

# OpcNodeAttribute<T> Class

**Namespace:** Opc.UaFx

**Assemblies:** Opc.UaFx.Advanced.dll

Stores the generic value of an attribute associated with a specific node optionally associated with status and timestamp information.

## C#

```
public class OpcNodeAttribute<T> : OpcValue<T>, IFormattable, IComparable<OpcValue>,
IEquatable<OpcValue>, IComparable<OpcValue<T>>, IEquatable<OpcValue<T>>, IOpcNodeAttribute,
IOpcNodeDescriptor, IComparable, IComparable<OpcNodeAttribute<T>>, IEquatable<OpcNodeAttribute<T>>
```

**Inheritance** Object > OpcValue > OpcValue<T> > OpcNodeAttribute<T>

## Derived

- OpcNodeValue`1

**Implements** IFormattable, IComparable<OpcValue>, IEquatable<OpcValue>, IComparable<OpcValue>, IEquatable<OpcValue>, IOpcNodeAttribute, IOpcNodeDescriptor, IComparable, IComparable<OpcNodeAttribute`1>, IEquatable<OpcNodeAttribute`1>

## Constructors

Name	Description
OpcNodeAttribute`1(OpcNodeId, OpcAttribute)	Initializes a new instance of the <a href="#">OpcNodeAttribute`1</a> class with the <code>nodeId</code> of the node the <code>attribute</code> specified belongs to.
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, )	Initializes a new instance of the <a href="#">OpcNodeAttribute`1</a> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> specified belongs to.
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, , DateTime)	Initializes a new instance of the <a href="#">OpcNodeAttribute`1</a> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> with the <code>sourceTimestamp</code> of the <code>value</code> specified belongs to.
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, , DateTime, DateTime)	Initializes a new instance of the <a href="#">OpcNodeAttribute`1</a> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> , <code>sourceTimestamp</code> and <code>serverTimestamp</code> of the <code>value</code> specified belongs to.
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, , DateTime, DateTime, OpcStatus)	Initializes a new instance of the <a href="#">OpcNodeAttribute`1</a> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> , <code>sourceTimestamp</code> , <code>serverTimestamp</code> and <code>status</code> of the <code>value</code> specified belongs to.
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, , DateTime, DateTime, OpcStatusCode)	Initializes a new instance of the <a href="#">OpcNodeAttribute`1</a> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> , <code>sourceTimestamp</code> , <code>serverTimestamp</code> and <code>statusCode</code> of the <code>value</code> specified belongs to.

Name	Description
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, DateTime, OpcStatus)	Initializes a new instance of the <code>OpcNodeAttribute`1</code> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> , <code>sourceTimestamp</code> and <code>status</code> of the <code>value</code> specified belongs to.
OpcNodeAttribute`1(OpcNodeId, OpcAttribute, DateTime, OpcStatusCode)	Initializes a new instance of the <code>OpcNodeAttribute`1</code> class with the <code>nodeId</code> of the node the <code>attribute</code> and its <code>value</code> , <code>sourceTimestamp</code> and <code>statusCode</code> of the <code>value</code> specified belongs to.

## Properties

Name	Description
Attribute	Gets a value indicating which attribute of a node is represented.
DataType	Gets the type of value represented. (Inherited from <code>OpcValue</code> )
DataTypeId	Gets the node identifier of the <code>DataType</code> of the value represented. (Inherited from <code>OpcValue</code> )
NodeId	Gets the node identifier of the node described.
Rank	Gets the rank of the value represented. (Inherited from <code>OpcValue</code> )
ServerPicoseconds	Gets or sets the difference between a high resolution timestamp with a resolution of 10 picoseconds and the <code>ServerTimestamp</code> which only has a 100 ns resolution. (Inherited from <code>OpcValue</code> )
ServerTimestamp	Gets or sets the timestamp at which the server recorded the value. (Inherited from <code>OpcValue</code> )
SourcePicoseconds	Gets or sets the difference between a high resolution timestamp with a resolution of 10 picoseconds and the <code>SourceTimestamp</code> which only has a 100 ns resolution. (Inherited from <code>OpcValue</code> )
SourceTimestamp	Gets or sets the timestamp of the source from that the value originates. (Inherited from <code>OpcValue</code> )
Status	Gets the status information which defines the servers ability to access/provide the value. (Inherited from <code>OpcValue</code> )
Value	Gets or sets the value represented. (Inherited from <code>OpcValue</code> )

## Methods

Name	Description
As`1()	Retrieves the underlying <code>Value</code> as the type specified by <code>T</code> . (Inherited from <code>OpcValue</code> )
AsValue`1	Retrieves a new <code>OpcValue`1</code> instance its <code>Value</code> is of the type specified by <code>T</code> . (Inherited from <code>OpcValue</code> )
CompareTo(Object)	Compares the current <code>OpcNodeAttribute`1</code> with the <code>other</code> .
CompareTo(Object)	Compares the current <code>OpcValue</code> with the <code>other</code> . (Inherited from <code>OpcValue</code> )
CompareTo(OpcNodeAttribute)	Compares the current <code>OpcNodeAttribute`1</code> with another <code>OpcNodeAttribute`1</code> .
CompareTo(OpcValue)	Compares the current <code>OpcNodeAttribute`1</code> with the <code>other</code> .

