

VinetexT
User's Manual

Release 4.10

Introduction

The VinetexT Teletext System allows a single IBM PC to generate Teletext signals that are inserted into a TV compatible composite video signal, which can be internally generated, or fed in from an external source.

With the addition of a video or UHF distribution system, the number of receiving teletext-equipped televisions can become almost limitless. This makes VinetexT an ideal system for mass-communication of information throughout hotels, airports, bus and railway stations, service stations, offices, schools, universities, cable networks and so on.

As with all Teletext systems, all of the television receivers can view different Teletext pages simultaneously, in exactly the same way as with commercial systems, allowing completely random access to the information.

The Teletext pages are edited off-line, and can be transmitted as soon as they have been stored onto the hard disk. This avoids the need to have one PC to create Teletext databases, and another to broadcast them.

This manual assumes that the user is familiar with Teletext systems (including control codes, how pages are transmitted, etc.). If you are at all unfamiliar with such things, then first read Appendix A, for an overview of Teletext Systems.

Credits

VinetexT hardware and software ©1993-1996 Vine Micros Ltd.

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Contents

System Requirements	1
The Host Computer	1
The VinetexT System	1
The Receiver(s)	1
System Installation and Set-up	2
Step 1 - Installing the hardware	2
Step 2 - Configuring your expanded memory manager	2
Step 3 - Connecting the VinetexT output to a local TV	3
Step 4 - Check that the hardware is working	3
Step 5 - Windows software installation	4
Step 6 - Installation Completed	4
Tutorial 1: Transmitting Pages	5
How the VinetexT System Handles and Stores Teletext Pages	5
Starting VinetexT	5
General Operation	5
The VinetexT Screen	6
Loading the supplied demonstration pages	6
Viewing some of the pages	7
Transmitting a Single page	8
Transmitting all of the group's pages	9
Loading and transmitting all the group's pages immediately.	9
Tutorial 2: Editing Pages	10
Creating a VinetexT page	10
Editing a VinetexT page	11
Adding a graphics rectangle	12
Drawing graphics within a graphics rectangle	13
Creating a Text Rectangle	13

Editing a Text Rectangle	14
Drawing more graphics	14
Setting the page's attributes	15
Transmitting a single page	15
Saving a page to a group	16
Summary	16
Tutorial 3: Creating A Group File	17
Creating a VinetexT page	17
Saving a page to a group	17
Close the page and Open the Group File	17
Create More Pages	18
Assigning group details	18
Assigning Page Numbers and Names	19
Editing the Pages	20
Transmitting the Group's pages	20
Tutorial 4: Creating Templates	22
Creating a VinetexT page	22
Edit the Page	23
Saving a page to a group file	23
Close the page and Open another Group File	23
Load the template page	24
Make a duplicate of the template page	24
Save the Duplicate Page to your group file	24
Edit the page in this group file.	24
Transmitting a single page	25
Tutorial Summary	25
Tutorial 5: Setting FASTEXT Links	26
Creating a VinetexT page	27
Edit the Page	27

Setting the Red FASTEXT links	28
Setting the Green FASTEXT links (using Browse)	29
Setting the Yellow, Cyan and Index Links	30
Saving a page to a group file	30
Transmitting a single page	30
Transmitting other Group Files	31
Use the Remote Control to move to linked pages	31

The Main Menu **32**

File Menu	32
Edit Menu	33
Group Menu	34
Page Menu	34
Display Menu	35
System Menu	35
Window Menu	35
Help Menu	36

The Tool Bar **37**

Transmit Page (Green arrow)	37
Stop Page Transmission (Red Arrow)	37
Page Attributes	37
Edit Group contents	37
Save Current Page	37
Load Page	38
Define A Rectangle	38
Paint Graphics on/off	38
Flash on/off	38
Double height	38
Boxed Text	39
Hide	39

Colours	39
Transmit all pages (Green Arrow)	39
Stop Transmitting All Pages (Red Arrow)	39
The Status Bar	40
Page Attributes	41
Page Offset	41
Subpage Number	41
Refresh time	41
Page Prompt	41
Page Name	41
Page Remark	41
Erase Last Page	42
Newsflash	42
Subtitle	42
Suppress Header	42
Update	42
Interrupted Sequence	42
Inhibit Display	42
Magazine Serial	42
FASTEXT Linking	43
Country options	43
Group Attributes	44
Group Name	44
Pages in group	44
Default Base Page	44
Group Remarks	44
Contents Button	44
Editing Group Contents	45
Edit Button	45

Add Button	45
Remove Button	46
Confirm Removal	46
Help Button	46
Editing Text on a Page	47
To Edit a Page	47
Notes for editing text	47
Creating Graphics and Text Rectangles	48
Configuration Settings	50
Switching to the External Video Source	50
Enable/Disable Guard	50
Number of lines each Field	50
Number of lines each Page	50
Day	50
Month	51
Service Name	51
Replace Default Service Name	51
Save settings to INI file	51
Default Language	51
Command-Line Options	52
Adding Command-line options	52
Automatically open and transmit a Group file	52
Automatically open and transmit Multiple Group files	52
Disable Introduction Box and Query Message Box.	53
Automatically exit the software	53
Automatically run the software from Windows	53
Creating a Backdrop for the TV screen	54
Using a bitmap as a backdrop	54
Using a video signal as a backdrop	54

Hardware & Driver Configuration	55
Settings on the card	55
Setting the driver software (TXTVS.COM)	56
Warranty & Returns Procedure	57
Warranty	57
Are you sure there's a fault?	57
To return a unit for repair	57
Appendix A- An Overview of Teletext	58
Introduction	58
Teletext display format	58
Page numbering	58
Sub-pages	58
Magazines	58
Colour text	59
Graphics	59
Control Codes	59
Special Effects	59
FASTEXT	60
Summary	60
Appendix B - International Settings	61
Supported alphabets	61
Access to extended characters	61
Appendix C - Hints and Tips	62
Separating Pages into Groups	62
Page Ordering	62
Menu Pages	62
Automatic Updating	62
Time between Pages	63
Animation	63

Large Graphics Text	63
---------------------------	----

Appendix D - Problem Solving **64**

Running the Software for the first time	64
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Using the VinetexT System	64
---------------------------------	----

Transmitting Teletext Pages	64
-----------------------------------	----

Drawing graphics	65
------------------------	----

Editing Text	66
--------------------	----

System Requirements

The Host Computer

The host system must be an IBM PC or 100% compatible, with a minimum of the following features:

1. An 80386 'DX' CPU with a 33MHz clock.
2. At least one spare 16-bit ISA expansion slot.
3. VGA or SVGA graphic card and monitor.
4. 4 Megabytes of memory.
5. An expanded memory manager. (EMM386 recommended).
6. Windows 3.x or Windows 95
7. Windows compatible mouse.
8. At least 1.2 Mb of free Disk Space.

The VinetexT System

The VinetexT System comprises of the following items:

1. Vine Micros' VinetexT semi - 16bit adapter card.
2. *Short cable with red and yellow sockets.
3. This manual.
4. Program disk(s), with sample database(s) and VinetexT software.

*If your VinetexT card has two phono sockets on it, then this cable is omitted as it is not required. The top phono socket on the card (nearest the 9-way D connector) is the video inputs, and the lower phono socket is the video output.

The Receiver(s)

To receive the VinetexT signals, a teletext-compatible television equipped with a composite video input is all that is required.

Alternatively, the output from the VinetexT card can be fed into an optional UHF modulator, which can then be fed into a UHF distribution system - to transmit, for example, to all the Teletext TV's in a hotel.

System Installation and Set-up

Follow all the steps below in order. Some steps require you to alter system files using text editing programs - please consult your DOS and / or Windows manuals if you are at all unsure on how to do this correctly.

Step 1 - Installing the hardware

Before installation, please look at the README.TXT file on the disk for any updates. by double-clicking on the icon or loading it into Windows Notepad.

Before attempting any hardware set-up, switch off both the PC and monitor at the mains. Note the following before proceeding.

Preventing static damage:

The VinetexT System is an electronic circuit, and as such is susceptible to static damage. To minimise the risk, the VinetexT should be handled by the edges only, care should be taken that you don't touch the connectors or circuitry, and ensure that you earth yourself when adding the board by touching the PC's case. Leave the card in the Anti-Static packaging until you are ready to install it in your computer.

Now perform the following:-

1. Remove the cover from the PC.
2. Locate a spare 16-bit ISA expansion slot and remove any blanking plate.
3. Make sure that the VinetexT card has 'DIP' switches 3 and 6 on, and the rest set to off. (This sets it to I/O address 0240, and interrupt 11 - see the chapter 'Hardware & Driver Configuration' for information on how to change this.)
4. Insert the VinetexT card into the expansion slot, and secure it with the screw from the blanking plate.
5. Replace the cover of the PC.
6. Switch the PC and monitor back on, and allow the PC to go through its start-up sequence as normal. (if your PC fails to restart then check that the VinetexT card is pushed into its slot properly).

Step 2 - Configuring your expanded memory manager

NB. The following lines assume EMM386 is held in the DOS directory - but you can use the version in the WINDOWS directory instead.

1. You must have an expanded memory manager (such as EMM386) in your CONFIG.SYS file. Load CONFIG.SYS into either DOS's 'EDIT' program or Windows' 'Notepad' program - don't try to edit the file in a word-processor.

2. Check that the line **DEVICE=C:\DOS\HIMEM.SYS** appears near the top of your file. This is necessary for the expanded memory manager to run properly.
3. Check for an expanded memory manager. If there is one, then make sure that at least 512KB is allocated. For EMM386, the line should read:-
DEVICE=C:\DOS\EMM386.EXE 512
4. If you're using Windows 95, then make sure that there's no text in front of the word 'DEVICE' which may be disabling it.
5. You will need to re-boot your computer for any changes to take effect.

Note OEMM

VinetexT is not compatible with the third party expanded memory manager QEMM. It is recommended that when using the VinetexT card, EMM386 is installed as an alternative.

Step 3 - Connecting the VinetexT output to a local TV

With the PC and television off, do the following:-

1. Plug the short 9 way 'D' plug to 2 x Phono socket cable into the VinetexT.
2. Secure the plug by doing up the side-screws.
3. Connect the yellow output cable (or the lower phono socket) to a TV (using a 'Phono to Phono' or 'Phono to SCART' lead). *NB. It will not connect to an aerial input.*
4. Turn on the PC and TV.
5. Select the composite video input - usually by pressing AV, or selecting channel 0. You will now see a randomly coloured picture - this is not Teletext, but is because the internal framestore has not yet been written to by the driver software.

Note UHF module

If you have chosen to use the optional UHF module then make sure that your TV or video is tuned in correctly. The UHF module is factory set at channel 36 but can be adjusted to use a channel of your choice. If you require assistance for this adjustment then please contact Vine Micros.

Step 4 - Check that the hardware is working

At this point, your PC and TV should be on, and the TV should be displaying randomly-coloured 'streaky' vertical bars.

1. Insert the program disk marked 'VinetexT' into the PC's floppy drive.
2. If you are in Windows, then run the MS-DOS prompt in full-screen mode.
3. Type **A:** to switch to drive A:. (Or **B:** if using drive B:.)

4. Type **TXTVS**
5. With your TV handset, select Teletext mode and go to page 899. You should now see the 'VinetexT Engineering Page'. This may contain useful information.
6. Go to page 898. This page cycles through a range of languages, and is useful for checking TV compatibility.
7. If you are successful so far, then the hardware is installed properly and functioning correctly, and you can proceed to the software installation.
8. If you have any problems, you may have an address or interrupt conflict that needs resolving.

