

OpcReference Members

Namespace: Opc.UaFx

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

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

Constructors

OpcReference(IOpcNode, OpcReferenceDirection, OpcNodeId)

Initializes a new instance of the [OpcReference](#) class using the [targetNode](#) as the target using the type of reference identified by the [typeId](#) specified in the relation defined by [direction](#).

C#

```
public OpcReference(IOpcNode targetNode, OpcReferenceDirection direction, OpcNodeId typeId)
```

Parameters

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

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

[direction](#) [OpcReferenceDirection](#)

One of the members defined by the [OpcReferenceDirection](#) enumeration which defines the kind of relation the reference defines.

[typeId](#) [OpcNodeId](#)

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

Exceptions

[ArgumentNullException](#)

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

OpcReference(IOpcNode, OpcReferenceDirection, OpcReferenceType)

Initializes a new instance of the [OpcBidirectionalReference](#) class using the [targetNode](#) as the target of the reference and using the value of the [type](#) parameter as the type of reference in the relation defined by [direction](#).

C#

```
public OpcReference(IOpcNode targetNode, OpcReferenceDirection direction, OpcReferenceType type)
```

Parameters

targetNode IOpcNode

The IOpcNodeInfo in which the reference constructed ceases.

direction OpcReferenceDirection

One of the members defined by the OpcReferenceDirection enumeration which defines the kind of relation the reference defines.

type OpcReferenceType

One of the members defined by the OpcReferenceType enumeration to use to setup the type of reference represented.

Exceptions

ArgumentNullException

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

OpcReference(OpcNodeId, OpcReferenceDirection, OpcNodeId)

Initializes a new instance of the OpcBidirectionalReference class using the **targetNodeId** as the identifier of the target and using the type of reference identified by the **typeId** specified in the relation defined by **direction**.

C#

```
public OpcReference(OpcNodeId targetNodeId, OpcReferenceDirection direction, OpcNodeId typeId)
```

Parameters

targetNodeId OpcNodeId

The OpcNodeId which identifies the node in which the reference constructed ceases.

direction OpcReferenceDirection

One of the members defined by the OpcReferenceDirection enumeration which defines the kind of relation the reference defines.

typeId OpcNodeId

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

Exceptions

ArgumentNullException

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

OpcReference(OpcNodeId, OpcReferenceDirection, OpcReferenceType)

Initializes a new instance of the `OpcBidirectionalReference` class using the `targetNodeId` as the identifier of the target of the reference using the value of the `type` parameter as the type of the reference in the relation defined by `direction`.

C#

```
public OpcReference(OpcNodeId targetNodeId, OpcReferenceDirection direction,
OpcReferenceType type)
```

Parameters

`targetNodeId` `OpcNodeId`

The `OpcNodeId` which identifies the node in which the reference constructed ceases.

`direction` `OpcReferenceDirection`

One of the members defined by the `OpcReferenceDirection` enumeration which defines the kind of relation the reference defines.

`type` `OpcReferenceType`

One of the members defined by the `OpcReferenceType` enumeration to use to setup the type of reference represented.

Exceptions

ArgumentNullException

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

Properties

Direction

Gets a value indicating the logical direction of the reference represented.

C#

```
public OpcReferenceDirection Direction { get; }
```

Property Value

OpcReferenceDirection

One of the members defined by the [OpcReferenceDirection](#) enumeration. The default value is [ParentToChild](#).

TargetNode

Gets the node to which the reference refers to.

C#

```
public IOpcNode TargetNode { get; }
```

Property Value

IOpcNode

The [IOpcNode](#) to which the reference refers to or a null reference (Nothing in Visual Basic) in case there this [OpcReference](#) has been initialized using a [OpcNodeId](#) which identifies the node the reference refers to.

TargetNodeId

Gets the identifier of the node to which the reference refers to.

C#

```
public OpcNodeId TargetNodeId { get; }
```

Property Value

OpcNodeId

The [OpcNodeId](#) which identifies the node to which the reference refers to.

Type

Gets a value which defines the pre-defined type of reference represented.

C#

```
public OpcReferenceType? Type { get; }
```

Property Value

Nullable<OpcReferenceType>

One of the members defined by the [OpcReferenceType](#) enumeration or a null reference (Nothing in Visual Basic) if [TypeId](#) refers to a type of reference which is not a built in reference type. The default value is [Organizes](#).

TypeId

Gets the identifier which identifies the node that defines the semantic of the reference between the source and the target node represented through this [OpcReference](#) and generally reflects an operation between the two, such as "A contains B".

C#

```
public OpcNodeId TypeId { get; }
```

Property Value

[OpcNodeId](#)

The [OpcNodeId](#) of the reference type node which defines the relation semantic between the source and the target node. The default value is [Organizes](#).

Methods

GetReferences()

Retrieves an empty sequence of [OpcNodeReference](#) instances.

C#

```
public IEnumerable<OpcNodeReference> GetReferences()
```

Returns

[IEnumerable<OpcNodeReference>](#)

An empty [IEnumerable<OpcNodeReference>](#) of [OpcNodeReference](#) instances.

GetReferences(IOpcNode)

Retrieves a sequence with one [OpcNodeReference](#) instance using the [node](#) specified as the source of the reference.

C#

```
public IEnumerable<OpcNodeReference> GetReferences(IOpcNode node)
```

Parameters

[node](#) [IOpcNode](#)

The [IOpcNode](#) instance from which the [OpcNodeReference](#) instance originates from.

Returns

IEnumerable<OpcNodeReference>

An `IEnumerable<OpcNodeReference>` of `OpcNodeReference` instances which contains only one instance.

Exceptions

ArgumentNullException

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

GetReferences(OpcNodeId)

Retrieves a sequence with one `OpcNodeReference` instance using the `nodeId` specified as the source of the reference.

C#

```
public IEnumerable<OpcNodeReference> GetReferences(OpcNodeId nodeId)
```

Parameters

`nodeId` `OpcNodeId`

The `OpcNodeId` which identifies the node from which the `OpcNodeReference` instance originates from.

Returns

`IEnumerable<OpcNodeReference>`

An `IEnumerable<OpcNodeReference>` of `OpcNodeReference` instances which contains only one instance.

Exceptions

ArgumentNullException

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

ToString()

Returns a string representing the information contained in the `OpcReference`.

C#

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

Returns

`String`

A string which describes the information in this `OpcReference`.

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