

# IPlcArray<T, TElement> Interface

**Namespace:** IPS7Lnk.Advanced

**Assemblies:** IPS7LnkNet.Advanced.dll

Represents a generic array stored within a programmable logic controller (PLC).

## C#

```
public interface IPlcArray<T, TElement> : IPlcValue<T[]>, IPlcArray, IPlcValue, IPlcSymbol,
IPlcEntity, IPlcStatusProvider, IPlcRelocatable<IPlcValue>, IPlcRelocatable,
ISupportInitialize, IEnumerable<T>, IEnumerable where TElement : IPlcValue<T>
```

**Implements** [IPlcValue<T>](#), [IPlcValue<GetValue>\(Advanced\)](#), [IPlcValue<SetValue>\(Advanced\)](#), [IPlcArray](#), [IPlcValue](#), [GetValue\(Advanced\)](#), [IsValidType\(System\)](#), [IsValidValue\(System\)](#), [SetValue\(Advanced\)](#), [SetValue\(IPlcDevice, System\)](#), [SetValue\(PlcDeviceConnection, System\)](#), [ValidateValue\(System\)](#), [IPlcSymbol](#), [IPlcEntity](#), [IPlcStatusProvider](#), [IPlcRelocatable<Relocate>\(System\)](#), [IPlcRelocatable<Relocate>\(Int32, System\)](#), [IPlcRelocatable<Relocate>\(Int32, Int32, System\)](#), [IPlcRelocatable<Relocate>\(Advanced\)](#), [ISupportInitialize](#), [IEnumerable<T>](#)

## Events

Name	Description
<a href="#">Changed</a>	Occurs when the value of the <a href="#">Value</a> property has changed. (Inherited from <a href="#">IPlcValue</a> )

## Properties

Name	Description
<a href="#">Description</a>	Gets or sets more meaningful information about the symbol and its usage than only using the <a href="#">Name</a> property. (Inherited from <a href="#">IPlcSymbol</a> )
<a href="#">Item(Int32)</a>	Gets the element at the specified index.
<a href="#">Item(Int32)</a>	Gets the element at the specified index. (Inherited from <a href="#">IPlcArray</a> )
<a href="#">Length</a>	Gets a 32-bit integer that represents the total number of elements within the array. (Inherited from <a href="#">IPlcArray</a> )
<a href="#">Name</a>	Gets the name of the symbol through that PLC data can be accessed. (Inherited from <a href="#">IPlcSymbol</a> )
<a href="#">Status</a>	Gets the status information provided by the software driver. (Inherited from <a href="#">IPlcStatusProvider</a> )
<a href="#">Tag</a>	Gets or sets the object that contains additional user data about the value. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">Type</a>	Gets the PLC type information associated with the entity. (Inherited from <a href="#">IPlcEntity</a> )
<a href="#">Value</a>	Gets or sets the value assigned to the PLC value. (Inherited from <a href="#">IPlcValue</a> )

# Methods

Name	Description
<a href="#">GetElement(Int32)</a>	Retrieves the <a href="#">TElement</a> at the specified index.
<a href="#">GetElement(Int32)</a>	Retrieves the <a href="#">IPlcValue</a> at the specified index. (Inherited from <a href="#">IPlcArray</a> )
<a href="#">GetValue(IPlcDevice)</a>	Retrieves the current value of the PLC value from the <a href="#">device</a> specified. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">GetValue(PlcDeviceConnection)</a>	Retrieves the current value of the PLC value from a <a href="#">IPlcDevice</a> using the <a href="#">connection</a> specified. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">IsValidType(Object)</a>	Determines whether a specified value is acceptable for this <a href="#">IPlcValue</a> . (Inherited from <a href="#">IPlcValue</a> )
<a href="#">IsValidValue(Object)</a>	Determines whether the provided value is accepted for the type of PLC value through basic type checking and also potentially if it is within the allowed range of value for that type. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">SetValue(IPlcDevice)</a>	Stores the <a href="#">Value</a> in the <a href="#">device</a> specified. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">SetValue(IPlcDevice, Object)</a>	Stores the <a href="#">value</a> in the <a href="#">device</a> specified. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">SetValue(PlcDeviceConnection)</a>	Stores the <a href="#">Value</a> in the <a href="#">IPlcDevice</a> assigned to the <a href="#">connection</a> specified. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">SetValue(PlcDeviceConnection, Object)</a>	Stores the <a href="#">value</a> in the <a href="#">IPlcDevice</a> assigned to the <a href="#">connection</a> specified. (Inherited from <a href="#">IPlcValue</a> )
<a href="#">ValidateValue(Object)</a>	Validates the specified <a href="#">value</a> whether it can be assigned to this <a href="#">IPlcValue</a> . (Inherited from <a href="#">IPlcValue</a> )

# Table of Contents

<b>Events</b> .....	1
<b>Properties</b> .....	1
<b>Methods</b> .....	2