Step 5 - Windows software installation

Separate instructions are given for Windows 3.x and Windows 95 installation.

Windows 3.x software installation

Installation is automatic, simply follow these steps:

1. Go to Windows Program Manager
2. Select 'Run' from the 'File' menu.
3. Type **A:SETUP**
4. Follow any instructions given. When complete, a new group of icons appears.

Windows 95 software installation

1. Left-click on 'Start'
2. Click on 'Run'
3. Type **A:SETUP**
4. Follow any instructions given. When complete, a new group of icons will appear. You can now move any icons you wish to the main desktop.

Note - Visual Basic

(This only applies if you are running Visual Basic): Please ensure that during software installation you do not have a copy of Visual Basic running. If you do, just close it down before installing the software. You can open it up again after installing.

Note - AUTOEXEC.BAT

The software installation automatically modifies the AUTOEXEC.BAT file on your PC to run the TXTVS driver software. When your PC is turned on (or reset), TXTVS.COM will automatically be loaded - this is the main hardware driver. (If you run the installation twice, then you will need to manually delete one of these lines.)

Step 6 - Installation Completed

Follow the short Tutorial that follows in the next chapter to get a basic understanding of the VinetexT software.

Tutorial 1: Transmitting Pages

How the VinetexT System Handles and Stores Teletext Pages

This tutorial will familiarise you with the VinetexT system. This section assumes a basic understanding of Teletext systems. If you are unfamiliar with the Teletext systems, please refer to **Appendix A - An Overview Of Teletext Systems**.

All the files you will need for the tutorials are located in the VinetexT directory.

The VinetexT system allows you to create, edit, store and transmit Teletext pages. These pages can be saved in group files. The system has been designed so that these groups can then be transmitted together to build up complete sets of Teletext pages on a receiver.

Before proceeding through this tutorial, please ensure that you have followed all steps in System Installation and SetUp.

Tutorial 1 contains the following sub-sections:

- Starting VinetexT.
- General Operation.
- The VinetexT Screen.
- Opening a Group file (e.g. demo.vtx).
- Transmitting the pages within this group file to a TV.

Starting VinetexT

Double-Click on the VinetexT icon. On running the VinetexT system you will be greeted by the main introduction dialog box.

Press the 'OK' button and the introduction dialog box will disappear. The dialog box will be replaced by the main VinetexT system window, (shown in Fig 1.).

If the TXTVS driver is not installed an information message will appear. The information message may be ignored but the system will not transmit Teletext if it is displayed. If you see a TXTVS error then exit Windows and make sure that TXTVS driver is loaded. This is done by typing the command TXTVS at the DOS command prompt in your VinetexT directory.

General Operation

The VinetexT software is based in the Windows environment - where the click-on icons and menu bars will already be familiar. VinetexT uses a Multiple Document Interface (MDI). This allows you to edit more than one Teletext page at a time and to see them all on the screen simultaneously, as well as making the copying of text and graphics between pages much easier.

The VinetexT Screen

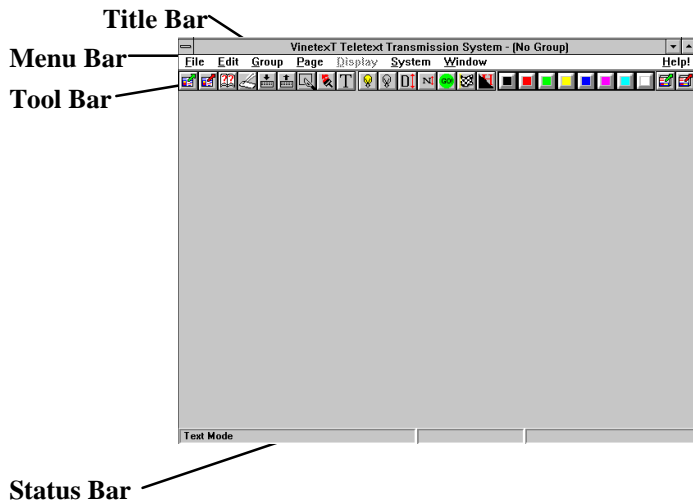


Fig. 1.

- **Title Bar** - Displays the name of the software and the name of the open group file.
- **Menu Bar** - Contains a list of menus.
- **Tool Bar** - Provides instant access to frequently used VinetexT commands.
- **Status Bar** - Displays information about the selected page or the selected command.

Loading the supplied demonstration pages

1. Choose 'File | Open A Group File' from the main menu. The Dialog box displayed in Fig 2. will appear. Choose the correct drive and directory from the 'Directories box'. (At installation the default directory for the demonstration group file was C:\VINEINFO\VTX.)
2. When in the correct directory the 'Files' list will be filled with the group files available. (The Group files have '.VTX', extensions.)
3. Choose 'travel.vtx' from the 'Files' Box by either double-clicking on it or by selecting it with the mouse and choosing the 'Edit Group' button. This will load the group file.

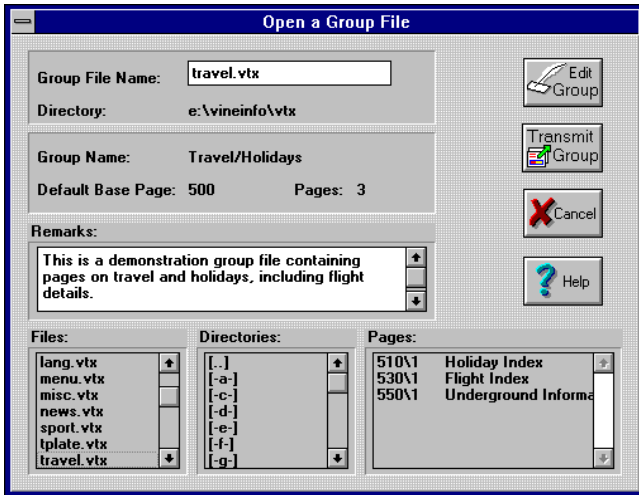


Fig.2.

Viewing some of the pages

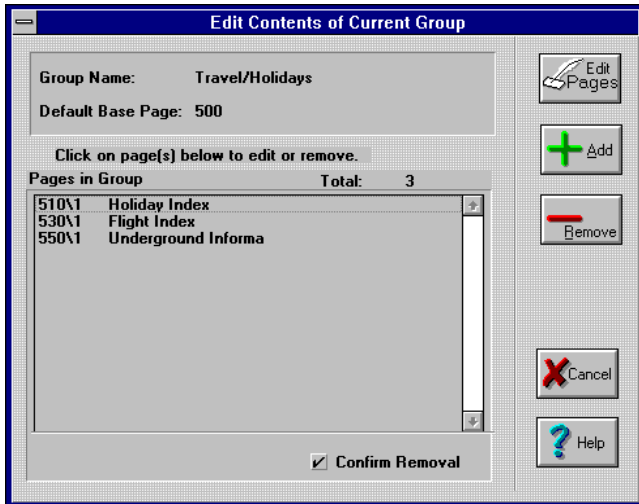


Fig.3.

1. The Edit Group Contents Dialog Box (Fig.3.) allows you to select the pages you wish to edit.

2. Highlight all the pages by clicking on them using the left mouse button.
3. When they are highlighted press the 'Edit Pages' button. This will open the selected pages for you.
4. You will now have a screen that looks similar to that in Fig. 4.

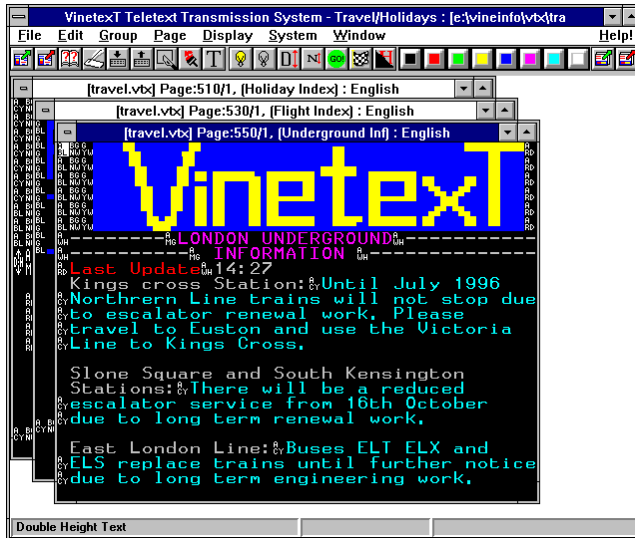


Fig.4.

Transmitting a Single page



The Transmit single page toolbar button (green arrow).

1. Click on the page window with page number 510/1 and page name 'Holiday Index'.
2. Go to the left hand side of the toolbar and press the Transmit Page button (shown above).
3. You will notice that the Information bar at the bottom of the screen changes to display 'Transmitting' while the page is being transmitted, and 'Page Transmitted' when it has finished.
4. This will now transmit the page to the Teletext television, where it can be viewed by selecting the correct Teletext page number on the television set. (Note: this button will only transmit the currently selected page.)

5. Now press 510 on the remote control. The menu page should now appear on the TV screen.

Transmitting all of the group's pages



The Transmit All page toolbar button (green arrow).

1. Once you have loaded a group file use this Toolbar button to transmit all of the pages within the group to the output device.
2. This button will transmit the pages in the current group file that is loaded.
3. You will notice that the Information bar at the bottom of the screen changes to display 'Transmitting' while the pages are being transmitted, and 'Group Transmitted' when all the pages are transmitted.
4. This will now transmit ALL the pages in this group to the Teletext television.
5. Press 530 on the remote control. The TV will now search for that page. When it is found, the 'Flight Index' page will then appear.
6. Press 550 on the remote control. The TV will now search for that page. When it is found, the 'Underground Information' page will appear.

Loading and transmitting all the group's pages immediately.

1. When you open a group file, you can open some pages for editing (or even for viewing within windows) and then transmit the group by using the toolbar. Alternatively the current group file may be loaded and transmitted without opening any of the edit pages into the VinetexT Edit window.
2. Choose **'File | Open A Group File'** from the main menu to open a group file.
3. The Open Group Dialog Box (Fig 2.) will appear.
4. Select the group that you want to transmit.
5. Click on the **'Transmit Group'** button on dialog box .
6. This will load the group file and automatically transmit all of the pages within the group to the output device (usually your TV).
7. If you then want to edit any pages, choose **'Group | Edit Group Contents'** from the main menu.

Tutorial 2: Editing Pages

In this tutorial, you will use VinetexT to create, edit and transmit Teletext pages. Here are the main steps you will follow:

- Create a New Page.
- Edit this Page with coloured text.
- Create a Graphics Rectangle.
- Draw Graphics.
- Create a Text Rectangle.
- Edit a Text Rectangle.
- Drawing More Graphics.
- Set basic page attributes.
- Transmit the page to a TV source.
- Save the page to a group file.

When you have completed this tutorial, the VinetexT page should look similar to the following illustration:

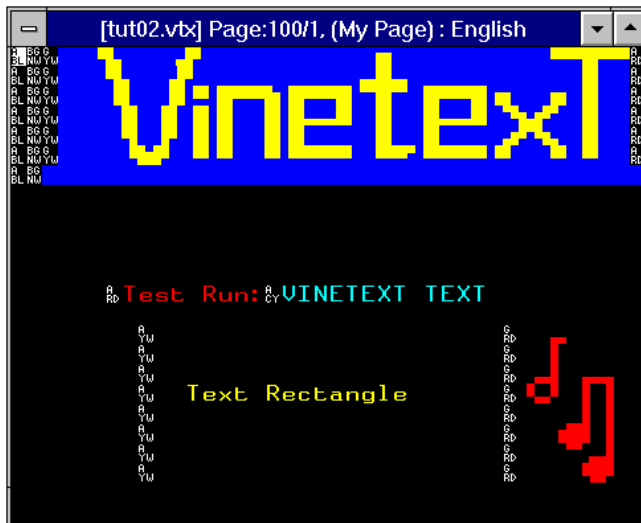


Fig 5.

