



oTerminal Reference Manual

Version 2.0

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oTerminal

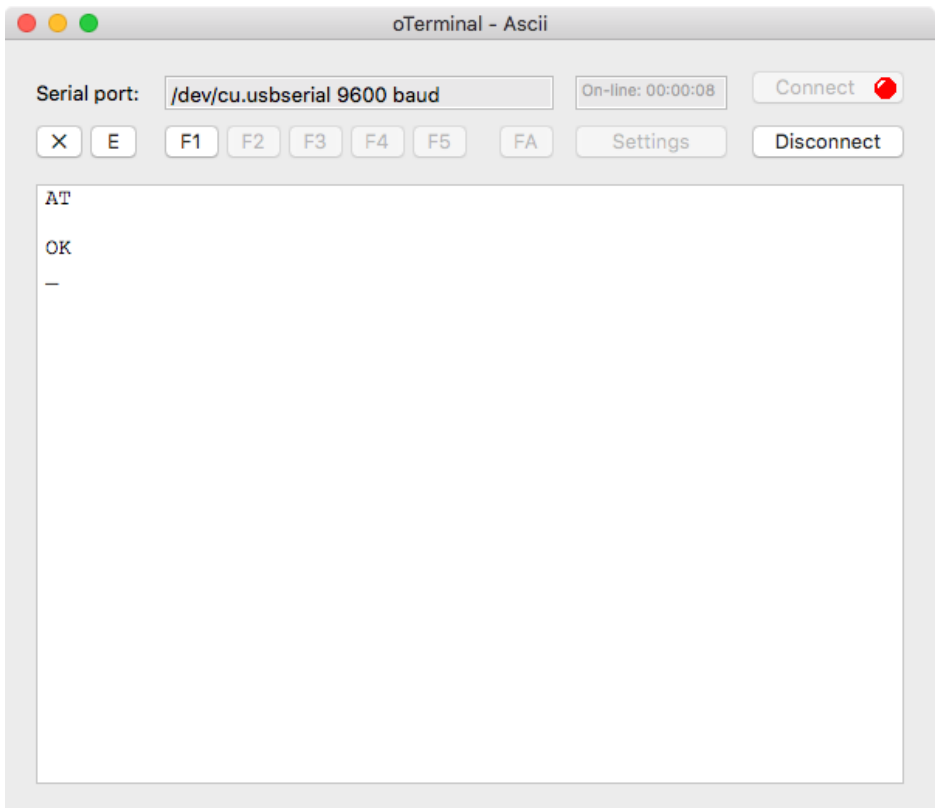
oTerminal is an universal and easy to use terminal program for ethernet communication (TCP/IP) and serial (USB) ports.

With oTerminal and a standard ethernet to serial converter, it is easy to connect serial devices with different baud rates. It is also possible to connect ethernet devices that use a low level binary protocol such as Modbus.

To connect direct to a RS232 / RS485 device, you can use a serial USB adapter / converter.

There are three different terminal types:

- **Ascii**
- **Ascii Hex Binary**
- **OtcNet Command**



Settings - Properties

Terminal Type: **Ascii**

Standard ascii protocol to communicate with serial devices such as a modem or other asynchronous devices.

Each typed character is sent immediately to the connected device.

Terminal Type: **Ascii Hex Binary**

Binary data is send in hex ascii format.

For example: 41 54 5A 0D will send ATZ (+Enter) to an analog modem.

The data is sent after the enter button is pressed.

The number of characters must me even, otherwise a zero-character is added.

