

### Manual Version 1.87

#### TUXTXT

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#### What is TuxTxt?

Tuxtxt is a software teletext decoder for DBOX2 (Nokia, Sagem & Philips) and Dreambox DVB receivers, written by Thomas Loewe. In 2004, his work was continued by Roland Meier and DBluelle, who both included lots of new features.



Most hardware decoders build in modern television sets have limited capacities. They often do not cache all the pages, which makes zapping from one page to another a slow process. Furthermore, a 'text & tv' mode is mostly unavailable. With Tuxtxt these limitations belong to the past. Tuxtxt reads all teletext pages in one big buffer, which makes it very easy to browse

through the entire content. You can even consult a teletext service that is on the same DVB stream, but not on the currently selected television station.

The software is currently available in German, English, French and Dutch.



TuxTxt is considered as "work in progress". If you discover bugs, you can always post them on the boards mentioned on www.tuxtxt.com.

Tuxtxt can be activated in the "Plugins" menu, or by pressing the TEXT button on the remote control while you are in TV mode. If the current station broadcasts teletext, you'll see a page counter running on top of your screen. When page 100 is found, it will be displayed.

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# Chapter

#### What is teletext?

Teletext is a simple and easy to use information service broadcast by numerous TV stations, providing information such as weather forecasts, news, subtitles and more. The ability to send simple text and graphics as part of a television signal was discovered by BBC engineers in the mid 1970's.

Teletext data is broadcast in the so called VBI (Vertical Blanking Interval) space - hidden room on top of a television picture that's not visible on a television set.

As the Teletext information is outside the viewable area of the television picture, a special decoder (like Tuxtxt) is required to display the Teletext page on a TV set.

The limited amount of information that can be carried in the VBI means that it's impossible to send all teletext pages at once to your television. They are broadcast one after one, which means you'll have to wait a number of seconds before the page of your choice will appear on the screen. Tuxtxt helps reducing this waiting time because it keeps all pages in one big buffer. Once all pages have been broadcast, access to them is immediate.

Teletext is a function that is not available in the US or Canada. Teletext only works in countries that have PAL and SECAM television systems.

Over the past years, Teletext has evaluated from Level 1 (the most basic service) till Level 5 (which is not used by broadcasters at this time). Teletext Level 2.5 - currently the highest level supported by Tuxtxt - introduces additional colors, including background colors, and re-definable characters. Level 2.5 is also called Hi-Text.

Level 2.5 is relatively complicated. Tuxtxt does not support all of its possibilities at this time. For instance, there is no support for side panels, G2 characters,

additional attribute settings or secondary G0 character sets. However, most important properties of Level 2.5 are supported, meaning you do can enjoy better graphics and colors.



3 Sat's index in Level 1



The same index in Level 2.5

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# Chapter 3

#### Keys

In Tuxtxt, the following keys on your remote control can be used:

Key	Function
DREAMBOX: Dream DBOX2: D-BOX	Brings up a configuration menu, in which you can change some parameters (see below).
Up/Down	Jump to the next/previous teletext page.
Left/Right	Jump to the next/previous sub page of the current page.
18	To select a certain page number. Every page number consists out of 3 numbers. If a page number cannot be found (according to the TOP table), it is displayed in a red color. If TuxTxt is still searching for a page, you'll see the page numbers that are currently being broadcast running on the first line of the screen.
0	Go to the previous page (only when entered as the first digit).
9	Loops through your favorite pages list (only when entered as the first digit). To compose a list of favorite pages, use the configuration menu (see below).
DREAMBOX: INFO DBOX2: ?	Shows hidden contents (on certain pages, usually for games). Pressing this button twice switches between teletext Level 1 and Level 2.5 graphics.
OK	Enters page catching mode. To select a page number from the current page, use the cursor keys to select a

number and press [OK] to go to the selected page. LAME (on Dreambox) or EXIT (on DBOX2) exits the page catching mode.

