

# PlcRealArray Members

**Namespace:** IPS7Lnk.Advanced

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

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

## Constructors

### PlcRealArray(PlcIdentity, Int32)

Initializes a new instance of the [PlcRealArray](#) class using the specified [identity](#) and [length](#).

**C#**

```
public PlcRealArray(PlcIdentity identity, int length)
```

#### Parameters

[identity](#) [PlcIdentity](#)

The [PlcIdentity](#) of the new [PlcRealArray](#) to which the PLC array belongs.

[length](#) [Int32](#)

The array length used to store the array values of the [PlcRealArray](#).

#### Exceptions

[ArgumentException](#)

The [identity](#) does not refer to the [DWord](#).

[ArgumentNullException](#)

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

[ArgumentOutOfRangeException](#)

The [length](#) is out of the bounds defined by [MinLength](#) and [MaxLength](#).

### PlcRealArray(PlcIdentity, PlcName, Int32)

Initializes a new instance of the [PlcRealArray](#) class using the specified [identity](#), [name](#) and [length](#).

**C#**

```
public PlcRealArray(PlcIdentity identity, PlcName name, int length)
```

#### Parameters

[identity](#) [PlcIdentity](#)

The `PlcIdentity` of the new `PlcRealArray` to which the PLC array belongs.

`name PlcName`

The name of the array represented.

`length Int32`

The array length used to store the array values of the `PlcRealArray`.

## Exceptions

`ArgumentException`

The `identity` does not refer to the `DWord`.

`ArgumentNullException`

The `identity` or `name` is a null reference (Nothing in Visual Basic).

`ArgumentOutOfRangeException`

The `length` is out of the bounds defined by `MinLength` and `MaxLength`.

## PlcRealArray(PlcIdentity, PlcName, Single[])

Initializes a new instance of the `PlcRealArray` class using the specified `identity`, `name` and `values`.

**C#**

```
public PlcRealArray(PlcIdentity identity, PlcName name, params float[] values)
```

## Parameters

`identity PlcIdentity`

The `PlcIdentity` of the new `PlcRealArray` to which the PLC array belongs.

`name PlcName`

The name of the array represented.

`values Single[]`

The initial values of the new `PlcRealArray`.

## Exceptions

`ArgumentException`

The `identity` does not refer to the `DWord`.

`ArgumentNullException`

The `identity` or `name` is a null reference (Nothing in Visual Basic).

## PlcRealArray(PlcIdentity, Single[])

Initializes a new instance of the [PlcRealArray](#) class using the specified [identity](#) and [values](#).

### C#

```
public PlcRealArray(PlcIdentity identity, params float[] values)
```

### Parameters

[identity](#) [PlcIdentity](#)

The [PlcIdentity](#) of the new [PlcRealArray](#) to which the PLC array belongs.

[values](#) [Single\[\]](#)

The initial values of the new [PlcRealArray](#).

### Exceptions

[ArgumentException](#)

The [identity](#) does not refer to the [DWord](#).

[ArgumentNullException](#)

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

## PlcRealArray(PlcRealArrayType)

Initializes a new instance of the [PlcRealArray](#) class using the specified [type](#).

### C#

```
public PlcRealArray(PlcRealArrayType type)
```

### Parameters

[type](#) [PlcRealArrayType](#)

The [PlcRealArrayType](#) of the new [PlcRealArray](#) to which the PLC array belongs.

### Exceptions

[ArgumentNullException](#)

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

## PlcRealArray(PlcRealArrayType, PlcName, Single[])

Initializes a new instance of the [PlcRealArray](#) class using the specified [type](#), [name](#) and [values](#).

### C#

```
public PlcRealArray(PlcRealArrayType type, PlcName name, params float[] values)
```

## Parameters

**type** [PlcRealArrayType](#)

The [PlcRealArrayType](#) of the new [PlcRealArray](#) to which the PLC array belongs.

**name** [PlcName](#)

The name of the array represented.

**values** [Single\[\]](#)

The initial values of the new [PlcRealArray](#).

## Exceptions

[ArgumentNullException](#)

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

# PlcRealArray(PlcRealArrayType, Single[])

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

## C#

```
public PlcRealArray(PlcRealArrayType type, params float[] values)
```

## Parameters

**type** [PlcRealArrayType](#)

The [PlcRealArrayType](#) of the new [PlcRealArray](#) to which the PLC array belongs.

**values** [Single\[\]](#)

The initial values of the new [PlcRealArray](#).

## Exceptions

[ArgumentNullException](#)

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

# Methods

## GetElementCore(Int32)

Retrieves the [PlcReal](#) at the specified index.

**C#**

```
protected override PlcReal GetElementCore(int index)
```

**Parameters**

**index** [Int32](#)

The zero-based index of the element to get.

**Returns**

[PlcReal](#)

The [PlcReal](#) at the specified index.

## GetValueCore(PlcDeviceConnection)

Retrieves the current value of the PLC value from a [IPlcDevice](#) using the **connection** specified.

**C#**

```
protected override float[] GetValueCore(PlcDeviceConnection connection)
```

**Parameters**

**connection** [PlcDeviceConnection](#)

The [PlcDeviceConnection](#) from that the data is to be retrieved.

**Returns**

[Single\[\]](#)

The current value of the PLC value.

**Exceptions**

[InvalidOperationException](#)

The **connection** is in [Faulted](#) state and cannot longer be opened.

[ObjectDisposedException](#)

The **connection** has been disposed of.

## RelocateCore(PlcAddress)

Relocates the value to the **address** specified.

**C#**

```
protected override IPlcValue RelocateCore(PlcAddress address)
```

## Parameters

**address** PlcAddress

The **PlcAddress** to that the value is to be relocated.

## Returns

IPlcValue

A new instance of the same type as this PLC value instance relocated to the **address** specified.

# SetValueCore(PlcDeviceConnection, Single[])

Stores the **value** in the **IPlcDevice** assigned to the **connection** specified.

## C#

```
protected override void SetValueCore(PlcDeviceConnection connection, float[] value)
```

## Parameters

**connection** PlcDeviceConnection

The **PlcDeviceConnection** to use to store the **value**.

**value** Single[]

The value to be stored.

## Exceptions

[InvalidOperationException](#)

The **connection** is in **Faulted** state and cannot longer be opened.

[ObjectDisposedException](#)

The **connection** has been disposed of.

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