Creating a VinetexT page

1. With VinetexT running, choose 'Page | New' from the main menu.

2. The Set Page Attribute Dialog box (see Fig. 6. below) will appear automatically. Choose 'OK' (No need to change anything yet).
3. A blank Teletext page will be displayed ready for you to edit.

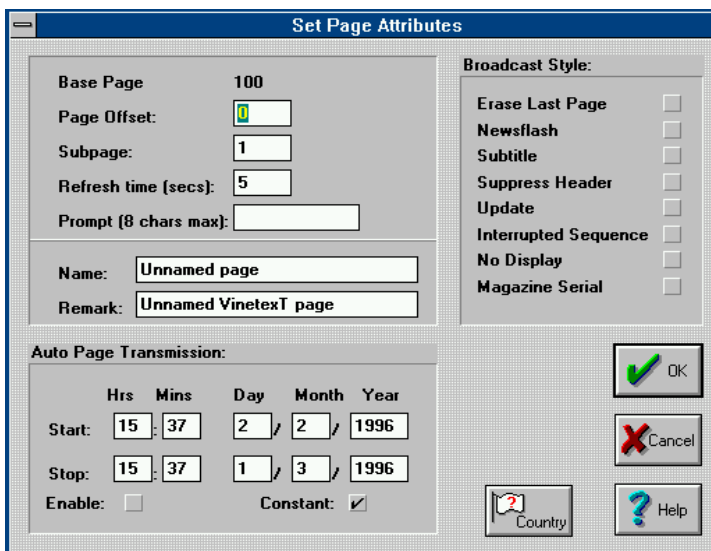



Fig.6.

Editing a VinetexT page

Text is simply typed into the window in the same way as with any other text entry window. The cursor can be relocated by using the cursor control keys, and by using the left-hand button of the mouse. This area represents the Teletext page as it is to be transmitted. The system starts each page in *overwrite* mode. The mode of the page may be toggled to *insert* mode by the use of the 'insert' key on the keyboard.

1. Start by placing the cursor at a position half way down the screen.
2. Select a colour for the text by moving the mouse over the red coloured button (see toolbar below), and pressing the left-hand mouse button.



3. A  control character will appear.
4. This control character indicates that a red colour will be used.

5. **Note:** This control character is only used to indicate character attributes in the window on your PC. It will not appear on the Teletext screen on your TV, though it does take up a blank space on the TV screen.
6. Start the editing by typing the following onto the page using the keyboard.
Test Run - VINETEXT TEXT
This text appears in red.
7. You will notice that the Information bar at the bottom of the screen has now changed to display 'Page Modified'. By showing that the page has been changed both the system and the user are alerted that before this page can be closed, it has been modified and may need saving.
8. Now you will change the colour of some of the text. Move the cursor to the space before the character 'V'. Left mouse click on the cyan toolbar button. The text 'VINETEXT TEXT' will now be changed to cyan.

Adding a graphics rectangle

In this section you will be shown how to create a graphics rectangle (as illustrated by the word VinetexT which has been drawn on Fig. 5).

1. Place the flashing cursor at the top-left corner of the page window. Move the mouse over the blue coloured button, and press the right-hand mouse button. A control character and a blue background will appear. Repeat this for another 6 lines.
2. Choose **'Page | Define A Rectangle'** from the menu. (The cursor will change to a paintbrush to reflect the selection).
3. Now place the mouse cursor just after the top blue control character.
4. Once positioned, press and hold down the left mouse button. Start dragging the mouse rightwards and downwards. An outline of a rectangle will be drawn as you move the mouse. Drag the rectangle to the end of line 7 (i.e. where the blue area ends).
5. Once the rectangle is of the correct size release the mouse button.
6. The following dialog box (Fig 7.) is displayed from which you may choose the colour options you require from the rectangle.
7. Choose **Graphics** as the Start CTRL Code and the colour **Yellow** as the Left Hand Colour. This will be the colour of pixels in the drawing. The Right Hand Colour is the colour of pixels or text for the rest of the line after the rectangle (For a more complete discussion on this dialog box refer to the section on Creating Graphics and Text Rectangles). In this instance we are creating a rectangle that will fill whole lines; therefore leave the Finish CTRL code and Right Hand Colour as default and press OK.

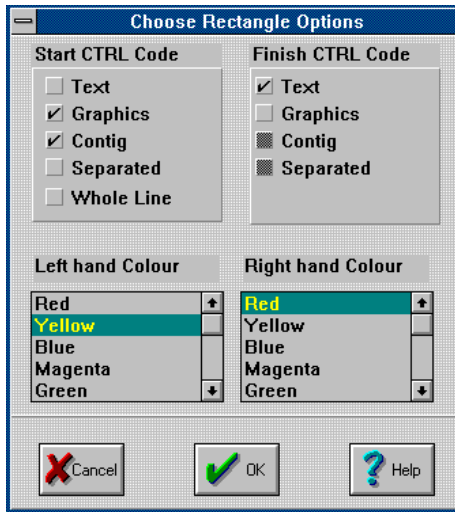


Fig. 7.

Drawing graphics within a graphics rectangle

1. Draw the graphics, pixel by pixel.



To edit the graphics rectangle choose the paintbrush button from the Tool Bar. A paint brush appears when the cursor crosses over the window. Place the cursor inside the rectangle and press the left mouse button to add a graphic dot. Draw graphics to spell 'VinetexT' using Fig. 5. as a guideline. Use the right mouse button to delete any dot from the rectangle.

2. Return to text mode



When you have finished creating graphics choose the text button to return to text mode.

This topic is covered in much more detail in the section Creating and Editing Graphics and Text Rectangles, and several specific queries are answered in Appendix D.

Creating a Text Rectangle

In this section you will be shown how to create a text rectangle (as illustrated in Fig. 5.).

1. Choose '**Page | Define A Rectangle**' from the main menu. The cursor will change to a paintbrush to reflect the selection.

2. Place the paintbrush icon at a position approximately 15 lines down the page and 10 spaces in.
3. Once positioned, press and hold down the left mouse button. Start dragging the mouse rightwards and downwards. An outline of a rectangle will be drawn as you move the mouse. Drag the rectangle about 2/3 of the way to the end of line 23.
4. Once the rectangle is of the correct size release the mouse button.
5. The rectangle options dialog box (Fig 7.) is displayed from which you may choose the colour options you require from the rectangle.
6. Choose **Text** as the Start CTRL Code and the Left Hand colour as **Yellow**. This will be the colour of text in the rectangular area. Choose **Graphics** as the Finish CTRL Code and the Right Hand colour as **Red**. This is the colour of graphics for the rest of the line after the rectangle (For a more complete discussion on this dialog box refer to the section on Creating Graphics and Text Rectangles).
7. Press OK.
8. The rectangle will now appear on the screen. Note that text can now be typed into this rectangle and graphics can be drawn in the area to the right of the rectangle.

Editing a Text Rectangle

1. Place the cursor on the third line of the text rectangle, and two spaces in on that line.
2. Type the following:
Text Rectangle
3. Note that the text appears in yellow.

Drawing more graphics



Choose the paintbrush button from the Tool Bar. A paint brush appears when the cursor crosses over the window. Place the cursor to the right of the text rectangle and press the left mouse button to add a graphic dot. Draw graphics to create the musical notes using Fig. 5. as a guideline. Use the right mouse button to delete any dot.



When you have finished creating graphics choose the text button to return to text mode.

This topic is covered in much more detail in the section Creating and Editing Graphics and Text Rectangles, and several specific queries are answered in Appendix D.

Setting the page's attributes

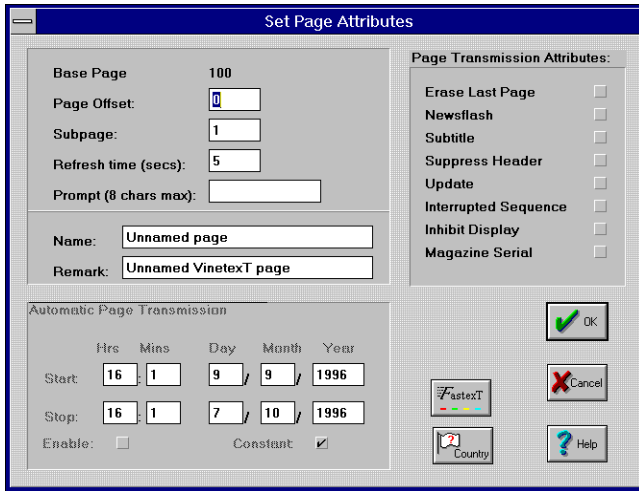


Fig. 8.

1. Now you have created a Teletext page. Before transmitting it onto the screen, the page must have its attributes set so that Teletext knows what type of page it is, its page number, etc.
2. Choose **'Page | Set Page Attributes'** from the menu. A dialog box will appear (Fig. 8.) which allows you to alter the page's attributes.
3. You will see that the current **'Name'** for the page is 'Unnamed page'. Change this to 'My Page'. Add a remark if required.
4. Change the **'Page Offset'** to 12. The Page Offset governs the number of the page displayed on the receiver. The Page Offset is added to the Group Base Page number (by default this is 100), to get the value for the current page. By having the 'Page offset' as 12, the Teletext system will display the current page at 112 on the receiver.
5. Leave the **'Sub-Page'** number as 1 and accept the defaults for all other parameters by clicking on 'OK'.

Transmitting a single page



The Transmit single page toolbar button (green arrow).

1. Go to the left hand of the toolbar and press the Transmit Page button.
2. You will notice that the Information bar at the bottom of the screen changes to display 'Transmitting' while the page is being transmitted, and 'Page Transmitted' when it has finished.
3. This will now transmit the page to the Teletext television, where it can be viewed by selecting the correct Teletext page number on the television set.
4. Now press 112 on the remote control. The page you have created should now appear on the TV screen.

Saving a page to a group

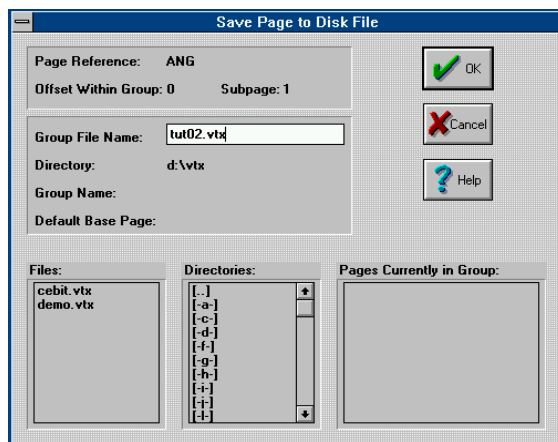


Fig.9

1. Choose '**Page | Save to a Group File**' from main menu. The window above will appear.
2. Type '**tut02.vtx**' in the Group File Name box and press 'OK'. The page is now saved to a new file tut02.vtx.
3. You can also save the page to a group file that already exists. To choose a group file either double click the file name in the Files box or highlight it and choose the 'OK' button. The Teletext page will now be added to the group selected.

