

PlcString Members

Namespace: IPS7Lnk.Advanced

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

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

Constructors

PlcString(PlcIdentity, Int32)

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

C#

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

Parameters

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

The [PlcIdentity](#) of the new [PlcString](#) to which the PLC value belongs.

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

The maximum length used to store the [PlcString](#) value.

Exceptions

[ArgumentException](#)

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

[ArgumentNullException](#)

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

[ArgumentOutOfRangeException](#)

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

PlcString(PlcIdentity, PlcName, Int32)

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

C#

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

Parameters

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

The **PlcIdentity** of the new **PlcString** to which the PLC value belongs.

name **PlcName**

The name of the value.

length **Int32**

The maximum length used to store the **PlcString** value.

Exceptions

ArgumentException

The **identity** does not refer to the **Byte**.

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**.

PlcString(PlcIdentity, PlcName, String)

Initializes a new instance of the **PlcString** class using the specified **identity**, **name** and **value**.

C#

```
public PlcString(PlcIdentity identity, PlcName name, string value)
```

Parameters

identity **PlcIdentity**

The **PlcIdentity** of the new **PlcString** to which the PLC value belongs.

name **PlcName**

The name of the value.

value **String**

The initial value of the new **PlcString**.

Exceptions

ArgumentException

The **identity** does not refer to the **Byte**.

ArgumentNullException

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

PlcString(PlcIdentity, PlcName, String, Int32)

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

C#

```
public PlcString(PlcIdentity identity, PlcName name, string value, int length)
```

Parameters

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

The [PlcIdentity](#) of the new [PlcString](#) to which the PLC value belongs.

[name](#) [PlcName](#)

The name of the value.

[value](#) [String](#)

The initial value of the new [PlcString](#).

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

The maximum length used to store the [PlcString](#) value.

Exceptions

[ArgumentException](#)

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

[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](#).

PlcString(PlcIdentity, String)

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

C#

```
public PlcString(PlcIdentity identity, string value)
```

Parameters

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

The [PlcIdentity](#) of the new [PlcString](#) to which the PLC value belongs.

[value](#) [String](#)

The initial value of the new [PlcString](#).

Exceptions

ArgumentException

The **identity** does not refer to the **Byte**.

ArgumentNullException

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

PlcString(PlcIdentity, String, Int32)

Initializes a new instance of the **PlcString** class using the specified **identity**, **value** and **length**.

C#

```
public PlcString(PlcIdentity identity, string value, int length)
```

Parameters

identity **PlcIdentity**

The **PlcIdentity** of the new **PlcString** to which the PLC value belongs.

value **String**

The initial value of the new **PlcString**.

length **Int32**

The maximum length used to store the **PlcString** value.

Exceptions

ArgumentException

The **identity** does not refer to the **Byte**.

ArgumentNullException

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

ArgumentOutOfRangeException

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

PlcString(PlcStringType)

Initializes a new instance of the **PlcString** class using the specified **type**.

C#

```
public PlcString(PlcStringType type)
```

Parameters

type PlcStringType

The PlcStringType of the new PlcString to which the PLC value belongs.

Exceptions

ArgumentNullException

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

PlcString(PlcStringType, PlcName)

Initializes a new instance of the PlcString class using the specified **type** and **name**.

C#

```
public PlcString(PlcStringType type, PlcName name)
```

Parameters

type PlcStringType

The PlcStringType of the new PlcString to which the PLC value belongs.

name PlcName

The name of the value.

Exceptions

ArgumentNullException

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

PlcString(PlcStringType, PlcName, String)

Initializes a new instance of the PlcString class using the specified **type**, **name** and **value**.

C#

```
public PlcString(PlcStringType type, PlcName name, string value)
```

Parameters

type PlcStringType

The PlcStringType of the new PlcString to which the PLC value belongs.

name PlcName

The name of the value.

value String

The initial value of the new PlcString.

Exceptions

ArgumentNullException

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

PlcString(PlcStringType, String)

Initializes a new instance of the PlcString class using the specified type and value.

C#

```
public PlcString(PlcStringType type, string value)
```

Parameters

type PlcStringType

The PlcStringType of the new PlcString to which the PLC value belongs.

value String

The initial value of the new PlcString.

Exceptions

ArgumentNullException

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

Fields

MaxLength

Specifies the maximum value that can be used for the Length property.

C#

```
public const int MaxLength = 254
```

Field Value

Int32

MinLength

Specifies the minimum value that can be used for the [Length](#) property.

C#

```
public const int MinLength =
```

Field Value

[Int32](#)

Properties

Item[Int32]

Gets the element at the specified index.

C#

```
public char this[int index] { get; }
```

Property Value

[Char](#)

The element at the specified index.

Exceptions

[ArgumentOutOfRangeException](#)

The [index](#) is less than zero or [index](#) is equal to or greater than [Length](#).

Length

Gets a 32-bit integer that represents the maximum number of characters that can be stored.

C#

```
public int Length { get; }
```

Property Value

[Int32](#)

A 32-bit integer that represents the maximum number of characters that can be stored.

Value

Gets or sets the value assigned to the PLC value.

C#

```
public override string Value { get; set; }
```

Property Value

[String](#)

The [String](#) value assigned to the [PlcString](#).

Exceptions

[ArgumentNullException](#)

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

Methods

GetEnumerator()

Returns an enumerator that iterates through the array.

C#

```
public IEnumerator<char> GetEnumerator()
```

Returns

[IEnumerator<Char>](#)

An [IEnumerator](#) object that can be used to iterate through the array.

GetValueCore(PlcDeviceConnection)

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

C#

```
protected override string GetValueCore(PlcDeviceConnection connection)
```

Parameters

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

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

Returns

String

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, String)

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

C#

```
protected override void SetValueCore(PlcDeviceConnection connection, string value)
```

Parameters

`connection` `PlcDeviceConnection`

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

`value` `String`

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.

ToString()

Retrieves the string representation of the `PlcString`.

C#

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

Returns

String

The string representation of the `PlcString`.

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