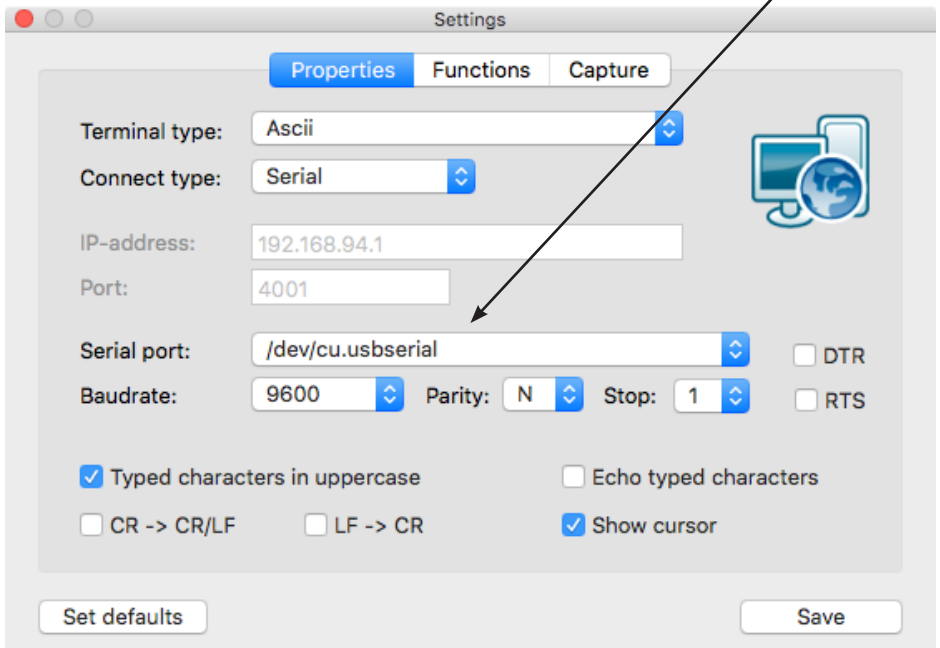
Terminal Type: **OtcNet Command**

A special command line terminal for several industrial interfaces.

The data is send after the enter button is pressed.

You can select an **Ethernet** (TCP/IP) or **Serial** connect type.

When Connect type **Serial** is selected, you can set the baudrate upto 115200 baud (depending on the maximum baudrate of the device). Use DTR and/or RTS if needed.



[] **Transmit characters always uppercase**

Can be used for terminal devices that can handle uppercase text only.

[] **CR -> CR/LF**

When Enter (CR / Carriage return / 0x0D / or \r) is transmitted, a new line character (LF / Line feed / 0x0A or \n) is added.

[] **LF -> CR**

When a new line character (LF / Line feed / 0x0A or \n) is transmitted, it will be replaced by an Enter (CR / Carriage return / 0x0D or \r).

Enable this option when transmitting textfiles using \r for each record.

[] **Echo typed characters**

Used for all connect types to echo the type text.

[] **Show cursor**

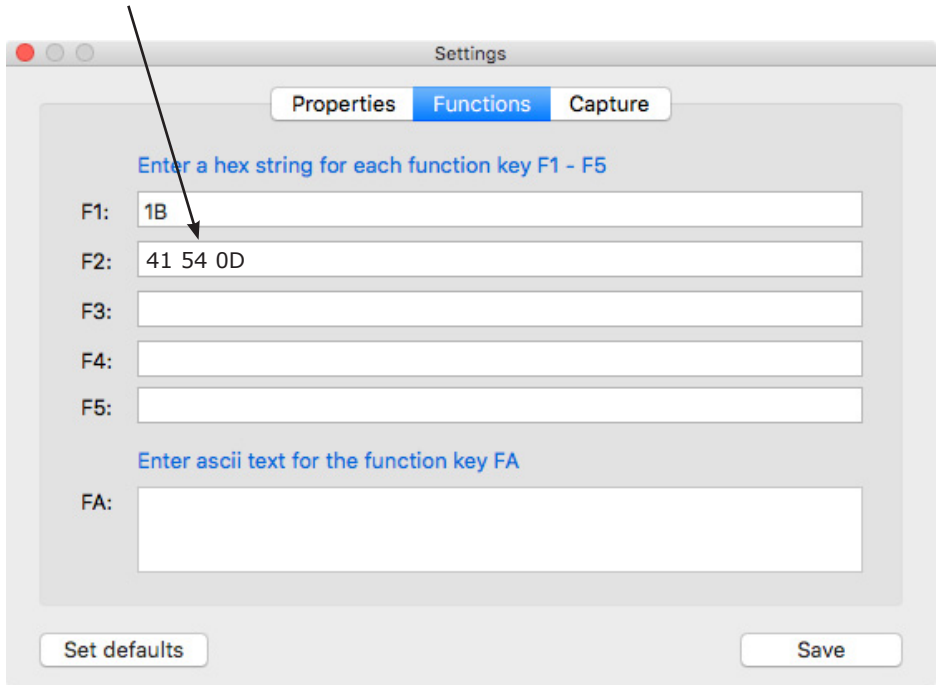
Not used for the Ascii Hex Binary Terminal

Settings - Functions

There are 5 programmable function keys and 1 special FA key available.

The data for each function key must be set as hexadecimal data in a string. As default for function key F1 hex code 1B is used to transmit an Escape.

A space between each data byte is allowed. You can use for example the hex code: **41 54 0D** or **41540D** to transmit the ascii text: AT (+ Enter).



