReferenceSource](#) class using the **nodeId** to identify the node from which the references constructed originate from.

C#

```
public OpcNodeReferenceSource(OpcNodeId nodeId)
```

Parameters

nodeId OpcNodeId

The [OpcNodeId](#) which identifies the source node of the references constructed.

Exceptions

[ArgumentNullException](#)

The **nodeId** is a null reference (Nothing in Visual Basic).

Properties

Node

Gets the node from which the references constructed originate from.

C#

```
public IOpcNode Node { get; }
```

Property Value

[IOpcNode](#)

The [IOpcNode](#) which is used as the source node of the references constructed or a null reference (Nothing in Visual Basic) in case there this [OpcNodeReferenceSource](#) has been initialized using a [OpcNodeId](#) which identifies the node the references shall originate from.

NodeId

Gets the identifier of the node from which the references constructed originate from.

C#

```
public OpcNodeId NodeId { get; }
```

Property Value

[OpcNodeId](#)

The [OpcNodeId](#) which identifies the node from which the references constructed originate from.

Methods

To(IEnumerable<OpcReference>)

Provides a node / references bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [references](#) specified.

C#

```
public OpcNodeReference To(IEnumerable<OpcReference> references)
```

Parameters

[references](#) [IEnumerable<OpcReference>](#)

A sequence of [OpcReference](#) instances to associate with the node information referred to in this [OpcNodeReferenceSource](#).

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which combines the node information of this [OpcNodeReferenceSource](#) and the [references](#) specified.

To(IOpcNode)

Provides a set of node / reference bundles in a new instance of the [OpcNodeReferenceSet](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the references. The references created represent a [ParentToChild](#) and [ChildToParent](#) relation using [Organizes](#) as the type of reference.

C#

```
public OpcNodeReferenceSet To(IOpcNode targetNode)
```

Parameters

[targetNode](#) [IOpcNode](#)

The [IOpcNode](#) used as the target one reference will cease in, while the second reference uses it the other way round.

Returns

OpcNodeReferenceSet

A new instance of the [OpcNodeReferenceSet](#) class which owns two [OpcNodeReference](#) instances representing a bidirectional relation between the node referred to by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

ArgumentNullException

The [targetNode](#) is a null reference (Nothing in Visual Basic).

To(IOpcNode, OpcNodeId)

Provides a set of node / reference bundles in a new instance of the [OpcNodeReferenceSet](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the reference. The references created represent a [ParentToChild](#) and [ChildToParent](#) relation using the type of reference identified by the [referenceTypeId](#) specified.

C#

```
public OpcNodeReferenceSet To(IOpcNode targetNode, OpcNodeId referenceTypeId)
```

Parameters

targetNode [IOpcNode](#)

The [IOpcNode](#) used as the target one reference will cease in, while the second reference uses it the other way round.

referenceTypeId [OpcNodeId](#)

The [OpcNodeId](#) which identifies the type of reference to represent between the **targetNode** and its opponent.

Returns

[OpcNodeReferenceSet](#)

A new instance of the [OpcNodeReferenceSet](#) class which owns two [OpcNodeReference](#) instances representing a bidirectional relation between the node referred to by this [OpcNodeReferenceSource](#) and the **targetNode** specified.

Exceptions

[ArgumentNullException](#)

The **targetNode** or **referenceTypeId** is a null reference (Nothing in Visual Basic).

To(IOpcNode, OpcReferenceType)

Provides a set of node / reference bundles in a new instance of the [OpcNodeReferenceSet](#) class using the source node information of this [OpcNodeReferenceSource](#) and the **targetNode** as the target of the reference. The references created represent a [ParentToChild](#) and [ChildToParent](#) relation using the **referenceType** as the type of reference.

C#

```
public OpcNodeReferenceSet To(IOpcNode targetNode, OpcReferenceType referenceType)
```

Parameters

targetNode [IOpcNode](#)

The [IOpcNode](#) used as the target one reference will cease in, while the second reference uses it the other way round.

referenceType [OpcReferenceType](#)

One of the members defined by the [OpcReferenceType](#) enumeration to use to setup the type of reference represented.

