

Namespaces

Namespaces

<u>IO.Devices.A4988</u>	A4988 Stepper Motor Controller Services.
<u>IO.Devices.AD5593R</u>	AD5593 Analog/Digital I/O Device Services.
<u>IO.Devices.AD5593R.ADC</u>	AD5593 Analog/Digital I/O Device ADC Input Services.
<u>IO.Devices.AD5593R.DAC</u>	AD5593 Analog/Digital I/O Device DAC Output Services.
<u>IO.Devices.AD5593R.GPIO</u>	AD5593 Analog/Digital I/O Device GPIO Pin Services.
<u>IO.Devices.ADC121C021</u>	ADC121C021 I ² C A/D Converter Services
<u>IO.Devices.ClickBoards.RemoteIO.ADAC</u>	Mikroelektronika ADAC Click MIKROE-2690 Services
<u>IO.Devices.ClickBoards.RemoteIO.Expand</u>	Mikroelektronika Expand Click MIKROE-951 Services
<u>IO.Devices.ClickBoards.RemoteIO.Expand2</u>	Mikroelektronika Expand 2 Click MIKROE-1838 Services
<u>IO.Devices.ClickBoards.RemoteIO.PWM</u>	Mikroelektronika PWM Click MIKROE-1898 Services
<u>IO.Devices.ClickBoards.RemoteIO.SevenSegment</u>	Mikroelektronika 7Seg Click MIKROE-1201 Services
<u>IO.Devices.Grove.ADC</u>	Seeed Studio Grove I ² C ADC (ADC121C021) Services
<u>IO.Devices.Grove.Temperature</u>	Seeed Studio Grove Temperature Sensor (thermistor) Services
<u>IO.Devices.Grove.Temperature_Humidity</u>	Seeed Studio Grove Temperature and Humdity Sensor (TH02) Services.
<u>IO.Devices.HDC1080</u>	HDC1080 I ² C Temperature/Humidity Sensor Services
<u>IO.Devices.MCP23017</u>	MCP23017 I ² C GPIO Expander Device Services.
<u>IO.Devices.MCP23017.GPIO</u>	MCP23017 I ² C GPIO Expander GPIO Pin Services.

<u>IO.Devices.MCP23S17</u>	MCP23S17 SPI GPIO Expander Device Services.
<u>IO.Devices.MCP23S17.GPIO</u>	MCP23S17 SPI GPIO Expander GPIO Pin Services.
<u>IO.Devices.PCA8574</u>	PCA8574 (and similar) I ² C GPIO Expander Device Services
<u>IO.Devices.PCA8574.GPIO</u>	PCA8574 (and similar) I ² C GPIO Expander GPIO Pin Services
<u>IO.Devices.PCA9534</u>	PCA9534 (and similar) I ² C GPIO Expander Device Services
<u>IO.Devices.PCA9534.GPIO</u>	PCA9534 (and similar) I ² C GPIO Expander GPIO Pin Services
<u>IO.Devices.PCA9685</u>	PCA9685 I ² C PWM Controller Device Services
<u>IO.Devices.PCA9685.GPIO</u>	PCA9685 I ² C PWM Controller GPIO Pin Services
<u>IO.Devices.PCA9685.PWM</u>	PCA9685 I ² C PWM Controller PWM Output Services
<u>IO.Devices.PCA9685.Servo</u>	PCA9685 I ² C PWM Controller Servo Output Services
<u>IO.Devices.Pmod.HYGRO</u>	Digilent Pmod HYGRO Temperature and Humdity Sensor (HDC1080) Services.
<u>IO.Devices.SN74HC595</u>	SN74HC595 8-Bit Shift Register Device Services
<u>IO.Devices.SN74HC595.GPIO</u>	SN74HC595 8-Bit Shift Register GPIO Pin Services
<u>IO.Devices.TH02</u>	TH02 I ² C Temperature/Humidity Sensor Services
<u>IO.Devices.Thermistor</u>	Thermistor Modeling Services
<u>IO.Devices.USB.Munts</u>	Vendor and Product Identifiers for Munts Technologies (http://tech.munts.com) USB devices
<u>IO.Interfaces.ADC</u>	Abstract Interface for ADC (Analog to Digital Converter) Inputs
<u>IO.Interfaces.DAC</u>	Abstract Interface for DAC (Digital to Analog Converter) Outputs

<u>IO.Interfaces.GPIO</u>	Abstract Interface for GPIO (General Purpose Input/Output) Pins
<u>IO.Interfaces.Humidity</u>	Abstract Interface for Humidity Sensors
<u>IO.Interfaces.I2C</u>	Abstract Interface for I ² C (Integrated Circuit) Bus Controllers
<u>IO.Interfaces.Message.Text</u>	Abstract Interface for Text Message Relays
<u>IO.Interfaces.Message64</u>	Abstract Interface for 64-Byte Message Services
<u>IO.Interfaces.Motor</u>	Abstract Interface For Variable Speed Motor Outputs
<u>IO.Interfaces.PWM</u>	Abstract Interface for PWM (Pulse Width Modulated) Outputs
<u>IO.Interfaces.Servo</u>	Abstract Interface for Servo Outputs
<u>IO.Interfaces.SPI</u>	Abstract Interface for SPI (Serial Peripheral Interconnect) Slave Devices
<u>IO.Interfaces.Stepper</u>	Abstract Interface for Stepper Motor Outputs
<u>IO.Interfaces.Temperature</u>	Abstract Interface for Temperature Sensors
<u>IO.Interfaces.Watchdog</u>	Abstract Interface for Watchdog Timers
<u>IO.Objects.Email.Mail</u>	Email Sending Services using /usr/bin/mail
<u>IO.Objects.Email.SMTP</u>	Email Sending Services using SMTP to localhost:25
<u>IO.Objects.GPIO.PWM</u>	PWM Controlled GPIO Output Services
<u>IO.Objects.Message64.UDP</u>	64-Byte Message Services over UDP
<u>IO.Objects.Motor.PWM</u>	PWM Controlled Motor Services
<u>IO.Objects.Motor.Servo</u>	Servo Controlled Motor (e.g. continuous rotation servo) Services
<u>IO.Objects.RemoteIO</u>	Remote I/O Device Framework, for sending commands and receiving

	response to/from <u>Remote I/O Protocol</u> devices.
<u>IO.Objects.RemoteIO.HID</u>	USB Raw HID (Human Interface Device) Transport Services
<u>IO.Objects.RemoteIO.mikroBUS</u>	Mikroelektronika mikroBUS (https://www.mikroe.com/mikrobus) Remote I/O protocol Server and Socket Services
<u>IO.Objects.RemoteIO.Platforms</u>	I/O Resource Definitions for particular Remote I/O Protocol Server Platforms
<u>IO.Objects.Servo.PWM</u>	PWM Controlled Servo Services

IO.Devices.A4988 Namespace

A4988 Stepper Motor Controller Services.

Classes

<u>Device</u>	Encapsulates the A4988 Stepper Motor Controller.
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Device Class

Encapsulates the A4988 Stepper Motor Controller.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Device : Output
```

Inheritance [Object](#) → Device

Implements [Output](#)

Constructors

Device	Constructor for a single A4988 device.
------------------------	--

Properties

StepsPerRotation	Read-only property returning the number of steps a stepper motor has.
----------------------------------	---

Methods

Disable	Disable the A4988 device.
Enable	Enable the A4988 device.
Move	Move the stepper motor a specified number of steps at a specified rate.
Reset	Reset the A4988 device.
Sleep	Put the A4988 device to sleep.
Spin	Spin (i.e. continuous rotation) the stepper motor at a specified rate.
Wakeup	Wake up the A4988 device.

See Also

Reference

[IO.Devices.A4988 Namespace](#)

Device Constructor

Constructor for a single A4988 device.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    int StepsPerRotation,
    Pin Step,
    Pin Dir,
    Pin Enable = null,
    Pin Reset = null,
    Pin Sleep = null
)
```

Parameters

StepsPerRotation [Int32](#)

The number of steps per rotation. This is a physical characteristic of the particular stepper motor being driven.

Step [Pin](#)

GPIO pin object for the **STEP** signal.

Dir [Pin](#)

GPIO pin object for the **DIR** signal.

Enable [Pin](#) (Optional)

GPIO pin object for the **-ENABLE** signal.

Reset [Pin](#) (Optional)

GPIO pin object for the **-RESET** signal.

Sleep [Pin](#) (Optional)

GPIO pin object for the **-SLEEP** signal.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.StepsPerRotation Property

Read-only property returning the number of steps a stepper motor has.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int StepsPerRotation { get; }
```

Property Value

Int32

Implements

[Output.StepsPerRotation](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.Disable Method

Disable the A4988 device.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Disable()
```

See Also

Reference

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.Enable Method

Enable the A4988 device.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Enable()
```

See Also

Reference

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.Move Method

Move the stepper motor a specified number of steps at a specified rate.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Move(
    int steps,
    float rate
)
```

Parameters

steps [Int32](#)

Number of steps to move. Negative values indicate reverse motion and positive values indicate forward motion. (The directions are nominal and depend on how the stepper motor coils are wired). Zero indicates the stepper motor should be stopped.

rate [Single](#)

The rate of motion, in steps per second. Negative values indicate reverse motion and positive values indicate forward motion. (The directions are nominal and depend on how the stepper motor coils are wired). Zero indicates the stepper motor should be stopped.

Implements

[Output.Move\(Int32, Single\)](#)

Remarks

This implementation supports a maximum rate of 500 steps per second.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.Reset Method

Reset the A4988 device.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Reset()
```

See Also

Reference

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.Sleep Method

Put the A4988 device to sleep.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Sleep()
```

See Also

Reference

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

Device.Spin Method

Spin (i.e. continuous rotation) the stepper motor at a specified rate.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Spin(
    float rate
)
```

Parameters

rate [Single](#)

The rate of motion, in steps per second. Negative values indicate reverse motion and positive values indicate forward motion. (The directions are nominal and depend on how the stepper motor coils are wired). Zero indicates the stepper motor should be stopped.

Implements

[Output.Spin\(Single\)](#)

Remarks

The A4988 stepper motor driver does not support continuous rotation and this method will always throw an exception.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

[Device.Wakeup Method](#)

Wake up the A4988 device.

Definition

Namespace: [IO.Devices.A4988](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Wakeup()
```

See Also

Reference

[Device Class](#)

[IO.Devices.A4988 Namespace](#)

[IO.Devices.AD5593R Namespace](#)

AD5593 Analog/Digital I/O Device Services.

Classes

<u>Device</u>	Enscapsulates the AD5593R I ² C Analog/Digital I/O device.
-------------------------------	---

Enumerations

<u>PinMode</u>	AD5593R I/O Pin Modes.
<u>ReferenceMode</u>	ADC5593R ADC and DAC reference settings.

Device Class

Encapsulates the AD5593R I²C Analog/Digital I/O device.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a single AD5593R device.
------------------------	--

Properties

ADC_Reference	Write-only property for setting the AD5593R ADC reference mode.
DAC_Reference	Write-only property for setting the AD5593R DAC reference mode.
GPIO_Inputs	GPIO input register state. Any I/O pin that is not configured as a GPIO input will read as zero.
GPIO_Outputs	GPIO output register state. Any I/O pin that is not configured as a GPIO output will be written as zero.

Methods

ADC_Create	Create an AD5593R ADC input object.
ConfigureChannel	Configure a single AD5593R I/O pin.
DAC_Create	Create an AD5593R DAC output object.
GPIO_Create	Create an AD5593R GPIO pin object.
Read_ADC	Read from an ADC channel.
Write_DAC	Write to a DAC channel.

Fields

ADC_Resolution	ADC resolution in bits.
DAC_Resolution	DAC resolution in bits.
MaxChannel	Maximum I/O channel number.
MinChannel	Minimum I/O channel number.

See Also

Reference

[IO.Devices.AD5593R Namespace](#)

Device Constructor

Constructor for a single AD5593R device.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    int addr
)
```

Parameters

bus [Bus](#)

I²C bus controller object.

addr [Int32](#)

I²C slave address.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.ADC_Reference Property

Write-only property for setting the AD5593R ADC reference mode.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public ReferenceMode ADC_Reference { set; }
```

Property Value

[ReferenceMode](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.DAC_Reference Property

Write-only property for setting the AD5593R DAC reference mode.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public ReferenceMode DAC_Reference { set; }
```

Property Value

ReferenceMode

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.GPIO_Inputs Property

GPIO input register state. Any I/O pin that is not configured as a GPIO input will read as zero.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte GPIO_Inputs { get; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.GPIO_Outputs Property

GPIO output register state. Any I/O pin that is not configured as a GPIO output will be written as zero.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte GPIO_Outputs { get; set; }
```

Property Value

Byte

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.ADC_Create Method

Create an AD5593R ADC input object.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample ADC_Create(
    int channel
)
```

Parameters

channel [Int32](#)

AD5593R ADC channel number (0 to 7).

Return Value

[Sample](#)

ADC input object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.ConfigureChannel Method

Configure a single ADC5593R I/O pin.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void ConfigureChannel(
    int channel,
    PinMode mode
)
```

Parameters

channel [Int32](#)

ADC5593R I/O channel number (0 to 7).

mode [PinMode](#)

ADC5593R I/O pin mode.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.DAC_Create Method

Create an AD5593R DAC output object.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample DAC_Create(
    int channel,
    int sample = 0
)
```

Parameters

channel [Int32](#)

AD5593R DAC channel number (0 to 7).

sample [Int32](#) (Optional)

Initial DAC output sample.

Return Value

[Sample](#)

DAC output object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.GPIO_Create Method

Create an AD5593R GPIO pin object.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO_Create(
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

channel [Int32](#)

AD5593R GPIO channel number (0 to 7).

dir [Direction](#)

GPIO pin data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.Read_ADC Method

Read from an ADC channel.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int Read_ADC(
    int channel
)
```

Parameters

channel [Int32](#)

ADC channel number (0 to 7).

Return Value

[Int32](#)

ADC input sample data (0 to 4095).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

[Device.Write_DAC Method](#)

Write to a DAC channel.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write_DAC(
    int channel,
    int data
)
```

Parameters

channel [Int32](#)

DAC channel number (0 to 7).

data [Int32](#)

DAC output sample data (0 to 4095).

[See Also](#)

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.ADC_Resolution Field

ADC resolution in bits.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int ADC_Resolution = 12
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.DAC_Resolution Field

DAC resolution in bits.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int DAC_Resolution = 12
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.MaxChannel Field

Maximum I/O channel number.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int MaxChannel = 7
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

Device.MinChannel Field

Minimum I/O channel number.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int MinChannel = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.AD5593R Namespace](#)

PinMode Enumeration

AD5593R I/O Pin Modes.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public enum PinMode
```

Members

ADC_Input	0	Analog input.
DAC_Output	1	Analog output.
GPIO_Input	2	GPIO input.
GPIO_Output	3	GPIO output.
GPIO_Output_OpenDrain	4	GPIO open drain output.

See Also

Reference

[IO.Devices.AD5593R Namespace](#)

ReferenceMode Enumeration

ADC5593R ADC and DAC reference settings.

Definition

Namespace: [IO.Devices.AD5593R](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public enum ReferenceMode
```

Members

Internalx1	0	The reference voltage is 2.5V using the internal reference.
Internalx2	1	The reference voltage is 5.0V using the internal reference.
Externalx1	2	The reference voltage is 1.0*Vref, using an external reference.
Externalx2	3	The reference voltage is 2.0*Vref, using an external reference.

See Also

Reference

[IO.Devices.AD5593R Namespace](#)

[IO.Devices.AD5593R.ADC Namespace](#)

AD5593 Analog/Digital I/O Device ADC Input Services.

Classes

<u>Sample</u>	Encapsulates AD5593R ADC inputs.
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Sample Class

Encapsulates AD5593R ADC inputs.

Definition

Namespace: [IO.Devices.AD5593R.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Sample : Sample
```

Inheritance [Object](#) → Sample

Implements [Sample](#)

Constructors

Sample	Create an AD5593R ADC input.
------------------------	------------------------------

Properties

resolution	Read-only property returning the number of bits of resolution.
----------------------------	--

sample	Read-only property returning an integer analog sample value.
------------------------	--

See Also

Reference

[IO.Devices.AD5593R.ADC Namespace](#)

Sample Constructor

Create an AD5593R ADC input.

Definition

Namespace: [IO.Devices.AD5593R.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample(
    Device dev,
    int channel
)
```

Parameters

dev [Device](#)

AD5593R device object.

channel [Int32](#)

AD5593R I/O channel number (0 to 7).

See Also

[Reference](#)

[Sample Class](#)

[IO.Devices.AD5593R.ADC Namespace](#)

Sample.resolution Property

Read-only property returning the number of bits of resolution.

Definition

Namespace: [IO.Devices.AD5593R.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int resolution { get; }
```

Property Value

Int32

Implements

[Sample.resolution](#)

See Also

[Reference](#)

[Sample Class](#)

[IO.Devices.AD5593R.ADC Namespace](#)

Sample.sample Property

Read-only property returning an integer analog sample value.

Definition

Namespace: [IO.Devices.AD5593R.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public int sample { get; }
```

Property Value

Int32

Implements

Sample.sample

See Also

Reference

Sample Class

IO.Devices.AD5593R.ADC Namespace

[IO.Devices.AD5593R.DAC Namespace](#)

AD5593 Analog/Digital I/O Device DAC Output Services.

Classes

<u>Sample</u>	Encapsulates AD5593R DAC outputs.
-------------------------------	-----------------------------------

Sample Class

Encapsulates AD5593R DAC outputs.

Definition

Namespace: [IO.Devices.AD5593R.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Sample : Sample
```

Inheritance [Object](#) → Sample

Implements [Sample](#)

Constructors

Sample	Create an AD5593R DAC output.
------------------------	-------------------------------

Properties

resolution	Read-only property returning the number of bits of resolution.
----------------------------	--

sample	Write-only property for writing an integer analog sample to a DAC output.
------------------------	---

See Also

Reference

[IO.Devices.AD5593R.DAC Namespace](#)

Sample Constructor

Create an AD5593R DAC output.

Definition

Namespace: [IO.Devices.AD5593R.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample(
    Device dev,
    int channel,
    int sample = 0
)
```

Parameters

dev [Device](#)

AD5593R device object.

channel [Int32](#)

AD5593R I/O channel number (0 to 7).

sample [Int32](#) (Optional)

Initial DAC output sample.

See Also

[Reference](#)

[Sample Class](#)

[IO.Devices.AD5593R.DAC Namespace](#)

Sample.resolution Property

Read-only property returning the number of bits of resolution.

Definition

Namespace: [IO.Devices.AD5593R.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int resolution { get; }
```

Property Value

Int32

Implements

Sample.resolution

See Also

Reference

Sample Class

IO.Devices.AD5593R.DAC Namespace

Sample.sample Property

Write-only property for writing an integer analog sample to a DAC output.

Definition

Namespace: [IO.Devices.AD5593R.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int sample { set; }
```

Property Value

Int32

Implements

Sample.sample

See Also

Reference

Sample Class

IO.Devices.AD5593R.DAC Namespace

[IO.Devices.AD5593R.GPIO Namespace](#)

AD5593 Analog/Digital I/O Device GPIO Pin Services.

Classes

Pin	Encapsulates AD5593R GPIO pins.
---------------------	---------------------------------

Pin Class

Encapsulates AD5593R GPIO pins.

Definition

Namespace: [IO.Devices.AD5593R.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

Pin	Create an AD5593R GPIO pin.
---------------------	-----------------------------

Properties

state	Read/Write GPIO state property.
-----------------------	---------------------------------

See Also

Reference

[IO.Devices.AD5593R.GPIO Namespace](#)

Pin Constructor

Create an AD5593R GPIO pin.

Definition

Namespace: [IO.Devices.AD5593R.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

dev [Device](#)

AD5593R device object.

channel [Int32](#)

AD5593R I/O channel number (0 to 7).

dir [Direction](#)

GPIO pin data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.AD5593R.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Devices.AD5593R.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

Pin.state

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.AD5593R.GPIO Namespace](#)

IO.Devices.ADC121C021 Namespace

ADC121C021 I²C A/D Converter Services

Classes

[Sample](#)

Encapsulates the ADC121C021 I²C A/D converter.

Sample Class

Encapsulates the ADC121C021 I²C A/D converter.

Definition

Namespace: [IO.Devices.ADC121C021](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Sample : Sample
```

Inheritance [Object](#) → Sample

Implements [Sample](#)

Constructors

Sample	Constructor for an ADC121C021 analog input.
------------------------	---

Properties

resolution	Return the number of bits of A/D resolution.
----------------------------	--

sample	Returns a single 12-bit analog sample.
------------------------	--

See Also

Reference

[IO.Devices.ADC121C021 Namespace](#)

Sample Constructor

Constructor for an ADC121C021 analog input.

Definition

Namespace: [IO.Devices.ADC121C021](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample(
    Bus bus,
    byte addr
)
```

Parameters

bus [Bus](#)

I²C bus controller.

addr [Byte](#)

I²C slave address.

See Also

[Reference](#)

[Sample Class](#)

[IO.Devices.ADC121C021 Namespace](#)

Sample.resolution Property

Return the number of bits of A/D resolution.

Definition

Namespace: [IO.Devices.ADC121C021](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int resolution { get; }
```

Property Value

Int32

Implements

Sample.resolution

See Also

[Reference](#)

[Sample Class](#)

[IO.Devices.ADC121C021 Namespace](#)

Sample.sample Property

Returns a single 12-bit analog sample.

Definition

Namespace: [IO.Devices.ADC121C021](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int sample { get; }
```

Property Value

Int32

Implements

Sample.sample

See Also

[Reference](#)

[Sample Class](#)

[IO.Devices.ADC121C021 Namespace](#)

IO.Devices.ClickBoards.RemoteIO.ADAC Namespace

Mikroelektronika ADAC Click MIKROE-2690 Services

Classes

<u>Board</u>	Encapsulates the Mikroelektronika ADAC Click Board. <u>MIKROE-2690</u> .
------------------------------	--

Board Class

Encapsulates the Mikroelektronika ADAC Click Board. [MIKROE-2690](#).

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Board
```

Inheritance [Object](#) → Board

Constructors

Board	Constructor for a single ADAC click.
-----------------------	--------------------------------------

Properties

device	Returns the underlying AD5593R device object.
------------------------	---

Methods

ADC	Factory function for creating ADC inputs.
DAC	Factory function for creating DAC outputs.
GPIO	Factory function for creating GPIO pins.
Reset	Issue hardware reset to the AD5593R.

Fields

DefaultAddress	Default I ² C slave address.
--------------------------------	---

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board Constructor

Constructor for a single ADAC click.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board(
    int socknum,
    int addr = 16,
    Device remdev = null
)
```

Parameters

socknum [Int32](#)

mikroBUS socket number.

addr [Int32](#) (Optional)

I²C slave address.

remdev [Device](#) (Optional)

Remote I/O server device object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board.device Property

Returns the underlying AD5593R device object.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public Device device { get; }
```

Property Value

Device

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board.ADC Method

Factory function for creating ADC inputs.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample ADC(
    int channel
)
```

Parameters

channel [Int32](#)

AD5593R I/O channel number (0 to 7).

Return Value

[Sample](#)

ADC input object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board.DAC Method

Factory function for creating DAC outputs.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample DAC(
    int channel,
    int sample = 0
)
```

Parameters

channel [Int32](#)

AD5593R I/O channel number (0 to 7).

sample [Int32](#) (Optional)

Initial DAC output sample.

Return Value

[Sample](#)

DAC output object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board.GPIO Method

Factory function for creating GPIO pins.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO(
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

channel [Int32](#)

AD5593R I/O channel number (0 to 7).

dir [Direction](#)

GPIO pin direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board.Reset Method

Issue hardware reset to the AD5593R.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Reset()
```

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.ADAC Namespace](#)

Board.DefaultAddress Field

Default I²C slave address.

Definition

Namespace: [IO.Devices.ClickBoards.RemotelO.ADAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const byte DefaultAddress = 16
```

Field Value

Byte

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemotelO.ADAC Namespace](#)

IO.Devices.ClickBoards.RemoteIO.Expand Namespace

Mikroelektronika Expand Click MIKROE-951 Services

Classes

[Board](#)

Encapsulates the Mikroelektronika Expand Click Board.

Board Class

Encapsulates the Mikroelektronika Expand Click Board.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Board
```

Inheritance [Object](#) → Board

Constructors

Board	Constructor for a single Expand click.
-----------------------	--

Properties

device	Returns the underlying MCP23S17 device object.
------------------------	--

Methods

GPIO	Factory function for creating GPIO pins.
Reset	Issue hardware reset to the MCP23S17.

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.Expand Namespace](#)

Board Constructor

Constructor for a single Expand click.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board(
    int socknum,
    Device remdev = null
)
```

Parameters

socknum [Int32](#)

mikroBUS socket number.

remdev [Device](#) (Optional)

Remote I/O server device object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand Namespace](#)

Board.device Property

Returns the underlying MCP23S17 device object.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device device { get; }
```

Property Value

Device

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand Namespace](#)

Board.GPIO Method

Factory function for creating GPIO pins.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO(
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

channel [Int32](#)

MCP23S17 channel number (0 to 15).

dir [Direction](#)

GPIO pin direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand Namespace](#)

Board.Reset Method

Issue hardware reset to the MCP23S17.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Reset()
```

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand Namespace](#)

IO.Devices.ClickBoards.RemoteIO.Expand2 Namespace

Mikroelektronika Expand 2 Click MIKROE-1838 Services

Classes

[Board](#)

Encapsulates the Mikroelektronika Expand 2 Click Board.

