

OpcAnalogItemNode Members

Namespace: Opc.UaFx

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

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

Constructors

OpcAnalogItemNode(IOpcNode, OpcName)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the **name** specified as a child node of the **parent** node given.

C#

```
public OpcAnalogItemNode(IOpcNode parent, OpcName name)
```

Parameters

parent [IOpcNode](#)

The [IOpcNode](#) used as the parent node or a null reference (Nothing in Visual Basic) in the case there is no parent node available.

name [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

OpcAnalogItemNode(IOpcNode, OpcName, Object)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the **name** specified with the initial value defined by **value** as a child node of the **parent** node given.

C#

```
public OpcAnalogItemNode(IOpcNode parent, OpcName name, object value)
```

Parameters

parent [IOpcNode](#)

The [IOpcNode](#) used as the parent node or a null reference (Nothing in Visual Basic) in the case there is no parent node available.

name [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

value [Object](#)

The initial value of the new analog item node.

OpcAnalogItemNode(IOpcNode, OpcName, OpcNodeId)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the [name](#) and [id](#) specified as a child node of the [parent](#) node given.

C#

```
public OpcAnalogItemNode(IOpcNode parent, OpcName name, OpcNodeId id)
```

Parameters

[parent](#) [IOpcNode](#)

The [IOpcNode](#) used as the parent node or a null reference (Nothing in Visual Basic) in the case there is no parent node available.

[name](#) [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

[id](#) [OpcNodeId](#)

The [OpcNodeId](#) through that the new analog item node can be identified and accessed.

OpcAnalogItemNode(IOpcNode, OpcName, OpcNodeId, Object)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the [name](#) and [id](#) specified with the initial value defined by [value](#) as a child node of the [parent](#) node given.

C#

```
public OpcAnalogItemNode(IOpcNode parent, OpcName name, OpcNodeId id, object value)
```

Parameters

[parent](#) [IOpcNode](#)

The [IOpcNode](#) used as the parent node or a null reference (Nothing in Visual Basic) in the case there is no parent node available.

[name](#) [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

[id](#) [OpcNodeId](#)

The [OpcNodeId](#) through that the new analog item node can be identified and accessed.

[value](#) [Object](#)

The initial value of the new analog item node.

OpcAnalogItemNode(OpcName)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the **name** specified.

C#

```
public OpcAnalogItemNode(OpcName name)
```

Parameters

name [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

OpcAnalogItemNode(OpcName, Object)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the **name** specified with the initial value given by **value**.

C#

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

Parameters

name [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

value [Object](#)

The initial value of the new analog item node.

OpcAnalogItemNode(OpcName, OpcNodeId)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the **name** and **id** specified.

C#

```
public OpcAnalogItemNode(OpcName name, OpcNodeId id)
```

Parameters

name [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

id [OpcNodeId](#)

The [OpcNodeId](#) through that the new analog item node can be identified and accessed.

OpcAnalogItemNode(OpcName, OpcNodeId, Object)

Initializes a new instance of the [OpcAnalogItemNode](#) class accessible by the [name](#) and [id](#) specified with the initial value given by [value](#).

C#

```
public OpcAnalogItemNode(OpcName name, OpcNodeId id, object value)
```

Parameters

[name](#) [OpcName](#)

The [OpcName](#) through that the new analog item node can be accessed.

[id](#) [OpcNodeId](#)

The [OpcNodeId](#) through that the new analog item node can be identified and accessed.

[value](#) [Object](#)

The initial value of the new analog item node.

Properties

DefaultTypeDefinitionId

Gets the default identifier which identifies the node that defines the underlying node type from that this [OpcInstanceNode](#) has been created.

C#

```
protected override OpcNodeId DefaultTypeDefinitionId { get; }
```

Property Value

[OpcNodeId](#)

The [OpcNodeId](#) of the type node from that this [OpcInstanceNode](#) has been created from. These type node defines the typical structure of an instance node of its type definition. If there exists no specific type definition node a null reference (Nothing in Visual Basic).

EngineeringUnit

Gets or sets the engineering unit information which specifies the unit of the value attribute of the [OpcAnalogItemNode](#).

C#

```
public OpcEngineeringUnitInfo EngineeringUnit { get; set; }
```

Property Value

OpcEngineeringUnitInfo

An instance of the [OpcEngineeringUnitInfo](#) class which provides the information of the unit used to scale the value attribute of the [OpcAnalogItemNode](#).

Remarks

Understanding the units of a measurement value is essential for a uniform system. In an open system in particular where servers from different cultures might be used, it is essential to know what the units of measurement are. Based on such knowledge, values can be converted if necessary before being used. Therefore, although defined as optional, support of the [EngineeringUnit](#) property is strongly advised.

EngineeringUnitNode

Gets the [OpcEngineeringUnitInfoPropertyNode](#) of the [EngineeringUnit](#) property.

C#

```
public OpcEngineeringUnitInfoPropertyNode EngineeringUnitNode { get; }
```

Property Value

OpcEngineeringUnitInfoPropertyNode

An instance of the [OpcEngineeringUnitInfoPropertyNode](#) class.

EngineeringUnitRange

Gets or sets the range information which applies to normal operation.

C#

```
public OpcValueRange EngineeringUnitRange { get; set; }
```

Property Value

OpcValueRange

An instance of the [OpcValueRange](#) class which provides the range information of the value attribute in normal operation. This information is intended for such use as automatically scaling a bar graph display.

Remarks

Sensor or instrument failure or deactivation can result in a returned item value which is actually outside of this range. Clients must be prepared to deal with this possibility. Similarly a Client may attempt to write a value that is outside of this range back to the Server. The exact behaviour (accept, reject, clamp, etc.) in this case is Server-dependent. However, in general Server shall be prepared to handle this.

EngineeringUnitRangeNode

Gets the [OpcValueRangePropertyNode](#) of the [EngineeringUnitRange](#) property.

C#

```
public OpcValueRangePropertyNode EngineeringUnitRangeNode { get; }
```

Property Value

[OpcValueRangePropertyNode](#)

An instance of the [OpcValueRangePropertyNode](#) class.

InstrumentRange

Gets or sets the range information which applies to the instrumental values returned by the instrument.

C#

```
public OpcValueRange InstrumentRange { get; set; }
```

Property Value

[OpcValueRange](#)

An instance of the [OpcValueRange](#) class which provides the range information about the values provided by the underlying sensor or instrument used to determine the value of the [OpcAnalogItemNode](#).

Remarks

Although defined as optional, it is strongly recommended for Servers to support this property. Without an [InstrumentRange](#) being provided, Clients will commonly assume the full range according to the [DataType](#) of the [OpcAnalogItemNode](#).

InstrumentRangeNode

Gets the [OpcValueRangePropertyNode](#) of the [InstrumentRange](#) property.

C#

```
public OpcValueRangePropertyNode InstrumentRangeNode { get; }
```

Property Value

[OpcValueRangePropertyNode](#)

An instance of the [OpcValueRangePropertyNode](#) class.

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