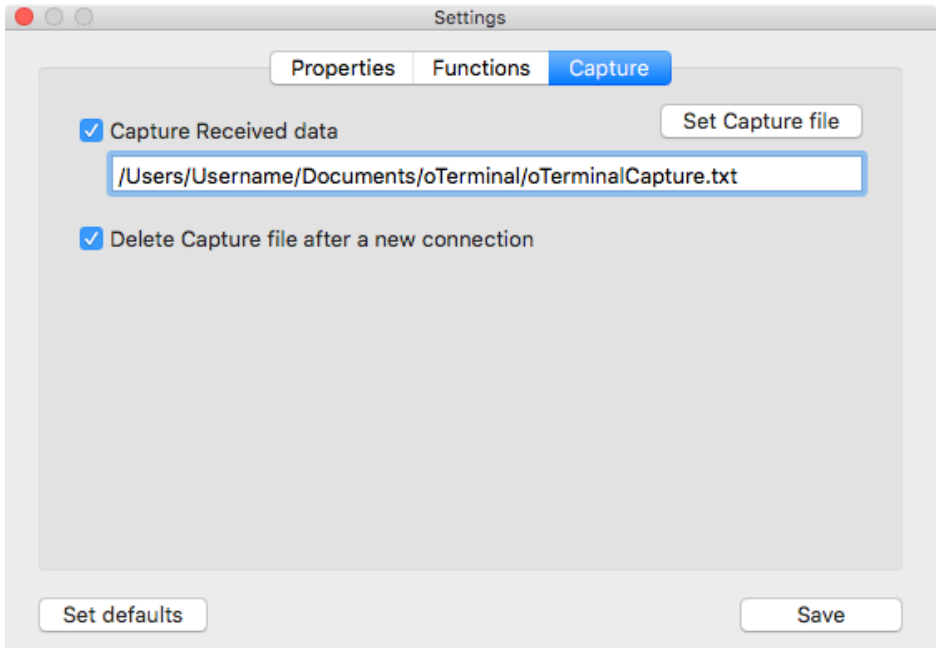
The function key FA can be used to transmit multiple lines of ascii text. Each line is ended with `\r`.

Use the `[] LF -> CR` property to transmit `\n` instead of `\r`.

Settings - Capture

During the connection all communication data can be logged to a specified Capture file (txt format).

After setting a (new) Capture file, you need to accept the location for the App Sandbox. App Sandbox provides strong defense against damage from malicious programs.

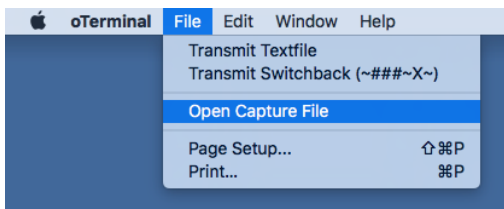


[] Capture Received data

All transmitted and received data is logged

[] Delete Capture file after a new connection

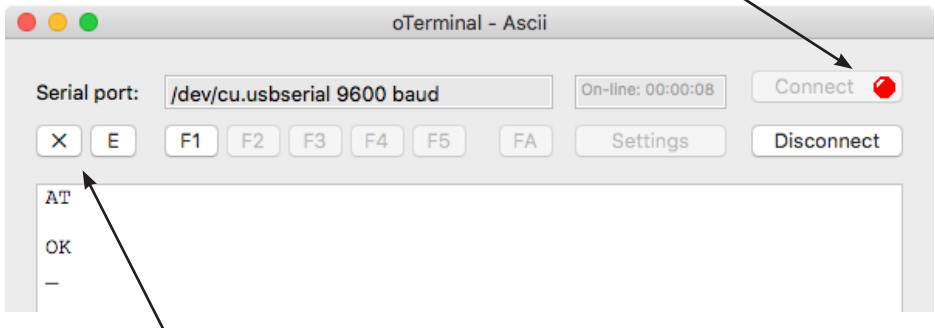
After a new Connect the file is deleted.



The log-file can be opened via the **File menu**.

Connect

Use the Connect button to make a connection to the selected device. The red LED lights up when there is a connection. Use the Disconnect button to disconnect.