Name	Description
CompareTo(OpcValue)	Compares the current <a href="#">OpcValue</a> with another <a href="#">OpcValue</a> . (Inherited from <a href="#">OpcValue</a> )
CompareTo(OpcValue)	Compares the current <a href="#">OpcNodeAttribute`1</a> with the <a href="#">other</a> .
Equals(Object)	Determines whether the specified <a href="#">other</a> is equal to this <a href="#">OpcNodeAttribute`1</a> .
Equals(Object)	Determines whether the specified <a href="#">other</a> is equal to this <a href="#">OpcValue</a> . (Inherited from <a href="#">OpcValue</a> )
Equals(OpcNodeAttribute)	Determines whether the specified <a href="#">other</a> is equal to this <a href="#">OpcNodeAttribute`1</a> .
Equals(OpcValue)	Determines whether the specified <a href="#">other</a> is equal to this <a href="#">OpcNodeAttribute`1</a> .
Equals(OpcValue)	Determines whether the specified <a href="#">other</a> is equal to this <a href="#">OpcValue</a> . (Inherited from <a href="#">OpcValue</a> )
Equals(OpcValue)	Determines whether the specified <a href="#">other</a> is equal to this <a href="#">OpcNodeAttribute`1</a> .
GetHashCode	Retrieves a hash code for this <a href="#">OpcNodeAttribute`1</a> .
GetHashCode	Retrieves a hash code for this <a href="#">OpcValue</a> . (Inherited from <a href="#">OpcValue</a> )
ToString	Converts the value of this instance to its equivalent string representation. (Inherited from <a href="#">OpcValue</a> )
ToString(String, IFormatProvider)	Converts the value of this instance to its equivalent string representation using the specified format and culture-specific format information.
ToString(String, IFormatProvider)	Converts the value of this instance to its equivalent string representation using the specified format and culture-specific format information. (Inherited from <a href="#">OpcValue</a> )

## Operators

Name	Description
op_Equality(OpcNodeAttribute, OpcNodeAttribute)	Returns a value indicating whether two instance of <a href="#">OpcNodeAttribute`1</a> are equal.
op_Equality(OpcValue, OpcValue)	Returns a value indicating whether two instance of <a href="#">OpcValue</a> are equal. (Inherited from <a href="#">OpcValue</a> )
op_Explicit(OpcNodeAttribute)	Converts a <a href="#">OpcNodeAttribute`1</a> to an <a href="#">DataValue</a> object.
op_Explicit(Ua.DataValue)	Converts a <a href="#">OpcValue</a> to an <a href="#">DataValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_GreaterThan(OpcNodeAttribute, OpcNodeAttribute)	Determines whether the first specified <a href="#">OpcNodeAttribute`1</a> object is greater than the second specified <a href="#">OpcNodeAttribute`1</a> object.
op_GreaterThan(OpcValue, OpcValue)	Determines whether the first specified <a href="#">OpcValue</a> object is greater than the second specified <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_GreaterThanOrEqual(OpcNodeAttribute, OpcNodeAttribute)	Determines whether the first specified <a href="#">OpcNodeAttribute`1</a> object is greater than or equal to the second specified <a href="#">OpcNodeAttribute`1</a> object.

Name	Description
op_GreaterThanOrEqual(OpcValue, OpcValue)	Determines whether the first specified <a href="#">OpcValue</a> object is greater than or equal to the second specified <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">Boolean</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">Byte</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">Char</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(DataValue)~Opc.UaFx.OpcValue)	Converts a <a href="#">DataValue</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">Decimal</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">Double</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">UInt16</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">Int32</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(UaFx.OpcValue)	Converts a <a href="#">UInt64</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Boolean</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Byte</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Char</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Decimal</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Double</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">UInt16</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Int32</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">UInt64</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">SByte</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )
op_Implicit(Nullable)	Converts a null-able <a href="#">Single</a> to an <a href="#">OpcValue</a> object. (Inherited from <a href="#">OpcValue</a> )

Name	Description
<code>op_Implicit(Nullable)</code>	Converts a null-able <code>UInt16</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(Nullable)</code>	Converts a null-able <code>UInt32</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(Nullable)</code>	Converts a null-able <code>UInt64</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(UaFx.OpcValue)</code>	Converts a <code>SByte</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(UaFx.OpcValue)</code>	Converts a <code>Single</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(UaFx.OpcValue)</code>	Converts a <code>String</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(UaFx.OpcValue)</code>	Converts a <code>UInt16</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(UaFx.OpcValue)</code>	Converts a <code>UInt32</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(UaFx.OpcValue)</code>	Converts a <code>UInt64</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Implicit(Variant)~Opc.UaFx.OpcValue)</code>	Converts a <code>Variant</code> to an <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_Inequality(OpcNodeAttribute, OpcNodeAttribute)</code>	Returns a value indicating whether two instances of <code>OpcNodeAttribute`1</code> are not equal.
<code>op_Inequality(OpcValue, OpcValue)</code>	Returns a value indicating whether two instances of <code>OpcValue</code> are not equal. (Inherited from <code>OpcValue</code> )
<code>op_LessThan(OpcNodeAttribute, OpcNodeAttribute)</code>	Determines whether the first specified <code>OpcNodeAttribute`1</code> object is less than the second specified <code>OpcNodeAttribute`1</code> object.
<code>op_LessThan(OpcValue, OpcValue)</code>	Determines whether the first specified <code>OpcValue</code> object is less than the second specified <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )
<code>op_LessThanOrEqual(OpcNodeAttribute, OpcNodeAttribute)</code>	Determines whether the first specified <code>OpcNodeAttribute`1</code> object is less than or equal to the second <code>OpcNodeAttribute`1</code> object.
<code>op_LessThanOrEqual(OpcValue, OpcValue)</code>	Determines whether the first specified <code>OpcValue</code> object is less than or equal to the second <code>OpcValue</code> object. (Inherited from <code>OpcValue</code> )



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