Board Class

Encapsulates the Mikroelektronika Expand 2 Click Board.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand2](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Board
```

Inheritance [Object](#) → Board

Constructors

Board	Constructor for a single Expand 2 click.
-----------------------	--

Properties

device	Returns the underlying MCP23017 device object.
------------------------	--

Methods

GPIO	Factory function for creating GPIO pins.
Reset	Issue hardware reset to the MCP23017.

Fields

DefaultAddress	Default I ² C slave address.
--------------------------------	---

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.Expand2 Namespace](#)

Board Constructor

Constructor for a single Expand 2 click.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand2](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board(
    int socknum,
    int addr = 32,
    Device remdev = null
)
```

Parameters

socknum [Int32](#)

mikroBUS socket number.

addr [Int32](#) (Optional)

I²C slave address.

remdev [Device](#) (Optional)

Remote I/O server device object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand2 Namespace](#)

Board.device Property

Returns the underlying MCP23017 device object.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand2](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public Device device { get; }
```

Property Value

Device

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand2 Namespace](#)

Board.GPIO Method

Factory function for creating GPIO pins.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand2](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO(
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

channel [Int32](#)

MCP23017 channel number (0 to 15).

dir [Direction](#)

GPIO pin direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand2 Namespace](#)

Board.Reset Method

Issue hardware reset to the MCP23017.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.Expand2](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Reset()
```

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.Expand2 Namespace](#)

Board.DefaultAddress Field

Default I²C slave address.

Definition

Namespace: [IO.Devices.ClickBoards.RemotelO.Expand2](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int DefaultAddress = 32
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemotelO.Expand2 Namespace](#)

IO.Devices.ClickBoards.RemoteIO.PWM Namespace

Mikroelektronika PWM Click MIKROE-1898 Services

Classes

<u>Board</u>	Encapsulates the Mikroelektronika PWM Click Board. <u>MIKROE-1898</u> .
------------------------------	---

Board Class

Encapsulates the Mikroelektronika PWM Click Board. [MIKROE-1898](#).

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Board
```

Inheritance [Object](#) → Board

Constructors

Board	Constructor for a single PWM click.
-----------------------	-------------------------------------

Properties

dev	Returns the underlying PCA9685 device object.
---------------------	---

Methods

GPIO	Factory function for creating GPIO output pins.
PWM	Factory function for creating PWM outputs.
Servo	Factory function for creating servo outputs.

Fields

DefaultAddress	Default I ² C slave address.
--------------------------------	---

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

Board Constructor

Constructor for a single PWM click.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board(
    int socknum,
    int freq,
    int addr = 64,
    Device remdev = null
)
```

Parameters

socknum [Int32](#)

mikroBUS socket number.

freq [Int32](#)

PWM pulse frequency in Hz.

addr [Int32](#) (Optional)

I²C slave address.

remdev [Device](#) (Optional)

Remote I/O device object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

Board.dev Property

Returns the underlying PCA9685 device object.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public Device dev { get; }
```

Property Value

Device

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

Board.GPIO Method

Factory function for creating GPIO output pins.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO(
    int channel,
    bool state = false
)
```

Parameters

channel [Int32](#)

PCA9685 output channel number.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO output pin object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

Board.PWM Method

Factory function for creating PWM outputs.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output PWM(
    int channel,
    double dutycycle = 0
)
```

Parameters

channel [Int32](#)

PCA9685 output channel number.

dutycycle [Double](#) (Optional)

Initial PWM output duty cycle.

Return Value

[Output](#)

PWM output object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

Board.Servo Method

Factory function for creating servo outputs.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output Servo(
    int channel,
    double position = 0
)
```

Parameters

channel [Int32](#)

PCA9685 output channel number.

position [Double](#) (Optional)

Initial servo position.>

Return Value

[Output](#)

Servo output object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

Board.DefaultAddress Field

Default I²C slave address.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte DefaultAddress = 64
```

Field Value

Byte

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.PWM Namespace](#)

IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace

Mikroelektronika 7Seg Click MIKROE-1201 Services

Classes

<u>Board</u>	Encapsulates the Mikroelektronika 7Seg Click Board. <u>MIKROE-1201</u> .
------------------------------	--

Enumerations

<u>Board.Base</u>	Numeral systems.
<u>Board.ZeroBlanking</u>	Zero blanking modes.

Board Class

Encapsulates the Mikroelektronika 7Seg Click Board. [MIKROE-1201](#).

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Board
```

Inheritance [Object](#) → Board

Remarks

The [MISO](#) pin should be removed from the 7seg click, because it is not tri-state and will interfere with other devices on the same SPI bus.

Constructors

Board	Constructor for a single 7seg click.
-----------------------	--------------------------------------

Properties

blanking	Zero blanking mode. Allowed values are None , Leading , and Full .
brightness	Write-only property for setting the brightness of the display. Allowed values are 0.0 to 100.0 percent.
leftdp	Write-only property for setting the left digit decimal point.
radix	Numerical base or radix. Allowed values are Decimal and Hexadecimal .
rightdp	Write-only property for setting the right digit decimal point.
state	Write-only property for setting the state of the display. Allowed values are 0 to 99 for decimal mode and 0 to 255 for hexadecimal mode.

Methods

Clear	Clear the display.
Reset	Issue hardware reset to the 74HC595 shift register chain.

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board Constructor

Constructor for a single 7seg click.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board(
    int socket,
    Board.Base radix = Board.Base.Decimal,
    Board.ZeroBlanking blanking = Board.ZeroBlanking.None,
    int pwmfreq = 100,
    Device remdev = null
)
```

Parameters

socket [Int32](#)

mikroBUS socket number.

radix [Board.Base](#) (Optional)

Numerical base or radix. Allowed values are [Decimal](#) and [Hexadecimal](#).

blanking [Board.ZeroBlanking](#) (Optional)

Zero blanking. Allowed values are [None](#), [Leading](#), and [Full](#).

pwmfreq [Int32](#) (Optional)

PWM frequency. Set to zero to use GPIO instead of PWM.

remdev [Device](#) (Optional)

Remote I/O server device object.

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.blanking Property

Zero blanking mode. Allowed values are [None](#), [Leading](#), and [Full](#).

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board.ZeroBlanking blanking { get; set; }
```

Property Value

[Board.ZeroBlanking](#)

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.brightness Property

Write-only property for setting the brightness of the display. Allowed values are 0.0 to 100.0 percent.

Definition

Namespace: [IO.Devices.ClickBoards.RemotelO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double brightness { set; }
```

Property Value

[Double](#)

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemotelO.SevenSegment Namespace](#)

Board.leftdp Property

Write-only property for setting the left digit decimal point.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public bool leftdp { set; }
```

Property Value

Boolean

See Also

Reference

Board Class

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.radix Property

Numerical base or radix. Allowed values are [Decimal](#) and [Hexadecimal](#).

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Board.Base radix { get; set; }
```

Property Value

[Board.Base](#)

See Also

[*Reference*](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.rightdp Property

Write-only property for setting the right digit decimal point.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public bool rightdp { set; }
```

Property Value

Boolean

See Also

Reference

Board Class

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.state Property

Write-only property for setting the state of the display. Allowed values are 0 to 99 for decimal mode and 0 to 255 for hexadecimal mode.

Definition

Namespace: [IO.Devices.ClickBoards.RemotelO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int state { set; }
```

Property Value

[Int32](#)

See Also

[Reference](#)

[Board Class](#)

[IO.Devices.ClickBoards.RemotelO.SevenSegment Namespace](#)

Board.Clear Method

Clear the display.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public void Clear()
```

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.Reset Method

Issue hardware reset to the 74HC595 shift register chain.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public void Reset()
```

See Also

Reference

[Board Class](#)

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.Base Enumeration

Numerical systems.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public enum Base
```

Members

Decimal	0	Base 10.
Hexadecimal	1	Base 16.

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

Board.ZeroBlanking Enumeration

Zero blanking modes.

Definition

Namespace: [IO.Devices.ClickBoards.RemoteIO.SevenSegment](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public enum ZeroBlanking
```

Members

None	0	No zero blanking.
Leading	1	Leading zero blanking.
Full	2	Full zero blanking.

See Also

Reference

[IO.Devices.ClickBoards.RemoteIO.SevenSegment Namespace](#)

[IO.Devices.Grove.ADC Namespace](#)

Seeed Studio Grove I²C ADC (ADC121C021) Services

Classes

[Device](#)

Encapsulates the Seeed Studio Grove I²C ADC (ADC121C021).

Device Class

Encapsulates the Seeed Studio Grove I²C ADC (ADC121C021).

Definition

Namespace: [IO.Devices.Grove.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

[Device](#)

Constructor for a Seeed Studio Grove I²C ADC (ADC121C021).

Properties

[voltage](#)

Read-only property returning an analog input voltage measurement.

See Also

Reference

[IO.Devices.Grove.ADC Namespace](#)

Device Constructor

Constructor for a Seeed Studio Grove I²C ADC (ADC121C021).

Definition

Namespace: [IO.Devices.Grove.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    byte addr = 80
)
```

Parameters

bus [Bus](#)

I²C bus object.

addr [Byte](#) (Optional)

I²C device address.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Grove.ADC Namespace](#)

Device.voltage Property

Read-only property returning an analog input voltage measurement.

Definition

Namespace: [IO.Devices.Grove.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double voltage { get; }
```

Property Value

[Double](#)

See Also

Reference

[Device Class](#)

[IO.Devices.Grove.ADC Namespace](#)

IO.Devices.Grove.Temperature Namespace

Seeed Studio Grove Temperature Sensor (thermistor) Services

Classes

<u>Device</u>	Encapsulates the Seeed Studio Grove Temperature Sensor (thermistor).
-------------------------------	--

Device Class

Encapsulates the Seeed Studio Grove Temperature Sensor (thermistor).

Definition

Namespace: [IO.Devices.Grove.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Device : Sensor
```

Inheritance [Object](#) → Device

Implements [Sensor](#)

Constructors

Device	Constructor for a Seeed Studio Grove Temperature Sensor (thermistor).
------------------------	---

Properties

Celsius	Read-only property returning the temperature in degrees Celsius.
Fahrenheit	Read-only property returning the temperature in degrees Fahrenheit.
Kelvins	Read-only property returning the temperature in Kelvins.

See Also

Reference

[IO.Devices.Grove.Temperature Namespace](#)

Device Constructor

Constructor for a Seeed Studio Grove Temperature Sensor (thermistor).

Definition

Namespace: [IO.Devices.Grove.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Voltage Vin,
    double Vcc = 3.3
)
```

Parameters

Vin [Voltage](#)

Voltage input object.

Vcc [Double](#) (Optional)

Reference voltage.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Grove.Temperature Namespace](#)

Device.Celsius Property

Read-only property returning the temperature in degrees Celsius.

Definition

Namespace: [IO.Devices.Grove.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Celsius { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Celsius](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Grove.Temperature Namespace](#)

Device.Fahrenheit Property

Read-only property returning the temperature in degrees Fahrenheit.

Definition

Namespace: [IO.Devices.Grove.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Fahrenheit { get; }
```

Property Value

Double

Implements

[Sensor.Fahrenheit](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Grove.Temperature Namespace](#)

Device.Kelvins Property

Read-only property returning the temperature in Kelvins.

Definition

Namespace: [IO.Devices.Grove.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Kelvins { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Kelvins](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Grove.Temperature Namespace](#)

IO.Devices.Grove.Temperature_Humidity Namespace

Seeed Studio Grove Temperature and Humdity Sensor (TH02) Services.

Classes

<u>Device</u>	Encapsulate the Seeed Studio Grove Temperature and Humidity Sensor (TH02).
-------------------------------	--

Device Class

Encapsulate the Seeed Studio Grove Temperature and Humidity Sensor (TH02).

Definition

Namespace: [IO.Devices.Grove.Temperature_Humidity](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Device : Device
```

Inheritance [Object](#) → [Device](#) → [Device](#)

Constructors

Device	Constructor for a Seeed Studio Grove Temperature and Humidity Sensor (TH02).
------------------------	--

See Also

Reference

[IO.Devices.Grove.Temperature_Humidity Namespace](#)

Device Constructor

Constructor for a Seeed Studio Grove Temperature and Humidity Sensor (TH02).

Definition

Namespace: [IO.Devices.Grove.Temperature_Humidity](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus
)
```

Parameters

bus [Bus](#)
I² bus object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Grove.Temperature_Humidity Namespace](#)

IO.Devices.HDC1080 Namespace

HDC1080 I²C Temperature/Humidity Sensor Services

Classes

[Device](#)

Encapsulates the HDC1080 temperature and humidity sensor.

Device Class

Encapsulates the HDC1080 temperature and humidity sensor.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Device : Sensor, Sensor
```

Inheritance [Object](#) → Device

Derived [IO.Devices.Pmod.HYGRO.Device](#)

Implements [Sensor](#), [Sensor](#)

Constructors

Device	Constructor for an HDC1080 temperature and humidity sensor object.
------------------------	--

Properties

Celsius	Read-only property returning the temperature in degrees Celsius.
DeviceID	Read-only property returning the device ID.
Fahrenheit	Read-only property returning the temperature in degrees Fahrenheit.
Humidity	Read-only property returning the percentage relative humidity.
Kelvins	Read-only property returning the temperature in Kelvins.
ManufacturerID	Read-only property returning the manufacturer ID.

Methods

Read	Read from an HDC1080 device register.
Write	Write to an HDC1080 device register.

Fields

RegConfiguration	Configuration Register address.
RegDeviceID	Device ID Register address.
RegHumidity	Humidity Register address.
RegManufacturerID	Manufacturer ID Register address.
RegSerialNumberFirst	Serial Number First Bits Register address.
RegSerialNumberLast	Serial Number Last Bits Register address.
RegSerialNumberMid	Serial Number Middle Bits Register address.

[RegTemperature](#)

Temperature Register address.

See Also

Reference

[IO.Devices.HDC1080 Namespace](#)

Device Constructor

Constructor for an HDC1080 temperature and humidity sensor object.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus
)
```

Parameters

bus [Bus](#)

I²C bus controller.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.Celsius Property

Read-only property returning the temperature in degrees Celsius.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Celsius { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Celsius](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.DeviceID Property

Read-only property returning the device ID.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public ushort DeviceID { get; }
```

Property Value

[UInt16](#)

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.Fahrenheit Property

Read-only property returning the temperature in degrees Fahrenheit.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Fahrenheit { get; }
```

Property Value

Double

Implements

[Sensor.Fahrenheit](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.Humidity Property

Read-only property returning the percentage relative humidity.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public double Humidity { get; }
```

Property Value

Double

Implements

Sensor.Humidity.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.Kelvins Property

Read-only property returning the temperature in Kelvins.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Kelvins { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Kelvins](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.ManufacturerID Property

Read-only property returning the manufacturer ID.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public ushort ManufacturerID { get; }
```

Property Value

[UInt16](#)

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.Read Method

Read from an HDC1080 device register.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public ushort Read(
    byte reg
)
```

Parameters

reg [Byte](#)

8-bit register address.

Return Value

[UInt16](#)

16-bit register data

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.Write Method

Write to an HDC1080 device register.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    byte reg,
    ushort data
)
```

Parameters

reg [Byte](#)

8-bit register address.

data [UInt16](#)

16-bit register data.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegConfiguration Field

Configuration Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte RegConfiguration = 2
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegDeviceID Field

Device ID Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const byte RegDeviceID = 255
```

Field Value

[Byte](#)

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegHumidity Field

Humidity Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte RegHumidity = 1
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegManufacturerID Field

Manufacturer ID Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const byte RegManufacturerID = 254
```

Field Value

[Byte](#)

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegSerialNumberFirst Field

Serial Number First Bits Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte RegSerialNumberFirst = 251
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegSerialNumberLast Field

Serial Number Last Bits Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte RegSerialNumberLast = 253
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegSerialNumberMid Field

Serial Number Middle Bits Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const byte RegSerialNumberMid = 252
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

Device.RegTemperature Field

Temperature Register address.

Definition

Namespace: [IO.Devices.HDC1080](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte RegTemperature = 0
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.HDC1080 Namespace](#)

IO.Devices.MCP23017 Namespace

MCP23017 I²C GPIO Expander Device Services.

Classes

[Device](#)

Encapsulates the MCP23017 I²C I/O GPIO Expander.

Device Class

Encapsulates the MCP23017 I²C I/O GPIO Expander.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a single MCP23017 device.
------------------------	---

Properties

Direction	Data Direction Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.
DirectionA	Port A Data Direction Property (8 bits). For each bit, 0=input and 1=output.
DirectionB	Port B Data Direction Property (8 bits). For each bit, 0=input and 1=output.
Polarity	Data Polarity Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.
PolarityA	Port A Data Polarity Property (8 bits). For each bit, 0=input and 1=output.
PolarityB	Port B Data Polarity Property (8 bits). For each bit, 0=input and 1=output.
Port	Port Data Property (16 bites). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B.
PortA	Port A Data Property (8 bits).
PortB	Port B Data Property (8 bits).
Pullups	Input Pullup Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=high impedance and 1=100k pullup.
PullupsA	Port A Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.
PullupsB	Port B Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.

Methods

<u>GPIO_Create</u>	Create an MCP23017 GPIO pin object.
------------------------------------	-------------------------------------

Fields

<u>MaxChannel</u>	Maximum I/O channel number.
<u>MinChannel</u>	Minimum I/O channel number.

See Also

Reference

[IO.Devices.MCP23017 Namespace](#)

Device Constructor

Constructor for a single MCP23017 device.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    int addr
)
```

Parameters

bus [Bus](#)

I²C bus controller object.

addr [Int32](#)

I²C slave address.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.Direction Property

Data Direction Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Direction { get; set; }
```

Property Value

[UInt32](#)

Remarks

This property follows the industry standard convention for data direction bit polarity (1=output) rather than the MCP23017 [IODIR](#) register polarity (0=output).

See Also

[*Reference*](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.DirectionA Property

Port A Data Direction Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte DirectionA { get; set; }
```

Property Value

Byte

Remarks

This property follows the industry standard convention for data direction bit polarity (1=output) rather than the MCP23017 [IODIRA](#) register polarity (0=output).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.DirectionB Property

Port B Data Direction Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte DirectionB { get; set; }
```

Property Value

Byte

Remarks

This property follows the industry standard convention for data direction bit polarity (1=output) rather than the MCP23017 [IODIRA](#) register polarity (0=output).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.Polarity Property

Data Polarity Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Polarity { get; set; }
```

Property Value

[UInt32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.PolarityA Property

Port A Data Polarity Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte PolarityA { get; set; }
```

Property Value

Byte

See Also

Reference

Device Class

[IO.Devices.MCP23017 Namespace](#)

Device.PolarityB Property

Port B Data Polarity Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte PolarityB { get; set; }
```

Property Value

[Byte](#)

[See Also](#)

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.Port Property

Port Data Property (16 bites). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Port { get; set; }
```

Property Value

[UInt32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.PortA Property

Port A Data Property (8 bits).

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PortA { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.PortB Property

Port B Data Property (8 bits).

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PortB { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.Pullups Property

Input Pullup Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=high impedance and 1=100k pullup.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Pullups { get; set; }
```

Property Value

[UInt32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.PullupsA Property

Port A Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PullupsA { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.PullupsB Property

Port B Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PullupsB { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.GPIO_Create Method

Create an MCP23017 GPIO pin object.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO_Create(
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

channel [Int32](#)

MCP23017 channel number (0 to 15).

dir [Direction](#)

GPIO pin data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.MaxChannel Field

Maximum I/O channel number.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int MaxChannel = 15
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

Device.MinChannel Field

Minimum I/O channel number.

Definition

Namespace: [IO.Devices.MCP23017](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int MinChannel = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23017 Namespace](#)

IO.Devices.MCP23017.GPIO Namespace

MCP23017 I²C GPIO Expander GPIO Pin Services.

Classes

Pin	Encapsulates MCP23017 GPIO pins.
---------------------	----------------------------------

Pin Class

Encapsulates MCP23017 GPIO pins.

Definition

Namespace: [IO.Devices.MCP23017.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

Pin	Create a single MCP23017 GPIO pin.
---------------------	------------------------------------

Properties

state	Read/Write GPIO state property.
-----------------------	---------------------------------

See Also

Reference

[IO.Devices.MCP23017.GPIO Namespace](#)

Pin Constructor

Create a single MCP23017 GPIO pin.

Definition

Namespace: [IO.Devices.MCP23017.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

dev [Device](#)

MCP23017 device object.

channel [Int32](#)

MCP23017 I/O channel number.

dir [Direction](#)

GPIO pin data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.MCP23017.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Devices.MCP23017.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

[Pin.state](#)

See Also

[*Reference*](#)

[Pin Class](#)

[IO.Devices.MCP23017.GPIO Namespace](#)

[IO.Devices.MCP23S17 Namespace](#)

MCP23S17 SPI GPIO Expander Device Services.

Classes

<u>Device</u>	Encapsulates the MCP23S17 SPI I/O GPIO Expander.
-------------------------------	--

Device Class

Encapsulates the MCP23S17 SPI I/O GPIO Expander.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a single MCP23S17 device.
------------------------	---

Properties

Direction	Data Direction Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.
DirectionA	Port A Data Direction Property (8 bits). For each bit, 0=input and 1=output.
DirectionB	Port B Data Direction Property (8 bits). For each bit, 0=input and 1=output.
Polarity	Data Polarity Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.
PolarityA	Port A Data Polarity Property (8 bits). For each bit, 0=input and 1=output.
PolarityB	Port B Data Polarity Property (8 bits). For each bit, 0=input and 1=output.
Port	Port Data Property (16 bites). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B.
PortA	Port A Data Property (8 bits).
PortB	Port B Data Property (8 bits).
Pullups	Input Pullup Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=high impedance and 1=100k pullup.
PullupsA	Port A Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.
PullupsB	Port B Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.

Methods

<u>GPIO_Create</u>	Create an MCP23S17 GPIO pin object.
------------------------------------	-------------------------------------

Fields

<u>MaxChannel</u>	Maximum I/O channel number.
<u>MinChannel</u>	Minimum I/O channel number.
<u>SPI_Frequency</u>	SPI maximum clock frequency in Hz.
<u>SPI_Mode</u>	SPI transfer mode.
<u>SPI_WordSize</u>	SPI transaction word size.

See Also

Reference

[IO.Devices.MCP23S17 Namespace](#)

Device Constructor

Constructor for a single MCP23S17 device.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Device dev
)
```

Parameters

dev [Device](#)

SPI slave device object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.Direction Property

Data Direction Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Direction { get; set; }
```

Property Value

[UInt32](#)

Remarks

This property follows the industry standard convention for data direction bit polarity (1=output) rather than the MCP23S17 [IODIR](#) register polarity (0=output).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.DirectionA Property

Port A Data Direction Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte DirectionA { get; set; }
```

Property Value

Byte

Remarks

This property follows the industry standard convention for data direction bit polarity (1=output) rather than the MCP23S17 [IODIRA](#) register polarity (0=output).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.DirectionB Property

Port B Data Direction Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte DirectionB { get; set; }
```

Property Value

Byte

Remarks

This property follows the industry standard convention for data direction bit polarity (1=output) rather than the MCP23S17 [IODIRA](#) register polarity (0=output).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.Polarity Property

Data Polarity Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Polarity { get; set; }
```

Property Value

[UInt32](#)

See Also

[*Reference*](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.PolarityA Property

Port A Data Polarity Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte PolarityA { get; set; }
```

Property Value

Byte

See Also

Reference

Device Class

[IO.Devices.MCP23S17 Namespace](#)

Device.PolarityB Property

Port B Data Polarity Property (8 bits). For each bit, 0=input and 1=output.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte PolarityB { get; set; }
```

Property Value

Byte

See Also

Reference

Device Class

[IO.Devices.MCP23S17 Namespace](#)

Device.Port Property

Port Data Property (16 bites). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Port { get; set; }
```

Property Value

[UInt32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.PortA Property

Port A Data Property (8 bits).

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PortA { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.PortB Property

Port B Data Property (8 bits).

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PortB { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.Pullups Property

Input Pullup Property (16 bits). Bits 0 to 7 correspond to PORT A and bits 8 to 15 correspond to PORT B. For each bit, 0=high impedance and 1=100k pullup.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public uint Pullups { get; set; }
```

Property Value

[UInt32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.PullupsA Property

Port A Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PullupsA { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.PullupsB Property

Port B Input Pullup Property (16 bits). For each bit, 0=high impedance and 1=100k pullup.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte PullupsB { get; set; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.GPIO_Create Method

Create an MCP23S17 GPIO pin object.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO_Create(
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

channel [Int32](#)

MCP23S17 channel number (0 to 15).

dir [Direction](#)

GPIO pin data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.MaxChannel Field

Maximum I/O channel number.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int MaxChannel = 15
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.MinChannel Field

Minimum I/O channel number.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int MinChannel = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.SPI_Frequency Field

SPI maximum clock frequency in Hz.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int SPI_Frequency = 10000000
```

Field Value

[Int32](#)

Remarks

Guaranteed only for 2.7V to 5.5V and -40°C to +85°C.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.SPI_Mode Field

SPI transfer mode.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int SPI_Mode = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

Device.SPI_WordSize Field

SPI transaction word size.

Definition

Namespace: [IO.Devices.MCP23S17](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int SPI_WordSize = 8
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.MCP23S17 Namespace](#)

[IO.Devices.MCP23S17.GPIO Namespace](#)

MCP23S17 SPI GPIO Expander GPIO Pin Services.

Classes

[Pin](#)

Encapsulates MCP23S17 GPIO pins.

Pin Class

Encapsulates MCP23S17 GPIO pins.

Definition

Namespace: [IO.Devices.MCP23S17.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

Pin	Create a single MCP23S17 GPIO pin.
---------------------	------------------------------------

Properties

state	Read/Write GPIO state property.
-----------------------	---------------------------------

See Also

Reference

[IO.Devices.MCP23S17.GPIO Namespace](#)

Pin Constructor

Create a single MCP23S17 GPIO pin.

Definition

Namespace: [IO.Devices.MCP23S17.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int channel,
    Direction dir,
    bool state = false
)
```

Parameters

dev [Device](#)

MCP23S17 device object.

channel [Int32](#)

MCP23S17 I/O channel number.

dir [Direction](#)

GPIO pin data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.MCP23S17.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Devices.MCP23S17.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

Pin.state

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.MCP23S17.GPIO Namespace](#)

IO.Devices.PCA8574 Namespace

PCA8574 (and similar) I²C GPIO Expander Device Services

Classes

[Device](#)

Encapsulates PCA8574 (and similar) I²C GPIO Expanders.