**MUTE** 

Activates the mixed text/picture mode. If you press MUTE once, you'll see the television picture. If you press MUTE once more, the teletext image and the television picture are shown transparently. The amount of transparency can be defined in the config file (see below). If you press MUTE a third time, teletext returns. For DBOX2 users only: in this mode, pressing? activates the SCART input. This mode can be quit by pressing any key. If you quit by pressing the? key, the SCART audio keeps being output to the TV.



DREAMBOX: Vol + DBOX2: +

Double height. Pressing this key once zooms in on the upper half.

```
ARD TEXT
Teletext im Ersten > 101

Opel-Mitarbeiter beenden Proteste 120
EU will gegen Dosenpfand klagen.. 122
Geständnis im Abu-Ghraib-Prozess. 128
Booker-Preis für Hollinghurst.... 504

Tennis: Haas im Achtelfinale.... 225
```

Pressing this key again zooms in on the lower half.

```
Deisler muss nicht in die Klinik. 229
Motorrad: 17 WM-Läufe 2005 ..... 234
           Das Quiz mit J. Pilawa 384
19.20
           bis 19.48 Uhr
           Das Wetter im Ersten.. 323
19.48
Tagesschau 110/112
                    Kultur ..
                                   500
Wetter ..... 170
                    Gesellschaft
                                   530
Sport .... 200/600
                    Lotto/Toto ...
                                   666
TV Guide . 300/400
                    Wirtschaft ...
                                   700
    Internet: www.ard-text.de
```

DREAMBOX: Vol - DBOX2: -

Shows teletext, the TOP contents (if available) and the current television image at the same time. If you've activated 16:9 mode, pressing the same key a second time removes the TOP contents and makes the television picture bigger (50/50 split mode). This only works on Dreambox machines. If you press the same key again, teletext returns as normal.

In 4:3 mode only the following text/picture mode is possible:



In 16:9 mode, two kind of visualizations are possible. After the first key press, teletext, TOP and the television image are shown.



Pressing the button a second time, shows a larger television picture and removes the top table.



**DREAMBOX:** INFO

Shows hidden text.

DBOX2: ?

**DREAMBOX:** 

Exits TuxTxt.

LAME or STANDBY

**DBOX2:** EXIT or

**HOME** 

### Browsing with the colored keys

At the bottom of each Teletext page there are four colored buttons. They relate to the red, green, yellow and blue buttons on your remote control.

By pressing the corresponding colored button on your remote control you will be automatically be taken to that page.



Red/Blue Jumps to the previous or next available magazine (set of

100 pages).

Green/Yellow Jumps to the current page + 10 or the current page +

20.

When the television station broadcasts so called TOP (Table Of Pages) or FLOF (Full Level One Features)/Fastext data, the numbers in the four colored regions are replaced with words.

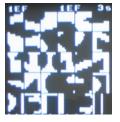


Red/Blue/Green/Yellow Jumps to pre-selected pages for easier navigation. Red jumps to block-1, Blue to section+1, Green to section+2 and Yellow to block+1.

It TOP is broadcast, it can take a while before the colored shortcuts appear, so please be patient.

When the secret HEX mode is active (see configuration menu), the Red button jumps to the next hexadecimal page. Hexadecimal pages are normally not meant to be seen by normal users. They don't have a regular page number and therefore cannot be consulted with the remote control numeric buttons. Mostly they contain unreadable computer data or pages used by quizzes. Sometimes they show information from the broadcaster's teletext inserter, or they contain Level 2.5 graphics.





### Configuration menu

By pressing the DREAM (Dreambox) or DBOX (DBOX2) key, you can enter the configuration menu.

