TomTom Console

From OpenTom

The first version was released on Jan.8th. Please let me know about any problems, or sugessions to improve it. Also maybe you like to report on your experience in installing and using it (in the Discussion page of this article). Also it would be extremely interesting to learn on which other TomTom models the TTconsole runs, Thank you.

TTconsole

With a virtual Keyboard, you can enter shell commands.

Properties

Developer:	Markus Hoffmann
Version:	1.09 (20.01.2008)
Architecture:	arm-linux
Language:	{{{language}}}
Comment:	

Dependencies

Requires:	{{{requires}}}

See also: Software

With a virtual Keyboard, you can enter shell commands. (To activate the virtual keyboard, you have to touch the upper right corner of the screen.) Is is recommended to use a pen instead of your fingers.

The text screen has a size of 64x30 characters (on the TomTom ONE) if the keyboard is invisible. If the virtual keyboard is shown on the console, you can only see 19 lines of text. With text scrolling, the keyboard will be scrolled away, so you can read the full 30 lines. To activate the keyboard again, touch the upper right corner. Al though you can hide the keyboard you can still use it (if you remember where the key are). Also you can cut an paste text regions from the screen to the input.

TTconsole implements a terminal emulation with the small font on a couloured framebuffer device. It then spawns a shell (default /bin/sh). The stdout and stderr is piped to TTconsole which displays it (or feeds stdin with the keys you clicked

on the virtual keyboard or the cut/paste/buffer).

It appears that the builtin shell is busybox. On default, there is no editor (like pico or nano) installed on the TomTom (not even vi) but you can put the pico excecutable on the sdcard directory which appears at /mnt/sdcard/. (see blow)

Excecution of shell scripts works well and I am currently working on an arm-linux-version of X11-Basic (http://de.wikipedia.org/wiki/X11-Basic) (see below). This interpreter also supports graphics and mouse/touchscreen input, so this is what one needs to write small programs directly on the TomTom, without the use of any compiler or development environment on a different PC.

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Download

- The binary package: http://www-cip.physik.uni-bonn.de/~hoffmann/TTconsole/TTconsole-1.10-bin.zip
- The source package: http://www-cip.physik.uni-bonn.de/~hoffmann/TTconsole/TTconsole-1.09.tar.gz

Install

Unpack the binary package (zip file) and move the contents to your tomtom Directory (e.g. /media/INTERNAL) just as they are. Thats it. It is not necessary to rebuild the systems kernel. You do not need opentomlinux! You can use the device with navigation software as before. The icon for TTconsole should appear in the setting menu.

Compile

Unpack the tar.gz file and read the README and follow the instructions. You will need the ARM-Linux crosscompiler development environment.

Release Notes

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Release notes for Version 1.08 (Jan 2008)
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- Added mouse event support  (ESC-[?10h=on ESC-[?10l=off)
- Reports: ESC-[<x>;<y>;<pen>M ESC-[<x>;<y>;<pen>o

Release notes for Version 1.09 (Jan 2008)
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- solved bug with keyboard display problem.

Release notes for Version 1.10 (Sept 2008)
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- Now also works on TomTom with Navcore Version > 8.2
- new commandline-option --rotatets
- new commandline-option --keyboardlayout_en
```

known bugs

- On some devices TTconsole produces the following ERROR message: Cannot spawn shell! ERROR, QUIT (see discussion page)
- On TomTom One XL with Version 8.2 and later the application does not work (see discussion page). (fixed in Version 1.10)

Console applications

I put my excecutables in /mnt/sdcard/bin. For example pico. pico also needs libncurses, which is not there and /etc/termcap. So we excecute a script instead of pico itself, which first symlinks the libraries and termcap/terminfo at the right place and then excecutes pico.

- The **file-editor**: Here is my **pico**-installation /mnt/sdcard/bin/... http://www-cip.physik.uni-bonn.de/~hoffmann/TTconsole/bin-pico.zip

Move the bin/ directory and all its content to the sdcard directory. The editor can be invoked then (using TTconsole) by

