

# **HTerm**

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A terminal program for Windows  
Helpfile for v0.6.5beta

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## Interface

### Menu

#### File:

<i>Load config</i>	Load config from file. Undefined values won't be changed
<i>Save config as</i>	Save configuration to a file
<i>Save config</i>	Save configuration to actually loaded file (only available if opened before)
<i>Autosave on exit</i>	Save the current configuration on exit if checked
<i>Exit</i>	Exits the program

#### Options:

<i>Load output</i>	Loads a file into the output window
<i>Always on top</i>	The application window is always on top of all other windows
<i>Show Ruler</i>	Displays a ruler on the top of both output windows
<i>Show general options</i>	Shows or hides the general options box
<i>Show output options</i>	Shows or hides the output options
<i>Show input options</i>	Shows or hides the input options
<i>Show inputbox</i>	Shows or hides the output window for send data
<i>Receive bit mask</i>	Can mask the upper bits out in the receive window. The bits are not lost but only not shown

#### Help:

<i>Help</i>	Open helpfile if it's in the applications directory and not renamed
<i>About</i>	Shows the about dialog

### Main Row

<i>Connect/Disconnect</i>	Connects to the selected port (Error message in status line if fails)
<i>Port</i>	Selects port to connect. Edit list in config file. Comports over 9 will be automatically escaped with the needed path. If you edit the port name while connected you will get disconnected
<i>R</i>	Refresh comport list
<i>Baud</i>	Selects the baud rate. If it is not supported a statusline message will appear. The next fitting one (tries +/-600baud) is chosen. Changes will be applied directly if connected. The settings in the right field of the statusline are the current real values used. Edit the list of available baud rates in config file.
<i>Data</i>	Selects the number of data bits used. Changes will be applied directly.
<i>Stop</i>	Selects the number of stop bits. Changes will be applied directly.
<i>Parity</i>	Selects the parity used. Changes will be applied directly.

<i>Show errors</i>	Shows receive errors in the receive window as red blocks. Receive errors are i.e parity and frame errors
<i>CTS Flow control</i>	Activates flow control via CTS signal. The program stops transmission if CTS signal goes high and continues if it becomes deactivated again

## **General options**

<i>Count Rx</i>	Received characters (only cleared by reset button, not by connect/disconnect)
<i>Count Tx</i>	Transmitted characters
<i>Count</i>	Count the selected char
<i>Newline at</i>	Selects where a newline is created. Can be customized using the newline section of a config file
<i>Show newline chars</i>	If set the chars in the 'Newline at' box are shown in the output windows, otherwise they are invisible (but not lost)

## **Output options**

<i>Clear output</i>	Clears the output window and the internal buffer (everything is gone then)
<i>Hex, Bin, Dec, Ascii</i>	Selects the shown output box formats
<i>Save output</i>	Save output in the selected format to a file. CSV = all characters are separated by commas ( , )
<i>Clear at</i>	If checked deletes the output window up to and including the selected character
<i>Newline every .. characters</i>	Inserts a line break every .. chars. 0 means no line breaks
<i>Autoscroll</i>	Switches autoscroll mode on or off for the receive window
<i>Status lines</i>	Represents the status of the status lines (update rate apr. every 10ms)

## **Input options**

<i>Clear input</i>	Clears the input window and the internal buffer
<i>Hex, Bin, Dec, Ascii</i>	Selects format for the input box. See same entry in <i>Output options</i>
<i>Send on enter</i>	Selects if there will be one of the given prepended and/or append to the input
<i>Send File</i>	Select file for Autosend. See section Autosend for details

*Status lines* Clicking these buttons will directly change this status line

## **Input**

*Type* Selects format for the input line. All following input to the inputline will be in the selected format

*[Inputline]* The inputline can handle inputs in multiple formats. The characters will be blocked as it is needed. Characters that are not supported in the current format are blocked. Even in Ascii-mode, no non standard ascii characters are supported (above ascii code 127). The blue block at the start of the line indicates if it has focus or not

*ASend* Open autosend dialog for inputline. Button has no effect if inputline is empty  
See section Autosend for details

## **Statusline**

*History* shown line / lines in use / maximal saved lines

*Connection status* in brackets: baudrate, databits, stopbits, parity mode

## **Autosend**

*Source* Source to send from ([Inputline] if called with Asend)

*Repetitions* Repetition count. Enter 0 for infinit repetition

*Delay* Delay between repetitions in 100ms steps. The delay is counted from the start of the previous iteration, NOT from the end. A value of 0 means no delay. Even with no delay the time between two iterations may be up to 100ms.

