IOpcReadNodesService Members

Namespace: Opc.UaFx.Services
Assemblies: Opc.UaFx.Advanced.dll, Opc.UaFx.Advanced.dll
The IOpcReadNodesService interface defines the following members.

Properties

MaxNodesPerRead

Gets or sets the maximum number of nodes which shall be read using a single read request. This number indirectly defines the number of requests used to send a specific number of read requests to the server.

C#

```
uint? MaxNodesPerRead { get; set; }
```

Property Value

Nullable<UInt32>

The absolute number of read commands which shall be send to the server per request or a null reference (Nothing in Visual Basic). In case there a specific number of nodes is used, a request with more commands as the MaxNodesPerRead is partitioned into multiple requests and the responses of them are accumulated. The default value of this property is a null reference (Nothing in Visual Basic) and means that all commands defined are send to the server using the server defined number of nodes per read request.

UsedMaxNodesPerRead

Gets the maximum number of nodes which are read using a single read request. This property will use either the MaxNodesPerRead or the maximum number of nodes which can be read in one request as defined by the server. The lowest number of nodes is used to partition the commands to execute into multiple read requests.

C#

```
uint? UsedMaxNodesPerRead { get; }
```

Property Value

Nullable<UInt32>

In case there has already been one read attempt (with more than one read command) the definite number of commands per read request; otherwise a null reference (Nothing in Visual Basic).

Methods

ReadNodes(IEnumerable<OpcReadNode>)

Reads one or more values of one or more attributes of one or more nodes using the specified `commands`.

C#

```
IEnumerable<OpcValue> ReadNodes(IEnumerable<OpcReadNode> commands)
```

Parameters

`commands` IEnumerable<OpcReadNode>

A sequence of OpcReadNode instances to process.

Returns

IEnumerable<OpcValue>

A sequence of OpcValue instances its number and order of items matches the number and order of items in the `commands` sequence. There is for each command one entry which stores the value requested by that command.

Exceptions

ArgumentNullException

The `commands` sequence or one of its items is a null reference (Nothing in Visual Basic).

InvalidOperationException

The read service is currently not supported, especially using the `commands` specified.

OpcException

The service execution failed upon different circumstances; for more details see exception details. The following issues can lead to that exception: BadNothingToDo, BadTooManyOperations, BadMaxAgeInvalid and BadTimestampsToReturnInvalid.

Remarks

Known results for the `commands` specified are:

Status	Description
BadNodeIdInvalid	For more details see BadNodeIdInvalid.
BadNodeIdUnknown	For more details see BadNodeIdUnknown.
BadAttributeInvalid	For more details see BadAttributeInvalid.
BadIndexRangeInvalid	For more details see BadIndexRangeInvalid.
BadIndexRangeNoData	For more details see BadIndexRangeNoData.
BadDataEncodingInvalid	For more details see BadDataEncodingInvalid.

Status	Description
BadDataEncodingUnsupported	For more details see BadDataEncodingUnsupported.
BadNotReadable	For more details see BadNotReadable.
BadUserAccessDenied	For more details see BadUserAccessDenied.

ReadNodes(OpcReadNode[])

Reads one or more values to one or more attributes of one or more nodes using the specified `commands`.

C#

```
IEnumerable<OpcValue> ReadNodes(params OpcReadNode[] commands)
```

Parameters

`commands` OpcReadNode[]

An array of OpcReadNode instances to process.

Returns

IEnumerable<OpcValue>

A sequence of OpcValue instances its number and order of items matches the number and order of items in the `commands` sequence. There is for each command one entry which stores the value requested by that command.

Exceptions

ArgumentNullException

The `commands` array or one of its items is a null reference (Nothing in Visual Basic).

InvalidOperationException

The read service is currently not supported, especially using the `commands` specified.

OpcException

The service execution failed upon different circumstances; for more details see exception details. The following issues can lead to that exception: BadNothingToDo, BadTooManyOperations, BadMaxAgeInvalid and BadTimestampsToReturnInvalid.

Remarks

Known results for the `commands` specified are:

Status	Description
BadNodeIdInvalid	For more details see BadNodeIdInvalid.
BadNodeIdUnknown	For more details see BadNodeIdUnknown.
BadAttributeInvalid	For more details see BadAttributeInvalid.
BadIndexRangeInvalid	For more details see BadIndexRangeInvalid.

Status	Description
BadIndexRangeNoData	For more details see BadIndexRangeNoData.
BadDataEncodingInvalid	For more details see BadDataEncodingInvalid.
BadDataEncodingUnsupported	For more details see BadDataEncodingUnsupported.
BadNotReadable	For more details see BadNotReadable.
BadUserAccessDenied	For more details see BadUserAccessDenied.

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