```
pico filename.txt
or
pico fullpath/filename.txt
```

(For thouse of you who do not know: you can auto-complete the filename by using the TAB key.)

- My current compilation of **screen**: http://www-cip.physik.uni-bonn.de/~hoffmann/TTconsole/bin-screen.zip . I do not know why the screen is a bit messed up. Maybe it is because there is no nice configuration file. Does anybody have a fix for this? At least with screen it is now possible to detach and attach console sessions and to have many console sessions at once.

- **mp3-player**: Here is my version of *madplay*. It works fine on TomTom ONE.

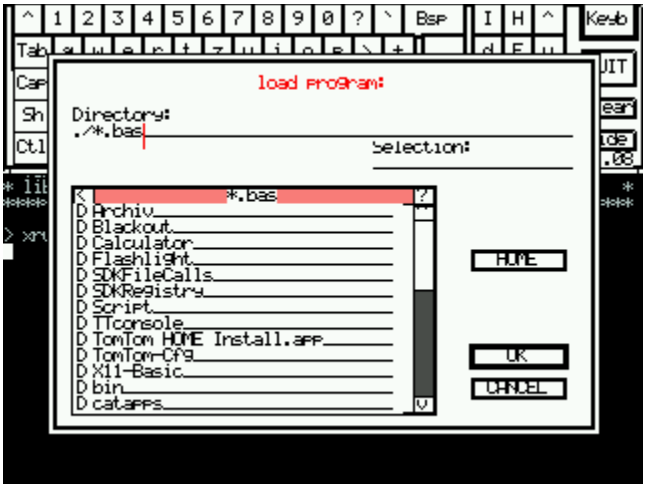
http://www-cip.physik.uni-bonn.de/~hoffmann/TTconsole/bin-madplay.zip

- **Video player**: You can use *mplayer* V.1.00. Look at http://www.tomtomheaven.com /index.php?option=com_content&task=view&id=40&Itemid=29 , download the package and only use the mplayer binary (you can put it in /mnt/sdcard/bin) and the configuration file (mplayer.conf put in /mnt/sdcard/etc/). Then write a wrapper script that excecutes

```
mplayer -include /mnt/sdcard/etc/mplayer.conf $1 $2 $3 $4
```

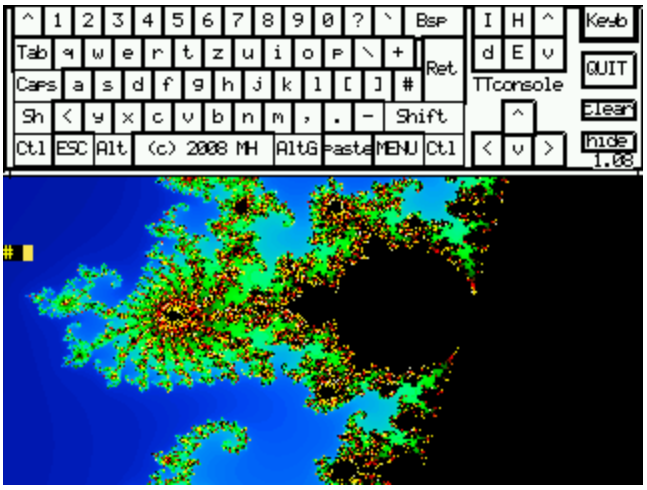
And you can use it from the console. It works for .mpg and .avi files, but the size of the movie must be equal or smaller than the Screensize of the tomtom.

- **X11-Basic**: (the BASIC interpreter for UNIX) Here is the current compilation: Basic graphics works and of course the console. http://www-cip.physik.uni-bonn.de/~hoffmann /TTconsole/X11Basic-1.14-bin.zip (--Updated: 22:20, 30 January 2008 (CET))(You need to install TTconsole before, recommended: Version 1.08 or later). The documentation and manual can be found on the X11-Basic homepage http://x11-basic.sourceforge.net/ . Many example programs are availabe and most of them already work out of the box.



- Gimmicks like **xearth** (OK, its not really a console application...) Here is my current xearth compilation: http://www-cip.physik.uni-bonn.de/~hoffmann /TTconsole/TTxearth-1.01-bin.zip
- **Screenshot**: This can be done fully with shell scripts. See screenshot.
- Mobile applications, like pine (email), links (web-browser), etc. (only on devices with phone or bluetooth).
- What about bsdgames (to test the terminal emulation)? Has anybody compiled it?

- Utility collection: cal, pstree, hex,... Here is my current utility collection. It includes **cal**, **mandel** and two scripts for screenshots. cal has an option --help. mandel can take up to 5 arguments, all numbers. x1 x2 y1 y2 and optional maxiter. You can start with x1=-2 x2=2 y1=-2 y2=2. maxiter is on default 256. the bigger the slower the calculation. http://www-cip.physik.uni-bonn.de/~hoffmann/TTconsole/utility-bin.zip



- **TTTracklog**: This is a very simple tool, which logs the nmea data, which directly is emmitted from the gps-receiver to files on the sdcard. By this way the track can be logged. It uses very less system resources and is supposed to run completely in the background. No information is lost or modified. You really get everything the GPS receiver is providing. At the moment, the only way to run TTTracklog is from the TTconsole. But it can be put in the background, so it persists even when the TTconsole is closed and the TomTom is been used in normal navigation mode. The log-files finally can be converted to .gpx data files, which then can be used in many gps data and tracklog processing applications. I upload mine to openstreetmap.org. It appears that the TomTom-GPS data is surprisingly accurate (at least compared to a GARMIN ETREX VENTURE).

See also: BTconsole, ttn

Retrieved from "http://www.opentom.org/TomTom_Console"

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