*Start* Starts sending

*Stop* Stops sending after the current iteration

*Cancel* Stops sending immediately and closes the dialog

## **Outputbox**

In the lower part of the receive box is a field with extended information.

- Selection: (Startbyte : Endbyte) Distance between start and end
- Timedifference between Startbyte and Endbyte
- Timestamp of the character under the mousepointer

## Keyboard shortcuts

### Inputline

<i>Alt + a</i>	Switch input type to ascii
<i>Alt + b</i>	Switch input type to binary
<i>Alt + h</i>	Switch input type to hexadecimal
<i>Alt + d</i>	Switch input type to decimal
<i>Alt + 1</i>	Switch send on enter to none
<i>Alt + 2</i>	Switch send on enter to CR/LF
<i>Alt + 3</i>	Switch send on enter to CR
<i>Alt + 4</i>	Switch send on enter to LF
<i>Alt + 5</i>	Switch send on enter to Space
<i>Alt + 6</i>	Switch send on enter to STX/ETX
<i>Alt + 7</i>	Switch send on enter to Nul
<i>Alt + 8</i>	Switch send on enter to Custom
<i>Up</i>	One step up in history
<i>Down</i>	One step down in history
<i>Ctrl + Left</i>	Move to the start of the block. If at the start, move to the start of the block left to it
<i>Ctrl + Right</i>	Move to start start of the block right to the current one

### Output windows

#### Scrolling

<i>Mousewheel</i>	Lines up/down
<i>Pos1</i>	Move to start
<i>End</i>	Move to end
<i>Page up / Left arrow</i>	One page up
<i>Page down / Right arrow</i>	One page down
<i>Arrow key up / down</i>	Scroll one line up/down

#### Select & Copy

<i>Left click on block</i>	Selects this block, if a block was selected all blocks from the start block to the new one are selected
<i>Left doubleclick on block</i>	Sets this block as start block (deselects all others)
<i>Right click</i>	Shows a copy as.. menu if something is selected which copies these blocks in the chosen format to the clipboard
<i>Ctrl+A</i>	Select all
<i>Click on free space / Esc / Ctrl+D</i>	Deselect all

## Command line options

As first command line parameter you can specify a config file that is loaded on start-up. Path should be relative to the working directory or absolute.

## Config files

Config files are normal XML-files. They can be edited with every text editor. The easiest way is to save a new configuration with „File/Save config as“ and then modify it to your needs instead of typing everything by hand. Some options can only be changed directly in the config-file and not via GUI ( indicated by [CFG] tag ).

Tags:

- [int] Integer value
- [string] String value
- [bool] Boolean value ( activated: true or 1, deactivated: false or 0 )
- [CSV-x] Comma separated value (x,x,x...) list of type x ( int or string )
- [MFSentries] List of MultiFormatString entries: `<entry name=[string]>[MFS]</entry>`
- [MFS] MultiFormatString (see below)

MFS structure:

Example: `d[10 13] a[abcdefghi] h[FF A8 f0] b[1000 0101]`

- d: Decimal ( 0 – 9 )
- h: Hexadecimal ( 0-9 A-F )
- a: Ascii ( 7bit Ascii set without control characters )
- b: Binary ( 0, 1 )

```
<CfgFile name="HTerm config file" version="0.6.5">
```

```
<Default>
```

```
<Comport>
```

```
<Selected value="[string]" />
```

```
value: name of selected comport
```

```
<Baudrate value="[int]" />
```

```
value: selected baudrate
```

```
<Databits value="[int]" />
```

```
value: selected databits ( 5-8 )
```

```
<Stopbits value="[string]" />
```

```
value: selected stopbits ( 1, 1.5, 2 )
```

```
<Parity value="[string]" />
```

```
value: selected parity ( none, odd, even, mark, space )
```

```

<BaudrateList>[CSV-int]</BaudrateList>
    -> List of baudrates shown in baudrate selection box
<ConnectionOpen value="[bool]"/>
    value: Connection will be opened on cfg-loading
<Statuslines DTR="[bool]" RTS="[bool]" />
    DTR: Status of DTR status line
    RTS: Status of RTS status line
<FlowControl value="[bool]" />
    value: CTS flow control status
</Comport>

<ReceiveBox>
    <Format asc="[bool]" hex="[bool]" dec="[bool]" bin="[bool]" />
        asc: Status of ReceiveBox Ascii output format
        hex: Status of ReceiveBox Hex output format
        dec: Status of ReceiveBox Dec output format
        bin: Status of ReceiveBox Bin output format
    <Ruler Show="[bool]" Start="[int]" />
        Show: Show ruler
        Start: Ruler start value
    <Autoscroll value="[bool]" />
        value: State of Autoscroll checkbox
    <NewlineInterval value="[int]" />
        value: State of 'Newline every ... chars' control
    <ShowNewlineChars value="[bool]" />
        value: State of 'Show newline chars'
    <ShowErrors value="[bool]" />
        value: Show receive errors
    <Bitmask BitsMasked="[int]" />
        BitsMasked: Number of bits masked from MSB ( 0-4 )
</ReceiveBox>

<TransmitBox>
    <Format asc="false" hex="true" dec="false" bin="true" />
        asc: Status of TransmitBox Ascii output format
        hex: Status of TransmitBox Hex output format
        dec: Status of TransmitBox Dec output format
        bin: Status of TransmitBox Bin output format
    <Ruler Show="true" Start="1" />
        Show: Ignored!
        Start: Ignored!

