

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 than 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 OpValueRange Of<T>()
```

Returns

OpValueRange

The [OpValueRange](#) 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 [OpValueRange](#) 'MinValue' and 'MaxValue' are required as static fields which offer [IConvertible](#) values.

ToString()

Returns a string that represents the current [OpValueRange](#).

C#

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

Returns

String

A string that represents the current [OpValueRange](#) including the used [Low](#) and [High](#) limits of the range represented.

Operators

Explicit(OpValueRange to Range)

Converts a [OpValueRange](#) to an [Range](#) object.

C#

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

Implicit(Range to OpValueRange)

Converts a [Range](#) to an [OpValueRange](#) object.

C#

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


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