

# SimaticDevice Members

**Namespace:** IPS7Lnk.Advanced

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

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

## Constructors

### SimaticDevice()

Initializes a new instance of the [SimaticDevice](#) class.

**C#**

```
public SimaticDevice()
```

### SimaticDevice(PlcDeviceEndPoint)

Initializes a new instance of the [SimaticDevice](#) class using the specified [endPoint](#).

**C#**

```
public SimaticDevice(PlcDeviceEndPoint endPoint)
```

#### Parameters

[endPoint](#) [PlcDeviceEndPoint](#)

The [PlcDeviceEndPoint](#) which identifies the network address of the device.

#### Exceptions

[ArgumentNullException](#)

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

### SimaticDevice(PlcDeviceEndPoint, SimaticDeviceType)

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

**C#**

```
public SimaticDevice(PlcDeviceEndPoint endPoint, SimaticDeviceType type)
```

#### Parameters

[endPoint](#) [PlcDeviceEndPoint](#)

The [PlcDeviceEndPoint](#) which identifies the network address of the device.

type [SimaticDeviceType](#)

The type of Siemens device to represent.

## Exceptions

[ArgumentNullException](#)

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

# SimaticDevice(String)

Initializes a new instance of the [SimaticDevice](#) class using the specified [addressOrHostName](#).

C#

```
public SimaticDevice(string addressOrHostName)
```

## Parameters

[addressOrHostName](#) [String](#)

The string representation of an [IPAddress](#) or the host name to be resolved to an [IPAddress](#) of the endpoint to use.

## Exceptions

[ArgumentNullException](#)

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

[ArgumentException](#)

The [addressOrHostName](#) is an empty string.

# SimaticDevice(String, Int32)

Initializes a new instance of the [SimaticDevice](#) class using the specified [addressOrHostName](#) and [rack](#) number.

C#

```
public SimaticDevice(string addressOrHostName, int rack)
```

## Parameters

[addressOrHostName](#) [String](#)

The string representation of an [IPAddress](#) or the host name to be resolved to an [IPAddress](#) of the endpoint to use.

[rack](#) [Int32](#)

The rack number associated with the endpoint to use.

## Exceptions

### ArgumentNullException

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

### ArgumentException

The `addressOrHostName` is an empty string.

### ArgumentOutOfRangeException

The `rack` is out of the bounds defined by `MinRack` or `MaxRack`.

# SimaticDevice(String, Int32, Int32)

Initializes a new instance of the `SimaticDevice` class using the specified `addressOrHostName`, `rack` number and `slot` number.

## C#

```
public SimaticDevice(string addressOrHostName, int rack, int slot)
```

## Parameters

### `addressOrHostName` String

The string representation of an `IPAddress` or the host name to be resolved to an `IPAddress` of the endpoint to use.

### `rack` Int32

The rack number associated with the endpoint to use.

### `slot` Int32

The slot number associated with the endpoint to use.

## Exceptions

### ArgumentNullException

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

### ArgumentException

The `addressOrHostName` is an empty string.

### ArgumentOutOfRangeException

The `rack` or `slot` is out of the bounds defined by `MinRack`, `MaxRack`, `MinSlot` or `MaxSlot`.

# SimaticDevice(String, SimaticDeviceType)

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

**C#**

```
public SimaticDevice(string addressOrHostName, SimaticDeviceType type)
```

## Parameters

[addressOrHostName](#) [String](#)

The string representation of an [IPAddress](#) or the host name to be resolved to an [IPAddress](#) of the endpoint to use.

[type](#) [SimaticDeviceType](#)

The type of Siemens device to represent.

## Exceptions

[ArgumentNullException](#)

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

[ArgumentException](#)

The [addressOrHostName](#) is an empty string.

# SimaticDevice(String, SimaticDeviceType, Int32)

Initializes a new instance of the [SimaticDevice](#) class using the specified [addressOrHostName](#), [type](#) and [rack](#) number.