```



```

<Autoscroll value="[bool]" />
    value: Ignored! (always true)
<NewlineInterval value="[int]" />
    value: Ignored! (always 0)
<ShowNewlineChars value="[bool]" />
    value: Ignored! (forced to same as ReceiveBox)
<ShowErrors value="[bool]" />
    value: Ignored! (always false)
<Bitmask BitsMasked="[int]" />
    [CFG] BitsMasked: Number of bits masked from MSB ( 0-4 )
</TransmitBox>

<GUI>
<CountChar value="[int]" />
    value: Count appearance of this char ( 0-255 )
<SaveOutput Selection="[int]" Seperator="[string]" />
    Selection: Save output selection ( 0-8 )
    [CFG] Seperator: Seperating string for CSV options
<ClearAtChar Active="[bool]" Char="[int]" />
    Active: Status of clear at chara
    Char: Char at which ReceiveBox gets cleared ( 0-255 )
<Tooltips Active="[bool]" Delay="[int]" />
    [CFG] Active: (De)Activate tooltip display
    [CFG] Delay: Time in ms until tooltip is shown
<AlwaysOnTop value="[bool]" />
    value: Always on Top menu entry
<Window x="[int]" y="[int]" width="[int]" height="[int]" maximized="[bool]" />
    x: x-position of left border
    y: y-position of top border
    width: width of window
    height: height of window
    maximized: maximized status of window
<SashPosition value="[int]" />
    value: Position of draggable border between receive and transmit part
<NewlineAt selected="[string]">
    [MFSentries]
</NewlineAt>
    selected: selected 'Newline At' entry (Should be an MFSEntry name)
    MFSEntry.name: Shown names in 'Newline At' box
<ShowToolbarGeneralOptions value="[bool]" />
    value: Menu entry 'Show general options'

```

```
<ShowToolbarOutputOptions value="[bool]" />
    value: Menu entry 'Show output options'
<ShowToolbarInputOptions value="[bool]" />
    value: Menu entry 'Show input options'
<ShowToolbarReceiveBox value="[bool]" />
    value: Menu entry 'Show inputbox'
</GUI>
```

```
<Inputline>
```

```
<Format value="[string]" />
    value: Input format ( ASC, HEX, DEC, BIN )
```

```
<SendOnEnter Default="[string]">
    [MFSentries]
```

```
</SendOnEnter>
```

```
Default: selected 'Send on Enter' entry (Should be an MFSEntry name)
MFSEntry.name: First character has to be ^ or $! Strings where the
rest of the name is equal are grouped (Max one with
^ and one with $). MFS associated with ^ is
prepended to the sended data and $ is appended
```

```
<HistoryDepth value="[int]" />
    [CFG] value: Inputline history depth
```

```
</Inputline>
```

```
<Misc>
```

```
<AutoSave value="[bool]" />
    value: Menu entry 'Autosave on exit'
```

```
<WorkingDir value="[string]" />
    value: working directory path of file open/save dialogs
```

```
<Autosend Delay="[int]" Repetitions="[int]" />
    Delay: Delay between repetitions for Autosend dialog
    Repetitions: Number of repetitions for Autosend dialog
```

```
</Misc>
```

```
</Default>
```

```
</CfgFile>
```