Summary

You have now created, edited, saved and transmitted a basic Teletext page. Practice the editing techniques using the mouse and graphics rectangle to create colourful pages before trying to take in all of the complexities of the software. It's much easier if you take your time.

Tutorial 3: Creating A Group File

In this tutorial, you will use VinetexT to create several pages and store them together in a group file. You can create as many group files as you want. And these can all be transmitted to the same Teletext output if you wish.

Here are the main steps you will follow:

- Create one page.
- Save this page to a Group File.
- Close the page and open the new Group File.
- Create more pages.
- Assign page numbers and names.
- Edit pages.


Creating a VinetexT page

1. With VinetexT running, choose '**Page | New**'.
2. The Set Page Attribute Dialog box (see Fig. 6.) will appear automatically.
3. Choose OK. A blank Teletext page will be displayed ready for you to edit.

Saving a page to a group

1. Choose '**Page | Save to a Group File**' from the main menu.
2. Type tut03.vtx in Group File Name box and press 'OK'. The page is now saved to a new file tut03.vtx.

Close the page and Open the Group File

1. Click on the  at the top-left corner of the page window.
2. A pop-down menu will appear. Click on '**Close**'.
3. Choose '**File | Open A Group File**' from the main menu.
4. Select the file tut03.vtx and press OK.
5. The Edit Group Contents dialog box (Fig. 9.) will appear. Select the page and click on the Edit button.

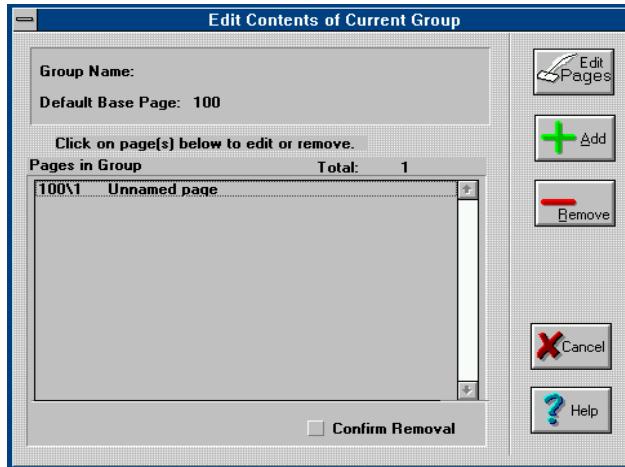


Fig.10.

Create More Pages

1. Choose '**Page | New**' from the main menu. This creates a new blank page within the currently opened group file.
2. Alternatively, choose '**Group | Edit Group Contents**' from the main menu. The Edit Group Contents dialog box (Fig. 7.) will appear. Click on the '**Add**' button and a blank new page will be created.
3. Repeat the above several times creating 10 blank pages in total.

Assigning group details

1. Choose '**Group | Set Group Attributes**' from the Main Menu. The Group Attributes dialog box will appear (see Fig. 11).
2. Set the Group Name as 'Tutorial 3', the Default Base Page as 200, and type the following in the Remarks:
 This is a tutorial group containing news pages
3. Press OK and dialog box will close.

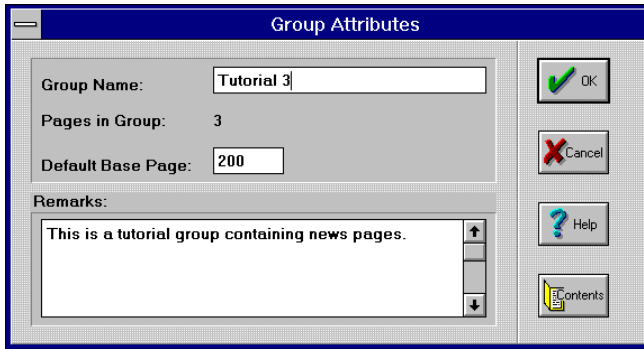


Fig. 11.

Assigning Page Numbers and Names

1. Click on one of the open windows.
2. Choose **Page | Set Page Attributes** from the main menu.
3. The Set Page Attributes dialog box (Fig. 6.) appears.
4. You will see that the current **Name** for the page is 'Unnamed page'. Change this to 'Main Menu'.
5. Set the **Page Offset** to 0. The Page Offset governs the number of the page displayed on the receiver. The Page Offset is added to the Group Base Page number (by default this is 100, but we have set it to 200), to get the value for the current page. By having the 'Page offset' as 0, the Teletext system will display the current page as 200 on the receiver.
6. Leave the **Sub-Page** number as 1 and accept the defaults for all other parameters. Click on OK.
7. The page window now reappears with the selected page number, sub-page number and page name.
8. Repeat the above, assigning the following sample page information. Remember that Page Number is automatically calculated as the Page Offset + Group Base Page Number.

Page Number	Page Offset	Sub-Page Number	Page Name
200	0	1	News Menu
200	1	1	Headlines
210	10	1	NewsA
210	10	2	NewsB
220	20	1	World News
230	30	1	Weather

Editing the Pages

1. Select a page by clicking on it.
2. Edit the page with text and graphics (see Tutorial 2). To keep it simple at this stage, just type the respective Page Name on the edit screen.
3. Choose '**Page | Save to a Group File**'. The page is now saved to its group file.
4. Repeat the above for all the pages.
5. If a page window is not on the screen, simply choose '**Group | Edit Group Contents**'. This brings up the dialog box as shown in Fig. 7. Select the page(s) you want to edit and click on the 'Edit' button.
6. When you have completed the editing, choose '**File | Save Group File**'.

Transmitting the Group's pages



The Transmit ALL page toolbar button (green arrow).

1. Once you have loaded a group file use this Toolbar button to transmit all of the pages within the group to the output device .
2. This button will transmit the pages in the current group file that is loaded.
3. You will notice that the Information bar at the bottom of the screen changes to display 'Transmitting' while the pages are being transmitted, and 'Group Transmitted' when all the pages are transmitted.
4. This will now transmit ALL the pages in this group to the Teletext television.

5. Press 200 on the remote control. The TV will now search for that page. When it is found, the 'Main Menu' page will then appear.
6. Press 210 on the remote control. The TV will now search for that page. When it is found, the 'NewsA' page will appear. Note that there are two News sub-pages. Wait and watch as the screen changes from page 210/1 to 210/2 on your TV screen.

2. The Set Page Attribute Dialog box will appear automatically. Name the page '**my template**'. Choose 'OK'. A blank Teletext page will be displayed ready for you to edit.


Edit the Page

1. The following steps outline how to copy and paste graphics from another page created in Tutorial 2.
2. Choose '**Page | Load From A Group File**' from the main menu.
3. Select the file **tut02.vtx**.
4. The pages in this group will appear in a list box. Select the '**My Page**' page.
5. The page window now appears.
6. Place the cursor at the top corner of the *page* window.
7. Click on the right-mouse button and drag the mouse down 7 lines.
8. You will see that the graphical area saying VinetexT will appear highlighted as grey.
9. Choose '**Edit | Copy**' from the main menu.
10. Click on the '**my template**' page.
11. Place the cursor at the top-left corner of the page window, and choose '**Edit | Paste**' from the main menu.
12. Now create a text rectangle similar to the one created in Tutorial 2.
13. Next place the cursor at the start of line 8, just under the blue background.
14. Select the foreground white colour. A control character appears.
15. Type the following onto the page using the keyboard.
----- INFORMATION -----
16. Place the cursor before the word 'INFORMATION' and select the foreground cyan colour. Place the cursor after the word and select the foreground white colour.

Saving a page to a group file

1. Choose '**Page | Save to a Group File**' from the main menu.
2. Type **tplate.vtx** in Group File Name box and press 'OK'. The page is now saved to a new group file tplate.vtx.

Close the page and Open another Group File

1. Click on the  at the top-left corner of the *page* window.
2. A pop-down menu will appear. Click on '**Close**'.
3. Choose '**File | Open A Group File**' from the main menu.
4. Select another file, say **tut03.vtx** and press 'OK'.
5. The dialog box shown in Fig. 9. will appear. Select the Cancel button. The tut03.vtx file is open, with no files selected yet for editing.

Load the template page

1. Choose '**Page | Load From A Group File**' from the main menu.
2. Select the file **tplate.vtx**.
3. The pages in this group will appear in a list box. Select the '**my template**' page.
4. The template page window now appears.

Make a duplicate of the template page

1. Make sure the template page window is currently selected.
2. Choose '**Page | Duplicate**' from the main menu.
3. An independent copy of the template page is created. The graphics and text are the same, and also the page attributes.
4. With the duplicate page selected, choose '**Page | Set Page Attributes**'.
5. Set the name as '**MyOwn**', set the page offset as 10, and the sub-page number as 1. Note: The page offset of 100 implies that the page number will be 110. Click on OK.
6. The original template page '**mytemplate**' can now be closed.

Save the Duplicate Page to your group file

1. With the '**MyOwn**' page selected, choose '**Page | Save to a Group File**' from the main menu.
2. Type **tut03.vtx** in the Group File Name box and press 'OK'. The page is now saved to the file tut03.vtx.

Edit the page in this group file.

1. On the '**MyOwn**' page, type the following text in the text rectangle:
Text Rectangle

2. You can edit this page in any way you wish without affecting the original template page as this is an independent copy of that page.
3. Choose **'Page | Save to a Group File'** from the main menu. The updated 'MyOwn' page is now saved.

Transmitting a single page



The Transmit single page toolbar button (green arrow).

1. Go to the toolbar and press the Transmit Page button.
2. This will now transmit the page to the Teletext television, where it can be viewed by selecting the correct Teletext page number on the television set.
3. Now press 110 on the remote control. The page you have created should now appear on the TV screen.

Tutorial Summary

This is the end of the section on tutorials. These tutorials are designed to introduce you to some of the basic concepts involved in creating VinetexT pages, but do not discuss all the options that are available. The following sections give a more in-depth explanation of the facilities within the VinetexT system. Take some time to look at some of the demonstration group files supplied with this software to see how different facilities can be implemented.

Tutorial 5: Setting FASTEXT Links

In this tutorial, you will use VinetexT to set FASTEXT links for a page. The page will be linked to pages in other group files. When you have completed this tutorial, the tutorial page should look similar to the following illustration. The final line contains the prompts which describe the linked pages. Some of the pages used in this tutorial have already been created, and come with the Installation disk.

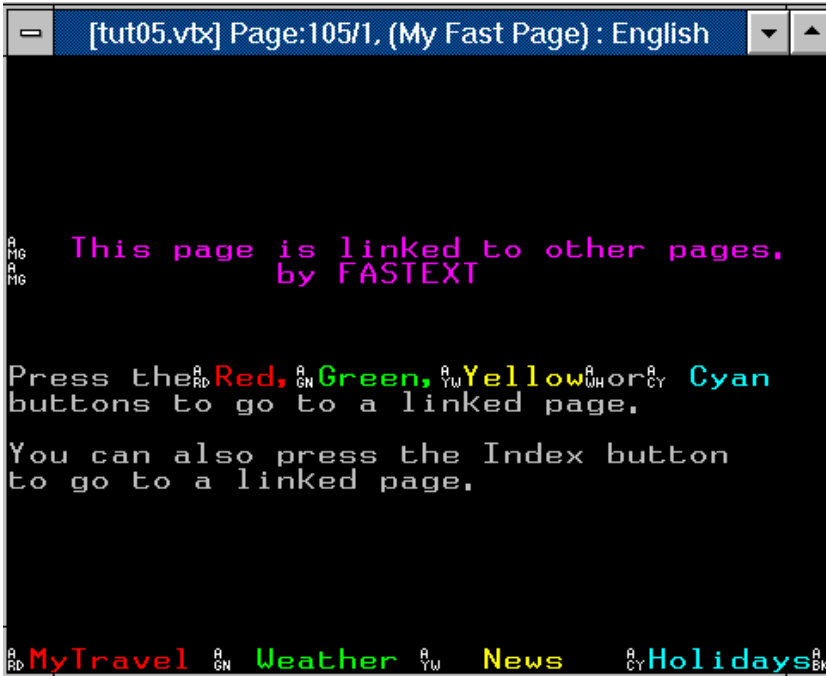


Fig. 13

Note: The final (prompt) line appears on the editing page in windows for display purposes only. It is set by using the FASTEXT Dialog Box as outlined later in this tutorial.