Returns

[OpcNodeReferenceSet](#)

A new instance of the [OpcNodeReferenceSet](#) class which owns two [OpcNodeReference](#) instances representing a bidirectional relation between the node referred to by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNode](#) is a null reference (Nothing in Visual Basic).

To(OpcNodeId)

Provides a set of node / reference bundles in a new instance of the [OpcNodeReferenceSet](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNodeId](#) as the identifier of the target of the references. The references created represent a [ParentToChild](#) and [ChildToParent](#) relation using [Organizes](#) as the type of reference.

C#

```
public OpcNodeReferenceSet To(OpcNodeId targetNodeId)
```

Parameters

[targetNodeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node used as the target one reference will cease in, while the second reference uses it the other way round.

Returns

[OpcNodeReferenceSet](#)

A new instance of the [OpcNodeReferenceSet](#) class which owns two [OpcNodeReference](#) instances representing a bidirectional relation between the node referred to by this [OpcNodeReferenceSource](#) and the node identified by the [targetNodeId](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNodeId](#) is a null reference (Nothing in Visual Basic).

To(OpcNodeId, OpcNodeId)

Provides a set of node / reference bundles in a new instance of the [OpcNodeReferenceSet](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNodeId](#) as the identifier of the target of the reference. The references created represent a [ParentToChild](#) and [ChildToParent](#) relation using the type of reference identified by the [referenceTypeId](#) specified.

C#

```
public OpcNodeReferenceSet To(OpcNodeId targetNodeId, OpcNodeId referenceTypeId)
```

Parameters

targetNodeId [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node used as the target one reference will cease in, while the second reference uses it the other way round.

referenceTypeId [OpcNodeId](#)

The [OpcNodeId](#) which identifies the type of reference to represent between the target identified by the **targetNodeId** and its opponent.

Returns

[OpcNodeReferenceSet](#)

A new instance of the [OpcNodeReferenceSet](#) class which owns two [OpcNodeReference](#) instances representing a bidirectional relation between the node referred to by this [OpcNodeReferenceSource](#) and the node identified by the **targetNodeId** specified.

Exceptions

[ArgumentNullException](#)

The **targetNodeId** or **referenceTypeId** is a null reference (Nothing in Visual Basic).

To(OpcNodeId, OpcReferenceType)

Provides a set of node / reference bundles in a new instance of the [OpcNodeReferenceSet](#) class using the source node information of this [OpcNodeReferenceSource](#) and the **targetNodeId** as the identifier of the target of the reference. The references created represent a [ParentToChild](#) and [ChildToParent](#) relation using the **referenceType** as the type of reference.

C#

```
public OpcNodeReferenceSet To(OpcNodeId targetNodeId, OpcReferenceType referenceType)
```

Parameters

targetNodeId [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node used as the target one reference will cease in, while the second reference uses it the other way round.

referenceType [OpcReferenceType](#)

One of the members defined by the [OpcReferenceType](#) enumeration to use to setup the type of reference represented.

Returns

OpcNodeReferenceSet

A new instance of the [OpcNodeReferenceSet](#) class which owns two [OpcNodeReference](#) instances representing a bidirectional relation between the node referred to by this [OpcNodeReferenceSource](#) and the node identified by the `targetNodeId` specified.

Exceptions

ArgumentNullException

The `targetNodeId` or `referenceType` is a null reference (Nothing in Visual Basic).

To(OpcReference[])

Provides a node / references bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the `references` specified.

C#

```
public OpcNodeReference To(params OpcReference[] references)
```

Parameters

`references` [OpcReference\[\]](#)

An array of [OpcReference](#) instances to associate with the node information referred to in this [OpcNodeReferenceSource](#).

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which combines the node information of this [OpcNodeReferenceSource](#) and the `references` specified.