**C#**

```
public SimaticDevice(string addressOrHostName, SimaticDeviceType type, int rack)
```

## Parameters

[addressOrHostName](#) [String](#)

The string representation of an [IPAddress](#) or the host name to be resolved to an [IPAddress](#) of the endpoint to use.

[type](#) [SimaticDeviceType](#)

The type of Siemens device to represent.

[rack](#) [Int32](#)

The rack number associated with the endpoint to use.

## Exceptions

### ArgumentNullException

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

### ArgumentException

The `addressOrHostName` is an empty string.

### ArgumentOutOfRangeException

The `rack` is out of the bounds defined by `MinRack` or `MaxRack`.

## SimaticDevice(String, SimaticDeviceType, Int32, Int32)

Initializes a new instance of the `SimaticDevice` class using the specified `addressOrHostName`, `type`, `rack` number and `slot` number.

### C#

```
public SimaticDevice(string addressOrHostName, SimaticDeviceType type, int rack, int slot)
```

### Parameters

`addressOrHostName` String

The string representation of an `IPAddress` or the host name to be resolved to an `IPAddress` of the endpoint to use.

`type` SimaticDeviceType

The type of Siemens device to represent.

`rack` Int32

The rack number associated with the endpoint to use.

`slot` Int32

The slot number associated with the endpoint to use.

### Exceptions

#### ArgumentNullException

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

#### ArgumentException

The `addressOrHostName` is an empty string.

#### ArgumentOutOfRangeException

The `rack` or `slot` is out of the bounds defined by `MinRack`, `MaxRack`, `MinSlot` or `MaxSlot`.

# Properties

## ChannelType

Gets or sets a value that indicates how the connection will operate on the device.

**C#**

```
public SimaticChannelType ChannelType { get; set; }
```

### Property Value

[SimaticChannelType](#)

One of the members defined by [SimaticChannelType](#) enumeration.

## Options

Gets or sets additional characteristics used to communicate with the device represented.

**C#**

```
public SimaticDeviceOptions Options { get; set; }
```

### Property Value

[SimaticDeviceOptions](#)

A combination of the members defined by the [SimaticDeviceOptions](#) enumeration.

## Type

Gets or sets a value indicating the specific type of device represented.

**C#**

```
public SimaticDeviceType Type { get; set; }
```

### Property Value

[SimaticDeviceType](#)

One of the members defined by the [SimaticDeviceType](#) enumeration. Which specifies the concrete type of Siemens device to represent.

# Methods

## CreateConnectionCore()

Creates a new instance of an object which is an instance of the [SimaticDeviceConnection](#) class which is associated with the [PlcDevice](#).

**C#**

```
protected override PlcDeviceConnection CreateConnectionCore()
```

### Returns

[PlcDeviceConnection](#)

An instance of an object which is an instance of the [SimaticDeviceConnection](#) class and is associated with the [SimaticDevice](#).

## GetBlockCore(PlcOperand)

Retrieves the block information for the PLC block accessible by the **operand** specified.

**C#**

```
protected override PlcBlockInfo GetBlockCore(PlcOperand operand)
```

### Parameters

**operand** [PlcOperand](#)

The [PlcOperand](#) for that the according block information is to be retrieved.

### Returns

[PlcBlockInfo](#)

An instance of the [SimaticBlockInfo](#) class containing the information of the block requested.

## GetInfo()

Retrieves an instance of an object implementing the [IPlcDeviceInfo](#) interface which provides additional metadata about the device.

**C#**

```
public override IPlcDeviceInfo GetInfo()
```

### Returns

[IPlcDeviceInfo](#)

An instance implementing the [IPlcDeviceInfo](#) interface which provides additional metadata about the device.

# ToString()

Returns a string that represents the current [SimaticDevice](#).

## C#

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

## Returns

[String](#)

A string that represents the current [SimaticDevice](#).

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