

OpcNodeTypeSystem Members

Namespace: Opc.UaFx

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

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

Properties

Empty

Gets the type system to use if there is no specific type system data available.

C#

```
public static OpcNodeTypeSystem Empty { get; }
```

Property Value

[OpcNodeTypeSystem](#)

An instance of the [OpcNodeTypeSystem](#) class which contains no type information.

HasCachedTypes

Gets a value indicating whether the type system already has determined at least some type information offered as [OpcNodeTypeInfo](#) objects.

C#

```
protected bool HasCachedTypes { get; }
```

Property Value

[Boolean](#)

The value true if the system offers already prepared [OpcNodeTypeInfo](#) objects; otherwise the value false.

HasCachingCompleted

Gets a value indicating whether the type system has determined the whole type information offered as [OpcNodeTypeInfo](#) objects.

C#

```
protected virtual bool HasCachingCompleted { get; }
```

Property Value

Boolean

The value true if the system has completed its type information retrieval and will use its internal cache to determine [OpcNodeTypeInfo](#) objects; otherwise the value false.

Methods

GetTypeCore(OpcName)

Retrieves the [OpcNodeTypeInfo](#) object which is known under the **name** specified.

C#

```
protected override OpcNodeTypeInfo GetTypeCore(OpcName name)
```

Parameters

name [OpcName](#)

The [OpcName](#) of the [OpcNodeTypeInfo](#) object to retrieve.

Returns

[OpcNodeTypeInfo](#)

The [OpcNodeTypeInfo](#) object its **Name** is equals to the **name** specified; otherwise a null reference (Nothing in Visual Basic).

Remarks

It is already assured that the passed **name** is not a null reference (Nothing in Visual Basic). In case there this method is not implemented in a derived class this method determines the type from a distinct and on-demand determined sequence which combines the [OpcNodeTypeInfo](#) objects offered by [RetrieveTypesCore](#) and [RetrieveTypesCore\(IDictionary\)](#). Both methods are called only once and their output is cached for subsequent type information retrieval.

GetTypeCore(OpcNodeId)

Retrieves the [OpcNodeTypeInfo](#) object which declares the type which is identified by the **typeId** specified.

C#

```
protected override OpcNodeTypeInfo GetTypeCore(OpcNodeId typeId)
```

Parameters

typeId [OpcNodeId](#)

The [OpcNodeId](#) which identifies the [OpcNodeTypeInfo](#) to retrieve.

Returns

OpcNodeTypeInfo

The [OpcNodeTypeInfo](#) object which is known under the `typeId` specified or a null reference (Nothing in Visual Basic) if there doesn't exist a known [OpcNodeTypeInfo](#) object which is associated with the `typeId` specified.

Remarks

It is already assured that the passed `typeId` is not a null reference (Nothing in Visual Basic). In case there this method is not implemented in a derived class this method determines the type from a distinct and on-demand determined sequence which combines the [OpcNodeTypeInfo](#) objects offered by [RetrieveTypesCore](#) and [RetrieveTypesCore\(IDictionary\)](#). Both methods are called only once and their output is cached for subsequent type information retrieval.

GetTypeCore(String)

Retrieves the [OpcNodeTypeInfo](#) object which is known under the `name` specified.

C#

```
protected override OpcNodeTypeInfo GetTypeCore(string name)
```

Parameters

`name` [String](#)

The [String](#) to use to identify the [OpcNodeTypeInfo](#) object to retrieve.

Returns

OpcNodeTypeInfo

The [OpcNodeTypeInfo](#) object its `Name` is equals (regarding its `Value`) to the `name` specified; otherwise a null reference (Nothing in Visual Basic).

Remarks

It is already assured that the passed `name` is not a null reference (Nothing in Visual Basic) nor equals [Empty](#). In case there this method is not implemented in a derived class this method determines the type from a distinct and on-demand determined sequence which combines the [OpcNodeTypeInfo](#) objects offered by [RetrieveTypesCore](#) and [RetrieveTypesCore\(IDictionary\)](#). Both methods are called only once and their output is cached for subsequent type information retrieval.

GetTypeCore(Type)

Retrieves the [OpcNodeTypeInfo](#) object which declares the type implemented by the `underlyingType` specified.

C#

```
protected override OpcNodeTypeInfo GetTypeCore(Type underlyingType)
```

Parameters

underlyingType Type

The [Type](#) which implements the [OpcNodeTypeInfo](#) to retrieve.

Returns

[OpcNodeTypeInfo](#)

The [OpcNodeTypeInfo](#) object which declares the **underlyingType** specified or a null reference (Nothing in Visual Basic) if there isn't a [OpcNodeTypeInfo](#) object associated with the **underlyingType** specified.

Remarks

It is already assured that the passed **underlyingType** is not a null reference (Nothing in Visual Basic). In case there this method is not implemented in a derived class this method determines the type from a distinct and on-demand determined sequence which combines the [OpcNodeTypeInfo](#) objects offered by [RetrieveTypesCore](#) and [RetrieveTypesCore\(IDictionary\)](#). Both methods are called only once and their output is cached for subsequent type information retrieval.

GetTypeCore()

Retrieves all [OpcNodeTypeInfo](#) objects offered by the current [OpcNodeTypeSystem](#).

C#

```
protected override OpcNodeTypeInfo[] GetTypeCore()
```

Returns

[OpcNodeTypeInfo\[\]](#)

An array that contains all [OpcNodeTypeInfo](#) objects that are offered by the [OpcNodeTypeSystem](#).

RetrieveTypesCore()

Retrieves all [OpcNodeTypeInfo](#) objects explicitly offered by the [OpcNodeTypeSystem](#).

C#

```
protected IDictionary<OpcNodeId, OpcNodeTypeInfo> RetrieveTypesCore()
```

Returns

[IDictionary<OpcNodeId, OpcNodeTypeInfo>](#)

A dictionary of explicitly offered [OpcNodeTypeInfo](#) objects.

RetrieveTypesCore(IDictionary<OpcNodeId, OpcNodeTypeInfo>)

When implemented in a derived class, retrieves all [OpcNodeTypeInfo](#) objects on-demand offered by the [OpcNodeTypeSystem](#) except the already [knownTypes](#) specified.

C#

```
protected virtual IEnumerable<OpcNodeTypeInfo> RetrieveTypesCore(IDictionary<OpcNodeId, OpcNodeTypeInfo> knownTypes)
```

Parameters

[knownTypes](#) [IDictionary<OpcNodeId, OpcNodeTypeInfo>](#)

The dictionary of already known [OpcNodeTypeInfo](#) objects which shall not be offered.

Returns

[IEnumerable<OpcNodeTypeInfo>](#)

A sequence of [OpcNodeTypeInfo](#) objects offered by the [OpcNodeTypeSystem](#) except the types in [knownTypes](#).

Table of Contents

Properties	1
Empty	1
HasCachedTypes	1
HasCachingCompleted	1
Methods	2
GetTypeCore(OpcName)	2
GetTypeCore(OpcNodeId)	2
GetTypeCore(String)	3
GetTypeCore(Type)	3
GetTypesCore()	4
RetrieveTypesCore()	4
RetrieveTypesCore(IDictionary<OpcNodeId, OpcNodeTypeInfo>)	5