

# OpcArgumentInfo Members

**Namespace:** Opc.UaFx.Client

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

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

## Properties

### ArrayDimensions

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

**C#**

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

#### Property Value

[UInt32](#)[]

An empty array in case there the value of the argument 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 argument represented.

**C#**

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

#### Property Value

[Int64](#)

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

### ArrayRank

Gets the rank (number of dimensions) of the array value of the argument 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 argument represented.

## DataType

Gets the [OpcTypeInfo](#) about the data type node of the argument represented.

### C#

```
public OpcTypeInfo DataType { get; }
```

## Property Value

### OpcTypeInfo

An instance of the [OpcTypeInfo](#) representing the type definition of the argument represented. In case there is no known type definition for the data type referenced by the argument a null reference (Nothing in Visual Basic).

## DataTypeId

Gets the [OpcNodeId](#) about the data type node of the argument represented.

### C#

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

## Property Value

### OpcNodeId

An instance of the [OpcNodeId](#) which identifies the type node definition of the argument represented. In case there is no type definition for the type of value provided by the argument represented a null reference (Nothing in Visual Basic).

## DefaultValue

Gets the value of the argument that is by default used in case there is no custom value specified for the argument.

### C#

```
public object DefaultValue { get; }
```

## Property Value

### Object

The default value used by argument by definition.

## Description

Gets the textual description of the use of the argument represented.

**C#**

```
public OpcText Description { get; }
```

### Property Value

OpcText

A string which describes the use of the argument.

## IsArray

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

**C#**

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

### Property Value

Boolean

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

## Name

Gets the name of the argument.

**C#**

```
public string Name { get; }
```

### Property Value

String

The name of the argument.

## Methods

### GetArrayLength(Int32)

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

**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 argument represented is not an array (see [IsArray](#)).

## Remarks

The time consumed by the first call of the property depends on the availability of the server, because of the [ArrayDimensions](#) attribute is requested on-demand and is cached for subsequent calls. This means, that further [ArrayDimensions](#) attribute requests will take use of already retrieved attribute information and will not demand additional network resources.

# GetArrayLowerBound(Int32)

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

## 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 argument 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 argument.

### 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 argument represented is not an array (see **IsArray**).

## Remarks

The time consumed by the first call of the property depends on the availability of the server, because of the **ArrayDimensions** attribute is requested on-demand and is cached for subsequent calls. This means, that further **ArrayDimensions** attribute requests will take use of already retrieved attribute information and will not demand additional network resources.



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