ToChild(IOpcNode)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the `targetNode` as the target of the reference. The reference created represents a [ParentToChild](#) relation using [Organizes](#) as the type of reference.

C#

```
public OpcNodeReference ToChild(IOpcNode targetNode)
```

Parameters

`targetNode` [IOpcNode](#)

The [IOpcNode](#) in which the reference constructed ceases.

Returns

[OpcNodeReference](#)

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNode](#) is a null reference (Nothing in Visual Basic).

ToChild(IOpcNode, OpcNodeId)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the reference. The reference created represents a [ParentToChild](#) relation using the type of reference identified by the [referenceTypeId](#) specified.

C#

```
public OpcNodeReference ToChild(IOpcNode targetNode, OpcNodeId referenceTypeId)
```

Parameters

[targetNode](#) [IOpcNode](#)

The [IOpcNode](#) in which the reference constructed ceases.

[referenceTypeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the type of reference to represent between the [targetNode](#) and its opponent.

Returns

[OpcNodeReference](#)

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNode](#) or [referenceTypeId](#) is a null reference (Nothing in Visual Basic).

ToChild(IOpcNode, OpcReferenceType)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the reference. The reference created represents a [ParentToChild](#) relation using the [referenceType](#) as the type of reference.

C#

```
public OpcNodeReference ToChild(IOpcNode targetNode, OpcReferenceType referenceType)
```

Parameters

[targetNode](#) [IOpcNode](#)

The [IOpcNode](#) in which the reference constructed ceases.

[referenceType](#) [OpcReferenceType](#)

One of the members defined by the [OpcReferenceType](#) enumeration to use to setup the type of reference represented.

Returns

[OpcNodeReference](#)

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNode](#) is a null reference (Nothing in Visual Basic).

ToChild(OpcNodeId)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNodeId](#) as the identifier of the target of the reference. The reference created represents a [ParentToChild](#) relation using [Organizes](#) as the type of reference.

C#

```
public OpcNodeReference ToChild(OpcNodeId targetNodeId)
```

Parameters

[targetNodeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node in which the reference constructed ceases.

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the node identified by the `targetNodeId` specified.

Exceptions

ArgumentNullException

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

ToChild(OpcNodeId, OpcNodeId)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the `targetNodeId` as the identifier of the target of the reference. The reference created represents a [ParentToChild](#) relation using the type of reference identified by the `referenceTypeId` specified.

C#

```
public OpcNodeReference ToChild(OpcNodeId targetNodeId, OpcNodeId referenceTypeId)
```

Parameters

`targetNodeId` [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node in which the reference constructed ceases.

`referenceTypeId` [OpcNodeId](#)

The [OpcNodeId](#) which identifies the type of reference to represent between the target identified by the `targetNodeId` and its opponent.

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the node identified by the `targetNodeId` specified.

Exceptions

ArgumentNullException

The `targetNodeId` or `referenceTypeId` is a null reference (Nothing in Visual Basic).

ToChild(OpcNodeId, OpcReferenceType)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNodeId](#) as the identifier of the target of the reference. The reference created represents a [ParentToChild](#) relation using the [referenceType](#) as the type of reference.

C#

```
public OpcNodeReference ToChild(OpcNodeId targetNodeId, OpcReferenceType referenceType)
```

Parameters

[targetNodeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node in which the reference constructed ceases.

[referenceType](#) [OpcReferenceType](#)

One of the members defined by the [OpcReferenceType](#) enumeration to use to setup the type of reference represented.

Returns

[OpcNodeReference](#)

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the node identified by the [targetNodeId](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNodeId](#) is a null reference (Nothing in Visual Basic).

ToParent(IOpcNode)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the reference. The reference created represents a [ChildToParent](#) relation using [Organizes](#) as the type of reference.

C#

```
public OpcNodeReference ToParent(IOpcNode targetNode)
```

Parameters

[targetNode](#) [IOpcNode](#)

The [IOpcNode](#) in which the reference constructed ceases.