Here are the main steps that you will follow in this tutorial:

- Create a page.
- Edit this page.
- Set the Red FASTEXT Links.

- Set the Green FASTEXT Links (using Browse).
- Set the Yellow, Cyan and Links.
- Save the page to a Group File.
- Transmit the Page.
- Transmit further Group Files.
- Use the Remote Control to move to linked pages.

Creating a VinetexT page

1. With VinetexT running, choose '**Page | New**' from the main menu.
2. The Set Page Attribute dialog box will appear automatically. Name the page '**My Fast Page**'.
3. Number the page with an offset of 5.
4. Choose 'OK'. A blank Teletext page will be displayed ready for you to edit.

Edit the Page

1. On this page we will present a few lines which explains to the user how to use the links.
2. Place the cursor at the start of line 8. Select the foreground Magenta colour. A control character appears.
3. Type the following onto the page using the keyboard.
 This page is linked to other pages
4. Place the cursor at the start of the next line. Select the foreground Magenta colour. A control character appears.
5. Type the following onto the page using the keyboard.
 by FASTEXT
6. Place the cursor further down the screen.
7. Select the foreground Magenta colour. A control character appears.
8. Type the following onto the page using the keyboard.
 Press the Red, Green, Yellow or Cyan
 buttons to go to a linked page
9. Press the INSERT button on the keyboard to ensure we are in overwrite mode.
10. Place the cursor before the word 'Red' above. Select the foreground Red colour.
11. Place the cursor before the word 'Green' above. Select the foreground Green colour.
12. Place the cursor before the word 'Yellow' above. Select the foreground Yellow colour.
13. Place the cursor before the word 'Yellow' above. Select the foreground Cyan colour.

14. Place the cursor before the word 'button' above. Select the foreground White colour.
15. Place the cursor at the start of line 18.
16. Type the following onto the page using the keyboard.
 You can also press the Index button
 to go to a linked page

Setting the Red FASTEXT links

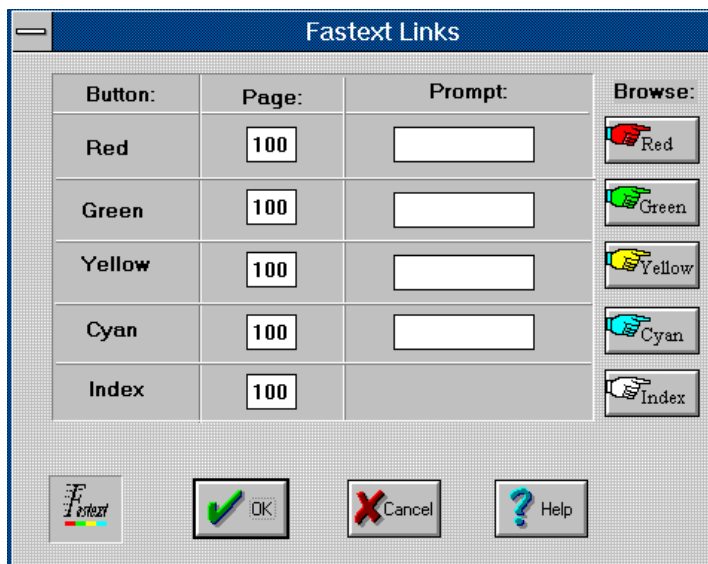


Fig. 14.

1. Choose '**Page | Set Page Attributes**' from the main menu.
2. The Set Page Attributes dialog box appears. Click on the 'FASTEXT' button.
3. The FASTEXT dialog box appears (see Fig.14 above).
4. You will see that each of the links have the page numbers set to 100 and the prompts are blank. These are default settings set by the software.
5. Type **530** as the page number for the Red Link, and type '**MyTravel**' as the page prompt for the Red Link.

Setting the Green FASTEXT links (using Browse)

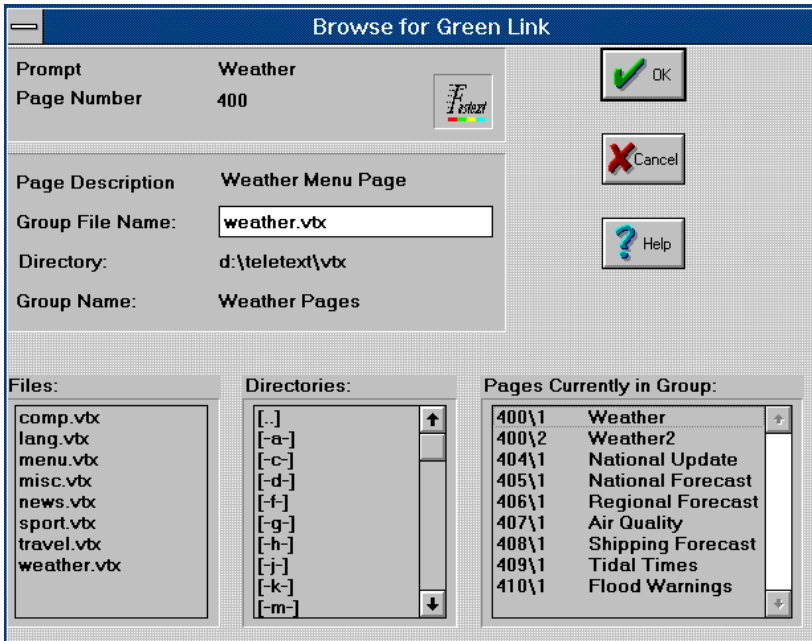



Fig. 15

1. Now we will browse for another link. Click on the green  button.
2. The Browse for Green Link dialog box (see Fig. 15 above) will appear
3. We will now search for a page that has already been created. Choose the correct drive and directory from the 'Directories box'. (At installation the default directory for the demonstration group file was C:\VINEINFO\VTX.)
4. When in the correct directory the 'Files' list will be filled with the group files available. (The Group files have '.VTX' extensions.)
5. Choose **weather.vtx** from the 'Files' Box by either double-clicking on it or by selecting it with the mouse and choosing the 'Edit Group' button. This will load the group file.
6. Select the page **Weather** from the 'Pages' list.

7. Now look at the dialog box. Information appears pertaining to that page. The Page Number and Page Prompt are needed for the Fastext link and these are shown at the top of the dialog box. The Page Remark is a basic description of the page. The group file name, group name and directory path are also shown.
8. Press 'OK'. Focus returns to the FASTEXT dialog box.
9. You will see that the page numbers and prompt edit boxes have changed for the green link.

Setting the Yellow, Cyan and Index Links

1. Now click on the Yellow button. The Yellow Link dialog box will appear.
2. Select the page 'News' from the group file 'News.vtx'. Press 'OK'.
3. Now click on the Cyan button. The Cyan Link dialog box will appear.
4. Select the page 'Holidays' from the group file 'Travel.vtx'. Press 'OK'.
5. Now click on the White button. The Index Link dialog box will appear.
6. Select the page 'Menu' from the group file 'Menu.vtx'. Press 'OK'.
7. Focus returns to the Dialog Box. Press 'OK'.

Saving a page to a group file

1. Choose 'Page | Save to a Group File' from the main menu.
2. Type **tut05.vtx** in the Group File Name box and press 'OK'. The page is now saved to a new group file tut05.vtx.

Transmitting a single page



The Transmit single page toolbar button (green arrow).

1. Go to the toolbar and press the Transmit Page button.
2. This will now transmit the page to the Teletext television, where it can be viewed by selecting the correct Teletext page number on the television set.
3. Now press 105 on the remote control. The page you have created should now appear on the TV screen.
4. Try pressing any of the colour buttons on the remote control. You will see that the television searches for the linked pages, but cannot find them.
5. The reason for this is the group files with the linked pages need to be transmitted also.

Transmitting other Group Files

1. Choose 'Page | Open a Group File' from the main menu.
2. Select the file '**travel.vtx**' in the C:\VINEINFO\VTX' directory.
3. Press the 'Transmit' button. The Group File is opened and transmitted.
4. Repeat steps 1 - 3 for the files '**weather.vtx**', '**news.vtx**' and '**menu.vtx**'.
5. You may find the above repetitive. There is, however, a solution. The next tutorial takes you through the steps of automating the transmission of multiple group files.

Use the Remote Control to move to linked pages

1. Now try pressing the Red button. You will see the display move very quickly to the Flights page of travel.vtx.
2. Type 105 on the remote control again. Display returns to your 'My Fast Page'.
3. Repeat steps 1 and 2 for the Green, Yellow, Cyan and Index links.

The Main Menu

The Main menu is positioned just below the title bar on the main Desktop. It holds all of the options necessary to operate the software correctly. i.e. It allows you to open new groups etc. The options held within the main menu are described below:

File Menu

Open a Group File

This option allows a Group file to be loaded from disk and display the Edit Pages contained within it on to the desktop.

Keyboard short-cut: CTRL+O.

Save this Group File

This option allows a Group file to be saved to disk. By using this option the current changes will be reflected in the file stored on the disk. Once the file is reloaded then the transmit all button can be used. This allows many pages to be edited in one sitting without having to re-transmit each individual page using the 'Transmit Current Page' Tool Button.

Note: Before using Transmit all, please save your Group file or you will not see your changes on the receiver.

Keyboard short-cut: CTRL+S

Save Group File As

This option allows the Group's file name to be changed and saves the file to disk under its new name. This option also allows the User to select a name for a previously unsaved group, and add comments about the information or type of pages to be stored within the group.

Close Group file

Closes the current Group file and prompts saving the modified pages to disk.

Remove Page (s) From Group

Allows the removal of pages from any Group File stored on the system.

Exit the System

Closes all Edit Pages from the current Group File and prompts saving them to disk. The VinetexT system is then closed and control is returned to the Program Manager.

Keyboard short-cut: ALT+F4

Edit Menu

Undo

You can cancel editing changes you make to a VinetexT page. If you want to reverse up to ten actions, you can use Undo. Undo does not reverse any action once editing changes have been saved using File/Save. Only editing done after the save can be reversed.

To be more efficient, VinetexT only undoes the following editing actions:

- A sequence of text.
- Defining a rectangle.
- Cutting text
- Pasting text
- Clearing a whole page

Keyboard short-cut: Press CTRL+Z.

VinetexT automatically undoes the most recent action, without any prompt.

Cut

Cuts a portion of the screen to the clipboard. Choose the start of the cut with the left mouse button. Drag the mouse across the edit area. The selected text will change colour, showing your selection. Choose CUT from the Edit menu to remove text from the screen and place it onto the clipboard. The VinetexT system will only cut whole lines to the clipboard.

Keyboard short-cut: Press CTRL+X

Copy

Copies a portion of the screen to the clipboard. Choose the start of the copy area with the left mouse button. Drag the mouse across the edit area. The selected text will change colour, showing your selection. Choose COPY from the Edit menu. The VinetexT system will only copy whole lines to the clipboard.

