TTXeditor

v0.00g

Welcome to *TTXeditor*. This software is an easy-to-use teletext frame editor.
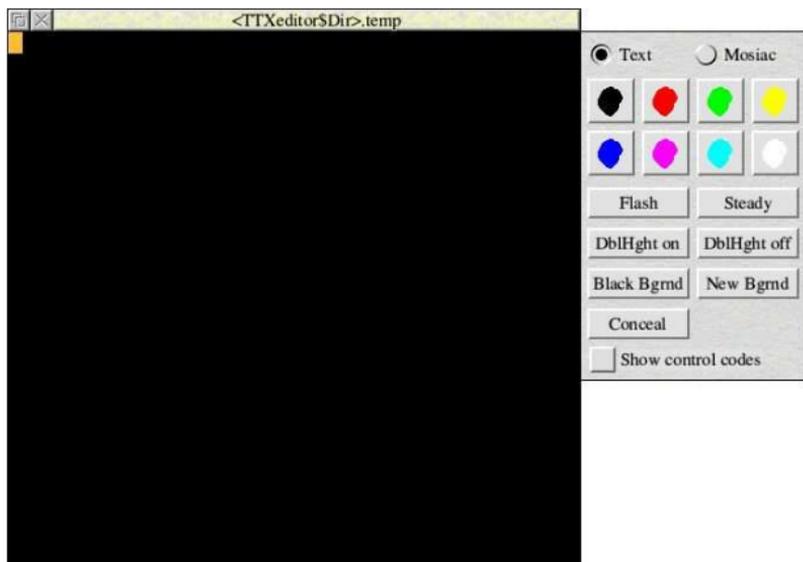
To begin using *TTXeditor*, double-click on the "!TTXeditor" icon. You will see the "initialising" banner pop up for a second or two, and the editor icon will appear on the icon bar.

Please note that, unlike *Edit*, *TTXeditor* can only edit one frame at a time.

To edit a *new* frame, click on the editor icon (on the icon bar). A blank frame will be opened, and it will be set to believe it is "`<TTXeditor$Dir>.temp`" (until you say otherwise).

To edit an *existing* frame, drag the frame file to the editor icon. It will open, as shown...

At the top left of the window is an orange flashing square. This is the cursor. You can move it using the cursor keys.

Holding Ctrl while pressing a cursor will move to the extreme end in the cursor direction (i.e. ^Right will go to column 40 but stay on the same line).
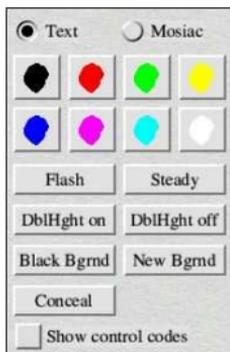
Pressing Shift-Left or Shift-Right will skip word-by-word.

Use Home to go back to the top left.

Alternatively, *in text mode*, you may simply click SELECT in the window to set the cursor position.

There are two tool panels. Only one is visible at any given time as they are mutually exclusive.

This is the *text* tool panel:

The *Mosaic* option toggles to the *mosaic* tool panel, more about it later.
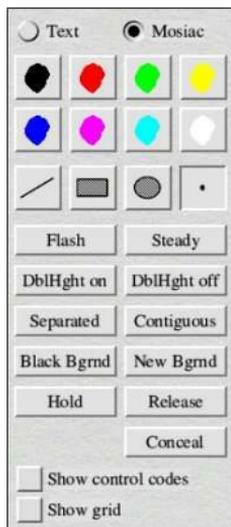
The eight colour buttons insert the requested colour code at the current cursor position.

Likewise, the control buttons insert the relevant control codes at the current cursor position.

The *Show control codes* option toggles whether or not you can see the control codes.

If you prefer to use the keyboard, there are function keypresses that you may use instead of the tool panel icons.

This is the *Mosaic* options tool panel:

In general, this panel is the same as the *Text* tool panel; however it is extended to support the additional facilities provided by the teletext graphics mode.

Except for the icons marked on the right by the arrow, the options behave in the same way as for the *Text* tool panel.

The four icons highlighted are for additional drawing facilities.

This option is for drawing lines. Click the first point, and move the pointer (the orange line will follow) to the end point and click again.

This option is for drawing rectangles. Click the first corner, and move the pointer to the diagonally opposite corner (the orange rectangle may be your guide) and click to draw it.

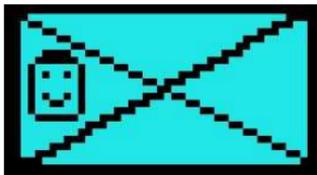This option will allow you to draw circles. *It is not currently implemented.*

This is the 'point' drawing option. Clicking the mouse will set that 'pixel'.

When setting graphics in areas not previously drawn in, *TTXeditor* will assume the last colour chosen (white by default).

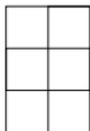We shall look at the drawing options in more detail.

If you perform the drawing with the SELECT mouse button, the 'pixels' will be set; however using ADJUST to draw will perform the opposite function – unsetting the 'pixels'.

We shall draw a rectangle (using SELECT) and through it we'll draw two lines (using ADJUST). First, however, we'll set mosaic colour cyan at the top left so the editor will auto-set cyan as our colour...
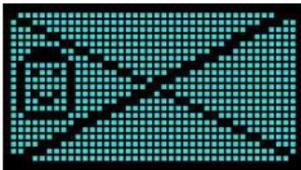

The smiley face was added by clicking ADJUST in point mode to unset the 'pixels'.