Item	Function
1. Favorites	Enables administration of your favorite pages (also called a 'hotlist'). Default values are 100 and 303. Maximum 10 page numbers can be added. Pages can be selected with the cursor keys, the page shown with OK, the order can be changed with volume up/down, and OK appends the current page (if none is selected) or deletes the selected page. Hotlists are saved as 'hotlist%d.conf' files in the /tuxtxt directory.
2. Teletext selection	Lets you select which teletext service from the current transponder you would like to see. It takes a while to scan all the different services when you select this option, so please be patient. Pressing the ? (DBOX2) or INFO (Dreambox) key activates the secret HEX view mode. A question mark is displayed to show you it is activated.
3. Standard mode	Lets you swap between 4:3 and 16:9 for the standard modus.
4. Text/TV mode	Lets you swap between 4:3 and 16:9 for the text $\&$ image modus.

5. Brightness Dims or brightens the colors of the font on the

screen.

6. National characterset Let's you select one of the different G0 character

subsets. Current possibilities are Czech/Slovak, English, Estonian, French, German, Italian, Lettish/Lithuanian, Polish, Portuguese/Spanish, Rumanian, Serbian/Croatian/Slovenian, Swedish/Finnish/ Hungarian and Turkish. You can also turn on the automatic recognition of the

language.

7. Language Let's you select one of the different user interface

languages. You can select between German, English,

French and Dutch.

By pressing the corresponding numbers or jumping around with the [ARROW DOWN] and [ARROW UP] keys, configuration items can be selected. Values can be changed with [ARROW LEFT], [ARROW RIGHT] or [OK].

The configuration menu can be left by pressing LAME or DREAM on the Dreambox and DBOX or HOME on the DBOX2.



The width and height of the teletext screen relative to your television screen cannot be adjusted in TuxTxt. This needs to be done in the configuration panel of your DBOX2/Dreambox software.

#### Configuration file

All the configuration parameters (and even more) are written to a file called "tuxtx2t.conf" in the /tuxtxt directory. All values used by the configuration file are noted as decimal values (just a number) or as hexadecimal numbers (0xvalue). The structure of this file is as follows:

ScreenMode16x9Normal	0 = off, 1 = on (default=0)
ScreenMode16x9Divided	0 = off, 1 = on (default = 0)
ColorDimmed	0 = don't reduce brightness, 1 = reduce brightness (default=1)
ColorDimFactor256	Factor to be used to dim the colors on the screen (default=0xb3)
MenuLanguage	0 = German, 1 = English, 2 = French, 3 = Dutch (default=0)
AutoNational	0 = automatic character set recognition on, 1 = automatic character set recognition off (default = 1)
NationalSubset	Subset to use for the G0 characterset. 0 = Czech/Slovak, 1 = English, 2 = Estonian, 3 = French, 4 = German, 5 = Italian, 6 = Lettish/Lithuanian, 7 = Polish, 8 = Portuguese/Spanish, 9 = Rumanian, 10 = Serbian/Croatian/Slovenian, 11 = Swedish/Finnish/Hungarian, 12 =

	Turkish (default=4)
SwapUpDown	Swap up/down keys when browsing through the buffered pages. 0 = no swapping of up/down keys, 1 = swap up/down keys (default=0)
ShowHexPages	0 = don't show hex pages, 1= show hex pages (default=0)
OverlayTransparency	Amount of transparency in mixed text/tv mode. Default value is 0x3000. If you want full transparency, use 0xFFFF.
TTFWidthFactor	Width factor of the True Type font. Only change this is you're know what you're doing
Screenmode	0 = standard mode, 1=text/picture
ShowFLOF	0 = disable FLOF, 1=show FLOF (default=1)
Show39	0 = show 40 characters per line, 1 = show 39 characters per line (default = 1)
ShowLevel2p5	Show Level 2.5 information (default = 1)
DumpLevel2p5	Dump Level 2.5 information to stdout (default=0)
Usettf	0 = use fixed width font, 1= use TTF font(default=1)
TTFWidthFactor16	(default=28)
TTFHeightFactor16	(default = 16)
TTFShiftX	(default=0)

TTFShiftY	(default=0)