Keyboard short-cut: Press CTRL+C

Paste

The Paste option allows the contents of the clipboard to be placed into an Edit page. Positioning the cursor on the row at the start position where you wish to paste then choose the PASTE option from the edit menu. *Any text falling off the bottom or side of the screen will be lost!* The Paste option will allow text to be imported from other word processors but it must be in ASCII format.

Note: Included in the clipboard formats is a Bitmap of the selected text. The Bitmap is included for presentation only and can easily be imported by packages such as paint. *However VinetexT will not import Bitmap formats from the clipboard.*

Note: the system starts each page in overwrite mode. The mode of the page may be toggled to insert by the use of the Insert key. This is used primarily for editing, and is

also applicable to pasting - ie. in insert mode pasting will insert data at the cursor position and 'push' data below the cursor position down the page. In overwrite mode, pasting will overwrite data on top of text/graphics at the cursor position.

Keyboard short-cut: CTRL+V

Paste at Start of Line

This Paste option is similar to the previous one, but will always paste at the start of the line you've specified. Ie. Positioning the cursor anywhere along the line will have no effect.

Keyboard short-cut: None.

Clear

The clear option will remove all text and graphics from the current edit page, leaving it blank. This operation can be undone by the UNDO menu option.

Group Menu

Set Group Attributes

This option allows the attributes to be changed to suit the type of page displayed. See the section on Group Attributes for an explanation of each option.

Keyboard short-cut: ALT+G.

Edit Group Contents

This menu item invokes the Edit Group Contents dialog box. Here you can select page(s) for editing and removal. You can also add unmodified page(s) to the group. For a complete explanation of this dialog box refer to the section on Editing Group contents.

Keyboard short-cut: ALT+E.

Page Menu

New

Generates an unmodified edit page but does not associate the page to any group.

Keyboard short-cut: ALT+N.

Duplicate

A new Edit Page is created and the contents of the existing and current page is transferred to it. You will need to save the duplicated page to a group file, as the destination group file is not assumed.

Keyboard short-cut: ALT+D.

Save to a Group File

Allows the association of a new Edit page to a Group File. The Edit page must be modified before it can be saved. To make the page modified just click on it with the mouse.

Keyboard short-cut: ALT+S.

Load from a Group File

Allows a single Edit page to be loaded from a Group file.

Keyboard short-cut: ALT+L.

Set Page Attributes

Allows the Pages' attributes to be altered i.e. Page and Subpage number and Transmission attributes. See the section on Page Attributes for a complete explanation for the attributes.

Keyboard short-cut: ALT+P.

Define a Rectangle

Allows the creation of a Text / Graphics Rectangle. See the section Creating Graphics and Text Rectangles for an in-depth explanation.

Keyboard short-cut: ALT+R

Display Menu

Foreground Colour

Allows a choice of colour for the characters. Place the cursor on the edit page at the position you wish the colour to take effect, then select the required colour from the given list.

Background Colour

Allows a choice of colour for the text background. Position the cursor on the edit page at the position you wish the colour to take effect, then choose the colour from the given list.

Display Control Characters

This item will toggle the display of the CTRL characters ON and OFF. The default value for each page is ON.

System Menu

Configure

Configuration preferences can be set and if required saved on exit to an INI file. (See section on Configuration Settings).

Status

Shows the address of the VinetexT card and indicates whether the driver has been installed correctly.

Window Menu

Cascade, Tile, Arrange Icons

Manipulates the Icons within the Desktop: For more information see the Windows Manual supplied with your copy of Windows.

Close All

Closes all the Child Edit Windows and Group File. You will be asked to save any modified pages before they are closed.

Count Children

Shows number of pages currently being transmitted and remaining space for additional pages, (depending on expanded memory allocation).

Help Menu**Contents**

Launches the Help Contents Screen.

Keyboard short-cut: F1.

Search for help on

Launches the Search For Help Dialog.

About VinetexT

Launches the About Box.

The Tool Bar

The Tool Bar is a simple way in which to launch menu options without having to remember where the option is located in the menu system. A commonly used option is useful if you can just point at it with the mouse and click to activate it. This section lists the buttons located on the Tool Bar and their purpose.

Transmit Page (Green arrow)



This button allows the transmission of a single page. A single page may have been altered since it was last loaded from the group.

By pressing this button the group does not have to be saved and then re-transmitted, allowing a fast way to update the pages shown on the Teletext television.

Stop Page Transmission (Red Arrow)



The Stop Page Transmission button will stop the currently selected page from being transmitted to the receiver.

Page Attributes



The Page Attributes button allows fast access to the Set Page Attributes option in the menu. From this Dialog box the page can have its page number, refresh time, etc. changed. The description of the attributes seen in this Dialog box can be seen in a later section.

Edit Group contents



The Edit Button initiates the Edit Group Contents Dialog Box.

Save Current Page



This button saves the current Edit page to a group file. The file chosen can be any of the groups already stored on the system.

Load Page



Load a Page Button will allow you to choose a page from a group file to be loaded.

Define A Rectangle



This button allows you to define a rectangle for graphics or text editing.

Paint Graphics on/off



The Paint button turns on the graphics editing mode and allows the mouse to draw inside the graphics rectangle.



The editing mode is then enabled by pressing the text button.

Flash on/off



The Flash on and Flash off buttons allow text to flash on the Teletext receiver. At the first character to flash choose the bulb with the light on. After the last character in the line which is to flash choose the bulb with the light off. The text between the two will now appear to flash on the receiver.

Double height



The normal and double size buttons allow double size text to be displayed. The text, however, takes up two lines so be careful not to type useful information below the top line or it will be lost!. The text can be displayed as double height on the Edit page if you require, but an additional double height CTRL code needs to be placed on the next row

down from the original one. The procedure is the same as Flash on/off to sandwich text between the two control codes on the edit page.

Boxed Text



Boxed text is used for news flashes etc., and can be turned on by using the go button to sandwich the boxed text between the two control codes on the edit page. The text between the control codes will now appear boxed on the output Teletext display.

Hide



The hide button prevents text from being displayed until the reveal button is pressed on the Television's remote control. This feature allows answers to questions etc. to be initially hidden allowing fun competitions to be set, whereby answers are available on the screen.

Colours



The colour buttons are used with both mouse buttons. The left mouse button is for text colour and the right button for background colour.

Transmit all pages (Green Arrow)



Transmits the current group file. The Group file consists of all the edit pages.

Stop Transmitting All Pages (Red Arrow)



Stop Transmitting All button will stop all of the pages sent to the receiver from being displayed. To redisplay the pages you must retransmit them.

The Status Bar

The status bar at the bottom of the screen (shown in the following illustration) provides information about the current page window displayed in the edit area, the transmission state of the group and/or page, and indication of whether the page has been modified.



The information reported by each part of the status bar is as follows:



When the mouse crosses over a Toolbar button, this status text indicates what that Toolbar button does.



This status text indicates when a page has been modified (by changing text or graphics state of the page or group last transmitted).



This status text indicates the transmission state of the page or group last transmitted.

Page Attributes

Before saving the new page to disk, it is a good idea to ensure that its attributes are set to the values you require. This is done by clicking the left-hand mouse button over the Page Attributes button, or by selecting the '**Page | Set Attributes**' option from the main menu.

You can see from the loaded dialog box that there are a number of options that can be set. A list of the options are as follows:

Page Offset

The *page offset* is added to the *base page number* of the group file. For example, if a page has an offset of 12, and the group it is in has a base page of 300, the page would be assigned a page number of 312. The default is 0, but this value will need to be increased as pages are added to the group. For information on adjusting the base page attribute see the Group Attributes section.

Subpage Number

One of the features of the VinetexT System is to have a number of pages that will automatically 'cycle', showing them one after the other repeatedly. This is done by having a number of pages, all with the same page number, but with different Subpage numbers. By default, this number is set to 1.

Refresh time

This is the number of seconds between subsequent transmissions of this page if there are no subpages, or until the next subpage is transmitted. Consider what is being displayed on the page when specifying refresh rate.

Page Prompt

This is the text that is displayed as a prompt when the page is referred to by a Fastext link from another page. This prompt can be up to 8 characters in length.

Page Name

Every page in the system can be given its own name. This is displayed when groups of pages are listed, so that they can each be identified easily. Page name may be alphanumeric in nature.

Page Remark

In addition to its name, each page can have a remark associated with it, so that its purpose can be detailed more and displayed without having to create a window containing the page itself.

Erase Last Page

A page with this attribute set informs the receiver that it should completely delete any page currently in its memory, which has the same page and timecode numbers as this page.

Newsflash

This marks the page as being a 'Newsflash' page. Text contained between start and stop box characters will be overlaid onto the video signal. Any text outside the start and stop characters will not be overlaid.

Subtitle

This marks the page as being a 'Subtitle' page. Text contained between start and stop box characters will be overlaid onto the video signal. Any text outside the start and stop characters will not be overlaid.

Suppress Header

This attribute prevents the receiver from displaying the header of this page.

Update

This attribute notifies the receiver that this page contains later information than the previously transmitted version. The page may only consist of a few lines. These lines once transmitted to the receiver will replace the current lines on the television set. This gives a fast method of updating a single line on a page of Teletext.

Interrupted Sequence

This is set when a page is to be transmitted out of strict numerical order to give it some sort of priority, for example, Subtitles and Index Pages may have this attribute set. It suppresses the page header line when rolling headers are being displayed, to avoid discontinuities in the page numbers displayed at the top of the screen.

Inhibit Display

When the contents of this page cannot usefully be interpreted as a Teletext transmission, setting this attribute will prevent the receiver from displaying the page. It can also be used to prevent the display of meaningless pages, and indexes.

Magazine Serial

Setting this attribute causes all page headers to be displayed as they are received, rather than just those of the current magazine.

FASTEXT Linking

FASTEXT Links may be set or changed by clicking on the FASTEXT button, and selecting the red, green, yellow, cyan and index links using the FASTEXT Dialog Box.

Country options

The country information may be changed by choosing the country button and selecting the country required. This will change the country information in the current page, and the language fonts for that page (refer to Appendix B for more information on the international fonts).

Group Attributes

When a group has been loaded into memory, it is possible to change various features by selecting the '**Group | Set Attributes**' on the main menu.

The following attributes can be changed using this Dialog:

Group Name

Every group of pages can be given a name. This is displayed whenever groups are listed, and would normally be used to indicate the contents of the group, e.g. 'Weather', 'TV Listings, Wednesday' etc.

Pages in group

The figure displayed here is the total number of pages stored in the group file.

Default Base Page

The default base page allows a group to manipulate its starting position within the numbering system of Teletext. The minimum value for the base page is 100 and the maximum is 800. Each page created will have an offset from the chosen value, i.e. a page with an offset of 12 will be found with a page number of 112 on the receiver (if 100 was chosen as its base page). By changing the base page number to 300, a page with an offset of 12 will now be found with a page number of 312 on the receiver.

By changing the base page values you can manipulate the numbering of the groups quickly, ensuring that page clashing does not occur, with two groups starting on page 200 for example.

Group Remarks

This area gives the user a chance to elaborate on the contents of the group, and to add any relevant remarks.

Contents Button

Clicking on this button displays another Dialog box, which lists the pages in the current group, so that you can examine the group on which you are working more closely.

Editing Group Contents

The Edit Contents Dialog box (Fig.18.), which allows you to edit the pages in the current group, appears when you select the '**Group | Edit Group Contents**' menu option. As you can see, the Dialog contains basic information on the group currently in the computer's memory. A list of the pages in the group is displayed. You can select one or more of the pages to edit or remove.