You might have noticed that I keep referring to 'pixels' in quotes. This is because the graphics portion of the teletext screen is not divided by real pixels – the resolution of a teletext character is 12 dots across by 10 lines (or 5×9 in really old hardware). Instead, each character position is divided into six, two 'pixels' across and three down:
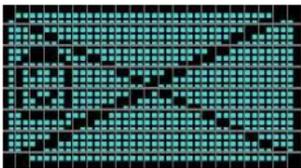

In order to set the pixels, the "change colour" control codes have a secondary version that allows you to change to *mosaic graphics*. The character set (except for the upper-case letters) is altered to be a bitmap for setting each individual 'pixel'.

Perhaps this is better explained if we follow all of the colour-set codes with the "separated graphics" code. This causes each 'pixel' to be surrounded by a little bit of the background colour.

You may have noticed that the text cursor is still active in *mosaic* mode. You cannot place the cursor using the mouse – you *must* move it around using the keyboard. The cursor is provided so that you may insert control codes. You can also type, but remember that only the upper-case letters will appear correct when a graphics colour code has occurred.

The first of the graphics options is the *grid*. This grid marks out each character position (*not* each pixel position), and may be used to align things that you are drawing.

The second option, also available in *text* mode is *Show control codes* which overwrites the control codes on-screen with an icon explaining what the codes mean.
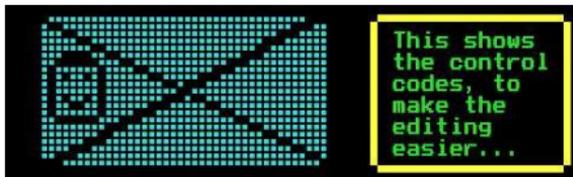
 Set alphabetic colour 'black'.

 Set alphabetic colour 'red'.
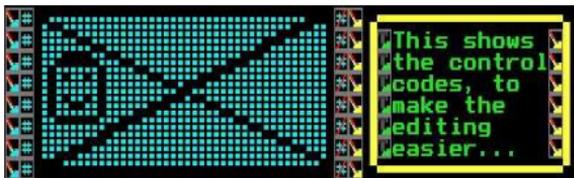
 Set alphabetic colour 'green'.

	Set alphabetic colour 'yellow'.
	Set alphabetic colour 'blue'.
	Set alphabetic colour 'magenta'.
	Set alphabetic colour 'cyan'.
	Set alphabetic colour 'white'.
	Set mosaic colour 'black'.
	Set mosaic colour 'red'.
	Set mosaic colour 'green'.
	Set mosaic colour 'yellow'.
	Set mosaic colour 'blue'.
	Set mosaic colour 'magenta'.
	Set mosaic colour 'cyan'.
	Set mosaic colour 'white'.
	Blink (flashing text on).
	Steady (flashing text off).
	Box on (for pages on TVs intended to overlay a picture).
	Box off.
	Double height text on.

 Double height text off.

 Conceal (text, until the next colour code, is 'hidden' until user chooses the "Reveal" option.

 Separated ('pixels' are surrounded by the background colour).

 Contiguous ('pixels' are joined; i.e. separate off).

 Hold on (last mosaic character is 'held' across the next mosaic colour code).

 Release (colour codes in mosaic make spaces; i.e. hold off).

 Set background to black.

 Set background to last colour code set.

 This icon is used for codes that have no action in a Level 1 decoder.

Here you can see how an example would appear on-screen:

And, now, the same example with *Show codes* switched on:

Pressing `F1` in text edit mode, or choosing the `Frame info...` menu option will open the frame information window...

This allows you to see, and edit, all of the additional values that relate to the current frame. This, as you can see, is an example from a live teletext service - page 100.3 with a variety of links. You can, additionally, see why the CRC check usually fails. A number of satellite broadcasters take the opinion that if you can receive a clear enough signal to receive teletext, then you'll receive it uncorrupted. This may be true with digital, but it is possible to receive partially corrupt signals with analogue equipment... but who uses that these days? :-)

You can save frames in three formats:

> *1.* Teletext format. This type can be loaded by:
>> • My *!Teletext*
>> • Ground Control *!Teletext*
>> • Octopus Systems *!Teletext+*
>> • (and other compatible software)
>
> It is a 1080 byte file containing the teletext frame plus additional control information as shown in the *Frame info* window. Saving this way clears the *changed* flag.

2. A standard RISC OS sprite file. This outputs a MODE 12 sprite, 480×225 (16 colour, 2:4 aspect). When saving in this format, the 'changed' flag is *not* cleared.

3. A MODE 7 dump. This writes 1024 bytes of the display data to file, this may be spooled to a clear MODE 7 screen to create a visual display, if you are writing code for one of the 6502-based machines. When saving in this format, the 'changed' flag is *not* cleared.

TTXeditor can load a variety of different types of file:

&000 Untyped file
&112 Ground Control and my teletext software
&80B Computer Concepts' teletext software
&B12 Octopus Systems' *Teletext+*
&FFD File typed as 'Data'

From this, the file must be a specific length. The 'assumptions' made are as follows:

`1000`	A raw frame (25 lines × 40 rows)
`1024`	A 'chapter zero' dump, assumed to be a frame
`1080`	Ground Control / my / Octopus saved frame
`2048`	Assumed to be chapters zero & four, treated as being 1024 bytes in length.

For everything *except* the 1080 byte frame, the frame information is set to 'default' values.

For further information, and to check to see if software updates are available, please refer to:

`http://www.heyrick.co.uk/software/ttx/`

and if you would like to email me, you can contact me at the email address given in blue, in this picture...

Finally, people that know me will know that I like including *easter eggs* (visit `http://www.eeggs.com/` to find out more), so it goes without saying that *TTXeditor* might have an egg of two lurking inside it somewhere...

Rick; 3rd March 2004
(Peach blossom day)