Device Class

Encapsulates PCA8574 (and similar) I²C GPIO Expanders.

Definition

Namespace: [IO.Devices.PCA8574](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a PCA8574 (or similar) GPIO Expander.
------------------------	---

Properties

Latch	This read-only property returns the last value written to the output latch.
-----------------------	---

Methods

Read	Return actual state of the GPIO pins.
----------------------	---------------------------------------

Write	Write all GPIO pins.
-----------------------	----------------------

Fields

MAX_PINS	The number of available GPIO pins per chip.
--------------------------	---

See Also

Reference

[IO.Devices.PCA8574 Namespace](#)

Device Constructor

Constructor for a PCA8574 (or similar) GPIO Expander.

Definition

Namespace: [IO.Devices.PCA8574](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    int addr,
    byte states = 255
)
```

Parameters

bus [Bus](#)

I²C bus controller.

addr [Int32](#)

I²C slave address.

states [Byte](#) (Optional)

Initial output states.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA8574 Namespace](#)

Device.Latch Property

This read-only property returns the last value written to the output latch.

Definition

Namespace: [IO.Devices.PCA8574](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte Latch { get; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA8574 Namespace](#)

Device.Read Method

Return actual state of the GPIO pins.

Definition

Namespace: [IO.Devices.PCA8574](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte Read()
```

Return Value

Byte

Pin states (MSB = GPIO7).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA8574 Namespace](#)

Device.Write Method

Write all GPIO pins.

Definition

Namespace: [IO.Devices.PCA8574](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    byte data
)
```

Parameters

data [Byte](#)

Data to write to pins (MSB = GPIO7).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA8574 Namespace](#)

Device.MAX_PINS Field

The number of available GPIO pins per chip.

Definition

Namespace: [IO.Devices.PCA8574](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int MAX_PINS = 8
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA8574 Namespace](#)

IO.Devices.PCA8574.GPIO Namespace

PCA8574 (and similar) I²C GPIO Expander GPIO Pin Services

Classes

[Pin](#)

Encapsulates PCA8574 (and similar) I²C GPIO Expander pins.

Pin Class

Encapsulates PCA8574 (and similar) I²C GPIO Expander pins.

Definition

Namespace: [IO.Devices.PCA8574.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

[Pin](#)

Constructor for a single GPIO pin.

Properties

[state](#)

Read/Write GPIO state property.

See Also

Reference

[IO.Devices.PCA8574.GPIO Namespace](#)

Pin Constructor

Constructor for a single GPIO pin.

Definition

Namespace: [IO.Devices.PCA8574.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int num,
    Direction dir,
    bool state = false
)
```

Parameters

dev [Device](#)

PCA8574 (or similar) device.

num [Int32](#)

GPIO pin number.

dir [Direction](#)

Data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.PCA8574.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Devices.PCA8574.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

Pin.state

See Also

Reference

Pin Class

IO.Devices.PCA8574.GPIO Namespace

IO.Devices.PCA9534 Namespace

PCA9534 (and similar) I²C GPIO Expander Device Services

Classes

[Device](#)

Encapsulates PCA9534 (and similar) I²C GPIO Expanders.

Device Class

Encapsulates PCA9534 (and similar) I²C GPIO Expanders.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a PCA9534 (or similar) GPIO Expander.
------------------------	---

Properties

Config	This read-only property returns the last value written to the configuration register.
Latch	This read-only property returns the last value written to the output port register.

Methods

Read()	Return actual state of the GPIO pins.
Read(Byte)	Read from the specified PCA9534 device register.
Write(Byte)	Write all GPIO pins.
Write(Byte, Byte)	Write to the specified PCA9534 device register.

Fields

AllInputs	Configure all pins as inputs.
AllNormal	Configure all inputs as normal polarity.
AllOff	Turn all outputs off.
AllOutputs	Configure all pins as outputs.
ConfigurationReg	Configuration Register address.
InputPolarityReg	Input Port Polarity Register address.
InputPortReg	Input Port Register address.
MAX_PINS	The number of available GPIO pins per chip.
OutputPortReg	Output Port Register address.

See Also

Reference

[IO.Devices.PCA9534 Namespace](#)

Device Constructor

Constructor for a PCA9534 (or similar) GPIO Expander.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    int addr,
    byte config = 255,
    byte states = 0
)
```

Parameters

bus [Bus](#)

I²C bus controller.

addr [Int32](#)

I²C slave address.

config [Byte](#) (Optional)

GPIO pin configuration.

states [Byte](#) (Optional)

Initial output states.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.Config Property

This read-only property returns the last value written to the configuration register.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte Config { get; }
```

Property Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.Latch Property

This read-only property returns the last value written to the output port register.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte Latch { get; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.Read Method

Return actual state of the GPIO pins.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte Read()
```

Return Value

Byte

Pin states (MSB = GPIO7).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.Read(Byte) Method

Read from the specified PCA9534 device register.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte Read(
    byte addr
)
```

Parameters

addr [Byte](#)

Register address.

Return Value

[Byte](#)

Register contents.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.Write(Byte) Method

Write all GPIO pins.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    byte data
)
```

Parameters

data [Byte](#)

Data to write to pins (MSB = GPIO7).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.Write(Byte, Byte) Method

Write to the specified PCA9534 device register.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    byte addr,
    byte data
)
```

Parameters

addr [Byte](#)

Register address.

data [Byte](#)

Data to written.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.AllInputs Field

Configure all pins as inputs.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const byte AllInputs = 255
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.AllNormal Field

Configure all inputs as normal polarity.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte AllNormal = 0
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.AllOff Field

Turn all outputs off.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte AllOff = 0
```

Field Value

[Byte](#)

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.AllOutputs Field

Configure all pins as outputs.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte AllOutputs = 0
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.ConfigurationReg Field

Configuration Register address.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte ConfigurationReg = 3
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.InputPolarityReg Field

Input Port Polarity Register address.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const byte InputPolarityReg = 2
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.InputPortReg Field

Input Port Register address.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte InputPortReg = 0
```

Field Value

Byte

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.MAX_PINS Field

The number of available GPIO pins per chip.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int MAX_PINS = 8
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

Device.OutputPortReg Field

Output Port Register address.

Definition

Namespace: [IO.Devices.PCA9534](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const byte OutputPortReg = 1
```

Field Value

[Byte](#)

See Also

Reference

[Device Class](#)

[IO.Devices.PCA9534 Namespace](#)

IO.Devices.PCA9534.GPIO Namespace

PCA9534 (and similar) I²C GPIO Expander GPIO Pin Services

Classes

[Pin](#)

Encapsulates PCA9534 (and similar) I²C GPIO Expander pins.

Pin Class

Encapsulates PCA9534 (and similar) I²C GPIO Expander pins.

Definition

Namespace: [IO.Devices.PCA9534.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

[Pin](#)

Constructor for a single GPIO pin.

Properties

[state](#)

Read/Write GPIO state property.

See Also

Reference

[IO.Devices.PCA9534.GPIO Namespace](#)

Pin Constructor

Constructor for a single GPIO pin.

Definition

Namespace: [IO.Devices.PCA9534.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int num,
    Direction dir,
    bool state = false
)
```

Parameters

dev [Device](#)

PCA9534 (or similar) device.

num [Int32](#)

GPIO pin number.

dir [Direction](#)

Data direction.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.PCA9534.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Devices.PCA9534.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

[Pin.state](#)

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.PCA9534.GPIO Namespace](#)

IO.Devices.PCA9685 Namespace

PCA9685 I²C PWM Controller Device Services

Classes

[Device](#)

Encapsulates the PCA9685 I²C PWM Controller.

Device Class

Encapsulates the PCA9685 I²C PWM Controller.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a single PCA9685 device.
------------------------	--

Properties

Frequency	Read-only property returning the configured PWM pulse frequency.
---------------------------	--

Methods

ReadChannel	Read PCA9685 output channel data.
-----------------------------	-----------------------------------

WriteChannel	Write PCA9685 output channel data.
------------------------------	------------------------------------

Fields

INTERNAL_CLOCK	Select internal 25 MHz clock oscillator.
--------------------------------	--

MAX_CHANNEL	Maximum PCA9685 output channel number.
-----------------------------	--

MAX_CLOCK	Maximum clock frequency.
---------------------------	--------------------------

MIN_CHANNEL	Minimum PCA9685 output channel number.
-----------------------------	--

MIN_CLOCK	Minimum clock frequency.
---------------------------	--------------------------

See Also

Reference

[IO.Devices.PCA9685 Namespace](#)

Device Constructor

Constructor for a single PCA9685 device.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    int addr,
    int freq = 50,
    int clock = 0
)
```

Parameters

bus [Bus](#)

I²C bus controller object.

addr [Int32](#)

I²C slave address.

freq [Int32](#) (Optional)

PWM pulse frequency. Default is 50 Hz.

clock [Int32](#) (Optional)

PCA9685 clock source. Use [INTERNAL_CLOCK](#) to select the internal 25 MHz clock generator.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.Frequency Property

Read-only property returning the configured PWM pulse frequency.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int Frequency { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.ReadChannel Method

Read PCA9685 output channel data.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void ReadChannel(
    byte channel,
    ref byte[] data
)
```

Parameters

channel [Byte](#)

Output channel number.

data [Byte](#)[]

Output channel data (4 bytes).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.WriteChannel Method

Write PCA9685 output channel data.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void WriteChannel(
    byte channel,
    byte[] data
)
```

Parameters

channel [Byte](#)

Output channel number.

data [Byte](#)[]

Output channel data.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.INTERNAL_CLOCK Field

Select internal 25 MHz clock oscillator.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int INTERNAL_CLOCK = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.MAX_CHANNEL Field

Maximum PCA9685 output channel number.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int MAX_CHANNEL = 15
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.MAX_CLOCK Field

Maximum clock frequency.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int MAX_CLOCK = 50000000
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.MIN_CHANNEL Field

Minimum PCA9685 output channel number.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int MIN_CHANNEL = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

Device.MIN_CLOCK Field

Minimum clock frequency.

Definition

Namespace: [IO.Devices.PCA9685](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int MIN_CLOCK = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.PCA9685 Namespace](#)

IO.Devices.PCA9685.GPIO Namespace

PCA9685 I²C PWM Controller GPIO Pin Services

Classes

[Pin](#)

Encapsulates PCA9685 GPIO outputs.

Pin Class

Encapsulates PCA9685 GPIO outputs.

Definition

Namespace: [IO.Devices.PCA9685.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

Pin	Constructor for a single GPIO output pin.
---------------------	---

Properties

state	Read/Write GPIO output state property.
-----------------------	--

See Also

Reference

[IO.Devices.PCA9685.GPIO Namespace](#)

Pin Constructor

Constructor for a single GPIO output pin.

Definition

Namespace: [IO.Devices.PCA9685.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int channel,
    bool state = false
)
```

Parameters

dev [Device](#)

PCA9685 device object.

channel [Int32](#)

Output channel number.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.PCA9685.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO output state property.

Definition

Namespace: [IO.Devices.PCA9685.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

[Pin.state](#)

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.PCA9685.GPIO Namespace](#)

IO.Devices.PCA9685.PWM Namespace

PCA9685 I²C PWM Controller PWM Output Services

Classes

[Output](#)

Encapsulates PCA9685 PWM outputs.

Output Class

Encapsulates PCA9685 PWM outputs.

Definition

Namespace: [IO.Devices.PCA9685.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Output : Output
```

Inheritance [Object](#) → Output

Implements [Output](#)

Constructors

Output	Constructor for a single PWM output.
------------------------	--------------------------------------

Properties

dutycycle	Write-only property for setting the PWM output duty cycle. Allowed values are 0.0 to 100.0 percent.
---------------------------	---

See Also

Reference

[IO.Devices.PCA9685.PWM Namespace](#)

Output Constructor

Constructor for a single PWM output.

Definition

Namespace: [IO.Devices.PCA9685_PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Device dev,
    int channel,
    double dutycycle = 0
)
```

Parameters

dev [Device](#)

PCA9685 device object.

channel [Int32](#)

Output channel number.

dutycycle [Double](#) (Optional)

Initial PWM output duty cycle.

See Also

[Reference](#)

[Output Class](#)

[IO.Devices.PCA9685_PWM Namespace](#)

Output.dutycycle Property

Write-only property for setting the PWM output duty cycle. Allowed values are 0.0 to 100.0 percent.

Definition

Namespace: [IO.Devices.PCA9685.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double dutycycle { set; }
```

Property Value

[Double](#)

Implements

[Output.dutycycle](#)

See Also

Reference

[Output Class](#)

[IO.Devices.PCA9685.PWM Namespace](#)

IO.Devices.PCA9685.Servo Namespace

PCA9685 I²C PWM Controller Servo Output Services

Classes

[Output](#)

Encapsulates PCA9685 servo outputs.

Output Class

Encapsulates PCA9685 servo outputs.

Definition

Namespace: [IO.Devices.PCA9685.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Output : Output
```

Inheritance [Object](#) → Output

Implements [Output](#)

Constructors

Output	Constructor for a single servo output.
------------------------	--

Properties

position	Write-only property for setting the normalized servo position. Allowed values are -0.0 to+1.0.
--------------------------	--

See Also

Reference

[IO.Devices.PCA9685.Servo Namespace](#)

Output Constructor

Constructor for a single servo output.

Definition

Namespace: [IO.Devices.PCA9685.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Device dev,
    int channel,
    double position = 0
)
```

Parameters

dev [Device](#)

PCA9685 device object.

channel [Int32](#)

Output channel number.

position [Double](#) (Optional)

Initial servo position.

See Also

[Reference](#)

[Output Class](#)

[IO.Devices.PCA9685.Servo Namespace](#)

Output.position Property

Write-only property for setting the normalized servo position. Allowed values are -0.0 to +1.0.

Definition

Namespace: [IO.Devices.PCA9685.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double position { set; }
```

Property Value

[Double](#)

Implements

[Output.position](#)

See Also

[*Reference*](#)

[Output Class](#)

[IO.Devices.PCA9685.Servo Namespace](#)

IO.Devices.Pmod.HYGRO Namespace

Digilent Pmod HYGRO Temperature and Humdity Sensor (HDC1080) Services.

Classes

<u>Device</u>	Encapsulate the Digilent Pmod HYGRO Temperature and Humidity Sensor (HDC1080).
-------------------------------	--

Device Class

Encapsulate the Digilent Pmod HYGRO Temperature and Humidity Sensor (HDC1080).

Definition

Namespace: [IO.Devices.Pmod.HYGRO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Device : Device
```

Inheritance [Object](#) → [Device](#) → [Device](#)

Constructors

Device	Constructor for a Digilent Pmod HYGRO Temperature and Humidity Sensor (HDC1080).
------------------------	--

See Also

Reference

[IO.Devices.Pmod.HYGRO Namespace](#)

Device Constructor

Constructor for a Digilent Pmod HYGRO Temperature and Humidity Sensor (HDC1080).

Definition

Namespace: [IO.Devices.Pmod.HYGRO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus
)
```

Parameters

bus [Bus](#)
I² bus object.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.Pmod.HYGRO Namespace](#)

IO.Devices.SN74HC595 Namespace

SN74HC595 8-Bit Shift Register Device Services

Classes

<u>Device</u>	Encapsulates a chain of one or more SN74HC595 8-bit shift registers.
-------------------------------	--

Device Class

Encapsulates a chain of one or more SN74HC595 8-bit shift registers.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Constructor for a chain of one or more SN74HC595 shift registers.
------------------------	---

Properties

Length	Read-only property returning the number of stages in the chain.
state	Read/Write shift register chain state property.

Methods

ClrBit	Clear a single bit in the shift register chain.
ReadBit	Read a single bit in the shift register chain.
SetBit	Set a single bit in the shift register chain.

Fields

SPI_MaxFreq	SPI maximum clock frequency for the SNHC74HC595 shift register. (Most pessimistic datasheet limit at 2V.)
SPI_Mode	SPI clock mode for the SNHC74HC595 shift register.

See Also

Reference

[IO.Devices.SN74HC595 Namespace](#)

Device Constructor

Constructor for a chain of one or more SN74HC595 shift registers.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Device dev,
    int stages = 1,
    byte[] initialstate = null
)
```

Parameters

dev [Device](#)

SPI device object.

stages [Int32](#) (Optional)

Number of stages in the chain.

initialstate [Byte\[\]](#) (Optional)

Initial shift register chain state.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.Length Property

Read-only property returning the number of stages in the chain.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

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

Property Value

[Int32](#)

See Also

Reference

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.state Property

Read/Write shift register chain state property.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public byte[] state { get; set; }
```

Property Value

[Byte\[\]](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.ClrBit Method

Clear a single bit in the shift register chain.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void ClrBit(
    int index,
    byte mask
)
```

Parameters

index [Int32](#)

Shift register stage number. Zero indicates the first register stage.

mask [Byte](#)

Shift register bit mask.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.ReadBit Method

Read a single bit in the shift register chain.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public bool ReadBit(
    int index,
    byte mask
)
```

Parameters

index [Int32](#)

Shift register stage number. Zero indicates the first register stage.

mask [Byte](#)

Shift register bit mask.

Return Value

[Boolean](#)

Boolean bit value.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.SetBit Method

Set a single bit in the shift register chain.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void SetBit(
    int index,
    byte mask
)
```

Parameters

index [Int32](#)

Shift register stage number. Zero indicates the first register stage.

mask [Byte](#)

Shift register bit mask.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.SPI_MaxFreq Field

SPI maximum clock frequency for the SNHC74HC595 shift register. (Most pessimistic datasheet limit at 2V.)

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI_MaxFreq = 4000000
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

Device.SPI_Mode Field

SPI clock mode for the SNHC74HC595 shift register.

Definition

Namespace: [IO.Devices.SN74HC595](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int SPI_Mode = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.SN74HC595 Namespace](#)

IO.Devices.SN74HC595.GPIO Namespace

SN74HC595 8-Bit Shift Register GPIO Pin Services

Classes

[Pin](#)

Encapsulates SN74HC595 GPIO outputs.

Pin Class

Encapsulates SN74HC595 GPIO outputs.

Definition

Namespace: [IO.Devices.SN74HC595.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Constructors

Pin	Constructor for a single GPIO output pin.
---------------------	---

Properties

state	Read/Write GPIO pin state property.
-----------------------	-------------------------------------

See Also

Reference

[IO.Devices.SN74HC595.GPIO Namespace](#)

Pin Constructor

Constructor for a single GPIO output pin.

Definition

Namespace: [IO.Devices.SN74HC595.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Device dev,
    int pos,
    bool state = false
)
```

Parameters

dev [Device](#)

SN74HC595 device object.

pos [Int32](#)

Bit position, numbered left to right. Zero indicates the most significant bit of the first shift register stage.

state [Boolean](#) (Optional)

Initial GPIO output state.

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.SN74HC595.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO pin state property.

Definition

Namespace: [IO.Devices.SN74HC595.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

[Pin.state](#)

See Also

[Reference](#)

[Pin Class](#)

[IO.Devices.SN74HC595.GPIO Namespace](#)

IO.Devices.TH02 Namespace

TH02 I²C Temperature/Humidity Sensor Services

Classes

[Device](#)

Encapsulates the TH02 temperature and humidity sensor.

Device Class

Encapsulates the TH02 temperature and humidity sensor.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Device : Sensor, Sensor
```

Inheritance [Object](#) → Device

Derived [IO.Devices.Grove.Temperature_Humidity.Device](#)

Implements [Sensor](#), [Sensor](#)

Constructors

Device	Constructor for an TH02 temperature and humidity sensor object.
------------------------	---

Properties

Celsius	Read-only property returning the temperature in degrees Celsius.
DeviceID	Read-only property returning the device ID.
Fahrenheit	Read-only property returning the temperature in degrees Fahrenheit.
Humidity	Read-only property returning the percentage relative humidity.
Kelvins	Read-only property returning the temperature in Kelvins.

See Also

Reference

[IO.Devices.TH02 Namespace](#)

Device Constructor

Constructor for an TH02 temperature and humidity sensor object.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus
)
```

Parameters

bus [Bus](#)

I²C bus controller.

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.TH02 Namespace](#)

Device.Celsius Property

Read-only property returning the temperature in degrees Celsius.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Celsius { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Celsius](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.TH02 Namespace](#)

Device.DeviceID Property

Read-only property returning the device ID.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public byte DeviceID { get; }
```

Property Value

[Byte](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.TH02 Namespace](#)

Device.Fahrenheit Property

Read-only property returning the temperature in degrees Fahrenheit.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Fahrenheit { get; }
```

Property Value

Double

Implements

[Sensor.Fahrenheit](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.TH02 Namespace](#)

Device.Humidity Property

Read-only property returning the percentage relative humidity.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public double Humidity { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Humidity](#).

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.TH02 Namespace](#)

Device.Kelvins Property

Read-only property returning the temperature in Kelvins.

Definition

Namespace: [IO.Devices.TH02](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Kelvins { get; }
```

Property Value

[Double](#)

Implements

[Sensor.Kelvins](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Devices.TH02 Namespace](#)

IO.Devices.Thermistor Namespace

Thermistor Modeling Services

Classes

[NTC_B](#)

Encapsulate an NTC thermistor.

NTC_B Class

Encapsulate an NTC thermistor.

Definition

Namespace: [IO.Devices.Thermistor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class NTC_B
```

Inheritance [Object](#) → NTC_B

Constructors

NTC_B	Constructor for a single NTC thermistor object instance.
-----------------------	--

Methods

Kelvins	Kelvin temperature as a function of the thermistor resistance.
-------------------------	--

See Also

Reference

[IO.Devices.Thermistor Namespace](#)

[NTC_B Constructor](#)

Constructor for a single NTC thermistor object instance.

Definition

Namespace: [IO.Devices.Thermistor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public NTC_B(
    double B,
    double R0,
    double T0 = 298.15
)
```

Parameters

B [Double](#)

Thermistor B parameter.

R0 [Double](#)

Thermistor resistance in ohms at the specified reference temperature.

T0 [Double](#) (Optional)

Thermistor reference temperature in Kelvins.

See Also

[Reference](#)

[NTC_B Class](#)

[IO.Devices.Thermistor Namespace](#)

NTC_B.Kelvins Method

Kelvin temperature as a function of the thermistor resistance.

Definition

Namespace: [IO.Devices.Thermistor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double Kelvins(
    double R
)
```

Parameters

R Double

Thermistor resistance in ohms.

Return Value

Double

Temperature in Kelvins.

See Also

[Reference](#)

[NTC_B Class](#)

[IO.Devices.Thermistor Namespace](#)

IO.Devices.USB.Munts Namespace

Vendor and Product Identifiers for Munts Technologies (<http://tech.munts.com>) USB devices

Classes

HID	USB device constants for Munts Technologies USB HID devices.
Serial	USB device constants for Munts Technologies USB serial port devices.

HID Class

USB device constants for Munts Technologies USB HID devices.

Definition

Namespace: [IO.Devices.USB.Munts](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class HID
```

Inheritance [Object](#) → HID

Fields

Product	Product ID for Munts Technologies USB hid devices.
Vendor	Vendor ID for Munts Technologies

See Also

Reference

[IO.Devices.USB.Munts Namespace](#)

HID.Product Field

Product ID for Munts Technologies USB hid devices.

Definition

Namespace: [IO.Devices.USB.Munts](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int Product = 2810
```

Field Value

[Int32](#)

See Also

[Reference](#)

[HID Class](#)

[IO.Devices.USB.Munts Namespace](#)

HID.Vendor Field

Vendor ID for Munts Technologies

Definition

Namespace: [IO.Devices.USB.Munts](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int Vendor = 5840
```

Field Value

[Int32](#)

See Also

[Reference](#)

[HID Class](#)

[IO.Devices.USB.Munts Namespace](#)

Serial Class

USB device constants for Munts Technologies USB serial port devices.

Definition

Namespace: [IO.Devices.USB.Munts](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class Serial
```

Inheritance [Object](#) → Serial

Fields

Product	Product ID for Munts Technologies USB serial port devices.
Vendor	Vendor ID for Munts Technologies

See Also

Reference

[IO.Devices.USB.Munts Namespace](#)

Serial.Product Field

Product ID for Munts Technologies USB serial port devices.

Definition

Namespace: [IO.Devices.USB.Munts](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int Product = 2811
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Serial Class](#)

[IO.Devices.USB.Munts Namespace](#)

Serial.Vendor Field

Vendor ID for Munts Technologies

Definition

Namespace: [IO.Devices.USB.Munts](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int Vendor = 5840
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Serial Class](#)

[IO.Devices.USB.Munts Namespace](#)

IO.Interfaces.ADC Namespace

Abstract Interface for ADC (Analog to Digital Converter) Inputs

Classes

<u>Input</u>	Encapsulates ADC voltage inputs.
------------------------------	----------------------------------

Interfaces

<u>Sample</u>	Abstract interface for ADC inputs returning an integer sample value.
-------------------------------	--

<u>Voltage</u>	Abstract interface for ADC inputs returning a floating point voltage value.
--------------------------------	---

Input Class

Encapsulates ADC voltage inputs.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Input : Voltage
```

Inheritance [Object](#) → Input

Implements [Voltage](#)

Constructors

Input	Create an ADC voltage input.
-----------------------	------------------------------

Properties

voltage	Read-only property returning the analog input voltage.
-------------------------	--

See Also

Reference

[IO.Interfaces.ADC Namespace](#)

Input Constructor

Create an ADC voltage input.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Input(
    Sample input,
    double reference,
    double gain = 1
)
```

Parameters

input [Sample](#)

ADC sample object.

reference [Double](#)

ADC reference in volts.

gain [Double](#) (Optional)

ADC input gain in volts per volt.