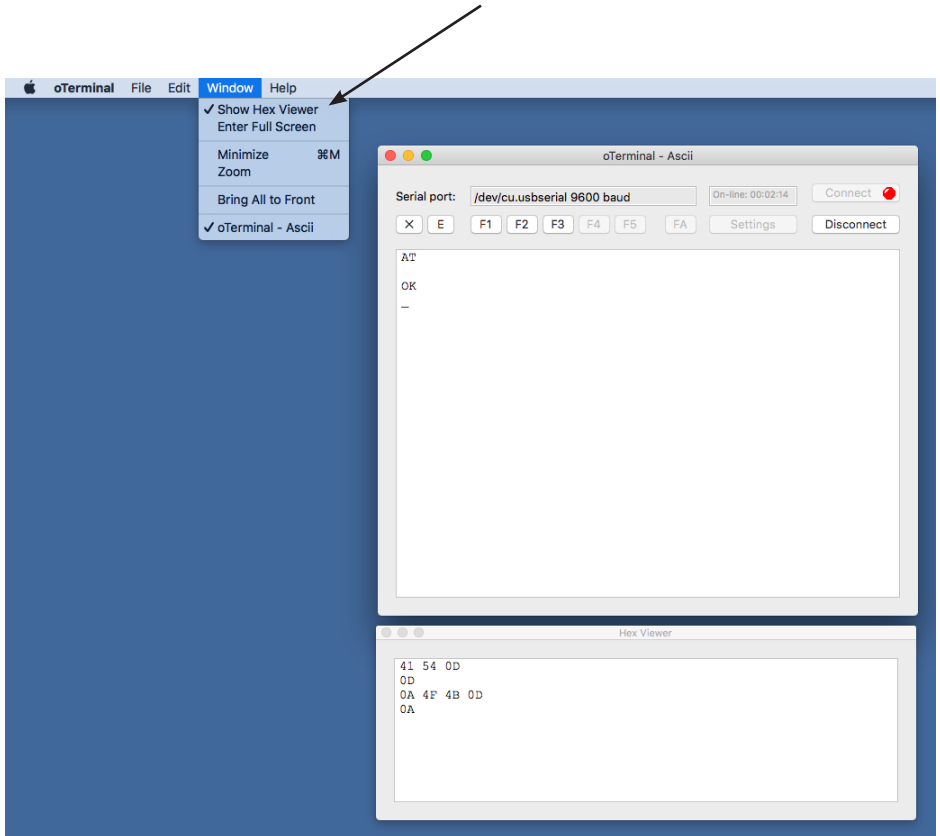
The **X-button** can be used to clear the data on the screen and in the Hex Viewer.

The **E-button** can be used to edit the data on the screen. During edit mode the datastream is not active.

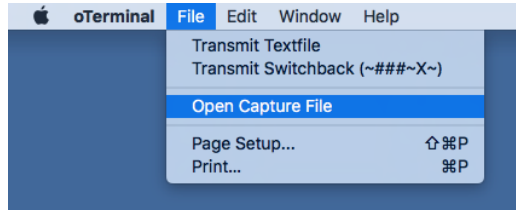
Hex Viewer

During the connection there is a special view that shows all data in hex format.

The Hex Viewer can be opened via the Window menu.



File menu



Transmit Textfile

Can be used to send an ascii text file directly to the connected device. Use the [] LF -> CR property to transmit \n instead of the default \r.

Transmit Switchback (~###~X~)

Can be used for special Otc-interfaces to switch back to command mode after the transparent function is used.

Open Capture File

Opens the capture file (only when data is available).

Ascii table

Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0	[NULL]	32	20	[SPACE]	64	40	@	96	60	`
1	1	[START OF HEADING]	33	21	!	65	41	A	97	61	a
2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	\$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
8	8	[BACKSPACE]	40	28	(	72	48	H	104	68	h
9	9	[HORIZONTAL TAB]	41	29	)	73	49	I	105	69	i
10	A	[LINE FEED]	42	2A	*	74	4A	J	106	6A	j
11	B	[VERTICAL TAB]	43	2B	+	75	4B	K	107	6B	k
12	C	[FORM FEED]	44	2C	,	76	4C	L	108	6C	l
13	D	[CARRIAGE RETURN]	45	2D	-	77	4D	M	109	6D	m
14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
15	F	[SHIFT IN]	47	2F	/	79	4F	O	111	6F	o
16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
17	11	[DEVICE CONTROL 1]	49	31	1	81	51	Q	113	71	q
18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	15	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	75	u
22	16	[SYNCHRONOUS IDLE]	54	36	6	86	56	V	118	76	v
23	17	[ENG OF TRANS. BLOCK]	55	37	7	87	57	W	119	77	w
24	18	[CANCEL]	56	38	8	88	58	X	120	78	x
25	19	[END OF MEDIUM]	57	39	9	89	59	Y	121	79	y
26	1A	[SUBSTITUTE]	58	3A	:	90	5A	Z	122	7A	z
27	1B	[ESCAPE]	59	3B	;	91	5B	[	123	7B	{
28	1C	[FILE SEPARATOR]	60	3C	<	92	5C	\	124	7C	|
29	1D	[GROUP SEPARATOR]	61	3D	=	93	5D	]	125	7D	}
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]