OpcValueRange Members

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

Constructors

OpcValueRange()

Initializes a new instance of the OpcValueRange class.

C#

```
public OpcValueRange()
```

Remarks

An instance created using this constructor results into a range with the lower and upper limit equals to zero.

OpcValueRange(Double)

Initializes a new instance of the OpcValueRange class using the `high` limit specified with the lower limit equals to zero.

C#

```
public OpcValueRange(double high)
```

Parameters

`high` Double

The upper limit of a value.

Remarks

If `high` is less then zero, the High limit will become zero and the Low limit will define the value specified by `high`.

OpcValueRange(Double, Double)

Initializes a new instance of the OpcValueRange class using the `high` and `low` limit specified.

C#

```
public OpcValueRange(double high, double low)
```

Parameters

`high` Double

The upper limit of a value.

`low` Double

The lower limit of a value.

Remarks

If `high` is less than `low` then High will have the value of `low` and Low will have the value of `high`.

Properties

High

Gets or sets the highest value in the range.

C#

```
public double High { get; set; }
```

Property Value

Double

The highest value in the range representing the upper limit.

Low

Gets or sets the lowest value in the range.

C#

```
public double Low { get; set; }
```

Property Value

Double

The lowest value in the range representing the lower limit.

Magnitude

Gets the mathematical distance between Low and High.

C#

```
public double Magnitude { get; }
```

Property Value

Double

The mathematical distance determined by the absolute difference between Low and High.

Methods

Of(OpcDataType)

Determines the according OpcValueRange of the type specified by `type`.

C#

```
public static OpcValueRange Of(OpcDataType type)
```

Parameters

`type` OpcDataType

One of the members defined by the OpcDataType enumeration its underlying Type is reflected to look up a 'MinValue' and a 'MaxValue' property to determine the Low and High values of the OpcValueRange to determine.

Returns

OpcValueRange

The OpcValueRange with the according 'MinValue' for Low and the 'MaxValue' for High or a null reference (Nothing in Visual Basic) if the according Type of the `type` specified does not provide a 'MinValue' and 'MaxValue' field.

Remarks

To determine the according OpcValueRange 'MinValue' and 'MaxValue' are required as static fields which offer IConvertible values.

Of(OpcNodeId)

Determines the according OpcValueRange of the type identified by the specified `typeId`.

C#

```
public static OpcValueRange Of(OpcNodeId typeId)
```

Parameters

`typeId` OpcNodeId

The OpcNodeId which identifies the OpcDataTypeInfo its underlying Type is reflected to look up a

'MinValue' and a 'MaxValue' field to determine the Low and High values of the OpcValueRange to determine.

Returns

OpcValueRange

The OpcValueRange with the according 'MinValue' for Low and the 'MaxValue' for High or a null reference (Nothing in Visual Basic) if the according Type identified by the `typeId` specified does not provide a 'MinValue' and 'MaxValue' field or `typeId` is a null reference (Nothing in Visual Basic) or is a null identifier (see IsNull).

Remarks

To determine the according OpcValueRange 'MinValue' and 'MaxValue' are required as static fields which offer IConvertible values.

Of(Type)

Determines the according OpcValueRange of the type specified by `type`.

C#

```
public static OpcValueRange Of(Type type)
```

Parameters

`type` Type

The Type which is reflected to look up a 'MinValue' and a 'MaxValue' field to determine the Low and High values of the OpcValueRange to determine.

Returns

OpcValueRange

The OpcValueRange with the according 'MinValue' for Low and the 'MaxValue' for High or a null reference (Nothing in Visual Basic) if the `type` specified does not provide a 'MinValue' and 'MaxValue' field or if `type` is a null reference (Nothing in Visual Basic).

Remarks

To determine the according OpcValueRange 'MinValue' and 'MaxValue' are required as static fields which offer IConvertible values.

Of<T>()

Determines the according OpcValueRange of the type specified by `T`.

C#

```
public static OpcValueRange Of<T>()
```

Returns

OpcValueRange

The OpcValueRange with the according 'MinValue' for Low and the 'MaxValue' for High or a null reference (Nothing in Visual Basic) if the type specified does not provide a 'MinValue' and 'MaxValue' field.

Remarks

To determine the according OpcValueRange 'MinValue' and 'MaxValue' are required as static fields which offer IConvertible values.

ToString()

Returns a string that represents the current OpcValueRange.

C#

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

Returns

String

A string that represents the current OpcValueRange including the used Low and High limits of the range represented.

Operators

Explicit(OpcValueRange to Range)

Converts a OpcValueRange to an Range object.

C#

```
public static explicit operator Range(OpcValueRange value)
```

Implicit(Range to OpcValueRange)

Converts a Range to an OpcValueRange object.

C#

```
public static implicit operator OpcValueRange(Range value)
```

Table of Contents

Constructors 1
OpcValueRange() 1
OpcValueRange(Double) 1
OpcValueRange(Double, Double) 1
Properties 2
High 2
Low 2
Magnitude 2
Methods 3
Of(OpcDataType) 3
Of(OpcNodeId) 3
Of(Type) 4
Of<T>() 4
ToString() 5
Operators 5
Explicit(OpcValueRange to Range) 5
Implicit(Range to OpcValueRange) 5