See Also

[Reference](#)

[Input Class](#)

[IO.Interfaces.ADC Namespace](#)

Input.voltage Property

Read-only property returning the analog input voltage.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public double voltage { get; }
```

Property Value

Double

Implements

Voltage.voltage

See Also

Reference

Input Class

IO.Interfaces.ADC Namespace

Sample Interface

Abstract interface for ADC inputs returning an integer sample value.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public interface Sample
```

Properties

<u>resolution</u>	Read-only property returning the number of bits of resolution.
<u>sample</u>	Read-only property returning an integer analog sample value.

See Also

Reference

[IO.Interfaces.ADC Namespace](#)

Sample.resolution Property

Read-only property returning the number of bits of resolution.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
int resolution { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Sample Interface](#)

[IO.Interfaces.ADC Namespace](#)

Sample.sample Property

Read-only property returning an integer analog sample value.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
int sample { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Sample Interface](#)

[IO.Interfaces.ADC Namespace](#)

Voltage Interface

Abstract interface for ADC inputs returning a floating point voltage value.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public interface Voltage
```

Properties

<u>voltage</u>	Read-only property returning a floating point analog voltage value.
--------------------------------	---

See Also

Reference

[IO.Interfaces.ADC Namespace](#)

Voltage.voltage Property

Read-only property returning a floating point analog voltage value.

Definition

Namespace: [IO.Interfaces.ADC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double voltage { get; }
```

Property Value

[Double](#)

See Also

Reference

[Voltage Interface](#)

[IO.Interfaces.ADC Namespace](#)

IO.Interfaces.DAC Namespace

Abstract Interface for DAC (Digital to Analog Converter) Outputs

Classes

<u>Output</u>	Encapsulates DAC voltage outputs.
-------------------------------	-----------------------------------

Interfaces

<u>Sample</u>	Abstract interface for DAC outputs accepting an integer output sample value.
<u>Voltage</u>	Abstract interface for DAC outputs accepting a floating point output voltage value.

Output Class

Encapsulates DAC voltage outputs.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Output : Voltage
```

Inheritance [Object](#) → Output

Implements [Voltage](#)

Constructors

Output	Create an DAC voltage output.
------------------------	-------------------------------

Properties

voltage	Write-only for setting the DAC output voltage.
-------------------------	--

See Also

Reference

[IO.Interfaces.DAC Namespace](#)

Output Constructor

Create an DAC voltage output.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Sample output,
    double reference,
    double gain = 1
)
```

Parameters

output [Sample](#)

DAC output object.

reference [Double](#)

DAC output reference in volts.

gain [Double](#) (Optional)

DAC output gain in volts per volt.

See Also

[Reference](#)

[Output Class](#)

[IO.Interfaces.DAC Namespace](#)

Output.voltage Property

Write-only for setting the DAC output voltage.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double voltage { set; }
```

Property Value

Double

Implements

Voltage.voltage

See Also

Reference

Output Class

IO.Interfaces.DAC Namespace

Sample Interface

Abstract interface for DAC outputs accepting an integer output sample value.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public interface Sample
```

Properties

<u>resolution</u>	Read-only property returning the number of bits of resolution.
<u>sample</u>	Write-only property for setting the DAC output level.

See Also

Reference

[IO.Interfaces.DAC Namespace](#)

Sample.resolution Property

Read-only property returning the number of bits of resolution.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
int resolution { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Sample Interface](#)

[IO.Interfaces.DAC Namespace](#)

Sample.sample Property

Write-only property for setting the DAC output level.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
int sample { set; }
```

Property Value

[Int32](#)

See Also

Reference

[Sample Interface](#)

[IO.Interfaces.DAC Namespace](#)

Voltage Interface

Abstract interface for DAC outputs accepting a floating point output voltage value.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public interface Voltage
```

Properties

<u>voltage</u>	Write-only property for setting the DAC output voltage.
--------------------------------	---

[See Also](#)

[*Reference*](#)

[IO.Interfaces.DAC Namespace](#)

Voltage.voltage Property

Write-only property for setting the DAC output voltage.

Definition

Namespace: [IO.Interfaces.DAC](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double voltage { set; }
```

Property Value

[Double](#)

See Also

Reference

[Voltage Interface](#)

[IO.Interfaces.DAC Namespace](#)

IO.Interfaces.GPIO Namespace

Abstract Interface for GPIO (General Purpose Input/Output) Pins

Interfaces

<u>Pin</u>	Abstract interface for GPIO pins.
------------	-----------------------------------

Enumerations

<u>Direction</u>	GPIO pin data direction settings.
------------------	-----------------------------------

Direction Enumeration

GPIO pin data direction settings.

Definition

Namespace: [IO.Interfaces.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public enum Direction
```

Members

Input	0	Input pin (read only)
Output	1	Output pin (read or write)

See Also

Reference

[IO.Interfaces.GPIO Namespace](#)

Pin Interface

Abstract interface for GPIO pins.

Definition

Namespace: [IO.Interfaces.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public interface Pin
```

Properties

<u>state</u>	Read/Write GPIO state property.
------------------------------	---------------------------------

See Also

Reference

[IO.Interfaces.GPIO Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Interfaces.GPIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
bool state { get; set; }
```

Property Value

Boolean

See Also

Reference

[Pin Interface](#)

[IO.Interfaces.GPIO Namespace](#)

IO.Interfaces.Humidity Namespace

Abstract Interface for Humidity Sensors

Interfaces

Sensor

Abstract interface for humidity sensors.

Sensor Interface

Abstract interface for humidity sensors.

Definition

Namespace: [IO.Interfaces.Humidity](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Sensor
```

Properties

<u>Humidity</u>	Read-only property returning the percentage relative humidity.
---------------------------------	--

See Also

Reference

[IO.Interfaces.Humidity Namespace](#)

Sensor.Humidity Property

Read-only property returning the percentage relative humidity.

Definition

Namespace: [IO.Interfaces.Humidity](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
double Humidity { get; }
```

Property Value

[Double](#)

See Also

Reference

[Sensor Interface](#)

[IO.Interfaces.Humidity Namespace](#)

IO.Interfaces.I2C Namespace

Abstract Interface for I²C (Inter-Integrated Circuit) Bus Controllers

Classes

<u>Device</u>	Encapsulates a single I ² C slave device.
<u>Speeds</u>	I ² C bus speed constants.
<u>Utils</u>	I ² C utility functions.

Interfaces

<u>Bus</u>	Abstract interface for I ² C bus controllers.
----------------------------	--

Bus Interface

Abstract interface for I²C bus controllers.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public interface Bus
```

Methods

Read	Read bytes from an I ² C slave device.
Transaction	Write and read bytes to and from an I ² C slave device.
Write	Write bytes to an I ² C slave device.

See Also

Reference

[IO.Interfaces.I2C Namespace](#)

Bus.Read Method

Read bytes from an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Read(
    int slaveaddr,
    byte[] resp,
    int resplen
)
```

Parameters

slaveaddr [Int32](#)

I²C slave address.

resp [Byte](#)[]

Response buffer.

resplen [Int32](#)

Number of bytes to read.

See Also

[Reference](#)

[Bus Interface](#)

[IO.Interfaces.I2C Namespace](#)

Bus.Transaction Method

Write and read bytes to and from an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Transaction(
    int slaveaddr,
    byte[] cmd,
    int cmdlen,
    byte[] resp,
    int resplen,
    int delayus = 0
)
```

Parameters

slaveaddr [Int32](#)

I²C slave address.

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

resp [Byte\[\]](#)

Response buffer.

resplen [Int32](#)

Number of bytes to read.

delayus [Int32](#) (Optional)

Delay in microseconds between the I²C write and read cycles. Allowed values are 0 to 65535 microseconds.

See Also

[Reference](#)

[Bus Interface](#)

[IO.Interfaces.I2C Namespace](#)

Bus.Write Method

Write bytes to an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Write(
    int slaveaddr,
    byte[] cmd,
    int cmdlen
)
```

Parameters

slaveaddr [Int32](#)

I²C slave address.

cmd [Byte](#)[]

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

See Also

[Reference](#)

[Bus Interface](#)

[IO.Interfaces.I2C Namespace](#)

Device Class

Encapsulates a single I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device	Create an I ² C slave device.
------------------------	--

Methods

Read	Read bytes from an I ² C slave device.
Transaction	Write and read bytes to and from an I ² C slave device.
Write	Write bytes to an I ² C slave device.

See Also

Reference

[IO.Interfaces.I2C Namespace](#)

Device Constructor

Create an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Bus bus,
    int slaveaddr
)
```

Parameters

bus [Bus](#)

I²C bus controller object.

slaveaddr [Int32](#)

I²C slave address.

See Also

[Reference](#)

[Device Class](#)

[IO.Interfaces.I2C Namespace](#)

Device.Read Method

Read bytes from an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Read(
    byte[] resp,
    int resplen
)
```

Parameters

resp [Byte\[\]](#)

Response buffer.

resplen [Int32](#)

Number of bytes to read.

See Also

[Reference](#)

[Device Class](#)

[IO.Interfaces.I2C Namespace](#)

Device.Transaction Method

Write and read bytes to and from an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Transaction(
    byte[] cmd,
    int cmdlen,
    byte[] resp,
    int resplen,
    int delayus = 0
)
```

Parameters

cmd [Byte](#)[]

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

resp [Byte](#)[]

Response buffer.

resplen [Int32](#)

Number of bytes to read.

delayus [Int32](#) (Optional)

Delay in microseconds between the I²C write and read cycles. Allowed values are 0 to 65535 microseconds.

See Also

[Reference](#)

[Device Class](#)

[IO.Interfaces.I2C Namespace](#)

Device.Write Method

Write bytes to an I²C slave device.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    byte[] cmd,
    int cmdlen
)
```

Parameters

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

See Also

[Reference](#)

[Device Class](#)

[IO.Interfaces.I2C Namespace](#)

Speeds Class

I²C bus speed constants.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public static class Speeds
```

Inheritance [Object](#) → Speeds

Fields

FastMode	Fast Mode
FastModePlus	Fast Mode Plus
StandardMode	Standard Mode

See Also

Reference

[IO.Interfaces.I2C Namespace](#)

Speeds.FastMode Field

Fast Mode

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int FastMode = 400000
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Speeds Class](#)

[IO.Interfaces.I2C Namespace](#)

Speeds.FastModePlus Field

Fast Mode Plus

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int FastModePlus = 1000000
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Speeds Class](#)

[IO.Interfaces.I2C Namespace](#)

Speeds.StandardMode Field

Standard Mode

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int StandardMode = 100000
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Speeds Class](#)

[IO.Interfaces.I2C Namespace](#)

Utils Class

I²C utility functions.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public static class Utils
```

Inheritance [Object](#) → Utils

Methods

GetAddress	Prompt the operator to enter an I ² C slave address, with rigorous error checking. Failure raises an exception.
----------------------------	--

See Also

Reference

[IO.Interfaces.I2C Namespace](#)

Utils.GetAddress Method

Prompt the operator to enter an I²C slave address, with rigorous error checking.
Failure raises an exception.

Definition

Namespace: [IO.Interfaces.I2C](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static int GetAddress(
    string prompt
)
```

Parameters

prompt [String](#)

Prompt string.

Return Value

[Int32](#)

I²C slave address.

See Also

[Reference](#)

[Utils Class](#)

[IO.Interfaces.I2C Namespace](#)

IO.Interfaces.Message.Text Namespace

Abstract Interface for Text Message Relays

Interfaces

[Relay](#)

Abstract interface for a text message relay.

Relay Interface

Abstract interface for a text message relay.

Definition

Namespace: [IO.Interfaces.Message.Text](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public interface Relay
```

Methods

Send	Method for sending a text message.
----------------------	------------------------------------

See Also

Reference

[IO.Interfaces.Message.Text Namespace](#)

[Relay.Send Method](#)

Method for sending a text message.

Definition

Namespace: [IO.Interfaces.Message.Text](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Send(
    string sender,
    string recipient,
    string subject,
    string message
)
```

Parameters

sender [String](#)

Message originator.

recipient [String](#)

Message recipient.

subject [String](#)

Message subject.

message [String](#)

Message text.

See Also

[Reference](#)

[Relay Interface](#)

[IO.Interfaces.Message.Text Namespace](#)

[IO.Interfaces.Message64 Namespace](#)

Abstract Interface for 64-Byte Message Services

Classes

<u>Message</u>	Encapsulates 64-byte messages.
--------------------------------	--------------------------------

Interfaces

<u>Messenger</u>	Abstract interface for sending and receiving 64-byte messages.
----------------------------------	--

Message Class

Encapsulates 64-byte messages.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Message
```

Inheritance [Object](#) → Message

Constructors

Message()	Create a message object without initializing the payload.
Message(Byte)	Create a message object with an initialized payload.

Fields

payload	Message payload.
Size	Message payload size.

See Also

Reference

[IO.Interfaces.Message64 Namespace](#)

Message Constructor

Create a message object without initializing the payload.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public Message()
```

See Also

Reference

[Message Class](#)

[IO.Interfaces.Message64 Namespace](#)

Message(Byte) Constructor

Create a message object with an initialized payload.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Message(
    byte fill
)
```

Parameters

fill [Byte](#)

Value to initialize the payload with.

See Also

[Reference](#)

[Message Class](#)

[IO.Interfaces.Message64 Namespace](#)

Message.payload Field

Message payload.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public byte[] payload
```

Field Value

[Byte\[\]](#)

See Also

[Reference](#)

[Message Class](#)

[IO.Interfaces.Message64 Namespace](#)

Message.Size Field

Message payload size.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int Size = 64
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Message Class](#)

[IO.Interfaces.Message64 Namespace](#)

Messenger Interface

Abstract interface for sending and receiving 64-byte messages.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Messenger
```

Methods

<u>Receive</u>	Receive a 64-byte message.
<u>Send</u>	Send a 64-byte message.
<u>Transaction</u>	Send a 64-byte command and receive a 64-byte response.

See Also

Reference

[IO.Interfaces.Message64 Namespace](#)

Messenger.Receive Method

Receive a 64-byte message.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Receive(
    Message resp
)
```

Parameters

resp [Message](#)

Message received.

See Also

Reference

[Messenger Interface](#)

[IO.Interfaces.Message64 Namespace](#)

Messenger.Send Method

Send a 64-byte message.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Send(
    Message cmd
)
```

Parameters

cmd [Message](#)

Message to be sent.

See Also

Reference

[Messenger Interface](#)

[IO.Interfaces.Message64 Namespace](#)

Messenger.Transaction Method

Send a 64-byte command and receive a 64-byte response.

Definition

Namespace: [IO.Interfaces.Message64](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Transaction(
    Message cmd,
    Message resp
)
```

Parameters

cmd [Message](#)

Command to be sent.

resp [Message](#)

Response to be received.

See Also

[Reference](#)

[Messenger Interface](#)

[IO.Interfaces.Message64 Namespace](#)

[IO.Interfaces.Motor Namespace](#)

Abstract Interface For Variable Speed Motor Outputs

Classes

<u>Velocities</u>	Motor velocity constants.
-----------------------------------	---------------------------

Interfaces

<u>Output</u>	Abstract interface for variable speed motor outputs.
-------------------------------	--

Output Interface

Abstract interface for variable speed motor outputs.

Definition

Namespace: [IO.Interfaces.Motor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Output
```

Properties

<u>velocity</u>	Write-only motor velocity property.
---------------------------------	-------------------------------------

See Also

Reference

[IO.Interfaces.Motor Namespace](#)

Output.velocity Property

Write-only motor velocity property.

Definition

Namespace: [IO.Interfaces.Motor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double velocity { set; }
```

Property Value

[Double](#)

See Also

Reference

[Output Interface](#)

[IO.Interfaces.Motor Namespace](#)

Velocities Class

Motor velocity constants.

Definition

Namespace: [IO.Interfaces.Motor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public static class Velocities
```

Inheritance [Object](#) → Velocities

Fields

<u>Maximum</u>	Maximum velocity (full speed forward).
<u>Minimum</u>	Minimum velocity (full speed reverse).
<u>Stop</u>	Zero velocity (motor stopped).

See Also

Reference

[IO.Interfaces.Motor Namespace](#)

[Velocities.Maximum](#) Field

Maximum velocity (full speed forward).

Definition

Namespace: [IO.Interfaces.Motor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const double Maximum = 1
```

Field Value

[Double](#)

See Also

Reference

[Velocities Class](#)

[IO.Interfaces.Motor Namespace](#)

[Velocities.Minimum Field](#)

Minimum velocity (full speed reverse).

Definition

Namespace: [IO.Interfaces.Motor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const double Minimum = -1
```

Field Value

[Double](#)

See Also

Reference

[Velocities Class](#)

[IO.Interfaces.Motor Namespace](#)

[Velocities.Stop](#) Field

Zero velocity (motor stopped).

Definition

Namespace: [IO.Interfaces.Motor](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const double Stop = 0
```

Field Value

[Double](#)

See Also

Reference

[Velocities Class](#)

[IO.Interfaces.Motor Namespace](#)

IO.Interfaces.PWM Namespace

Abstract Interface for PWM (Pulse Width Modulated) Outputs

Classes

[DutyCycles](#)

PWM dutycycle constants.

Interfaces

[Output](#)

Abstract interface for PWM outputs.

DutyCycles Class

PWM dutycycle contants.

Definition

Namespace: [IO.Interfaces.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class DutyCycles
```

Inheritance [Object](#) → DutyCycles

Fields

<u>Maximum</u>	Maximum duty cycle (percent).
<u>Minimum</u>	Minimum duty cycle (percent).

See Also

Reference

[IO.Interfaces.PWM Namespace](#)

DutyCycles.Maximum Field

Maximum duty cycle (percent).

Definition

Namespace: [IO.Interfaces.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const double Maximum = 100
```

Field Value

[Double](#)

See Also

Reference

[DutyCycles Class](#)

[IO.Interfaces.PWM Namespace](#)

DutyCycles.Minimum Field

Minimum duty cycle (percent).

Definition

Namespace: [IO.Interfaces.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const double Minimum = 0
```

Field Value

Double

See Also

Reference

[DutyCycles Class](#)

[IO.Interfaces.PWM Namespace](#)

Output Interface

Abstract interface for PWM outputs.

Definition

Namespace: [IO.Interfaces.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Output
```

Properties

<u>dutycycle</u>	Write-only PWM duty cycle property.
----------------------------------	-------------------------------------

See Also

Reference

[IO.Interfaces.PWM Namespace](#)

Output.dutycycle Property

Write-only PWM duty cycle property.

Definition

Namespace: [IO.Interfaces.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double dutycycle { set; }
```

Property Value

[Double](#)

See Also

Reference

[Output Interface](#)

[IO.Interfaces.PWM Namespace](#)

IO.Interfaces.Servo Namespace

Abstract Interface for Servo Outputs

Classes

<u>Positions</u>	Servo position constants.
----------------------------------	---------------------------

Interfaces

<u>Output</u>	Abstract interface for servo outputs.
-------------------------------	---------------------------------------

Output Interface

Abstract interface for servo outputs.

Definition

Namespace: [IO.Interfaces.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Output
```

Properties

[position](#)

Write-only servo position property.

See Also

Reference

[IO.Interfaces.Servo Namespace](#)

Output.position Property

Write-only servo position property.

Definition

Namespace: [IO.Interfaces.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double position { set; }
```

Property Value

[Double](#)

See Also

Reference

[Output Interface](#)

[IO.Interfaces.Servo Namespace](#)

Positions Class

Servo position constants.

Definition

Namespace: [IO.Interfaces.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public static class Positions
```

Inheritance [Object](#) → Positions

Fields

Maximum	Maximum displacement position.
Minimum	Minimum displacement position.
Neutral	Zero displacement (neutral) position.

See Also

Reference

[IO.Interfaces.Servo Namespace](#)

Positions.Maximum Field

Maximum displacement position.

Definition

Namespace: [IO.Interfaces.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const double Maximum = 1
```

Field Value

[Double](#)

See Also

Reference

[Positions Class](#)

[IO.Interfaces.Servo Namespace](#)

Positions.Minimum Field

Minimum displacement position.

Definition

Namespace: [IO.Interfaces.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const double Minimum = -1
```

Field Value

[Double](#)

See Also

Reference

[Positions Class](#)

[IO.Interfaces.Servo Namespace](#)

Positions.Neutral Field

Zero displacement (neutral) position.

Definition

Namespace: [IO.Interfaces.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const double Neutral = 0
```

Field Value

Double

See Also

Reference

[Positions Class](#)

[IO.Interfaces.Servo Namespace](#)

IO.Interfaces.SPI Namespace

Abstract Interface for SPI (Serial Peripheral Interconnect) Slave Devices

Interfaces

<u>Device</u>	Abstract interface for SPI slave devices.
---------------	---

Device Interface

Abstract interface for SPI slave devices.

Definition

Namespace: [IO.Interfaces.SPI](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public interface Device
```

Methods

<u>Read</u>	Read bytes from an SPI slave device.
<u>Transaction</u>	Write bytes to and read bytes from an SPI slave device.
<u>Write</u>	Write bytes to an SPI slave device.

See Also

Reference

[IO.Interfaces.SPI Namespace](#)

Device.Read Method

Read bytes from an SPI slave device.

Definition

Namespace: [IO.Interfaces.SPI](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Read(
    byte[] resp,
    int resplen
)
```

Parameters

resp [Byte](#)[]

Response buffer.

resplen [Int32](#)

Number of bytes to read.

See Also

[Reference](#)

[Device Interface](#)

[IO.Interfaces.SPI Namespace](#)

Device.Transaction Method

Write bytes to and read bytes from an SPI slave device.

Definition

Namespace: [IO.Interfaces.SPI](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Transaction(
    byte[] cmd,
    int cmdlen,
    byte[] resp,
    int resplen,
    int delayus = 0
)
```

Parameters

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

resp [Byte\[\]](#)

Response buffer.

resplen [Int32](#)

Number of bytes to read.

delayus [Int32](#) (Optional)

Delay in microseconds between write and read operations.

See Also

[Reference](#)

[Device Interface](#)

[IO.Interfaces.SPI Namespace](#)

Device.Write Method

Write bytes to an SPI slave device.

Definition

Namespace: [IO.Interfaces.SPI](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Write(
    byte[] cmd,
    int cmdlen
)
```

Parameters

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

See Also

[Reference](#)

[Device Interface](#)

[IO.Interfaces.SPI Namespace](#)

IO.Interfaces.Stepper Namespace

Abstract Interface for Stepper Motor Outputs

Interfaces

<u>Output</u>	Abstract interface for stepper motor outputs.
---------------	---

Output Interface

Abstract interface for stepper motor outputs.

Definition

Namespace: [IO.Interfaces.Stepper](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Output
```

Properties

StepsPerRotation	Read-only property returning the number of steps a stepper motor has.
----------------------------------	---

Methods

Move	Move the stepper motor a specified number of steps at a specified rate.
----------------------	---

Spin	Spin (i.e. continuous rotation) the stepper motor at a specified rate.
----------------------	--

See Also

Reference

[IO.Interfaces.Stepper Namespace](#)

Output.StepsPerRotation Property

Read-only property returning the number of steps a stepper motor has.

Definition

Namespace: [IO.Interfaces.Stepper](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
int StepsPerRotation { get; }
```

Property Value

[Int32](#)

See Also

[Reference](#)

[Output Interface](#)

[IO.Interfaces.Stepper Namespace](#)

Output.Move Method

Move the stepper motor a specified number of steps at a specified rate.

Definition

Namespace: [IO.Interfaces.Stepper](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Move(
    int steps,
    float rate
)
```

Parameters

steps [Int32](#)

Number of steps to move. Negative values indicate reverse motion and positive values indicate forward motion. (The directions are nominal and depend on how the stepper motor coils are wired). Zero indicates the stepper motor should be stopped.

rate [Single](#)

The rate of motion, in steps per second. Negative values indicate reverse motion and positive values indicate forward motion. (The directions are nominal and depend on how the stepper motor coils are wired). Zero indicates the stepper motor should be stopped.

See Also

[Reference](#)

[Output Interface](#)

[IO.Interfaces.Stepper Namespace](#)

Output.Spin Method

Spin (i.e. continuous rotation) the stepper motor at a specified rate.

Definition

Namespace: [IO.Interfaces.Stepper](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
void Spin(
    float rate
)
```

Parameters

rate [Single](#)

The rate of motion, in steps per second. Negative values indicate reverse motion and positive values indicate forward motion. (The directions are nominal and depend on how the stepper motor coils are wired). Zero indicates the stepper motor should be stopped.

Remarks

Not all stepper motor drivers support continuous rotation.

See Also

[Reference](#)

[Output Interface](#)

[IO.Interfaces.Stepper Namespace](#)

IO.Interfaces.Temperature Namespace

Abstract Interface for Temperature Sensors

Classes

[Conversions](#)

Temperature conversion functions.

Interfaces

[Sensor](#)

Abstract interface for temperature sensors.