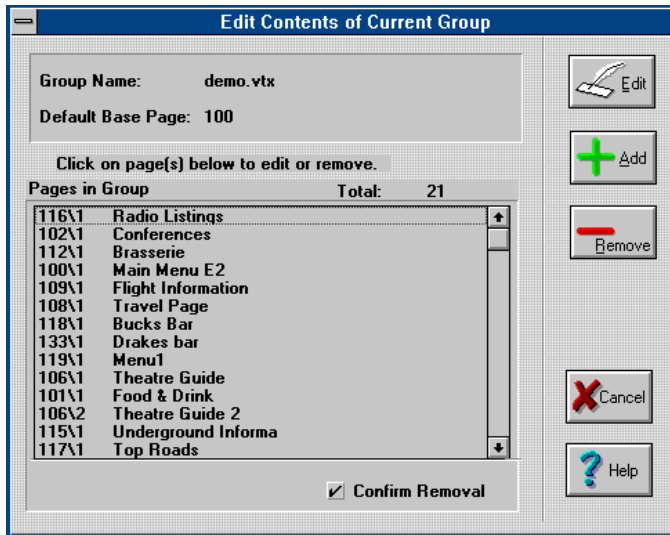


Fig. 18.

Edit Button

This button allows you to edit the page(s) that you have highlighted from the list of pages in the group. The page is put into a new edit window, if it is not already in one, and control is passed to that window. The maximum number of pages that can be open at any one time is 12.

Add Button

Creates a new blank Edit page. This page will not be associated to any particular group and therefore has to be saved to a group or it will be lost.

Remove Button

This button removes the selected page(s) from the group and removes them from the current group file.

If the Confirm Removal box is checked, the system will request confirmation before it removes the selected pages from the group.

Confirm Removal

Checking this box ensures that the system requests confirmation before removing any pages from the group.

Help Button

This button loads the help menu and gives help on all of the buttons, information and the Listbox in the dialog box.

Editing Text on a Page

The VinetexT System uses a Multiple Document Interface (MDI). This allows you to edit more than one Teletext page at a time and to see them all on the screen simultaneously. Each page is represented by a window (e.g. Fig. 4.). The VinetexT software acts as a word processor with standard facilities such as Undo, Cut, Copy, Paste built in. A whole range of Teletext features are built in:

- Flashing, double height, and hidden text.
- Standard 7 Teletext colours.
- Newsflash and subtitles.
- Support for most European languages.

To Edit a Page

- To edit several pages in the group that is currently open, select 'Group | Edit Group Contents' on the menu, select the pages, and press the Edit button.
- To edit a page that is in another Group, select 'Page | Load' from a Group File.
- To create a New single Page, select 'Page | New'.
- To add a new single Page to a group, select 'Group | Edit Group Contents' and press the Add button.

Notes for editing text

- The Teletext facilities can be implemented by clicking on the relevant Toolbar buttons (see section on the Tool Bar).
- The Teletext facilities are represented on screen by control codes (see Appendix A - Control Codes). These control codes are used for ease of use in word processing and will not appear on the TV screen!
- Should you wish to get a clearer view of the page, you can hide the control codes by selecting 'Display | Display CTRL chars' on the main menu.
- Refer to Appendix D for specific queries that you may have.

Creating Graphics and Text Rectangles

Allows the creation of a Text/Graphics Rectangle. The Rectangle is created by first choosing '**Page | Define a Rectangle**' from the main menu and then placing the cursor onto the edit page at the position required for the top left hand corner. Now press the left mouse button and drag the mouse to the position required for the bottom right hand corner. An outline of a rectangle will be drawn as you move the mouse. When in the correct position release the mouse button. The Dialog box (Fig. 7.) is displayed from which you may choose the colour within the rectangle itself by clicking on the Listbox in the Left hand Colour section. The CTRL character type may now be chosen for the left hand side of the rectangle. Choices not available to you are automatically greyed out. You have three choices in the Start and Finish CTRL Type section:

1. Text Control. Make the left hand CTRL a Text control, this means that you may type text directly into the rectangle.
2. Graphics Control: Make the left hand CTRL a Graphics CTRL. This means that you may draw graphics within the rectangle and embed graphics rectangles within each other.
3. Use whole line: Make the right hand CTRL nothing in which case the rest of the line will be of the type of rectangle chosen.

Now choose the finish colour. This will dictate the colour of the text or graphics chosen in the Finish CTRL Type section. You may press either 'OK' or 'Cancel' at this point. If you choose Cancel then no rectangle will be drawn. Choose the 'OK' button on the right of the Dialog Box. The Graphic rectangle will now be drawn and is ready to be edited.

Follow these steps when using the dialog box:

➤ **Do I want the CTRL character on the LEFT of the rectangle to be a Graphic CTRL or a Text CTRL?**

1. Text Control: Make the LEFT hand CTRL a Text control, this means that you may type text directly into the rectangle. Useful for nesting text within graphics.
2. Graphics Control: Make the LEFT hand CTRL a Graphics CTRL This means that you may create graphics inside the rectangle. You may also embed graphics rectangles within each other, having different colours for each.

➤ **Do I want the CTRL character to be effective for the rest of the line?**

Use whole line: Make the right hand CTRL nothing in which case the rest of the line will be of the type chosen as the LEFT CTRL. If you want a whole line to be Graphics then you don't need any CTRL chars at the end of the line to turn Graphics off. Control characters are only effective to the end of the line anyway.

➤ **What colour do I want the text or graphics within the rectangle to be?**

Choose the colour within the rectangle by clicking the mouse on one of the colours in the Listbox named 'Left hand Colour' section.

➤ **Do I want the CTRL character on the RIGHT of the rectangle to be a Graphic CTRL or a Text CTRL?**

1. Text Control: Make the RIGHT hand CTRL a Text control, this means that you may type text directly after the rectangle.
2. Graphics Control: Make the RIGHT hand CTRL a Graphics CTRL. This means that you may create graphics after the rectangle. You may also embed graphics rectangles within each other, having different colours for each.

➤ **What colour do I want the rest of the line after the rectangle to be?**

Choose the colour for the graphics or text for the rest of the line after the rectangle (assuming that you haven't chosen 'Whole Line'). If you have chosen Use Whole Line then this option is redundant, as it will have no effect.

➤ **Do I want separate or contiguous graphics (graphics rectangles only)?**



Contiguous Graphics

Separated Graphics

Note: To delete a graphics rectangle which is placed against the left hand side of the edit window, create a text rectangle over the top of it, this will allow you to enter the area with the cursor and delete the control characters if you require.

Configuration Settings

Choose System | Configure on the Menu. The following configuration preferences can be set, and if required saved on exit to a .INI file.

Switching to the External Video Source

The VinetexT has the facility to insert Teletext into a composite video source. The composite signal is fed into the card through the RED Phono cable supplied with the card.

After the Composite signal has been fed to the card and the Windows software is running, choose the Display | External video source from the menu. The receiver will switch off the Bitmap and display the external video. To redisplay the Bitmap image choose the same menu item removing the tick and redisplaying the Bitmap.

Enable/Disable Guard

The Guard is used when a Teletext signal is being 'superimposed', via the external video source, over an existing Teletext signal. If the guard is enabled then the external video sources' Teletext data will be prevented from interfering with VinetexT's. If the guard is disabled then additional lines from the external video sources' Teletext data will be added to the VinetexT Teletext data within the TV field.

Number of lines each Field

Sets the maximum number of Teletext lines to transmit per field. Check compatibility of TV's when setting to high values. The higher settings increase performance (i.e. update speed), but high values may start to eat into video display area.

Number of lines each Page

Up to eight pages can be transmitted 'simultaneously' in the Teletext system (one for each 'magazine'). This sets how these pages are 'interleaved'. A value of 4 for example will send 4 of the first page, then 4 of the next, etc. for all valid magazines. This allows faster access of pages, although each page will take slightly longer to 'fill'.

Day

Total of 21 characters (3 bytes for each day) that are used as days of the week description, and can be changed to suit a different language.

Default = "MonTueWedThuFriSatSun"

NB. Not error checked, i.e. any characters can be used.

Month

Total of 36 characters (3 bytes for each month) that are used as the month description, and can be changed to suit a different language.

Default = "JanFebMarAprMayJunJulAugSepOctNovDec"

NB. Not error checked, i.e. any characters can be used.

Service Name

The service name is the title for the Teletext system. The entered text overtypes the default service name "VinetexT P100". This string is 13 characters long and can be completely overwritten. If the entered text is shorter than the default text then the letters not overtyped will also be displayed. Experiment to get the best display results.

Default = "VinetexT P100"

Replace Default Service Name

When changing the default service name the VinetexT system will allow you to toggle between the User defined and Default service setting by checking this box. To register a new service name: Alter the default text; Check the Replace Default Service Name check Box; Re-transmit the current group or page.

You will now see the new service name in the header display.

Save settings to INI file

To ensure the persistence of you settings save them to the .INI file. This will allow the VinetexT system to reconfigure itself to the way you like it every time you want to use it. Saving the settings will ensure that you don't have to change the hardware settings every time you run the software.

Default Language

Every time you create a New page, the language font for this page will be set as default to this language.

Command-Line Options

You can use Command-Line Options to automatically open and transmit VinetexT Group files when the VinetexT software is started. This is useful for un-manned/automated systems, which need to re-start after a power failure. Command line arguments are used with several software packages, e.g. word processors, to automatically open a file when you load up the software, and a similar method is implemented with the VinetexT system.

Options available allow the user to:

- Automatically open and transmit a group file.
- Automatically open and transmit multiple group files.
- Disable Introduction Box and Query Message Boxes.
- Automatically exit the software.

Adding Command-line options

All command-line options are added using the '**File|Properties**' option from Program Manager:

1. Switch to Program Manager.
2. Highlight the VinetexT icon by clicking on it once.
3. Select '**Properties**' from the '**File**' menu.
4. Click on the 'Command Line' field, and press the 'End' key to move the cursor to the end of the field.
5. Add a space, and then add an option from the list below:

Automatically open and transmit a Group file

Add the name of the VTX group file (including its path) at the end of the command line.

e.g. C:\VINEINFO\VINETEXT.EXE C:\MYVTXS\MENU.VTX

Automatically open and transmit Multiple Group files

Add the name of a LST file (in ASCII format) to the end of the command line that contains a list (separated by carriage-returns) of the VTX files you wish to transmit.

e.g. C:\VINEINFO\VINETEXT.EXE C:\MYLSTS\GROUPS.LST

This 'LST' list file contains a list of the group files (including file paths).

e.g. D:\VTXFILES\MENU.VTX

D:\VTXFILES\NEWS.VTX

D:\VTXFILES\COMP.VTX

Disable Introduction Box and Query Message Box.

Add the /S option to the end of the command line. This disables the Introduction Dialog Box when you run the Vinetext system, and also disable the Query Message "*Are you sure you want to close the VinetexT system ?*" when you choose to close the VinetexT system. Query Messages will still appear if you have not saved changes.

e.g. C:\VINEINFO\VINETEXT.EXE /S

You can use this switch with other command line arguments

e.g. C:\VINEINFO\VINETEXT.EXE C:\MYLSTS\GROUPS.LST /S

Automatically exit the software

Add the /E option to the end of the command line. This is best used in conjunction with the /S and group file list, so that everything is done automatically

e.g. C:\VINEINFO\VINETEXT.EXE C:\MYLSTS\GROUPS.LST /S /E

Automatically run the software from Windows

This, like any other Windows application, can be done by moving the VinetexT icon into the 'Startup' window. Alternatively, you could create a new icon in the 'Startup' Window that also runs the VinetexT software.

