

Terminal

0.2

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## Chapter 1

# Serial terminal interface for Unix/Linux systems

Basically it has been designed for FTDI serial interfaces, but it should work with others as well.

To enable debugging, define `_TERMINAL_DEBUG`



## Chapter 2

# File Index

### 2.1 File List

Here is a list of all files with brief descriptions:

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## Chapter 3

# File Documentation

### 3.1 terminal.h File Reference

#### Functions

- int [term\\_init](#) (const char \*device, unsigned int baud)  
*Initialize terminal interface.*
- int [term\\_close](#) (int fd)  
*Restore default terminal settings.*
- int [term\\_read](#) (int fd, unsigned char \*buf, int blen)  
*Read data from the terminal.*
- int [term\\_write](#) (int fd, const unsigned char \*buf, int blen)  
*Write data to the terminal.*

#### 3.1.1 Function Documentation

##### 3.1.1.1 int term\_close ( int fd )

Restore default terminal settings.

Restore the default settings of the previously initialized terminal.

#### Parameters

<i>fd</i>	Opened file descriptor of the terminal
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#### Returns

Zero if OK, otherwise negative

### 3.1.1.2 `int term_init ( const char * device, unsigned int baud )`

Initialize terminal interface.

It configures the serial terminal for read-write usage. It is not thread safe! It stores the default terminal configuration in static variables!

After usage, the `term_close` function restores the default settings.

#### Parameters

<i>device</i>	Device path, i.e. <code>/dev/ttyUSB0</code>
<i>baud</i>	Terminal baud rate, i.e. 115200

#### Returns

File descriptor of the terminal if OK, otherwise negative

### 3.1.1.3 `int term_read ( int fd, unsigned char * buf, int blen )`

Read data from the terminal.

It reads up to `blen` bytes from the previously initialized terminal

#### Parameters

<i>fd</i>	Opened file descriptor of the terminal
<i>buf</i>	Buffer, where it puts the data
<i>blen</i>	Size of <code>buf</code> buffer

#### Returns

Amount of the read data if OK, otherwise zero (closed) or negative (error)

### 3.1.1.4 `int term_write ( int fd, const unsigned char * buf, int blen )`

Write data to the terminal.

It writes `blen` bytes to the previously initialized terminal

#### Parameters

<i>fd</i>	Opened file descriptor of the terminal
<i>buf</i>	Buffer, which contains the data
<i>blen</i>	Size of <code>buf</code> buffer

#### Returns

Amount of the written data if OK, otherwise zero (closed) or negative (error)

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