Conversions Class

Temperature conversion functions.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Conversions
```

Inheritance [Object](#) → Conversions

Constructors

Conversions	Initializes a new instance of the Conversions class
-----------------------------	---

Methods

CelsiusToFahrenheit	Convert degrees Celsius to degrees Fahrenheit.
CelsiusToKelvins	Convert degrees Celsius to Kelvins.
FahrenheitToCelsius	Convert degrees Fahrenheit to degrees Celsius.
FahrenheitToKelvins	Convert degrees Fahrenheit to Kelvins.
KelvinsToCelsius	Convert Kelvins to degrees Celsius.
KelvinsToFahrenheit	Convert Kelvins to degrees Fahrenheit.

See Also

Reference

[IO.Interfaces.Temperature Namespace](#)

Conversions Constructor

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

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Conversions()
```

See Also

Reference

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

Conversions.CelsiusToFahrenheit Method

Convert degrees Celsius to degrees Fahrenheit.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static double CelsiusToFahrenheit(
    double celsius
)
```

Parameters

celsius [Double](#)

Temperature in degrees Celsius.

Return Value

[Double](#)

Temperature in degrees Fahrenheit.

See Also

[Reference](#)

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

[Conversions.CelsiusToKelvins](#) Method

Convert degrees Celsius to Kelvins.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static double CelsiusToKelvins(
    double celsius
)
```

Parameters

celsius [Double](#)

Temperature in degrees Celsius.

Return Value

[Double](#)

Temperature in Kelvins.

See Also

[Reference](#)

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

Conversions.FahrenheitToCelsius Method

Convert degrees Fahrenheit to degrees Celsius.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static double FahrenheitToCelsius(
    double fahrenheit
)
```

Parameters

fahrenheit [Double](#)

Temperature in degrees Fahrenheit.

Return Value

[Double](#)

Temperature in degrees Celsius.

See Also

[Reference](#)

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

Conversions.FahrenheitToKelvins Method

Convert degrees Fahrenheit to Kelvins.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static double FahrenheitToKelvins(
    double fahrenheit
)
```

Parameters

fahrenheit [Double](#)

Temperature in degrees Fahrenheit.

Return Value

[Double](#)

Temperature in Kelvins.

See Also

[Reference](#)

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

Conversions.KelvinsToCelsius Method

Convert Kelvins to degrees Celsius.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static double KelvinsToCelsius(
    double kelvins
)
```

Parameters

kelvins [Double](#)

Temperature in Kelvins.

Return Value

[Double](#)

Temperature in degrees Celsius.

See Also

[Reference](#)

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

Conversions.KelvinsToFahrenheit Method

Convert Kelvins to degrees Fahrenheit.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static double KelvinsToFahrenheit(
    double kelvins
)
```

Parameters

kelvins [Double](#)

Temperature in Kelvns.

Return Value

[Double](#)

Temperature in degrees Fahrenheit.

See Also

[Reference](#)

[Conversions Class](#)

[IO.Interfaces.Temperature Namespace](#)

Sensor Interface

Abstract interface for temperature sensors.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public interface Sensor
```

Properties

Celsius	Read-only property returning the temperature in degrees Celsius.
Fahrenheit	Read-only property returning the temperature in degrees Fahrenheit.
Kelvins	Read-only property returning the temperature in Kelvins.

See Also

Reference

[IO.Interfaces.Temperature Namespace](#)

Sensor.Celsius Property

Read-only property returning the temperature in degrees Celsius.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double Celsius { get; }
```

Property Value

[Double](#)

See Also

[Reference](#)

[Sensor Interface](#)

[IO.Interfaces.Temperature Namespace](#)

Sensor.Fahrenheit Property

Read-only property returning the temperature in degrees Fahrenheit.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
double Fahrenheit { get; }
```

Property Value

[Double](#)

See Also

Reference

[Sensor Interface](#)

[IO.Interfaces.Temperature Namespace](#)

Sensor.Kelvins Property

Read-only property returning the temperature in Kelvins.

Definition

Namespace: [IO.Interfaces.Temperature](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
double Kelvins { get; }
```

Property Value

[Double](#)

See Also

[Reference](#)

[Sensor Interface](#)

[IO.Interfaces.Temperature Namespace](#)

IO.Interfaces.Watchdog Namespace

Abstract Interface for Watchdog Timers

Interfaces

[Timer](#)

Abstract interface for watchdog timers.

Timer Interface

Abstract interface for watchdog timers.

Definition

Namespace: [IO.Interfaces.Watchdog](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public interface Timer
```

Properties

timeout	Read/Write watchdog timer period property.
-------------------------	--

Methods

Kick	Reset the watchdog timer.
----------------------	---------------------------

See Also

Reference

[IO.Interfaces.Watchdog Namespace](#)

Timer.timeout Property

Read/Write watchdog timer period property.

Definition

Namespace: [IO.Interfaces.Watchdog](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
int timeout { get; set; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Timer Interface](#)

[IO.Interfaces.Watchdog Namespace](#)

Timer.Kick Method

Reset the watchdog timer.

Definition

Namespace: [IO.Interfaces.Watchdog](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
void Kick()
```

See Also

Reference

[Timer Interface](#)

[IO.Interfaces.Watchdog Namespace](#)

IO.Objects.Email.Mail Namespace

Email Sending Services using [/usr/bin/mail](#)

Classes

[Relay](#) This class implements the [IO.Interfaces.Messaging.Text.Relay](#) interface, for sending an email message via the Unix program [/usr/bin/mail](#).

Relay Class

This class implements the `IO.Interfaces.Messaging.Text.Relay` interface, for sending an email message via the Unix program `/usr/bin/mail`.

Definition

Namespace: [IO.Objects.Email.Mail](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Relay : Relay
```

Inheritance [Object](#) → Relay

Implements [Relay](#)

Constructors

Relay	Constructor for a single mail relay.
-----------------------	--------------------------------------

Methods

Send(String, String, String)	Method for sending an email message.
Send(String, String, String, String)	Method for sending an email message.
Send(String, String, String, String, String)	Method for sending an email message with an attachment.

See Also

Reference

[IO.Objects.Email.Mail Namespace](#)

[Relay Constructor](#)

Constructor for a single mail relay.

Definition

Namespace: [IO.Objects.Email.Mail](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public Relay()
```

See Also

Reference

[Relay Class](#)

[IO.Objects.Email.Mail Namespace](#)

[Relay.Send\(String, String, String\) Method](#)

Method for sending an email message.

Definition

Namespace: [IO.Objects.Email.Mail](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    string recipient,
    string subject,
    string message
)
```

Parameters

recipient [String](#)

Originator email address.

subject [String](#)

Recipient email address.

message [String](#)

Email message body.

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.Mail Namespace](#)

[Relay.Send\(String, String, String, String\) Method](#)

Method for sending an email message.

Definition

Namespace: [IO.Objects.Email.Mail](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    string sender,
    string recipient,
    string subject,
    string message
)
```

Parameters

sender [String](#)

Originator email address.

recipient [String](#)

Recipient email address.

subject [String](#)

Subject of the email message.

message [String](#)

Email message body.

Implements

[Relay.Send\(String, String, String, String\)](#)

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.Mail Namespace](#)

[Relay.Send\(String, String, String, String, String\) Method](#)

Method for sending an email message with an attachment.

Definition

Namespace: [IO.Objects.Email.Mail](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    string sender,
    string recipient,
    string subject,
    string message,
    string attachment
)
```

Parameters

sender [String](#)

Originator email address.

recipient [String](#)

Recipient email address.

subject [String](#)

Subject of the email message.

message [String](#)

Email message body.

attachment [String](#)

Attachment file name.

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.Mail Namespace](#)

IO.Objects.Email.SMTP Namespace

Email Sending Services using SMTP to `localhost:25`

Classes

[Relay](#) This class implements the `IO.Interfaces.Messaging.Text.Relay` interface, for sending an email message via SMTP (Simple Mail Transfer Protocol).

Relay Class

This class implements the [IO.Interfaces.Messaging.Text.Relay](#) interface, for sending an email message via SMTP (Simple Mail Transfer Protocol).

Definition

Namespace: [IO.Objects.Email.SMTP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Relay : Relay
```

Inheritance [Object](#) → Relay

Implements [Relay](#).

Constructors

Relay	Constructor for a single SMTP mail relay.
-----------------------	---

Methods

Send(String, String, String)	Method for sending an email message.
Send(String, String, String, String)	Method for sending an email message.
Send(String, String, String, String, String)	Method for sending an email message with an attachment.

See Also

Reference

[IO.Objects.Email.SMTP Namespace](#)

Relay Constructor

Constructor for a single SMTP mail relay.

Definition

Namespace: [IO.Objects.Email.SMTP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Relay(
    string server = "localhost",
    int port = 25
)
```

Parameters

server [String](#) (Optional)

SMTP server domain name or IP addaress.

port [Int32](#) (Optional)

SMTP server TCP port number.

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.SMTP Namespace](#)

[Relay.Send\(String, String, String\) Method](#)

Method for sending an email message.

Definition

Namespace: [IO.Objects.Email.SMTP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    string recipient,
    string subject,
    string message
)
```

Parameters

recipient [String](#)

Originator email address.

subject [String](#)

Recipient email address.

message [String](#)

Email message body.

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.SMTP Namespace](#)

[Relay.Send\(String, String, String, String\) Method](#)

Method for sending an email message.

Definition

Namespace: [IO.Objects.Email.SMTP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    string sender,
    string recipient,
    string subject,
    string message
)
```

Parameters

sender [String](#)

Originator email address.

recipient [String](#)

Recipient email address.

subject [String](#)

Subject of the email message.

message [String](#)

Email message body.

Implements

[Relay.Send\(String, String, String, String\)](#)

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.SMTP Namespace](#)

[Relay.Send\(String, String, String, String, String\) Method](#)

Method for sending an email message with an attachment.

Definition

Namespace: [IO.Objects.Email.SMTP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    string sender,
    string recipient,
    string subject,
    string message,
    string attachment
)
```

Parameters

sender [String](#)

Originator email address.

recipient [String](#)

Recipient email address.

subject [String](#)

Subject of the email message.

message [String](#)

Email message body.

attachment [String](#)

Attachment file name.

See Also

[Reference](#)

[Relay Class](#)

[IO.Objects.Email.SMTP Namespace](#)

IO.Objects.GPIO.PWM Namespace

PWM Controlled GPIO Output Services

Classes

[Pin](#)

Encapsulates GPIO output pins implemented with PWM outputs.

Pin Class

Encapsulates GPIO output pins implemented with PWM outputs.

Definition

Namespace: [IO.Objects.GPIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Pin : Pin
```

Inheritance [Object](#) → Pin

Implements [Pin](#)

Remarks

Use cases for this class include ON/OFF things like an LED or a solenoid valve driven from a PWM output.

Constructors

Pin	Constructor for a single GPIO pin.
---------------------	------------------------------------

Properties

state	Read/Write GPIO state property.
-----------------------	---------------------------------

See Also

[Reference](#)

[IO.Objects.GPIO.PWM Namespace](#)

Pin Constructor

Constructor for a single GPIO pin.

Definition

Namespace: [IO.Objects.GPIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin(
    Output outp,
    bool state = false,
    double dutycycle = 100
)
```

Parameters

outp [Output](#)

PWM output instance.

state [Boolean](#) (Optional)

Initial GPIO output state.

dutycycle [Double](#) (Optional)

Initial PWM output duty cycle. Allowed values are 0.0 to 100.0 percent.

See Also

[Reference](#)

[Pin Class](#)

[IO.Objects.GPIO.PWM Namespace](#)

Pin.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Objects.GPIO.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

[Pin.state](#)

See Also

[Reference](#)

[Pin Class](#)

[IO.Objects.GPIO.PWM Namespace](#)

IO.Objects.Message64.UDP Namespace

64-Byte Message Services over UDP

Classes

<u>Messenger</u>	64-Byte Message Transport Client Services using UDP (User Datagram Protocol).
----------------------------------	---

Messenger Class

64-Byte Message Transport Client Services using UDP (User Datagram Protocol).

Definition

Namespace: [IO.Objects.Message64.UDP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Messenger : Messenger
```

Inheritance [Object](#) → Messenger

Implements [Messenger](#)

Constructors

Messenger	Constructor for a 64-byte Messenger instance using UDP.
---------------------------	---

Methods

Receive	Receive a 64-byte response message from a raw HID device.
-------------------------	---

Send	Send a 64-byte command message to a raw HID device.
----------------------	---

Transaction	Send a 64-byte command message and receive a 64-byte response message.
-----------------------------	--

See Also

Reference

[IO.Objects.Message64.UDP Namespace](#)

Messenger Constructor

Constructor for a 64-byte Messenger instance using UDP.

Definition

Namespace: [IO.Objects.Message64.UDP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Messenger(
    string host,
    int port,
    int timeoutms = 1000
)
```

Parameters

host [String](#)

UDP server domain name or IP address.

port [Int32](#)

UDP server port number.

timeoutms [Int32](#) (Optional)

Receive timeout in milliseconds. Zero indicates wait forever.

See Also

[Reference](#)

[Messenger Class](#)

[IO.Objects.Message64.UDP Namespace](#)

[Messenger.Receive Method](#)

Receive a 64-byte response message from a raw HID device.

Definition

Namespace: [IO.Objects.Message64.UDP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Receive(
    Message resp
)
```

Parameters

resp [Message](#)

64-byte response message.

Implements

[Messenger.Receive\(Message\)](#)

See Also

[Reference](#)

[Messenger Class](#)

[IO.Objects.Message64.UDP Namespace](#)

Messenger.Send Method

Send a 64-byte command message to a raw HID device.

Definition

Namespace: [IO.Objects.Message64.UDP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    Message cmd
)
```

Parameters

cmd [Message](#)

64-byte command message.

Implements

[Messenger.Send\(Message\)](#)

See Also

[Reference](#)

[Messenger Class](#)

[IO.Objects.Message64.UDP Namespace](#)

Messenger.Transaction Method

Send a 64-byte command message and receive a 64-byte response message.

Definition

Namespace: [IO.Objects.Message64.UDP](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Transaction(
    Message cmd,
    Message resp
)
```

Parameters

cmd [Message](#)

64-byte command message.

resp [Message](#)

64-byte response message.

Implements

[Messenger.Transaction\(Message, Message\)](#)

See Also

Reference

[Messenger Class](#)

[IO.Objects.Message64.UDP Namespace](#)

IO.Objects.Motor.PWM Namespace

PWM Controlled Motor Services

Classes

<u>Output</u>	Encapsulates motors controlled by PWM and GPIO outputs.
-------------------------------	---

Output Class

Encapsulates motors controlled by PWM and GPIO outputs.

Definition

Namespace: [IO.Objects.Motor.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class Output : Output
```

Inheritance [Object](#) → Output

Implements [Output](#)

Constructors

Output(Output, Output, Double)	Constructor for a single motor, using two PWM outputs for clockwise and counterclockwise rotation control.
Output(Pin, Output, Double)	Constructor for a single motor, using one GPIO pin for direction control, and one PWM output for speed control.

Properties

velocity	Write-only property for setting the normalized motor velocity. Allowed values are -1.0 (full speed reverse) to +1.0 (full speed forward).
--------------------------	---

See Also

Reference

[IO.Objects.Motor.PWM Namespace](#)

Output(Output, Output, Double) Constructor

Constructor for a single motor, using two PWM outputs for clockwise and counterclockwise rotation control.

Definition

Namespace: [IO.Objects.Motor.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Output clockwise,
    Output counterclockwise,
    double velocity = 0
)
```

Parameters

clockwise [Output](#)

PWM output instance (for clockwise rotation control).

counterclockwise [Output](#)

PWM output instance (for counterclockwise rotation control).

velocity [Double](#) (Optional)

Initial motor velocity.

See Also

[Reference](#)

[Output Class](#)

[IO.Objects.Motor.PWM Namespace](#)

Output(Pin, Output, Double) Constructor

Constructor for a single motor, using one GPIO pin for direction control, and one PWM output for speed control.

Definition

Namespace: [IO.Objects.Motor.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Pin direction,
    Output speed,
    double velocity = 0
)
```

Parameters

direction [Pin](#)

GPIO pin instance (for direction control).

speed [Output](#)

PWM output instance (for speed control).

velocity [Double](#) (Optional)

Initial motor velocity.

See Also

[Reference](#)

[Output Class](#)

[IO.Objects.Motor.PWM Namespace](#)

Output.velocity Property

Write-only property for setting the normalized motor velocity. Allowed values are -1.0 (full speed reverse) to +1.0 (full speed forward).

Definition

Namespace: [IO.Objects.Motor.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double velocity { set; }
```

Property Value

[Double](#)

Implements

[Output.velocity](#)

See Also

Reference

[Output Class](#)

[IO.Objects.Motor.PWM Namespace](#)

IO.Objects.Motor.Servo Namespace

Servo Controlled Motor (e.g. continuous rotation servo) Services

Classes

<u>Output</u>	Encapsulates motors controlled by servo outputs (e.g. continuous rotation servos).
-------------------------------	--

Output Class

Encapsulates motors controlled by servo outputs (e.g. continuous rotation servos).

Definition

Namespace: [IO.Objects.Motor.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Output : Output
```

Inheritance [Object](#) → Output

Implements [Output](#)

Constructors

Output	Constructor for a single motor output.
------------------------	--

Properties

velocity	Write-only property for setting the normalized motor velocity. Allowed values are -1.0 (full speed reverse) to +1.0 (full speed forward).
--------------------------	---

See Also

Reference

[IO.Objects.Motor.Servo Namespace](#)

Output Constructor

Constructor for a single motor output.

Definition

Namespace: [IO.Objects.Motor.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Output servo,
    double velocity = 0
)
```

Parameters

servo [Output](#)

Servo output instance.

velocity [Double](#) (Optional)

Initial motor velocity.

See Also

[Reference](#)

[Output Class](#)

[IO.Objects.Motor.Servo Namespace](#)

Output.velocity Property

Write-only property for setting the normalized motor velocity. Allowed values are -1.0 (full speed reverse) to +1.0 (full speed forward).

Definition

Namespace: [IO.Objects.Motor.Servo](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double velocity { set; }
```

Property Value

[Double](#)

Implements

[Output.velocity](#)

See Also

Reference

[Output Class](#)

[IO.Objects.Motor.Servo Namespace](#)

IO.Objects.RemotelO Namespace

Remote I/O Device Framework, for sending commands and receiving response to/from [Remote I/O Protocol](#) devices.

Classes

ADC	Encapsulates remote A/D inputs.
DAC	Encapsulates remote D/A outputs.
Device	Encapsulates a Remote I/O Protocol server device.
GPIO	Encapsulates remote GPIO pins.
I2C	Encapsulates remote I ² C buses.
PWM	Encapsulates remote PWM outputs.
SPI	Encapsulates remote SPI slave devices.

Enumerations

MessageTypes	Remote I/O protocol message types
PeripheralTypes	Types of remote peripherals

ADC Class

Encapsulates remote A/D inputs.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class ADC : Sample
```

Inheritance [Object](#) → ADC

Implements [Sample](#)

Constructors

ADC	Create a remote A/D input.
---------------------	----------------------------

Properties

resolution	Read-only property returning the number of bits of resolution.
----------------------------	--

See Also

Reference

[IO.Objects.RemotelIO Namespace](#)

ADC Constructor

Create a remote A/D input.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public ADC(
    Device dev,
    int num
)
```

Parameters

dev [Device](#)

Remote I/O device object.

num [Int32](#)

A/D input number: 0 to 127.

Remarks

Use [Device.ADC_Create\(\)](#) instead of this constructor.

See Also

[Reference](#)

[ADC Class](#)

[IO.Objects.RemotelIO Namespace](#)

ADC.resolution Property

Read-only property returning the number of bits of resolution.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int resolution { get; }
```

Property Value

Int32

Implements

[Sample.resolution](#)

See Also

[Reference](#)

[ADC Class](#)

[IO.Objects.RemotelIO Namespace](#)

ADC.sample Property

Read-only property returning an integer analog input sample.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int sample { get; }
```

Property Value

Int32

Implements

Sample.sample

See Also

[Reference](#)

[ADC Class](#)

[IO.Objects.RemotelIO Namespace](#)

DAC Class

Encapsulates remote D/A outputs.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class DAC : Sample
```

Inheritance [Object](#) → DAC

Implements [Sample](#)

Constructors

DAC	Create a remote D/A output.
---------------------	-----------------------------

Properties

resolution	Read-only property returning the number of bits of resolution.
----------------------------	--

sample	Write-only property for writing an integer analog sample to a DAC output.
------------------------	---

See Also

Reference

[IO.Objects.RemoteIO Namespace](#)

DAC Constructor

Create a remote D/A output.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public DAC(
    Device dev,
    int num,
    int sample = 0
)
```

Parameters

dev [Device](#)

Remote I/O device object.

num [Int32](#)

D/A output number: 0 to 127.

sample [Int32](#) (Optional)

Initial DAC output sample.

Remarks

Use [Device.DAC_Create\(\)](#) instead of this constructor.

See Also

[Reference](#)

[DAC Class](#)

[IO.Objects.RemoteIO Namespace](#)

DAC.resolution Property

Read-only property returning the number of bits of resolution.

Definition

Namespace: [IO.Objects.RemotelO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int resolution { get; }
```

Property Value

Int32

Implements

[Sample.resolution](#)

See Also

[Reference](#)

[DAC Class](#)

[IO.Objects.RemotelO Namespace](#)

DAC.sample Property

Write-only property for writing an integer analog sample to a DAC output.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int sample { set; }
```

Property Value

Int32

Implements

Sample.sample

See Also

[Reference](#)

[DAC Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device Class

Encasulates a Remote I/O Protocol server device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Device
```

Inheritance [Object](#) → Device

Constructors

Device(Messenger)	Create a Remote I/O server device object using a Messenger transport object.
Device(String, Int32, Int32)	Create a Remote I/O server device object using UDP transport.
Device(Int32, Int32, String, Int32)	Create a Remote I/O server device object using USB Raw HID transport.

Properties

Capabilities	Capability string from the Remote I/O device.
Version	Version string from the Remote I/O device.

Methods

ADC_Available	Query available A/D inputs.
ADC_Create	Create a remote A/D input.
DAC_Available	Query available D/A outputs.
DAC_Create	Create a remote D/A output.
Dispatcher	Command dispatcher.
GPIO_Available	Query available GPIO pins.
GPIO_Create	Create a remote GPIO pin object.
I2C_Available	Query available I ² C buses.
I2C_Create	Create a remote I ² C bus controller.
PWM_Available	Query available PWM outputs.
PWM_Create	Create a remote PWM output.
SPI_Available	Query available SPI slave devices.
SPI_Create	Create a remote SPI slave device.

Fields

<u>MAX_CHANNELS</u>	Maximum number of channels each subsystem can support.
<u>Unavailable</u>	Designator for an unavailable channel.

See Also

Reference

[IO.Objects.RemoteIO Namespace](#)

Device(Messenger) Constructor

Create a Remote I/O server device object using a Messenger transport object.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    Messenger m
)
```

Parameters

m [Messenger](#)

Messenger

transport object.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemoteIO Namespace](#)

Device(String, Int32, Int32) Constructor

Create a Remote I/O server device object using UDP transport.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    string host,
    int port = 8087,
    int timeoutms = 1000
)
```

Parameters

host [String](#)

UDP server domain name or IP address.

port [Int32](#) (Optional)

UDP server port number.

timeoutms [Int32](#) (Optional)

Receive timeout in milliseconds. Zero indicates wait forever.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device(Int32, Int32, String, Int32) Constructor

Create a Remote I/O server device object using USB Raw HID transport.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device(
    int VID = 5840,
    int PID = 2810,
    string serialnumber = null,
    int timeoutms = 1000
)
```

Parameters

VID [Int32](#) (Optional)

Vendor ID

PID [Int32](#) (Optional)

Product

serialnumber [String](#) (Optional)

Serial number

timeoutms [Int32](#) (Optional)

Time in milliseconds to wait for read and write operations to complete. Zero means wait forever.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.Capabilities Property

Capability string from the Remote I/O device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public string Capabilities { get; }
```

Property Value

String

See Also

Reference

Device Class

[IO.Objects.RemoteIO Namespace](#)

Device.Version Property

Version string from the Remote I/O device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public string Version { get; }
```

Property Value

String

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemoteIO Namespace](#)

[Device.ADC_Available Method](#)

Query available A/D inputs.

[Definition](#)

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public List<int> ADC_Available()
```

[Return Value](#)

[List\(Int32\)](#)

List of available A/D input numbers.

[See Also](#)

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

[Device.ADC_Create Method](#)

Create a remote A/D input.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample ADC_Create(
    int num
)
```

Parameters

num [Int32](#)

A/D input number: 0 to 127.

Return Value

[Sample](#)

A/D input object.

[See Also](#)

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.DAC_Available Method

Query available D/A outputs.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public List<int> DAC_Available()
```

Return Value

[List\(Int32\)](#)

List of available D/A output numbers.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.DAC_Create Method

Create a remote D/A output.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Sample DAC_Create(
    int num,
    int sample = 0
)
```

Parameters

num [Int32](#)

D/A output number: 0 to 127.

sample [Int32](#) (Optional)

Initial DAC output sample.

Return Value

[Sample](#)

D/A output object.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.Dispatcher Method

Command dispatcher.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Dispatcher(
    Message cmd,
    Message resp
)
```

Parameters

cmd [Message](#)

Command to be sent.

resp [Message](#)

Response to be received.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemoteIO Namespace](#)

Device.GPIO_Available Method

Query available GPIO pins.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public List<int> GPIO_Available()
```

Return Value

[List\(Int32\)](#)

List of available GPIO pin numbers.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.GPIO_Create Method

Create a remote GPIO pin object.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Pin GPIO_Create(
    int num,
    Direction dir,
    bool state = false
)
```

Parameters

num [Int32](#)

GPIO pin number: 0 to 127.

dir [Direction](#)

GPIO pin data direction: Input or Output.

state [Boolean](#) (Optional)

Initial GPIO output state.

Return Value

[Pin](#)

GPIO pin object.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.I2C_Available Method

Query available I²C buses.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public List<int> I2C_Available()
```

Return Value

[List\(Int32\)](#)

List of available I²C bus numbers.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.I2C_Create Method

Create a remote I²C bus controller.

