

# MiscSerialPort

**Inherits From:** NSObject  
**Declared In:** MiscKit/MiscSerialPort.h

## Class Description

The MiscSerialPort class provides access to serial ports. Port parameters such as baud rate, character length, parity and number of stop bits can be controlled. Most of the work is handled by an underlying NSFileHandle object.

Characters are transmitted to the serial line by the **writeData:** and **writeString:** methods.

Arrival of incoming characters is reported by the posting of a **MiscSerialPortReadCompletionNotification** to the default notification center. The *object* associated with the notification is the MiscSerialPort object which posted the notification. The *userinfo* dictionary contains the characters read from the serial port.

## Instance Variables

```
BOOL isOpen;  
int fd;  
NSString *portName;  
int baud;  
enum MiscSerialPortParity parity;  
int characterLength;  
NSString *errorString;  
NSFileHandle *fileHandle;
```

|                 |  |
|-----------------|--|
| isOpen          | Set when the port has been successfully opened.      |
| fd              | The serial port file descriptor.                     |
| portName        | The name of the serial port.                         |
| baud            | The serial port rate.                                |
| parity          | The serial port parity.                              |
| characterLength | The number of bits in a character.                   |
| errorString     | A description of the most recent error.              |
| fileHandle      | The NSFileHandle object which does most of the work. |

## Method Types

|                       |  |
|-----------------------|--|
| Object initialization | - initWithPort:baud:<br>- setCharacterLength:parity: |
| Object status         | - errorString  |
| Sending characters    | - writeData:<br>- writeString:                       |

## Instance Methods

### **errorString**

- (NSString \*)**errorString**

Returns a description of the most recent error, or **nil** if no error has yet occurred.

### **initWithPort:baud:**

- **initWithPort:**(NSString \*)*aString* **baud:**(int)*anInt*

Open the serial port whose name is given in *aString* and set the port speed to *anInt*. Returns **self** if all goes well. Returns **nil** if the serial port can not be opened or the parameters can not be set. Use **errorString** to get the reason for the failure to open or initialize the device.

**See also:** - `errorString`

**setCharacterLength:parity:**

- (BOOL)**setCharacterLength:(int)*cLen* parity:(int)*par***

Set the number of bits in a character to *cLen* and the parity to *par*. Acceptable values for *par* are:

`MiscSerialPortNoParity`  
`MiscSerialPortEvenParity`  
`MiscSerialPortOddParity`

**writeData:**

- (BOOL)**writeData:(NSData \*)*data***

Transmit the contents of *data* to the serial line.

**See also:** - `writeString:`

**writeString:**

- (BOOL)**writeString:(NSString \*)*aString***

Transmit the contents of *aString* to the serial line.

**See also:** - `writeData:`

## Notifications

### **MiscSerialPortReadCompletionNotification**

Posted when characters arrive at the serial port.

The notification contains:

#### **Notification Object**

The notifying MiscSerialPort object.

#### **Userinfo Key**

#### **Value**

MiscSerialPortNotificationDataItem

An **NSData** object containing the received data.