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

ArgumentNullException

The [targetNode](#) is a null reference (Nothing in Visual Basic).

ToParent(IOpcNode, OpcNodeId)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the reference. The reference created represents a [ChildToParent](#) relation using the type of reference identified by the [referenceTypeId](#) specified.

C#

```
public OpcNodeReference ToParent(IOpcNode targetNode, OpcNodeId referenceTypeId)
```

Parameters

[targetNode](#) [IOpcNode](#)

The [IOpcNode](#) in which the reference constructed ceases.

[referenceTypeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the type of reference to represent between the [targetNode](#) and its opponent.

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

ArgumentNullException

The [targetNode](#) or [referenceTypeId](#) is a null reference (Nothing in Visual Basic).

ToParent(IOpcNode, OpcReferenceType)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNode](#) as the target of the reference. The reference created represents a [ChildToParent](#) relation using the [referenceType](#) as the type of reference.

C#

```
public OpcNodeReference ToParent(IOpcNode targetNode, OpcReferenceType referenceType)
```

Parameters

[targetNode](#) [IOpcNode](#)

The [IOpcNode](#) in which the reference constructed ceases.

[referenceType](#) [OpcReferenceType](#)

One of the members defined by the [OpcReferenceType](#) enumeration to use to setup the type of reference represented.

Returns

[OpcNodeReference](#)

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the [targetNode](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNode](#) is a null reference (Nothing in Visual Basic).

ToParent(OpcNodeId)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNodeId](#) as the identifier of the target of the reference. The reference created represents a [ChildToParent](#) relation using [Organizes](#) as the type of reference.

C#

```
public OpcNodeReference ToParent(OpcNodeId targetNodeId)
```

Parameters

[targetNodeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node in which the reference constructed ceases.

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the node identified by the `targetNodeId` specified.

Exceptions

ArgumentNullException

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

ToParent(OpcNodeId, OpcNodeId)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the `targetNodeId` as the identifier of the target of the reference. The reference created represents a [ChildToParent](#) relation using the type of reference identified by the `referenceTypeId` specified.

C#

```
public OpcNodeReference ToParent(OpcNodeId targetNodeId, OpcNodeId referenceTypeId)
```

Parameters

`targetNodeId` [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node in which the reference constructed ceases.

`referenceTypeId` [OpcNodeId](#)

The [OpcNodeId](#) which identifies the type of reference to represent between the target identified by the `targetNodeId` and its opponent.

Returns

OpcNodeReference

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the node identified by the `targetNodeId` specified.

Exceptions

ArgumentNullException

The `targetNodeId` or `referenceTypeId` is a null reference (Nothing in Visual Basic).

ToParent(OpcNodeId, OpcReferenceType)

Provides a node / reference bundle in a new instance of the [OpcNodeReference](#) class using the source node information of this [OpcNodeReferenceSource](#) and the [targetNodeId](#) as the identifier of the target of the reference. The reference created represents a [ChildToParent](#) relation using the [referenceType](#) as the type of reference.

C#

```
public OpcNodeReference ToParent(OpcNodeId targetNodeId, OpcReferenceType referenceType)
```

Parameters

[targetNodeId](#) [OpcNodeId](#)

The [OpcNodeId](#) which identifies the node in which the reference constructed ceases.

[referenceType](#) [OpcReferenceType](#)

One of the members defined by the [OpcReferenceType](#) enumeration to use to setup the type of reference represented.

Returns

[OpcNodeReference](#)

A new instance of the [OpcNodeReference](#) class which represents a unidirectional relation between the node referenced by this [OpcNodeReferenceSource](#) and the node identified by the [targetNodeId](#) specified.

Exceptions

[ArgumentNullException](#)

The [targetNodeId](#) is a null reference (Nothing in Visual Basic).

ToString()

Returns a string representing the information contained in the [OpcNodeReferenceSource](#).

C#

```
public override string ToString()
```

Returns

[String](#)

A string which describes the information in this [OpcNodeReferenceSource](#).

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