Definition

Namespace: [IO.Objects.RemotelO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Bus I2C_Create(
    int num,
    int speed = 100000
)
```

Parameters

num [Int32](#)

I²C bus number: 0 to 127.

speed [Int32](#) (Optional)

I²C bus clock frequency in Hz

Return Value

[Bus](#)

I²C bus controller object.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelO Namespace](#)

Device.PWM_Available Method

Query available PWM outputs.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public List<int> PWM_Available()
```

Return Value

[List\(Int32\)](#)

List of available PWM output numbers.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.PWM_Create Method

Create a remote PWM output.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output PWM_Create(
    int num,
    int freq,
    double duty = 0
)
```

Parameters

num [Int32](#)

PWM output number: 0 to 127.

freq [Int32](#)

PWM pulse frequency in Hz.

duty [Double](#) (Optional)

Initial PWM output duty cycle.

Return Value

[Output](#)

PWM output object.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.SPI_Available Method

Query available SPI slave devices.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public List<int> SPI_Available()
```

Return Value

[List\(Int32\)](#)

List of available SPI slave device numbers.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.SPI_Create Method

Create a remote SPI slave device.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Device SPI_Create(
    int num,
    int mode,
    int wordsize,
    int speed
)
```

Parameters

num [Int32](#)

SPI slave device number: 0 to 127.

mode [Int32](#)

SPI transfer mode: 0 to 3.

wordsize [Int32](#)

SPI transfer word size: 8, 16, or 32.

speed [Int32](#)

SPI transfer speed in bits per second.

Return Value

[Device](#)

SPI slave device object.

Remarks

The actual SPI transfer rate will be the highest realizable rate that does not exceed the value specified in *speed*.

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemotelIO Namespace](#)

Device.MAX_CHANNELS Field

Maximum number of channels each subsystem can support.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int MAX_CHANNELS = 128
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemoteIO Namespace](#)

Device.Unavailable Field

Designator for an unavailable channel.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int Unavailable = -1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[Device Class](#)

[IO.Objects.RemoteIO Namespace](#)

GPIO Class

Encapsulates remote GPIO pins.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public class GPIO : Pin
```

Inheritance [Object](#) → GPIO

Implements [Pin](#)

Constructors

GPIO	Create a remote GPIO pin.
----------------------	---------------------------

Properties

state	Read/Write GPIO state property.
-----------------------	---------------------------------

See Also

Reference

[IO.Objects.RemotelIO Namespace](#)

GPIO Constructor

Create a remote GPIO pin.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public GPIO(
    Device dev,
    int num,
    Direction dir,
    bool state = false
)
```

Parameters

dev [Device](#)

Remote I/O device object.

num [Int32](#)

GPIO pin number: 0 to 127.

dir [Direction](#)

GPIO pin data direction: Input or Output.

state [Boolean](#) (Optional)

Initial GPIO output state.

Remarks

Use [Device.GPIO_Create\(\)](#) instead of this constructor.

See Also

[Reference](#)

[GPIO Class](#)

[IO.Objects.RemotelIO Namespace](#)

GPIO.state Property

Read/Write GPIO state property.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public bool state { get; set; }
```

Property Value

Boolean

Implements

[Pin.state](#)

See Also

[Reference](#)

[GPIO Class](#)

[IO.Objects.RemotelIO Namespace](#)

I2C Class

Encapsulates remote I²C buses.

Definition

Namespace: [IO.Objects.RemotelO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class I2C : Bus
```

Inheritance [Object](#) → I2C

Implements [Bus](#)

Constructors

[I2C](#)

Create a remote I²C bus controller.

Methods

Read	Read bytes from an I ² C slave device.
Transaction	Write and read bytes to and from an I ² C slave device.
Write	Write bytes to an I ² C slave device.

See Also

Reference

[IO.Objects.RemotelO Namespace](#)

I2C Constructor

Create a remote I²C bus controller.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public I2C(
    Device dev,
    int num,
    int speed = 100000
)
```

Parameters

dev [Device](#)

Remote I/O device object.

num [Int32](#)

I²C bus number: 0 to 127.

speed [Int32](#) (Optional)

I²C bus clock frequency in Hz

Remarks

Use [Device.I2C_Create\(\)](#) instead of this constructor.

See Also

[Reference](#)

[I2C Class](#)

[IO.Objects.RemoteIO Namespace](#)

I2C.Read Method

Read bytes from an I²C slave device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Read(
    int slaveaddr,
    byte[] resp,
    int resplen
)
```

Parameters

slaveaddr [Int32](#)

I²C slave address.

resp [Byte](#)[]

Response buffer.

resplen [Int32](#)

Number of bytes to read.

Implements

[Bus.Read\(Int32,Byte\[\],Int32\)](#)

See Also

[Reference](#)

[I2C Class](#)

[IO.Objects.RemoteIO Namespace](#)

I2C.Transaction Method

Write and read bytes to and from an I²C slave device.

Definition

Namespace: [IO.Objects.RemotelO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Transaction(
    int slaveaddr,
    byte[] cmd,
    int cmdlen,
    byte[] resp,
    int resplen,
    int delayus
)
```

Parameters

slaveaddr [Int32](#)

I²C slave address.

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

resp [Byte\[\]](#)

Response buffer.

resplen [Int32](#)

Number of bytes to read.

delayus [Int32](#)

Delay in microseconds between the I²C write and read cycles. Allowed values are 0 to 65535 microseconds.

Implements

[Bus.Transaction\(Int32,Byte\[\],Int32,Byte\[\],Int32,Int32\)](#)

See Also

[Reference](#)

[I2C Class](#)

[IO.Objects.RemotelO Namespace](#)

I2C.Write Method

Write bytes to an I²C slave device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    int slaveaddr,
    byte[] cmd,
    int cmdlen
)
```

Parameters

slaveaddr [Int32](#)

I²C slave address.

cmd [Byte](#)[]

Command buffer.

cmdlen [Int32](#)

Number of bytes to write.

Implements

[Bus.Write\(Int32,Byte\[\],Int32\)](#)

See Also

[Reference](#)

[I2C Class](#)

[IO.Objects.RemoteIO Namespace](#)

MessageTypes Enumeration

Remote I/O protocol message types

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public enum MessageTypes
```

Members

LOOPBACK_REQUEST	0	Loopback request
LOOPBACK_RESPONSE	1	Loopback response
VERSION_REQUEST	2	Version string request
VERSION_RESPONSE	3	Version string response
CAPABILITY_REQUEST	4	Capability string request
CAPABILITY_RESPONSE	5	Capability string response
GPIO_PRESENT_REQUEST	6	GPIO pins available request
GPIO_PRESENT_RESPONSE	7	GPIO pins available response
GPIO_CONFIGURE_REQUEST	8	GPIO pins configure request
GPIO_CONFIGURE_RESPONSE	9	GPIO pins configure response
GPIO_READ_REQUEST	10	GPIO pins read request
GPIO_READ_RESPONSE	11	GPIO pins read response
GPIO_WRITE_REQUEST	12	GPIO pins write request
GPIO_WRITE_RESPONSE	13	GPIO pins write response
I2C_PRESENT_REQUEST	14	I ² C buses available request
I2C_PRESENT_RESPONSE	15	I ² C buses available response
I2C_CONFIGURE_REQUEST	16	I ² C bus configure request
I2C_CONFIGURE_RESPONSE	17	I ² C bus configure response
I2C_TRANSACTION_REQUEST	18	I ² C bus transaction request
I2C_TRANSACTION_RESPONSE	19	I ² C bus transaction response
SPI_PRESENT_REQUEST	20	SPI slave devices available request
SPI_PRESENT_RESPONSE	21	SPI slave devices available response
SPI_CONFIGURE_REQUEST	22	SPI slave device configure request
SPI_CONFIGURE_RESPONSE	23	SPI slave device configure response
SPI_TRANSACTION_REQUEST	24	SPI bus transaction request

SPI_TRANSACTION_RESPONSE	25	SPI bus transaction response
ADC_PRESENT_REQUEST	26	ADC inputs available request
ADC_PRESENT_RESPONSE	27	ADC inputs available response
ADC_CONFIGURE_REQUEST	28	ADC input configure request
ADC_CONFIGURE_RESPONSE	29	ADC input configure response
ADC_READ_REQUEST	30	ADC input read request
ADC_READ_RESPONSE	31	ADC input read response
DAC_PRESENT_REQUEST	32	DAC outputs available request
DAC_PRESENT_RESPONSE	33	DAC outputs available response
DAC_CONFIGURE_REQUEST	34	DAC output configure request
DAC_CONFIGURE_RESPONSE	35	DAC output configure response
DAC_WRITE_REQUEST	36	DAC output write request
DAC_WRITE_RESPONSE	37	DAC output write response
PWM_PRESENT_REQUEST	38	PWM outputs available request
PWM_PRESENT_RESPONSE	39	PWM outputs available response
PWM_CONFIGURE_REQUEST	40	PWM input configure request
PWM_CONFIGURE_RESPONSE	41	PWM input configure response
PWM_WRITE_REQUEST	42	PWM output write request
PWM_WRITE_RESPONSE	43	PWM output write response

[See Also](#)

[Reference](#)

[IO.Objects.RemotelIO Namespace](#)

PeripheralTypes Enumeration

Types of remote peripherals

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public enum PeripheralTypes
```

Members

ADC	0	A/D inputs
DAC	1	D/A outputs
GPIO	2	GPIO pins
I2C	3	I ² C bus controllers
PWM	4	SPI slave devices
SPI	5	PWM outputs

See Also

Reference

[IO.Objects.RemotelIO Namespace](#)

PWM Class

Encapsulates remote PWM outputs.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class PWM : Output
```

Inheritance [Object](#) → PWM

Implements [Output](#)

Constructors

PWM	Create a remote PWM output.
---------------------	-----------------------------

Properties

dutycycle	Write-only property for setting the PWM output duty cycle.
---------------------------	--

See Also

Reference

[IO.Objects.RemoteIO Namespace](#)

PWM Constructor

Create a remote PWM output.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public PWM(
    Device dev,
    int num,
    int freq,
    double duty = 0
)
```

Parameters

dev [Device](#)

Remote I/O device object.

num [Int32](#)

PWM output number: 0 to 127.

freq [Int32](#)

PWM pulse frequency in Hz.

duty [Double](#) (Optional)

Initial PWM output duty cycle.

Remarks

Use [Device.PWM_Create\(\)](#) instead of this constructor.

See Also

[Reference](#)

[PWM Class](#)

[IO.Objects.RemotelIO Namespace](#)

PWM.dutycycle Property

Write-only property for setting the PWM output duty cycle.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double dutycycle { set; }
```

Property Value

[Double](#)

Implements

[Output.dutycycle](#)

See Also

[Reference](#)

[PWM Class](#)

[IO.Objects.RemotelIO Namespace](#)

SPI Class

Encapsulates remote SPI slave devices.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class SPI : Device
```

Inheritance [Object](#) → SPI

Implements [Device](#)

Constructors

[SPI](#)

Create a remote SPI slave device.

Methods

[Read](#)

Read bytes from an SPI slave device.

[Transaction](#)

Write and read bytes to and from an SPI slave device.

[Write](#)

Write bytes to an SPI slave device.

See Also

Reference

[IO.Objects.RemotelIO Namespace](#)

SPI Constructor

Create a remote SPI slave device.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public SPI(
    Device dev,
    int num,
    int mode,
    int wordsize,
    int speed
)
```

Parameters

dev [Device](#)

Remote I/O device object.

num [Int32](#)

SPI slave device number: 0 to 127.

mode [Int32](#)

SPI transfer mode: 0 to 3.

wordsize [Int32](#)

SPI transfer word size: 8, 16, or 32.

speed [Int32](#)

SPI transfer speed in bits per second.

Remarks

Use [Device.SPI_Create\(\)](#) instead of this constructor.

The actual SPI transfer rate will be the highest realizable rate that does not exceed the value specified in *speed*.

See Also

[Reference](#)

[SPI Class](#)

[IO.Objects.RemotelIO Namespace](#)

SPI.Read Method

Read bytes from an SPI slave device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Read(
    byte[] resp,
    int resplen
)
```

Parameters

resp [Byte\[\]](#)

Response buffer.

resplen [Int32](#)

Number of bytes to read: 1 to 60.

Implements

[Device.Read\(Byte\[\], Int32\)](#)

See Also

[Reference](#)

[SPI Class](#)

[IO.Objects.RemoteIO Namespace](#)

SPI.Transaction Method

Write and read bytes to and from an SPI slave device.

Definition

Namespace: [IO.Objects.RemotelIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Transaction(
    byte[] cmd,
    int cmdlen,
    byte[] resp,
    int resplen,
    int delayus = 0
)
```

Parameters

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write: 0 to 57.

resp [Byte\[\]](#)

Response buffer.

resplen [Int32](#)

Number of bytes to read: 0 to 60.

delayus [Int32](#) (Optional)

Delay in microseconds between write and read operations: 0 to 65535.

Implements

[Device.Transaction\(Byte\[\], Int32, Byte\[\], Int32, Int32\)](#)

See Also

[Reference](#)

[SPI Class](#)

[IO.Objects.RemotelIO Namespace](#)

SPI.Write Method

Write bytes to an SPI slave device.

Definition

Namespace: [IO.Objects.RemoteIO](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Write(
    byte[] cmd,
    int cmdlen
)
```

Parameters

cmd [Byte\[\]](#)

Command buffer.

cmdlen [Int32](#)

Number of bytes to write: 1 to 57.

Implements

[Device.Write\(Byte\[\], Int32\)](#)

See Also

[Reference](#)

[SPI Class](#)

[IO.Objects.RemoteIO Namespace](#)

[IO.Objects.RemotelIO.HID Namespace](#)

USB Raw HID (Human Interface Device) Transport Services

Classes

[Messenger](#)

Encapsulates USB raw HID devices, using the HidSharp library or libsimpleio.

Messenger Class

Encapsulates USB raw HID devices, using the HidSharp library or libsimpleio.

Definition

Namespace: [IO.Objects.RemoteIO.HID](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Messenger : Messenger
```

Inheritance [Object](#) → Messenger

Implements [Messenger](#)

Constructors

Messenger	Create a 64-byte messenger object bound to a USB HID device.
---------------------------	--

Properties

Info	Information string from the USB HID device.
----------------------	---

Methods

Receive	Receive a 64-byte message from a USB HID device.
Send	Send a 64-byte message to a USB HID device.
Transaction	Send a 64-byte command message to and receive a 64-byte response message from a USB HID device.

See Also

Reference

[IO.Objects.RemoteIO.HID Namespace](#)

Messenger Constructor

Create a 64-byte messenger object bound to a USB HID device.

Definition

Namespace: [IO.Objects.RemotelIO.HID](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Messenger(
    int vid = 5840,
    int pid = 2810,
    string serialnumber = null,
    int timeoutms = 1000
)
```

Parameters

vid [Int32](#) (Optional)

Vendor ID

pid [Int32](#) (Optional)

Product ID

serialnumber [String](#) (Optional)

Serial number

timeoutms [Int32](#) (Optional)

Time in milliseconds to wait for read and write operations to complete. Zero means wait forever.

See Also

Reference

[Messenger Class](#)

[IO.Objects.RemotelIO.HID Namespace](#)

Messenger.Info Property

Information string from the USB HID device.

Definition

Namespace: [IO.Objects.RemoteIO.HID](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public string Info { get; }
```

Property Value

String

See Also

Reference

[Messenger Class](#)

[IO.Objects.RemoteIO.HID Namespace](#)

Messenger.Receive Method

Receive a 64-byte message from a USB HID device.

Definition

Namespace: [IO.Objects.RemoteIO.HID](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Receive(
    Message resp
)
```

Parameters

resp [Message](#)

Message received.

Implements

[Messenger.Receive\(Message\)](#)

See Also

[Reference](#)

[Messenger Class](#)

[IO.Objects.RemoteIO.HID Namespace](#)

Messenger.Send Method

Send a 64-byte message to a USB HID device.

Definition

Namespace: [IO.Objects.RemoteIO.HID](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Send(
    Message cmd
)
```

Parameters

cmd [Message](#)

Message to be sent.

Implements

[Messenger.Send\(Message\)](#)

See Also

[Reference](#)

[Messenger Class](#)

[IO.Objects.RemoteIO.HID Namespace](#)

Messenger.Transaction Method

Send a 64-byte command message to and receive a 64-byte response message from a USB HID device.

Definition

Namespace: [IO.Objects.RemotelO.HID](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public void Transaction(
    Message cmd,
    Message resp
)
```

Parameters

cmd [Message](#)

Message to be sent.

resp [Message](#)

Message received.

Implements

[Messenger.Transaction\(Message, Message\)](#)

See Also

Reference

[Messenger Class](#)

[IO.Objects.RemotelO.HID Namespace](#)

IO.Objects.RemotelO.mikroBUS Namespace

Mikroelektronika mikroBUS (<https://www.mikroe.com/mikrobus>) Remote I/O protocol Server and Socket Services

Classes

Shield	Encapsulates mikroBUS shields on Remote I/O Protocol servers providing mikroBUS sockets).
Socket	Encapsulates mikroBUS sockets.

Enumerations

Shield.Kinds	Supported mikroBUS shields.
------------------------------	-----------------------------

Shield Class

Encapsulates mikroBUS shields on Remote I/O Protocol servers providing [mikroBUS](#) sockets).

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class Shield
```

Inheritance [Object](#) → Shield

Properties

kind	Returns the kind of mikroBUS shield that is installed on the Remote I/O Protocol server, as obtained from the SHIELDNAME environment variable.
----------------------	--

Fields

I2CBus	Shared I ² C bus that is common to all sockets on this shield.
------------------------	---

See Also

Reference

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Shield.kind Property

Returns the kind of mikroBUS shield that is installed on the Remote I/O Protocol server, as obtained from the **SHIELDNAME** environment variable.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static Shield.Kinds kind { get; }
```

Property Value

[Shield.Kinds](#)

See Also

[Reference](#)

[Shield Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Shield.I2CBus Field

Shared I²C bus that is common to all sockets on this shield.

Definition

Namespace: [IO.Objects.RemotelO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public static Bus I2CBus
```

Field Value

[Bus](#)

See Also

[Reference](#)

[Shield Class](#)

[IO.Objects.RemotelO.mikroBUS Namespace](#)

Shield.Kinds Enumeration

Supported mikroBUS shields.

Definition

Namespace: [IO.Objects.RemotelO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public enum Kinds
```

Members

BeagleBoneClick2	0	Mikroelektronika BeagleBone Click Shield MIKROE-1596 , with two mikroBUS sockets. (Obsolete, but still useful.)
BeagleBoneClick4	1	Mikroelektronika mikroBUS Cape MIKROE-1857 with four mikroBUS sockets.
PiClick1	2	Raspberry Pi with Mikroelektronika Pi Click Shield MIKROE-1512/1513 for 26-pin expansion header, with one mikroBUS socket (Obsolete.)
PiClick2	3	Raspberry Pi with Mikroelektronika Pi 2 Click Shield MIKROE-1879 for 40-pin expansion header, with two mikroBUS sockets.
PiClick3	4	Mikroelektronika Pi 3 Click Shield MIKROE-2756 for 40-pin expansion header, with selectable on-board A/D converter and two mikroBUS sockets.
PocketBeagle	5	PocketBeagle with female headers on top, with two mikroBUS sockets.
Unknown	2,147,483,647	No known mikroBUS shield installed.

See Also

Reference

[IO.Objects.RemotelO.mikroBUS Namespace](#)

Socket Class

Encapsulates mikroBUS sockets.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public class Socket
```

Inheritance [Object](#) → Socket

Constructors

Socket	Constructor for a single mikroBUS socket.
------------------------	---

Properties

AIN	Returns the ADC input designator for AN.
AN	Returns the GPIO pin designator for AN.
CS	Returns the GPIO pin designator for CS.
I2CBus	Returns the I ² C bus designator for this socket.
INT	Returns the GPIO pin designator for INT.
MISO	Returns the GPIO pin designator for MISO.
MOSI	Returns the GPIO pin designator for MOSI.
PWM	Returns the GPIO pin designator for PWM.
PWMSel	Returns the PWM output designator for PWM.
RST	Returns the GPIO pin designator for RST.
RX	Returns the GPIO pin designator for RX.
SCK	Returns the GPIO pin designator for SCK.
SCL	Returns the GPIO pin designator for SCL.
SDA	Returns the GPIO pin designator for SDA.
SPIDev	Returns the SPI device designator for this socket.
TX	Returns the GPIO pin designator for TX.

See Also

Reference

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket Constructor

Constructor for a single mikroBUS socket.

Definition

Namespace: [IO.Objects.RemotelO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Socket(
    int num,
    Shield.Kinds shield = Shield.Kinds.Unknown
)
```

Parameters

num [Int32](#)

Socket number.

shield [Shield.Kinds](#) (Optional)

mikroBUS shield kind. Zero indicates automatic detection using the [Shield.kind](#) property.

See Also

[Reference](#)

[Socket Class](#)

[IO.Objects.RemotelO.mikroBUS Namespace](#)

Socket.AIN Property

Returns the ADC input designator for AN.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int AIN { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.AN Property

Returns the GPIO pin designator for AN.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int AN { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.CS Property

Returns the GPIO pin designator for CS.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int CS { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.I2CBus Property

Returns the I²C bus designator for this socket.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public int I2CBus { get; }
```

Property Value

[Int32](#)

See Also

[Reference](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.INT Property

Returns the GPIO pin designator for INT.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public int INT { get; }
```

Property Value

[Int32](#)

See Also

Reference

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.MISO Property

Returns the GPIO pin designator for MISO.

Definition

Namespace: [IO.Objects.RemotelO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public int MISO { get; }
```

Property Value

[Int32](#)

See Also

Reference

[Socket Class](#)

[IO.Objects.RemotelO.mikroBUS Namespace](#)

Socket.MOSI Property

Returns the GPIO pin designator for MOSI.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int MOSI { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.PWM Property

Returns the GPIO pin designator for PWM.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int PWM { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.PWMOut Property

Returns the PWM output designator for PWM.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public int PWMOut { get; }
```

Property Value

[Int32](#)

See Also

Reference

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.RST Property

Returns the GPIO pin designator for RST.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int RST { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.RX Property

Returns the GPIO pin designator for RX.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int RX { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.SCK Property

Returns the GPIO pin designator for SCK.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int SCK { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.SCL Property

Returns the GPIO pin designator for SCL.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int SCL { get; }
```

Property Value

[Int32](#)

See Also

Reference

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.SDA Property

Returns the GPIO pin designator for SDA.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int SDA { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.SPIDev Property

Returns the SPI device designator for this socket.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public int SPIDev { get; }
```

Property Value

[Int32](#)

See Also

Reference

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

Socket.TX Property

Returns the GPIO pin designator for TX.

Definition

Namespace: [IO.Objects.RemoteIO.mikroBUS](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public int TX { get; }
```

Property Value

[Int32](#)

See Also

[*Reference*](#)

[Socket Class](#)

[IO.Objects.RemoteIO.mikroBUS Namespace](#)

IO.Objects.RemotelO.Platforms Namespace

I/O Resource Definitions for particular Remote I/O Protocol Server Platforms

Classes

<u>BeagleBone</u>	I/O resources (channel numbers) available on a BeagleBone Remote I/O Protocol Server
<u>MUNTS_0008</u>	I/O resources (channel numbers) available on from a MUNTS-0008 USB Grove Adapter.
<u>MUNTS_0009</u>	I/O resources (channel numbers) available on from a MUNTS-0009 USB Grove Adapter.
<u>MUNTS_0015</u>	I/O resources (channel numbers) available from a <u>MUNTS-0015 USB Remote I/O Protocol Adapter</u> .
<u>MUNTS_0016</u>	I/O resources (channel numbers) available from a <u>MUNTS-0016 USB Grove Adapter</u> Remote I/O Protocol Server.
<u>MUNTS_0018</u>	I/O resources (channel numbers) available from a <u>MUNTS-0018 Tutorial I/O Board</u> Remote I/O Protocol Server.
<u>PocketBeagle</u>	I/O resources (channel numbers) available on a BeagleBone Remote I/O Protocol Server
<u>RaspberryPi</u>	I/O resources (channel numbers) available on a Raspberry Pi Remote I/O Protocol Server

BeagleBone Class

I/O resources (channel numbers) available on a BeagleBone Remote I/O Protocol Server

