

OpcVariableTypeInfo Members

Namespace: Opc.UaFx

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

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

Properties

ArrayDimensions

Gets the length for each dimension of an array value of the variable type represented.

C#

```
public abstract uint[] ArrayDimensions { get; }
```

Property Value

[UInt32\[\]](#)

A null reference (Nothing in Visual Basic) in case there the value of the variable type represented is a scalar value; otherwise an [UInt32](#) array there each entry indicates a single dimension while the value of the entry defines the length of that dimension.

ArrayLength

Gets the total number of elements in all the dimensions of the array value of the variable type represented.

C#

```
public long ArrayLength { get; }
```

Property Value

[Int64](#)

The total number of elements in all the dimensions of the array value of the variable type represented; zero if there are no elements in the array.

ArrayRank

Gets the rank (number of dimensions) of the array value of the variable type represented. For example, a one-dimensional array returns 1, a two-dimensional array returns 2, and so on.

C#

```
public int ArrayRank { get; }
```

Property Value

Int32

The rank (number of dimensions) of the array value of the variable type represented.

Category

Gets the [NodeCategoryOpcAttribute](#) which identifies the kind of node and is therefore used to classify the node regarding its use and purpose.

C#

```
public override sealed OpcNodeCategory Category { get; }
```

Property Value

OpcNodeCategory

The [OpcVariableTypeInfo](#) always provides the [VariableType](#).

DataType

C#

```
public OpcDataType DataType { get; }
```

Property Value

OpcDataType

DataTypeId

C#

```
public abstract OpcNodeId DataTypeId { get; }
```

Property Value

OpcNodeId

IsArray

Gets a value indicating whether the value of the variable represented is an array.

C#

```
public bool IsArray { get; }
```

Property Value

Boolean

The value true if the value of the variable represented is an array; otherwise the false.

ValueRank

C#

```
public abstract int ValueRank { get; }
```

Property Value

Int32

Methods

AttributeValue(OpcAttribute)

Retrieves the value of the `attribute` specified.

C#

```
public override object AttributeValue(OpcAttribute attribute)
```

Parameters

`attribute` [OpcAttribute](#)

One of the members defined by the [OpcAttribute](#) enumeration which identifies the attribute its value is queried.

Returns

[Object](#)

The value of the `attribute` specified or a null reference (Nothing in Visual Basic) in case there the value of the attribute is a null reference or it is not supported by the current [OpcVariableTypeInfo](#).

GetArrayLength(Int32)

Gets a 32-bit integer that represents the number of elements in the specified dimension of the array value of the variable type.

C#

```
public long GetArrayLength(int dimension)
```

Parameters

dimension [Int32](#)

A zero-based dimension of the array value whose length needs to be determined.

Returns

[Int64](#)

A 32-bit integer that represents the number of elements in the specified dimension of the array value.

Exceptions

[ArgumentOutOfRangeException](#)

The **dimension** is less than zero or equals to or greater than [ArrayRank](#).

[InvalidOperationException](#)

The value of the variable type represented is not an array (see [IsArray](#)).

GetArrayLowerBound(Int32)

Gets the index of the first element of the specified dimension in the array value of the variable type.

C#

```
public long GetArrayLowerBound(int dimension)
```

Parameters

dimension [Int32](#)

A zero-based dimension of the array value whose starting index needs to be determined.

Returns

[Int64](#)

The index of the first element of the specified dimension in the array value.

Exceptions

[ArgumentOutOfRangeException](#)

The **dimension** is less than zero or equals to or greater than [ArrayRank](#).

[InvalidOperationException](#)

The value of the variable type represented is not an array (see [IsArray](#)).

GetArrayUpperBound(Int32)

Gets the index of the last element of the specified dimension in the array value of the variable type.

C#

```
public long GetArrayUpperBound(int dimension)
```

Parameters

dimension [Int32](#)

A zero-based dimension of the array value whose upper bound needs to be determined.

Returns

[Int64](#)

The index of the last element of the specified dimension in the array value, or -1 if the specified dimension is empty.

Exceptions

[ArgumentOutOfRangeException](#)

The **dimension** is less than zero or equals to or greater than [ArrayRank](#).

[InvalidOperationException](#)

The value of the variable type represented is not an array (see [IsArray](#)).

Table of Contents

Properties	1
ArrayDimensions	1
ArrayLength	1
ArrayRank	1
Category	2
DataType	2
DataTypeId	2
IsArray	2
ValueRank	3
Methods	3
AttributeValue(OpcAttribute)	3
GetArrayLength(Int32)	3
GetArrayLowerBound(Int32)	4
GetArrayUpperBound(Int32)	5