

# PlcBooleanArray Members

**Namespace:** IPS7Lnk.Advanced

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

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

## Constructors

### PlcBooleanArray(PlcBooleanArrayType)

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

**C#**

```
public PlcBooleanArray(PlcBooleanArrayType type)
```

#### Parameters

**type** [PlcBooleanArrayType](#)

The [PlcBooleanArrayType](#) of the new [PlcBooleanArray](#) to which the PLC array belongs.

#### Exceptions

[ArgumentNullException](#)

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

### PlcBooleanArray(PlcBooleanArrayType, Boolean[])

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

**C#**

```
public PlcBooleanArray(PlcBooleanArrayType type, params bool[] values)
```

#### Parameters

**type** [PlcBooleanArrayType](#)

The [PlcBooleanArrayType](#) of the new [PlcBooleanArray](#) to which the PLC array belongs.

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

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

#### Exceptions

[ArgumentNullException](#)

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

## PlcBooleanArray(PlcBooleanArrayType, PlcName, Boolean[])

Initializes a new instance of the `PlcBooleanArray` class using the specified `type`, `name` and `values`.

### C#

```
public PlcBooleanArray(PlcBooleanArrayType type, PlcName name, params bool[] values)
```

### Parameters

`type` `PlcBooleanArrayType`

The `PlcBooleanArrayType` of the new `PlcBooleanArray` to which the PLC array belongs.

`name` `PlcName`

The name of the array represented.

`values` `Boolean[]`

The initial values of the new `PlcBooleanArray`.

### Exceptions

`ArgumentNullException`

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

## PlcBooleanArray(PlcIdentity, Boolean[])

Initializes a new instance of the `PlcBooleanArray` class using the specified `identity` and `values`.

### C#

```
public PlcBooleanArray(PlcIdentity identity, params bool[] values)
```

### Parameters

`identity` `PlcIdentity`

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

`values` `Boolean[]`

The initial values of the new `PlcBooleanArray`.

### Exceptions

`ArgumentException`

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

[ArgumentNullException](#)

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

## PlcBooleanArray(PlcIdentity, Int32)

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

**C#**

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

### Parameters

`identity` [PlcIdentity](#)

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

`length` [Int32](#)

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

### Exceptions

[ArgumentException](#)

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

[ArgumentNullException](#)

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

[ArgumentOutOfRangeException](#)

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

## PlcBooleanArray(PlcIdentity, PlcName, Boolean[])

Initializes a new instance of the [PlcBooleanArray](#) class using the specified `identity`, `name` and `values`.

**C#**

```
public PlcBooleanArray(PlcIdentity identity, PlcName name, params bool[] values)
```

### Parameters

`identity` [PlcIdentity](#)

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

`name` [PlcName](#)

The name of the array represented.

values Boolean[]

The initial values of the new PlcBooleanArray.

## Exceptions

ArgumentException

The identity does not refer to the Bit.

ArgumentNullException

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

# PlcBooleanArray(PlcIdentity, PlcName, Int32)

Initializes a new instance of the PlcBooleanArray class using the specified identity, name and length.

## C#

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

## Parameters

identity PlcIdentity

The PlcIdentity of the new PlcBooleanArray 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 PlcBooleanArray.

## Exceptions

ArgumentException

The identity does not refer to the Bit.

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.

# Methods

# GetElementCore(Int32)

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

## C#

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

### Parameters

[index](#) [Int32](#)

The zero-based index of the element to get.

### Returns

[PlcBoolean](#)

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

# GetValueCore(PlcDeviceConnection)

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

## C#

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

### Parameters

[connection](#) [PlcDeviceConnection](#)

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

### Returns

[Boolean\[\]](#)

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, Boolean[])

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

**C#**

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

## Parameters

**connection** PlcDeviceConnection

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

**value** Boolean[]

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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