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class BeagleBone
```

Inheritance [Object](#) → BeagleBone

Fields

AIN0	Analog input channel number for the remote BeagleBone 1.8V analog input AIN0 at pin P9.39 .
AIN1	Analog input channel number for the remote BeagleBone 1.8V analog input AIN1 at pin P9.40 .
AIN2	Analog input channel number for the remote BeagleBone 1.8V analog input AIN2 at pin P9.37 .
AIN3	Analog input channel number for the remote BeagleBone 1.8V analog input AIN3 at pin P9.38 .
AIN4	Analog input channel number for the remote BeagleBone 1.8V analog input AIN4 at pin P9.33 .
AIN5	Analog input channel number for the remote BeagleBone 1.8V analog input AIN5 at pin P9.36 .
AIN6	Analog input channel number for the remote BeagleBone 1.8V analog input AIN6 at pin P9.35 .
EHRPWM1A	PWM output channel number for the remote BeagleBone PWM output EHRPWM1A at pins P8.36 or P9.14 .
EHRPWM1B	PWM output channel number for the remote BeagleBone PWM output EHRPWM1B at pins P8.34 or P9.16 .
EHRPWM2A	PWM output channel number for the remote BeagleBone PWM output EHRPWM2A at pins P8.19 or P8.45 .
EHRPWM2B	PWM output channel number for the remote BeagleBone PWM output EHRPWM2B at pins P8.13 or P8.46 .
GPIO10	GPIO channel number for the remote BeagleBone GPIO pin GPIO10 at pin P8.31 .
GPIO11	GPIO channel number for the remote BeagleBone GPIO pin GPIO11 at pin

	P8.32.
<u>GPIO110</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO110 at pin P9.31 .
<u>GPIO111</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO111 at pin P9.29 .
<u>GPIO112</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO112 at pin P9.30 .
<u>GPIO113</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO113 at pin P9.28 .
<u>GPIO115</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO115 at pin P9.27 .
<u>GPIO117</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO117 at pin P9.25 .
<u>GPIO12</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO12 at pin P9.20 .
<u>GPIO13</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO13 at pin P9.19 .
<u>GPIO14</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO14 at pin P9.26 .
<u>GPIO15</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO15 at pin P9.24 .
<u>GPIO2</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO2 at pin P9.22 .
<u>GPIO20</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO20 at pin P9.41 .
<u>GPIO22</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO22 at pin P8.19 .
<u>GPIO23</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO23 at pin P8.13 .
<u>GPIO26</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO26 at pin P8.14 .
<u>GPIO27</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO27 at pin P8.17 .
<u>GPIO3</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO3 at pin P9.21 .
<u>GPIO30</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO30 at pin P9.11 .

<u>GPIO31</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO31 at pin P9.13.
<u>GPIO32</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO32 at pin P8.25.
<u>GPIO33</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO33 at pin P8.24.
<u>GPIO34</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO34 at pin P8.5.
<u>GPIO35</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO35 at pin P8.6.
<u>GPIO36</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO36 at pin P8.23.
<u>GPIO37</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO37 at pin P8.22.
<u>GPIO38</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO38 at pin P8.3.
<u>GPIO39</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO39 at pin P8.4.
<u>GPIO4</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO4 at pin P9.18.
<u>GPIO44</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO44 at pin P8.12.
<u>GPIO45</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO45 at pin P8.11.
<u>GPIO46</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO46 at pin P8.16.
<u>GPIO47</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO47 at pin P8.15.
<u>GPIO48</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO48 at pin P9.15.
<u>GPIO49</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO49 at pin P9.23.
<u>GPIO5</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO5 at pin P9.17.
<u>GPIO50</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO50 at pin P9.14.
<u>GPIO51</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO51 at pin

	P9.16.
<u>GPIO60</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO60 at pin P9.12.
<u>GPIO61</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO61 at pin P8.26.
<u>GPIO62</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO62 at pin P8.21.
<u>GPIO63</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO63 at pin P8.20.
<u>GPIO65</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO65 at pin P8.18.
<u>GPIO66</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO66 at pin P8.7.
<u>GPIO67</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO67 at pin P8.8.
<u>GPIO68</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO68 at pin P8.10.
<u>GPIO69</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO69 at pin P8.9.
<u>GPIO7</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO7 at pin P9.42.
<u>GPIO70</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO70 at pin P8.45.
<u>GPIO71</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO71 at pin P8.46.
<u>GPIO72</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO72 at pin P8.43.
<u>GPIO73</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO73 at pin P8.44.
<u>GPIO74</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO74 at pin P8.41.
<u>GPIO75</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO75 at pin P8.42.
<u>GPIO76</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO76 at pin P8.39.
<u>GPIO77</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO77 at pin P8.40.

<u>GPIO78</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO78 at pin P8.37.
<u>GPIO79</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO79 at pin P8.38.
<u>GPIO8</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO8 at pin P8.35.
<u>GPIO80</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO80 at pin P8.36.
<u>GPIO81</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO81 at pin P8.34.
<u>GPIO86</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO86 at pin P8.27.
<u>GPIO87</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO87 at pin P8.29.
<u>GPIO88</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO88 at pin P8.28.
<u>GPIO89</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO89 at pin P8.30.
<u>GPIO9</u>	GPIO channel number for the remote BeagleBone GPIO pin GPIO9 at pin P8.33.
<u>I2C2</u>	I ² C bus channel number for the remote BeagleBone I ² C bus at pins P9.19 and P9.20 .
<u>SPI0_0</u>	SPI slave channel number for the remote BeagleBone SPI slave select SPI0_0 at pin P9.17
<u>SPI1_0</u>	SPI slave channel number for the remote BeagleBone SPI slave select SPI1_0 at pin P9.28
<u>SPI1_1</u>	SPI slave channel number for the remote BeagleBone SPI slave select SPI1_1 at pin P9.42
<u>USERLED</u>	GPIO channel number for the remote BeagleBone user LED.

[See Also](#)

[Reference](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN0 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN0](#) at pin P9.39.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN1 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN1](#) at pin P9.40.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN2 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN2](#) at pin P9.37.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN2 = 2
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN3 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN3](#) at pin P9.38.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN3 = 3
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN4 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN4](#) at pin P9.33.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN4 = 4
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN5 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN5](#) at pin P9.36.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN5 = 5
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.AIN6 Field

Analog input channel number for the remote BeagleBone 1.8V analog input [AIN6](#) at pin P9.35.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN6 = 6
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.EHRPWM1A Field

PWM output channel number for the remote BeagleBone PWM output [EHRPWM1A](#) at pins [P8.36](#) or [P9.14](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int EHRPWM1A = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.EHRPWM1B Field

PWM output channel number for the remote BeagleBone PWM output [EHRPWM1B](#) at pins [P8.34](#) or [P9.16](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int EHRPWM1B = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.EHRPWM2A Field

PWM output channel number for the remote BeagleBone PWM output [EHRPWM2A](#) at pins [P8.19](#) or [P8.45](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int EHRPWM2A = 2
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.EHRPWM2B Field

PWM output channel number for the remote BeagleBone PWM output [EHRPWM2B](#) at pins [P8.13](#) or [P8.46](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int EHRPWM2B = 3
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.GPIO10 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO10](#) at pin [P8.31](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO10 = 10
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO11 Field

GPIO channel number for the remote BeagleBone GPIO pin GPIO11 at pin P8.32.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO11 = 11
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO110 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO110](#) at pin P9.31.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO110 = 110
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM0A](#) or [SPI1 SCLK](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO111 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO111](#) at pin P9.29.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO111 = 111
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1](#) MISO.

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO112 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO112](#) at pin P9.30.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO112 = 112
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1 MOSI](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO113 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO113](#) at pin P9.28.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO113 = 113
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1 SS0](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO115 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO115](#) at pin P9.27.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO115 = 115
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO117 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO117](#) at pin P9.25.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO117 = 117
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO12 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO12](#) at pin [P9.20](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO12 = 12
```

Field Value

[Int32](#)

Remarks

Conflicts with [I2C2 SDA](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO13 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO13](#) at pin [P9.19](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO13 = 13
```

Field Value

[Int32](#)

Remarks

Conflicts with [I2C2 SCL](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO14 Field

GPIO channel number for the remote BeagleBone GPIO pin GPIO14 at pin P9.26.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO14 = 14
```

Field Value

[Int32](#)

Remarks

Conflicts with [UART1 RXD](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO15 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO15](#) at pin [P9.24](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO15 = 15
```

Field Value

[Int32](#)

Remarks

Conflicts with [UART1 TXD](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO2 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO2](#) at pin [P9.22](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM0B](#), [SPI0 SCK](#) or [UART2 RXD](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO20 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO20](#) at pin [P9.41](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO20 = 20
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO22 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO22](#) at pin [P8.19](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO22 = 22
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM2A](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO23 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO23](#) at pin [P8.13](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO23 = 23
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM2B](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO26 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO26](#) at pin [P8.14](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO26 = 26
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO27 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO27](#) at pin [P8.17](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO27 = 27
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO3 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO3](#) at pin [P9.21](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0 MISO](#) or [UART2 TXD](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO30 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO30](#) at pin [P9.11](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO30 = 30
```

Field Value

[Int32](#)

Remarks

Conflicts with [UART4 RXD](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO31 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO31](#) at pin [P9.13](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO31 = 31
```

Field Value

[Int32](#)

Remarks

Conflicts with [UART4 TXD](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO32 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO32](#) at pin [P8.25](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO32 = 32
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT0](#).

See Also

[*Reference*](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO33 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO33](#) at pin [P8.24](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO33 = 33
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT1](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO34 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO34](#) at pin [P8.5](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO34 = 34
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT2](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO35 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO35](#) at pin [P8.6](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO35 = 35
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT3](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO36 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO36](#) at pin [P8.23](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO36 = 36
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT4](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO37 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO37](#) at pin [P8.22](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO37 = 37
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT5](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO38 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO38](#) at pin [P8.3](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO38 = 38
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT6](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO39 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO39](#) at pin [P8.4](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO39 = 39
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 DAT7](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO4 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO4](#) at pin [P9.18](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0 MOSI](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO44 Field

GPIO channel number for the remote BeagleBone GPIO pin GPIO44 at pin P8.12.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO44 = 44
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO45 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO45](#) at pin P8.11.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO45 = 45
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO46 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO46](#) at pin P8.16.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO46 = 46
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO47 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO47](#) at pin [P8.15](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO47 = 47
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO48 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO48](#) at pin [P9.15](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO48 = 48
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO49 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO49](#) at pin [P9.23](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO49 = 49
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO5 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO5](#) at pin [P9.17](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO5 = 5
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0 SS0](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO50 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO50](#) at pin [P9.14](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO50 = 50
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM1A](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO51 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO51](#) at pin [P9.16](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO51 = 51
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM1B](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO60 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO60](#) at pin [P9.12](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO60 = 60
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO61 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO61](#) at pin [P8.26](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO61 = 61
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO62 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO62](#) at pin P8.21.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO62 = 62
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 CLK](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO63 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO63](#) at pin P8.20.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO63 = 63
```

Field Value

[Int32](#)

Remarks

Conflicts with [MMC1 CMD](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO65 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO65](#) at pin [P8.18](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO65 = 65
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO66 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO66](#) at pin [P8.7](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO66 = 66
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO67 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO67](#) at pin [P8.8](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO67 = 67
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO68 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO68](#) at pin [P8.10](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO68 = 68
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO69 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO69](#) at pin [P8.9](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO69 = 69
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO7 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO7](#) at pin [P9.42](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1 SS1](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO70 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO70](#) at pin [P8.45](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO70 = 70
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM2A](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO71 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO71](#) at pin [P8.46](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO71 = 71
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM2B](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO72 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO72](#) at pin [P8.43](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO72 = 72
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO73 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO73](#) at pin [P8.44](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO73 = 73
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO74 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO74](#) at pin [P8.41](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO74 = 74
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO75 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO75](#) at pin [P8.42](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO75 = 75
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO76 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO76](#) at pin [P8.39](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO76 = 76
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO77 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO77](#) at pin [P8.40](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO77 = 77
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO78 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO78](#) at pin [P8.37](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO78 = 78
```

Field Value

[Int32](#)

Remarks

Conflicts with [UART5 TXD](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO79 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO79](#) at pin [P8.38](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO79 = 79
```

Field Value

[Int32](#)

Remarks

Conflicts with [UART5 RXD](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO8 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO8](#) at pin [P8.35](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO8 = 8
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO80 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO80](#) at pin [P8.36](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO80 = 80
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM1A](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO81 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO81](#) at pin [P8.34](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO81 = 81
```

Field Value

[Int32](#)

Remarks

Conflicts with [EHRPWM1B](#).

See Also

Reference

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO86 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO86](#) at pin [P8.27](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO86 = 86
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO87 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO87](#) at pin [P8.29](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO87 = 87
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO88 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO88](#) at pin P8.28.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO88 = 88
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO89 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO89](#) at pin [P8.30](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO89 = 89
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.GPIO9 Field

GPIO channel number for the remote BeagleBone GPIO pin [GPIO9](#) at pin [P8.33](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO9 = 9
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.I2C2 Field

I²C bus channel number for the remote BeagleBone I²C bus at pins [P9.19](#) and [P9.20](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int I2C2 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO12](#) and [GPIO13](#).

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

BeagleBone.SPI0_0 Field

SPI slave channel number for the remote BeagleBone SPI slave select [SPI0_0](#) at pin P9.17

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI0_0 = 2
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

BeagleBone.SPI1_0 Field

SPI slave channel number for the remote BeagleBone SPI slave select [SPI1_0](#) at pin P9.28

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI1_0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

BeagleBone.SPI1_1 Field

SPI slave channel number for the remote BeagleBone SPI slave select `SPI1_1` at pin P9.42

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI1_1 = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

BeagleBone.USERLED Field

GPIO channel number for the remote BeagleBone user LED.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int USERLED = 0
```

Field Value

[Int32](#)

Remarks

This GPIO channel cannot be configured as an input.

See Also

[Reference](#)

[BeagleBone Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008 Class

I/O resources (channel numbers) available on from a MUNTS-0008 USB Grove Adapter.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class MUNTS_0008
```

Inheritance [Object](#) → MUNTS_0008

Fields

AIN0	Analog input channel number for Grove Connector J3 pin 1 .
AIN1	Analog input channel number for Grove Connector J4 pin 1 .
AIN2	Analog input channel number for Grove Connector J4 pin 2 .
AIN3	Analog input channel number for Grove Connector J6 pin 1 .
AIN4	Analog input channel number for Grove Connector J6 pin 2 .
GPIO1	GPIO channel number for Grove Connector J3 pin 1 .
GPIO2	GPIO channel number for Grove Connector J3 pin 2 .
GPIO3	GPIO channel number for Grove Connector J4 pin 1 .
GPIO4	GPIO channel number for Grove Connector J4 pin 2 .
GPIO5	GPIO channel number for Grove Connector J5 pin 1 .
GPIO6	GPIO channel number for Grove Connector J5 pin 2 .
GPIO7	GPIO channel number for Grove Connector J6 pin 1 .
GPIO8	GPIO channel number for Grove Connector J6 pin 2 .
I2C0	I ² C bus channel number for Grove Connector J6 .
LED	GPIO channel number for the on-board LED.
SPI0	SPI slave device channel number for Grove Connectors J4 and J6 .

See Also

Reference

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008.AIN0 Field

Analog input channel number for Grove Connector J3 pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO1](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.AIN1 Field

Analog input channel number for Grove Connector [J4](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO3](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.AIN2 Field

Analog input channel number for Grove Connector [J4](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO4](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.AIN3 Field

Analog input channel number for Grove Connector [J6](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO7](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.AIN4 Field

Analog input channel number for Grove Connector [J6](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO8](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.GPIO1 Field

GPIO channel number for Grove Connector [J3](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.GPIO2 Field

GPIO channel number for Grove Connector [J3](#) pin 2.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

Cannot be configured as an output.

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008.GPIO3 Field

GPIO channel number for Grove Connector [J4](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN1](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.GPIO4 Field

GPIO channel number for Grove Connector [J4](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN02](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.GPIO5 Field

GPIO channel number for Grove Connector [J5](#) pin 1.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO5 = 5
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0008 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008.GPIO6 Field

GPIO channel number for Grove Connector [J5](#) pin 2.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO6 = 6
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008.GPIO7 Field

GPIO channel number for Grove Connector [J6](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN3](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.GPIO8 Field

GPIO channel number for Grove Connector [J6](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO8 = 8
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN4](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0008.I2C0 Field

I²C bus channel number for Grove Connector J6.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int I2C0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0008 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008.LED Field

GPIO channel number for the on-board LED.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int LED = 0
```

Field Value

[Int32](#)

Remarks

Cannot be configured as an input.

See Also

[Reference](#)

[MUNTS_0008 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0008.SPI0 Field

SPI slave device channel number for Grove Connectors [J4](#) and [J6](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI0 = 0
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0008 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009 Class

I/O resources (channel numbers) available on from a MUNTS-0009 USB Grove Adapter.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class MUNTS_0009
```

Inheritance [Object](#) → MUNTS_0009

Fields

AIN0	Analog input channel number for Grove Connector J3 pin 1 .
AIN1	Analog input channel number for Grove Connector J4 pin 1 .
AIN2	Analog input channel number for Grove Connector J4 pin 2 .
AIN3	Analog input channel number for Grove Connector J6 pin 1 .
AIN4	Analog input channel number for Grove Connector J6 pin 2 .
GPIO1	GPIO channel number for Grove Connector J3 pin 1 .
GPIO2	GPIO channel number for Grove Connector J3 pin 2 .
GPIO3	GPIO channel number for Grove Connector J4 pin 1 .
GPIO4	GPIO channel number for Grove Connector J4 pin 2 .
GPIO5	GPIO channel number for Grove Connector J5 pin 1 .
GPIO6	GPIO channel number for Grove Connector J5 pin 2 .
GPIO7	GPIO channel number for Grove Connector J6 pin 1 .
GPIO8	GPIO channel number for Grove Connector J6 pin 2 .
I2C0	I ² C bus channel number for Grove Connector J6 .
LED	GPIO channel number for the on-board LED.
SPI0	SPI slave device channel number for Grove Connectors J4 and J6 .

See Also

Reference

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009.AIN0 Field

Analog input channel number for Grove Connector [J3](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO1](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.AIN1 Field

Analog input channel number for Grove Connector [J4](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO3](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.AIN2 Field

Analog input channel number for Grove Connector [J4](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO4](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.AIN3 Field

Analog input channel number for Grove Connector [J6](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO7](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.AIN4 Field

Analog input channel number for Grove Connector [J6](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO8](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.GPIO1 Field

GPIO channel number for Grove Connector [J3](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.GPIO2 Field

GPIO channel number for Grove Connector [J3](#) pin 2.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

Cannot be configured as an output.

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009.GPIO3 Field

GPIO channel number for Grove Connector [J4](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN1](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.GPIO4 Field

GPIO channel number for Grove Connector [J4](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN02](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.GPIO5 Field

GPIO channel number for Grove Connector [J5](#) pin 1.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO5 = 5
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0009 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009.GPIO6 Field

GPIO channel number for Grove Connector [J5](#) pin 2.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO6 = 6
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009.GPIO7 Field

GPIO channel number for Grove Connector [J6](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN3](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.GPIO8 Field

GPIO channel number for Grove Connector [J6](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO8 = 8
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN4](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0009.I2C0 Field

I²C bus channel number for Grove Connector J6.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int I2C0 = 0
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0009 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009.LED Field

GPIO channel number for the on-board LED.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int LED = 0
```

Field Value

[Int32](#)

Remarks

Cannot be configured as an input.

See Also

[Reference](#)

[MUNTS_0009 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0009.SPI0 Field

SPI slave device channel number for Grove Connectors [J4](#) and [J6](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0009 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0015 Class

I/O resources (channel numbers) available from a [MUNTS-0015 USB Remote I/O Protocol Adapter](#).

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class MUNTS_0015
```

Inheritance [Object](#) → MUNTS_0015

Fields

AIN0	Analog input channel number for pin G1 .
AIN1	Analog input channel number for pin G2 .
AIN2	Analog input channel number for pin G3 .
AIN3	Analog input channel number for pin SDA .
AIN4	Analog input channel number for pin SCL .
GPIO0	GPIO channel number for pin G0 .
GPIO1	GPIO channel number for pin G1 .
GPIO2	GPIO channel number for pin G2 .
GPIO3	GPIO channel number for pin G3 .
GPIO4	GPIO channel number for pin TX .
GPIO5	GPIO channel number for pin RX .
GPIO6	GPIO channel number for pin SDA .
GPIO7	GPIO channel number for pin SCL .
I2C0	I ² C bus channel number.
SPI0	SPI slave device channel number.

See Also

Reference

[IO.Objects.RemoteIOPlatforms Namespace](#)

MUNTS_0015.AINO Field

Analog input channel number for pin [G1](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO1](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.AIN1 Field

Analog input channel number for pin G2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO2](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.AIN2 Field

Analog input channel number for pin [G3](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO3](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.AIN3 Field

Analog input channel number for pin [SDA](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO6](#) and [I2C0](#) and [SPI0](#).

See Also

[Reference](#)

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.AIN4 Field

Analog input channel number for pin [SCL](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO7](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO0 Field

GPIO channel number for pin G0.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO1 Field

GPIO channel number for pin [G1](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO2 Field

GPIO channel number for pin [G2](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN1](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO3 Field

GPIO channel number for pin [G3](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN2](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO4 Field

GPIO channel number for pin TX.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO4 = 4
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO5 Field

GPIO channel number for pin `RX`.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO5 = 5
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO6 Field

GPIO channel number for pin [SDA](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO6 = 6
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN3](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.GPIO7 Field

GPIO channel number for pin [SCL](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN4](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0015.I2C0 Field

I²C bus channel number.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int I2C0 = 0
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0015 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0015.SPI0 Field

SPI slave device channel number.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int SPI0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0015 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0016 Class

I/O resources (channel numbers) available from a [MUNTS-0016 USB Grove Adapter](#) Remote I/O Protocol Server.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class MUNTS_0016
```

Inheritance [Object](#) → MUNTS_0016

Fields

AIN0	Analog input channel number for Grove Connector J3 pin 1 .
AIN1	Analog input channel number for Grove Connector J4 pin 1 .
AIN2	Analog input channel number for Grove Connector J4 pin 2 .
AIN3	Analog input channel number for Grove Connector J6 pin 1 .
AIN4	Analog input channel number for Grove Connector J6 pin 2 .
GPIO0	GPIO channel number for Grove Connector J3 pin 1 .
GPIO1	GPIO channel number for Grove Connector J3 pin 2 .
GPIO2	GPIO channel number for Grove Connector J4 pin 1 .
GPIO3	GPIO channel number for Grove Connector J4 pin 2 .
GPIO4	GPIO channel number for Grove Connector J5 pin 1 .
GPIO5	GPIO channel number for Grove Connector J5 pin 2 .
GPIO6	GPIO channel number for Grove Connector J6 pin 1 .
GPIO7	GPIO channel number for Grove Connector J6 pin 2 .
I2C0	I ² C bus channel number for Grove Connector J6 .
SPI0	SPI slave device channel number for Grove Connectors J4 and J6 .

See Also

Reference

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0016.AIN0 Field

Analog input channel number for Grove Connector J3 pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO0](#).

See Also

[Reference](#)

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.AIN1 Field

Analog input channel number for Grove Connector [J4](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO2](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.AIN2 Field

Analog input channel number for Grove Connector [J4](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO3](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.AIN3 Field

Analog input channel number for Grove Connector [J6](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO6](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.AIN4 Field

Analog input channel number for Grove Connector [J6](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO7](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO0 Field

GPIO channel number for Grove Connector [J3](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO1 Field

GPIO channel number for Grove Connector [J3](#) pin 2.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO1 = 1
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0016.GPIO2 Field

GPIO channel number for Grove Connector [J4](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN1](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO3 Field

GPIO channel number for Grove Connector [J4](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN2](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO4 Field

GPIO channel number for Grove Connector [J5](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO4 = 4
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO5 Field

GPIO channel number for Grove Connector [J5](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO5 = 5
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO6 Field

GPIO channel number for Grove Connector [J6](#) pin 1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO6 = 6
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN3](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.GPIO7 Field

GPIO channel number for Grove Connector [J6](#) pin 2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN4](#) and [I2C0](#) and [SPI0](#).

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0016.I2C0 Field

I²C bus channel number for Grove Connector J6.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int I2C0 = 0
```

Field Value

[Int32](#)

See Also

Reference

[MUNTS_0016 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0016.SPI0 Field

SPI slave device channel number for Grove Connectors [J4](#) and [J6](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0016 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018 Class

I/O resources (channel numbers) available from a [MUNTS-0018 Tutorial I/O Board](#) Remote I/O Protocol Server.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class MUNTS_0018
```

Inheritance [Object](#) → MUNTS_0018

Remarks

The following device tree overlay commands must be added to [config.txt](#) on the Raspberry Pi hosting the MUNTS-0018 Tutorial I/O Board Remote I/O Protocol Server:

```
C#
dtoverlay=anySpi,spi0-1,dev="microchip,mcp3204",speed=1000000
dtoverlay=pwm-2chan,pin=12,func=4,pin2=19,func2=2
```

Fields

D1	GPIO channel number for the on-board LED D1 . Cannot be configured as an input.
J10A0	Analog input channel number for Grove Analog Input Connector J10 pin A0 (MCP3204 input CH2).
J10A1	Analog input channel number for Grove Analog Input Connector J10 pin A1 (MCP3204 input CH3).
J11A0	Analog input channel number for Grove Analog Input Connector J11 pin A0 (MCP3204 input CH0).
J11A1	Analog input channel number for Grove Analog Input Connector J11 pin A1 (MCP3204 input CH1).
J2PWM	PWM channel number for Servo Header J2 .
J3PWM	PWM channel number for Servo Header J3 .
J4D0	GPIO channel number for Grove Digital I/O Connector J4 pin D0 .
J4D1	GPIO channel number for Grove Digital I/O Connector J4 pin D1 .
J5D0	GPIO channel number for Grove Digital I/O Connector J5 pin D0 .
J5D1	GPIO channel number for Grove Digital I/O Connector J5 pin D1 .
J6D0	GPIO channel number for Grove DC Motor Driver Connector J6 pin D0 .
J6D1	GPIO channel number for Grove DC Motor Driver Connector J6 pin D1 .

<u>J6DIR</u>	GPIO channel number for DC Motor Driver Grove Connector J6 pin D1 .
<u>J6PWM</u>	PWM channel number for DC Motor Driver Grove Connector J6 pin D0 .
<u>J7D0</u>	GPIO channel number for Grove DC Motor Driver Connector J7 pin D0 .
<u>J7D1</u>	GPIO channel number for Grove DC Motor Driver Connector J7 pin D1 .
<u>J7DIR</u>	GPIO channel number for Grove DC Motor Driver Connector J7 pin D1 .
<u>J7PWM</u>	PWM channel number for Grove DC Motor Driver Connector J7 pin D0 .
<u>J9I2C</u>	I ² C bus channel number for Grove I ² C Connector J9 .
<u>SW1</u>	GPIO channel number for the on-board momentary switch SW1 . Cannot be configured as an output.
<u>USERLED</u>	GPIO channel number for the remote Raspberry Pi user LED. Cannot be configured as an input.

