

PlcMemberInfo Members

Namespace: IPS7Lnk.Advanced

Assemblies: IPS7LnkNet.Advanced.dll, IPS7LnkNet.Advanced.dll

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

Constructors

PlcMemberInfo(PlcType, PlcName)

Initializes a new instance of the [PlcMemberInfo](#) class using the specified **type** and **name**.

C#

```
protected PlcMemberInfo(PlcType type, PlcName name)
```

Parameters

type [PlcType](#)

The [PlcType](#) of the member.

name [PlcName](#)

The name of the member.

Exceptions

[ArgumentException](#)

The **type** specified is not supported.

[ArgumentNullException](#)

The **type** or **name** is a null reference (Nothing in Visual Basic).

Properties

Name

Gets the name of the member.

C#

```
public PlcName Name { get; }
```

Property Value

[PlcName](#)

An instance of the [PlcName](#) class containing the name of the member.

Type

Gets the [PlcType](#) of the member.

C#

```
public PlcType Type { get; }
```

Property Value

[PlcType](#)

The [PlcType](#) used by the member.

Methods

MakeAbsoluteMember(PlcIdentity)

When implemented in a derived class, retrieves the [IPlcMemberInfo](#) as an absolute addressable PLC data member.

C#

```
public abstract IPlcMemberInfo MakeAbsoluteMember(PlcIdentity identity)
```

Parameters

identity [PlcIdentity](#)

The [PlcIdentity](#) to use to define the absolute location. This identity is used to define the basis starting from that the member is located.

Returns

[IPlcMemberInfo](#)

In case there [IsAbsolute](#) is equals true the reference to this member; otherwise a new instance of the member which refers to an absolute [PlcType](#).

Exceptions

[ArgumentException](#)

The **identity** specified does not provide the necessary information required to address the type of data.

[ArgumentNullException](#)

The **identity** is a null reference (Nothing in Visual Basic).

Relocate(Int32)

Relocates the [PlcMemberInfo](#) using the specified offset.

C#

```
public IPlcMemberInfo Relocate(int operandNumber)
```

Parameters

operandNumber [Int32](#)

The operand number offset used to adjust the [PlcAddress](#) information.

Returns

[IPlcMemberInfo](#)

A new instance of the [PlcMemberInfo](#) configured with the same metadata as this instance but relocated using the specified offset.

Exceptions

[ArgumentOutOfRangeException](#)

The offset specified by **operandNumber** result into a new value that would be out of the bounds defined by [MinOperandNumber](#) or [MaxOperandNumber](#).

[InvalidOperationException](#)

It is not possible to relocate relative types.

Relocate(Int32, Int32)

Relocates the [PlcMemberInfo](#) using the specified offset.

C#

```
public IPlcMemberInfo Relocate(int operandNumber, int byteNumber)
```

Parameters

operandNumber [Int32](#)

The operand number offset used to adjust the [PlcAddress](#) information.

byteNumber [Int32](#)

The byte number offset used to adjust the [PlcAddress](#) information.

Returns

[IPlcMemberInfo](#)

A new instance of the [PlcMemberInfo](#) configured with the same metadata as this instance but relocated using the specified offset.

Exceptions

[ArgumentOutOfRangeException](#)

One of the offsets specified by [operandNumber](#) or [byteNumber](#) result into a new value that would be out of the bounds defined by [MinOperandNumber](#), [MaxOperandNumber](#), [MinByteNumber](#) and [MaxByteNumber](#).

[InvalidOperationException](#)

It is not possible to relocate relative types.

Relocate(Int32, Int32, Int32)

Relocates the [PlcMemberInfo](#) using the specified offset.

C#

```
public IPlcMemberInfo Relocate(int operandNumber, int byteNumber, int bitNumber)
```

Parameters

[operandNumber](#) [Int32](#)

The operand number offset used to adjust the [PlcAddress](#) information.

[byteNumber](#) [Int32](#)

The byte number offset used to adjust the [PlcAddress](#) information.

[bitNumber](#) [Int32](#)

The bit number offset used to adjust the [PlcAddress](#) information.

Returns

[IPlcMemberInfo](#)

A new instance of the [PlcMemberInfo](#) configured with the same metadata as this instance but relocated using the specified offset.

Exceptions

[ArgumentOutOfRangeException](#)

One of the offsets specified by [operandNumber](#), [byteNumber](#) or [bitNumber](#) result into a new value that would be out of the bounds defined by [MinOperandNumber](#), [MaxOperandNumber](#), [MinByteNumber](#), [MaxByteNumber](#), [MinBitNumber](#) or [MaxBitNumber](#).

[InvalidOperationException](#)

It is not possible to relocate relative types.

Relocate(PlcAddress)

Relocates the [PlcMemberInfo](#) using the specified [address](#).

C#

```
public IPlcMemberInfo Relocate(PlcAddress address)
```

Parameters

[address](#) [PlcAddress](#)

The [PlcAddress](#) to that the object is to be relocated.

Returns

[IPlcMemberInfo](#)

A new instance of the [PlcType](#) configured with the same metadata as this instance but relocated using the specified [address](#).

Exceptions

[ArgumentNullException](#)

The [address](#) is a null reference (Nothing in Visual Basic).

[ArgumentException](#)

The [address](#) does not refer to the same [RawType](#) as this [PlcType](#).

[InvalidOperationException](#)

It is not possible to relocate absolute object types without relative type information.

Remarks

The [RawType](#) of the [address](#) specified needs to be the same as defined by this [PlcMemberInfo](#).

RelocateCore(PlcType)

When implemented in a derived class, relocates the member to the [type](#) specified.

C#

```
protected abstract PlcMemberInfo RelocateCore(PlcType type)
```

Parameters

type [PlcType](#)

The [PlcType](#) to that the member is to be relocated.

Returns

[PlcMemberInfo](#)

A new instance of the same type as this PLC member instance relocated to the [type](#) specified.

ToString()

Retrieves the string representation of the [PlcMemberInfo](#).

C#

```
public override string ToString()
```

Returns

[String](#)

The string representation of the [PlcMemberInfo](#).

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