See Also

Reference

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.D1 Field

GPIO channel number for the on-board LED D1. Cannot be configured as an input.

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int D1 = 26
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

MUNTS_0018.J10A0 Field

Analog input channel number for Grove Analog Input Connector [J10](#) pin [A0](#) (MCP3204 input [CH2](#)).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J10A0 = 2
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J10A1 Field

Analog input channel number for Grove Analog Input Connector [J10](#) pin [A1](#) (MCP3204 input [CH3](#)).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J10A1 = 3
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J11A0 Field

Analog input channel number for Grove Analog Input Connector [J11](#) pin [A0](#) (MCP3204 input [CH0](#)).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J11A0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J11A1 Field

Analog input channel number for Grove Analog Input Connector [J11](#) pin [A1](#) (MCP3204 input [CH1](#)).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J11A1 = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J2PWM Field

PWM channel number for Servo Header J2.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int J2PWM = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J3PWM Field

PWM channel number for Servo Header J3.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int J3PWM = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J4D0 Field

GPIO channel number for Grove Digital I/O Connector [J4](#) pin [D0](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int J4D0 = 23
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J4D1 Field

GPIO channel number for Grove Digital I/O Connector [J4](#) pin [D1](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int J4D1 = 24
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J5D0 Field

GPIO channel number for Grove Digital I/O Connector [J5](#) pin [D0](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J5D0 = 5
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J5D1 Field

GPIO channel number for Grove Digital I/O Connector [J5](#) pin [D1](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J5D1 = 4
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J6D0 Field

GPIO channel number for Grove DC Motor Driver Connector [J6](#) pin [D0](#).

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J6D0 = 12
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO12](#) is mapped to [PWM0](#).

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

MUNTS_0018.J6D1 Field

GPIO channel number for Grove DC Motor Driver Connector [J6](#) pin [D1](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int J6D1 = 13
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J6DIR Field

GPIO channel number for DC Motor Driver Grove Connector [J6](#) pin [D1](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J6DIR = 13
```

Field Value

[Int32](#)

Remarks

J6DIR

controls the motor **direction**.

See Also

Reference

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J6PWM Field

PWM channel number for DC Motor Driver Grove Connector [J6](#) pin [D0](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J6PWM = 0
```

Field Value

[Int32](#)

Remarks

J6PWM

controls the motor **speed**.

See Also

Reference

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J7D0 Field

GPIO channel number for Grove DC Motor Driver Connector [J7](#) pin [D0](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J7D0 = 19
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO19](#) is mapped to [PWM1](#).

See Also

Reference

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J7D1 Field

GPIO channel number for Grove DC Motor Driver Connector [J7](#) pin [D1](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int J7D1 = 18
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.J7DIR Field

GPIO channel number for Grove DC Motor Driver Connector [J7](#) pin [D1](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J7DIR = 18
```

Field Value

[Int32](#)

Remarks

J7DIR

controls the motor **direction**.

See Also

Reference

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J7PWM Field

PWM channel number for Grove DC Motor Driver Connector [J7](#) pin [D0](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int J7PWM = 1
```

Field Value

[Int32](#)

Remarks

J7PWM

controls the motor **speed**.

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

MUNTS_0018.J9I2C Field

I²C bus channel number for Grove I²C Connector J9.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int J9I2C = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

MUNTS_0018.SW1 Field

GPIO channel number for the on-board momentary switch [SW1](#). Cannot be configured as an output.

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SW1 = 6
```

Field Value

[Int32](#)

Remarks

This GPIO pin cannot be configured as an output.

See Also

Reference

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIOPlatforms Namespace](#)

MUNTS_0018.USERLED Field

GPIO channel number for the remote Raspberry Pi user LED. Cannot be configured as an input.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int USERLED = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[MUNTS_0018 Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

PocketBeagle Class

I/O resources (channel numbers) available on a BeagleBone Remote I/O Protocol Server

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class PocketBeagle
```

Inheritance [Object](#) → PocketBeagle

Fields

AIN0	Analog input channel number for the remote PocketBeagle 1.8V analog input AIN0 at pin P1.19 .
AIN1	Analog input channel number for the remote PocketBeagle 1.8V analog input AIN1 at pin P1.21 .
AIN2	Analog input channel number for the remote PocketBeagle 1.8V analog input AIN2 at pin P1.23 .
AIN3	Analog input channel number for the remote PocketBeagle 1.8V analog input AIN3 at pin P1.24 .
AIN4	Analog input channel number for the remote PocketBeagle 1.8V analog input AIN4 at pin P1.25 .
AIN5	Analog input channel number for the remote PocketBeagle 3.6V analog input AIN5 at pin P2.35 .
AIN6	Analog input channel number for the remote PocketBeagle 3.6V analog input AIN6 at pin P1.2 .
AIN7	Analog input channel number for the remote PocketBeagle 1.8V analog input AIN7 at pin P2.36 .
GPIO110	GPIO channel number for the remote PocketBeagle GPIO pin GPIO110 at pin P1.36 .
GPIO111	GPIO channel number for the remote PocketBeagle GPIO pin GPIO111 at pin P1.33 .
GPIO112	GPIO channel number for the remote PocketBeagle GPIO pin GPIO112 at pin P2.32 .
GPIO113	GPIO channel number for the remote PocketBeagle GPIO pin GPIO113 at pin P2.30 .
GPIO114	GPIO channel number for the remote PocketBeagle GPIO pin GPIO114 at pin

	P1.31.
<u>GPIO15</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO115</u> at pin P2.34.
<u>GPIO16</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO116</u> at pin P2.28.
<u>GPIO17</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO117</u> at pin P1.29.
<u>GPIO12</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO12</u> at pin P1.26.
<u>GPIO13</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO13</u> at pin P1.28.
<u>GPIO14</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO14</u> at pin P2.11.
<u>GPIO15</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO15</u> at pin P2.9.
<u>GPIO19</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO19</u> at pin P2.31.
<u>GPIO2</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO2</u> at pin P1.8.
<u>GPIO20</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO20</u> at pin P1.20.
<u>GPIO23</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO23</u> at pin P2.3.
<u>GPIO26</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO26</u> at pin P1.34.
<u>GPIO27</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO27</u> at pin P2.19.
<u>GPIO3</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO3</u> at pin P1.10.
<u>GPIO30</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO30</u> at pin P2.5.
<u>GPIO31</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO31</u> at pin P2.7.
<u>GPIO4</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO4</u> at pin P1.12.
<u>GPIO40</u>	GPIO channel number for the remote PocketBeagle GPIO pin <u>GPIO40</u> at pin P2.27.

<u>GPIO41</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO41 at pin P2.25.
<u>GPIO42</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO42 at pin P1.32.
<u>GPIO43</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO43 at pin P1.30.
<u>GPIO44</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO44 at pin P2.24.
<u>GPIO45</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO45 at pin P2.33.
<u>GPIO46</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO46 at pin P2.22.
<u>GPIO47</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO47 at pin P2.18.
<u>GPIO5</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO5 at pin P1.6.
<u>GPIO50</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO50 at pin P2.1.
<u>GPIO52</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO52 at pin P2.10.
<u>GPIO57</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO57 at pin P2.6.
<u>GPIO58</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO58 at pin P2.4.
<u>GPIO59</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO59 at pin P2.2.
<u>GPIO60</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO60 at pin P2.8.
<u>GPIO64</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO64 at pin P2.20.
<u>GPIO65</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO65 at pin P2.17.
<u>GPIO7</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO7 at pin P2.29.
<u>GPIO86</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO86 at pin P2.35.
<u>GPIO87</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO87 at pin

	P1.2.
<u>GPIO88</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO88 at pin P1.35 .
<u>GPIO89</u>	GPIO channel number for the remote PocketBeagle GPIO pin GPIO89 at pin P1.4 .
<u>I2C1</u>	I ² C bus channel number for the remote BeagleBone I ² C bus I²C at pins P2.9 and P2.11 .
<u>I2C2</u>	I ² C bus channel number for the remote BeagleBone I ² C bus I²C at pins P1.26 and P1.28 .
<u>PWM0_0</u>	PWM output channel number for the remote PocketBeagle PWM output PWM0_0 at pin P1.36
<u>PWM2_0</u>	PWM output channel number for the remote PocketBeagle PWM output PWM2_0 at pin P2.1
<u>SPI0_0</u>	SPI slave channel number for the remote PocketBeagle SPI slave select SPI0_0 at pin P1.6
<u>SPI1_1</u>	SPI slave channel number for the remote PocketBeagle SPI slave select SPI1_1 at pin P2.31
<u>USERLED</u>	GPIO channel number for the remote PocketBeagle user LED.

See Also

Reference

[IO.Objects.RemoteIO.Platforms Namespace](#)

PocketBeagle.AIN0 Field

Analog input channel number for the remote PocketBeagle 1.8V analog input [AIN0](#) at pin [P1.19](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.AIN1 Field

Analog input channel number for the remote PocketBeagle 1.8V analog input [AIN1](#) at pin [P1.21](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.AIN2 Field

Analog input channel number for the remote PocketBeagle 1.8V analog input [AIN2](#) at pin [P1.23](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN2 = 2
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

PocketBeagle.AIN3 Field

Analog input channel number for the remote PocketBeagle 1.8V analog input [AIN3](#) at pin [P1.24](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN3 = 3
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.AIN4 Field

Analog input channel number for the remote PocketBeagle 1.8V analog input [AIN4](#) at pin [P1.25](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN4 = 4
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.AIN5 Field

Analog input channel number for the remote PocketBeagle 3.6V analog input [AIN5](#) at pin [P2.35](#).

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN5 = 5
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO86](#).

See Also

Reference

[PocketBeagle Class](#)

[IO.Objects.RemoteIOPlatforms Namespace](#)

PocketBeagle.AIN6 Field

Analog input channel number for the remote PocketBeagle 3.6V analog input [AIN6](#) at pin [P1.2](#).

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN6 = 6
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO87](#).

See Also

[*Reference*](#)

[PocketBeagle Class](#)

[IO.Objects.RemoteIOPlatforms Namespace](#)

PocketBeagle.AIN7 Field

Analog input channel number for the remote PocketBeagle 1.8V analog input [AIN7](#) at pin [P2.36](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN7 = 7
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO110 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO110](#) at pin P1.36.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO110 = 110
```

Field Value

[Int32](#)

Remarks

Conflicts with [PWM0:0](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO111 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO111](#) at pin [P1.33](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO111 = 111
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO112 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO112](#) at pin [P2.32](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO112 = 112
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO113 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO113](#) at pin P2.30.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO113 = 113
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO114 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO114](#) at pin P1.31.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO114 = 114
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO115 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO115](#) at pin [P2.34](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO115 = 115
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO116 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO116](#) at pin P2.28.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO116 = 116
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO117 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO117](#) at pin P1.29.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO117 = 117
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO12 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO12](#) at pin P1.26.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO12 = 12
```

Field Value

[Int32](#)

Remarks

Conflicts with [I2C2 SDA](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO13 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO13](#) at pin P1.28.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO13 = 13
```

Field Value

[Int32](#)

Remarks

Conflicts with [I2C2 SCL](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO14 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO14](#) at pin P2.11.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO14 = 14
```

Field Value

[Int32](#)

Remarks

Conflicts with [I2C1 SDA](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO15 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO15](#) at pin P2.9.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO15 = 15
```

Field Value

[Int32](#)

Remarks

Conflicts with [I2C1](#) SCL.

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO19 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO19](#) at pin P2.31.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO19 = 19
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1 CS1](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO2 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO2](#) at pin P1.8.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0 SCLK](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO20 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO20](#) at pin P1.20.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO20 = 20
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO23 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO23](#) at pin P2.3.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO23 = 23
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO26 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO26](#) at pin P1.34.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO26 = 26
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO27 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO27](#) at pin P2.19.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO27 = 27
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO3 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO3](#) at pin P1.10.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0](#) MISO.

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO30 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO30](#) at pin P2.5.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO30 = 30
```

Field Value

[Int32](#)

Remarks

Conflicts with [RXD4](#).

See Also

Reference

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO31 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO31](#) at pin P2.7.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO31 = 31
```

Field Value

[Int32](#)

Remarks

Conflicts with [TXD4](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO4 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO4](#) at pin P1.12.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO4 = 4
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0 MOSI](#).

See Also

Reference

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO40 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO40](#) at pin P2.27.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO40 = 40
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1](#) MISO.

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO41 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO41](#) at pin P2.25.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO41 = 41
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1 MOSI](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO42 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO42](#) at pin P1.32.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO42 = 42
```

Field Value

[Int32](#)

Remarks

Conflicts with [RXD0](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO43 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO43](#) at pin P1.30.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO43 = 43
```

Field Value

[Int32](#)

Remarks

Conflicts with [TXD0](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO44 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO44](#) at pin P2.24.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO44 = 44
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO45 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO45](#) at pin P2.33.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO45 = 45
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO46 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO46](#) at pin P2.22.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO46 = 46
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO47 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO47](#) at pin P2.18.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO47 = 47
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO5 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO5](#) at pin P1.6.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO5 = 5
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI0 CS0](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO50 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO50](#) at pin P2.1.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO50 = 50
```

Field Value

[Int32](#)

Remarks

Conflicts with [PWM2:0](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO52 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO52](#) at pin P2.10.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO52 = 52
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO57 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO57](#) at pin P2.6.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO57 = 57
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO58 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO58](#) at pin P2.4.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO58 = 58
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO59 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO59](#) at pin P2.2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO59 = 59
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO60 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO60](#) at pin P2.8.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO60 = 60
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO64 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO64](#) at pin P2.20.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO64 = 64
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO65 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO65](#) at pin P2.17.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO65 = 65
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO7 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO7](#) at pin P2.29.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

Conflicts with [SPI1 SCLK](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO86 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO86](#) at pin P2.35.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO86 = 86
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN5](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO87 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO87](#) at pin P1.2.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO87 = 87
```

Field Value

[Int32](#)

Remarks

Conflicts with [AIN6](#).

See Also

Reference

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO88 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO88](#) at pin P1.35.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO88 = 88
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.GPIO89 Field

GPIO channel number for the remote PocketBeagle GPIO pin [GPIO89](#) at pin P1.4.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO89 = 89
```

Field Value

[Int32](#)

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.I2C1 Field

I²C bus channel number for the remote BeagleBone I²C bus I²C at pins P2.9 and P2.11.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int I2C1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO14](#) and [GPIO15](#).

See Also

Reference

[PocketBeagle Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

PocketBeagle.I2C2 Field

I²C bus channel number for the remote BeagleBone I²C bus I²C at pins P1.26 and P1.28.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int I2C2 = 2
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO12](#) and [GPIO13](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

PocketBeagle.PWM0_0 Field

PWM output channel number for the remote PocketBeagle PWM output `PWM0_0` at pin P1.36

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int PWM0_0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO110](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

PocketBeagle.PWM2_0 Field

PWM output channel number for the remote PocketBeagle PWM output `PWM2_0` at pin P2.1

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int PWM2_0 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with `GPIO50`.

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

PocketBeagle.SPI0_0 Field

SPI slave channel number for the remote PocketBeagle SPI slave select [SPI0_0](#) at pin P1.6

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int SPI0_0 = 0
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO5](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

PocketBeagle.SPI1_1 Field

SPI slave channel number for the remote PocketBeagle SPI slave select [SPI1_1](#) at pin P2.31

Definition

Namespace: [IO.Objects.RemotelIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI1_1 = 1
```

Field Value

[Int32](#)

Remarks

Conflicts with [GPIO19](#).

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemotelIO.Platforms Namespace](#)

PocketBeagle.USERLED Field

GPIO channel number for the remote PocketBeagle user LED.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int USERLED = 0
```

Field Value

[Int32](#)

Remarks

This GPIO channel cannot be configured as an input.

See Also

[Reference](#)

[PocketBeagle Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi Class

I/O resources (channel numbers) available on a Raspberry Pi Remote I/O Protocol Server

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public static class RaspberryPi
```

Inheritance [Object](#) → RaspberryPi

Fields

AIN0	Analog input channel number for the remote Raspberry Pi analog input AIN0.
AIN1	Analog input channel number for the remote Raspberry Pi analog input AIN1.
GPIO10	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO10 .
GPIO11	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO11 .
GPIO12	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO12 .
GPIO13	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO13 .
GPIO14	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO14 .
GPIO15	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO15 .
GPIO16	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO16 .
GPIO17	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO17 .
GPIO18	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO18 .
GPIO19	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO19 .
GPIO2	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO2 .
GPIO20	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO20 .
GPIO21	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO21 .
GPIO22	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO22 .
GPIO23	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO23 .
GPIO24	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO24 .
GPIO25	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO25 .
GPIO26	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO26 .
GPIO27	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO27 .

<u>GPIO3</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO3 .
<u>GPIO4</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO4 .
<u>GPIO5</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO5 .
<u>GPIO6</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO6 .
<u>GPIO7</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO7 .
<u>GPIO8</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO8 .
<u>GPIO9</u>	GPIO channel number for the remote Raspberry Pi GPIO pin GPIO9 .
<u>I2C1</u>	I ² C bus channel number for the remote Raspberry Pi I ² C bus controller I2C1 .
<u>PWM0</u>	PWM output channel number for the remote Raspberry Pi PWM output PWM0 .
<u>PWM1</u>	PWM output channel number for the remote Raspberry Pi PWM output PWM1 .
<u>SPI0_0</u>	SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev0.0 .
<u>SPI0_1</u>	SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev0.1 .
<u>SPI1_0</u>	SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev1.0 .
<u>SPI1_1</u>	SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev1.1 .
<u>SPI1_2</u>	SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev1.2 .
<u>USERLED</u>	GPIO channel number for the remote Raspberry Pi user LED.

See Also

Reference

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.AIN0 Field

Analog input channel number for the remote Raspberry Pi analog input AIN0.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN0 = 0
```

Field Value

[Int32](#)

Remarks

This analog input is only available if a [Mikroelektronika Pi 3 Click Shield \(MIKROE-2756\)](#) is installed and the following device tree overlay command added to config.txt:

```
C#
dtoverlay=Pi3ClickShield
```

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.AIN1 Field

Analog input channel number for the remote Raspberry Pi analog input AIN1.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int AIN1 = 1
```

Field Value

[Int32](#)

Remarks

This analog input is only available if a [Mikroelektronika Pi 3 Click Shield \(MIKROE-2756\)](#) is installed and the following device tree overlay command added to config.txt:

```
C#
dtoverlay=Pi3ClickShield
```

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO10 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO10`.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO10 = 10
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because `GPIO10` is mapped to SPI signal `SPI0_MOSI`.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO11 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO11](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO11 = 11
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO11](#) is mapped to SPI signal [SPI0_SCLK](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO12 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO12`.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO12 = 12
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO13 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO13](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO13 = 13
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO14 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO14](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO14 = 14
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO14](#) is mapped to UART signal [UART0_TXD](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO15 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO15](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO15 = 15
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO15](#) is mapped to UART signal [UART0_RXD](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO16 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO16](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO16 = 16
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO17 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO17`.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO17 = 17
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO18 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO18](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO18 = 18
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO18](#) is mapped to PWM output PWM0.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO19 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO19](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO19 = 19
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO2 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO2](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO2 = 2
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO2](#) is mapped to I²C signal [SDA1](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO20 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO20`.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in `libremoteio.dll`) Version: 2.2024.9.1

```
C#
public const int GPIO20 = 20
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO21 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO21`.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in `libremoteio.dll`) Version: 2.2024.9.1

```
C#
public const int GPIO21 = 21
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO22 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO22`.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in `libremoteio.dll`) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO22 = 22
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO23 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO23](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO23 = 23
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO24 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO24`.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO24 = 24
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO25 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO25](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int GPIO25 = 25
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO26 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO26`.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int GPIO26 = 26
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO27 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO27](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public const int GPIO27 = 27
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO3 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO3](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO3 = 3
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO3](#) is mapped to to I²C signal [SCL1](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO4 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO4`.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int GPIO4 = 4
```

Field Value

[Int32](#)

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO5 Field

GPIO channel number for the remote Raspberry Pi GPIO pin `GPIO5`.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO5 = 5
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO6 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO6](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO6 = 6
```

Field Value

[Int32](#)

Remarks

This GPIO channel is not usable when the Remote I/O server is running on an original Raspberry Pi 1 Model A or B with a 26-pin expansion header.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.GPIO7 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO7](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO7 = 7
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO7](#) is mapped to SPI signal [SPI0_CE1](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO8 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO8](#).

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO8 = 8
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO8](#) is mapped to SPI signal [SPI0_CE0](#).

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.GPIO9 Field

GPIO channel number for the remote Raspberry Pi GPIO pin [GPIO9](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int GPIO9 = 9
```

Field Value

[Int32](#)

Remarks

This GPIO channel is normally unusable because [GPIO9](#) is mapped to SPI signal SPI0_MISO.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.I2C1 Field

I²C bus channel number for the remote Raspberry Pi I²C bus controller [I2C1](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int I2C1 = 0
```

Field Value

[Int32](#)

Remarks

The following device tree overlay command must be added to [config.txt](#) on the Raspberry Pi Remote I/O server to enable I²C bus controller [I2C1](#):

```
C#
```

```
dtparam=i2c=on
```

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.PWM0 Field

PWM output channel number for the remote Raspberry Pi PWM output [PWM0](#).

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int PWM0 = 0
```

Field Value

[Int32](#)

Remarks

The following device tree overlay command must be added to [config.txt](#) on the Raspberry Pi Remote I/O server to enable PWM output [PWM0](#):

```
C#
dtoverlay=pwm
```

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.PWM1 Field

PWM output channel number for the remote Raspberry Pi PWM output `PWM1`.

Definition

Namespace: [IO.Objects.RemotelO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int PWM1 = 1
```

Field Value

[Int32](#)

Remarks

`PWM1`

is not normally enabled. You can enable it with one of the device tree overlay command variations described in

<https://github.com/raspberrypi/firmware/blob/master/boot/overlays/README>.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemotelO.Platforms Namespace](#)

RaspberryPi.SPI0_0 Field

SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev0.0.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI0_0 = 0
```

Field Value

[Int32](#)

Remarks

/dev/spidev0.0

uses [GPIO8](#) for slave select. The following device tree overlay command must be added to [config.txt](#) on the Raspberry Pi Remote I/O server to enable SPI bus controller [SPI0](#):

```
C#
dtparam=spi=on
```

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.SPI0_1 Field

SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev0.1.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI0_1 = 1
```

Field Value

[Int32](#)

Remarks

/dev/spidev0.1

uses [GPIO7](#) for slave select. The following device tree overlay command must be added to [config.txt](#) on the Raspberry Pi Remote I/O server to enable SPI bus controller [SPI0](#):

```
C#
dtparam=spi=on
```

See Also

[*Reference*](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

RaspberryPi.SPI1_0 Field

SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev1.0.

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI1_0 = 2
```

Field Value

[Int32](#)

Remarks

/dev/spidev1.0

uses [GPIO18](#) for slave select.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIOPlatforms Namespace](#)

RaspberryPi.SPI1_1 Field

SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev1.1.

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI1_1 = 3
```

Field Value

[Int32](#)

Remarks

/dev/spidev1.1

uses [GPIO17](#) for slave select.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIOPlatforms Namespace](#)

RaspberryPi.SPI1_2 Field

SPI slave device channel number for the remote Raspberry Pi SPI slave device /dev/spidev1.2.

Definition

Namespace: [IO.Objects.RemoteIOPlatforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public const int SPI1_2 = 4
```

Field Value

[Int32](#)

Remarks

/dev/spidev1.2

uses [GPIO16](#) for slave select.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIOPlatforms Namespace](#)

RaspberryPi.USERLED Field

GPIO channel number for the remote Raspberry Pi user LED.

Definition

Namespace: [IO.Objects.RemoteIO.Platforms](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
```

```
public const int USERLED = 0
```

Field Value

[Int32](#)

Remarks

This GPIO channel cannot be configured as an input.

See Also

[Reference](#)

[RaspberryPi Class](#)

[IO.Objects.RemoteIO.Platforms Namespace](#)

IO.Objects.Servo.PWM Namespace

PWM Controlled Servo Services

Classes

[Output](#)

Encapsulates servo outputs using PWM outputs.

Output Class

Encapsulates servo outputs using PWM outputs.

Definition

Namespace: [IO.Objects.Servo.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

C#

```
public class Output : Output
```

Inheritance [Object](#) → Output

Implements [Output](#)

Constructors

Output	Constructor for a single servo output.
------------------------	--

Properties

position	Write-only property for setting the servo position. Allowed values are -1.0 to +1.0.
--------------------------	--

See Also

Reference

[IO.Objects.Servo.PWM Namespace](#)

Output Constructor

Constructor for a single servo output.

Definition

Namespace: [IO.Objects.Servo.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public Output(
    Output pwm,
    int freq = 50,
    double position = 0
)
```

Parameters

pwm [Output](#)

PWM output instance.

freq [Int32](#) (Optional)

PWM pulse frequency.

position [Double](#) (Optional)

Initial servo position.

See Also

[Reference](#)

[Output Class](#)

[IO.Objects.Servo.PWM Namespace](#)

Output.position Property

Write-only property for setting the servo position. Allowed values are -1.0 to +1.0.

Definition

Namespace: [IO.Objects.Servo.PWM](#)

Assembly: libremoteio (in libremoteio.dll) Version: 2.2024.9.1

```
C#
public double position { set; }
```

Property Value

[Double](#)

Implements

[Output.position](#)

See Also

[Reference](#)

[Output Class](#)

[IO.Objects.Servo.PWM Namespace](#)