By combining Automatic-run, Intro-box disable, Transmit, and Exit the whole process of setting up the system when running Windows is automatic.

Creating a Backdrop for the TV screen

Using a bitmap as a backdrop

This Bitmap can be of your choice, but it must be:

- Stored in the same directory as TXTVS.COM so that it may be found by the program.
- It must be stored as a 360x288 24Bit BMP file. Ideally create the file in Windows Paintbrush using the leftmost 16 colours, and the driver will match these for you automatically.
- Make a copy of the current DEFAULT.BMP file and name the new bitmap as DEFAULT.BMP.

When you run TXTVS.COM, it loads the bitmap with name DEFAULT.BMP that is in the current directory.

Using a video signal as a backdrop

Two leads are supplied with the system. The lead with the Red connector enables a composite signal to be supplied to the card. The lead with the Yellow connector supplies a composite video signal from the card to for example a distribution network.

By passing a composite signal through the card the Teletext information can be overlaid onto a presentation video etc. This allows a hotel for example to display on their distribution network information about the hotel and surrounding facilities as well as provide extra information supplied by the VinetexT system.

Once the correct signal has been attached, switch to the 'External Video Source' in the Configuration Settings menu. On the connected TV (with Teletext turned off), you should see your incoming video signal.

Note:

When in 'External Video Source' mode, if no valid signal is detected on the video input then the system will automatically revert back to the bitmap backdrop. So if you have switched to external video and nothing happens: check your video input.

Hardware & Driver Configuration

Without proper hardware and driver configuration, the VinetexT system will not transmit pages properly. This section details how to set the hardware and driver up correctly.

Settings on the card

On the card is a 6-way 'DIPswitch', which tells the card the I/O address and Interrupt number to use. Each switch can be either ON or OFF (as detailed by the arrow on the DIPswitch block). The following tables illustrate the various options available, with the *marked items being the default:

Interrupt number

Switch 1	Switch 2	Switch 3	Switch 4	Interrupt
OFF	OFF	OFF	ON	10
OFF	OFF	ON	OFF	11*
OFF	ON	OFF	OFF	12
ON	OFF	OFF	OFF	15

Note that only one of the above switches must be on at any time - otherwise two interrupts will be generated, and may lead to incorrect operation of the hardware.

I/O address

Switch 5	Switch 6	I/O address
OFF	OFF	Hex 0200
OFF	ON	Hex 0240*
ON	OFF	Hex 0300
ON	ON	Hex 0340

These are the only I/O addresses that are available for use. Note that address 0200 may clash with a game port if it is installed, and 0300 may clash with a network card.

Setting the driver software (TXTVS.COM)

There are 3 options available when running the driver software (from DOS):

Option	Usage	Example
/En	Where n=amount of expanded memory to use (decimal, in KBytes). Use multiples of 16.	TXTVS /E256
/An	Where n=I/O address of card (in hexadecimal)	TXTVS /A0340
/In	Where n=Interrupt number of card (in decimal)	TXTVS /I12

These options only need to be used if a different amount of EMS memory is to be used, or if the DIPswitches on the card have been changed for any reason. Otherwise, the software defaults to 1024KBytes, I/O address 0240, and Interrupt 11.

Note that the I/O address and Interrupt settings must correspond to the settings on the card itself. Changing the driver settings will not change the card settings or vice versa - both must be done for correct configuration. You will have to change the TXTVS line in the RUN.BAT file in the VINEINFO directory if you are running the driver from the AUTOEXEC.BAT file.

Warranty & Returns Procedure

Warranty

Your unit comes with a two year warranty (valid from date of purchase), which covers faults in the VinetexT hardware that arise from defects due to material or construction, when under normal use. The VinetexT card will be repaired or replaced, as Vine Micros sees fit, free of charge within this period.

This warranty does not cover damage due to negligence, mishandling, accident, improper maintenance, modification, or repair of the unit by anyone other than Vine Micros or their authorised representative.

Note that under all circumstances the warranty only covers losses up to the value of the replacement cost of the VinetexT unit described in this manual (see 'Disclaimer' early in this manual).

Are you sure there's a fault?

Please consult the previous section on problem-solving before sending a unit back. Most 'faults' are due to incorrect usage.

To return a unit for repair

First contact your supplier, who will obtain an authorisation number from Vine Micros. Please enclose with the unit details of why it has been returned, and failure details if appropriate. Proof of purchase should also be included.

Units should be returned via insured courier or registered post (thus allowing a trace to be made if goods are lost in transit), clearly stating the returns number allocated as this will speed up processing. Goods on their way to Vine Micros are the responsibility of the sender, and Vine Micros cannot be responsible for transit losses.

Appendix A- An Overview of Teletext

Introduction

Teletext is a method of transmitting text and graphics information within a television signal. This allows anyone who can receive the video image, and who has access to a teletext-equipped television (or PC-based decoder) to gain access to this information.

Generally, Teletext is used by commercial broadcasters to enhance their services, by providing anyone with a Teletext TV with access to news, weather, travel, finance and programme information, to name but a few, at any time of the day or night. In addition, the Teletext System can provide services such as programme subtitles for the hard of hearing, and Newsflashes that appear superimposed on the normal television picture.

The nature of Teletext allows users to access any information they wish at any time, with just a small wait before the required information appears on-screen.

Teletext display format

The information in the Teletext System is contained in separate 'pages'. Each page consists of up to 24 lines of 40 characters, which may be either text, graphics or a mixture of both. The top line of each page normally contains details of the current page number, the service identification (e.g. CEEFAX, 4TEXT etc.), and the date and time.

Page numbering

Page numbers are 3 digits long, and information pages are usually grouped together - for example all news pages begin with the first number '1', sports pages '3', etc. Only page numbers from 100 to 899 are valid, giving 900 individual pages.

Sub-pages

Because there's only room for about 960 characters (letters) on each page, if an item contains more information than can be displayed on a single page, then the page can be split into a number of sub-pages. These are displayed sequentially, and are updated at intervals, normally every 30 second or so. When the last sub-page has been displayed, the first is re-transmitted, and the sequence begins again. Thus the user can access any page number at any time, but may have to wait a short time before the required sub-page number (i.e. the start of the sequential sequence) is re-transmitted. VinetexT allows 255 sub-pages per page.

Magazines

Internally, pages are grouped together in 'magazines'. Pages 100 through 199 are in magazine 1, 200 through 299 are in magazine 2, etc. For example, page 123 is page number 23 in magazine number 1.

Note that there do not have to be any other pages in the magazine at all, as Teletext pages can be numbered completely at random. However, it is normal to implement some kind of logical page numbering scheme to make accessing pages as 'user-friendly' as possible.

In general, different magazines contain information on different topics, to make searching for a particular subject as easy as possible, e.g. magazine 1 could contain news items, magazine 2 could contain programme schedules and information, magazine 3 sports, and so on.

Colour text

The standard ASCII character set has 256 codes (some of which cannot be displayed), and has no control-codes for colour. Teletext has special codes for telling the Teletext decoder what colours to use in the 40x24 display out of a selection of 8. Each code is active only for the rest of the line that it is in, and is usually placed in front of the text that needs to be in a different colour. The control codes themselves are invisible on a TV (they appear as spaces), but allow quite flexible colour choices to be made. VinetexT lets the user see the codes when designing pages, for ease of use.

Graphics

Like colours, there are special control codes for enabling (and disabling) graphics. A graphics control-code can be placed before the area required to be used as graphics, and again it is valid only for that line (each line defaults to white text). Graphics themselves are quite 'chunky', as there are only 6 dots within the space normally taken up by a letter - i.e. graphics resolution is only 80 by 72.

Control Codes

The Teletext Screen is made up of 24 rows (25 on a Fastext Screen), each of 40 character spaces. These character spaces may be occupied by either alphanumeric or graphics characters, which may be either flashing or steady, normal or double height, and in any of up to seven colours. To set the required attributes, control codes are inserted into the screen at particular points, and affect the attributes of all characters following them on the row in which they are located. These characters occupy one character space each, and are displayed on the receiver as a space. Because of this feature, it is relatively easy to highlight, say, one word in one colour when the rest of the paragraph containing it is another. Simply replace the spaces before and after the required word with control characters - the first to change the text colour to the highlighting colour, and the second to change the text colour back to its normal value.

Special Effects

Extra control-codes are available for such things as flashing text and graphics, double height text, and even a 'reveal' option to withhold information until the user presses the 'REVEAL' button on their TV handset. Boxed modes are available to allow newsflashes and sub-titling.

FASTEXT

FASTEXT Linking is a process whereby you can link relevant pages together. You can select 5 different links for each page. Four of these links correspond to the 'Colour' keys on the remote control, i.e. Red, Green, Yellow, and Cyan. The fifth link relates to the 'Index' key. Extra data is sent by the transmitter that adds an extra row to the displayed text, and also tells the receiver which pages to jump to when a colour key is pressed. The system is 'fast' because the receiver can get the next pages ready (as long as one of the 5 'FASTEXT' pages is used) very quickly.

Summary

Teletext is transmitted within a television video signal. The Teletext pages consist of 24 lines of 40 characters. Pages can be numbered from 100 to 899, and also have sub-pages ranging from 0 to 255. The Teletext signal sends the page data in the form of magazines. Each magazine contains data for up to 100 pages. Graphics and text can be in 7 different colours.

Appendix B - International Settings

Since its inception, the Teletext System has been widely accepted as a means of mass communication by countries throughout the world. This has led to a number of extra facilities being added to the original specification, to allow broadcasters in various countries to transmit Teletext in their own languages. Most importantly, the System now caters for a number of different character sets, which include characters that are specific to a number of languages.

When the Vinetext system first creates an edit page, the language option defaults to English. However, it is possible to override this default setting from within the Page | Set Page attributes | Country menu item. This menu contains all of the supported character sets, only one of which may be used at any time. (Not all the character sets are available at this time)

Supported alphabets

English, German, Italian, French, Swedish/Finnish, Spanish/Portuguese, Czech/Slovakian

See the README file for a list of the latest alphabet sets available.

Please note that the correct alphabets will only be displayed on receivers that are equipped to cope with them.

Access to extended characters

You can use a combination of pressing the ALT key and numbers from the numeric key pad to select characters. This includes all the usual characters which are on the keyboard, but also includes characters which can not be obtained directly from the keyboard. The combinations are defined as specified by the 'Teletext Specification (625 line Television Systems)' - EBU Interim Technical Document SPB 492.

The following is an example of the extra characters used for French text:

alt + 35	é
alt + 36	ì
alt + 64	à
alt + 91	è
alt + 92	é
alt + 93	ù
alt + 94	î
alt + 95	#
alt + 96	è
alt + 123	â
alt + 124	ô
alt + 125	û
alt + 126	ÿ

Appendix C - Hints and Tips

The purpose of Teletext is to communicate information to what may be a very large number of users. Not all of these users will necessarily be familiar with the Teletext System created using the VinetexT System, and so it is recommended that this is borne in mind when creating Teletext databases, and that they are therefore made as easy to navigate as possible. Ideally, even a first-time user should be able to find any particular item of information quickly and easily.

To help with this aim, there follow a number of recommendations, some of which have already appeared in this manual.

Separating Pages into Groups

It is always best to keep related pages together in one group, with its own Base Page Number. This way, you can have one group for News articles, another for Events going on, etc. You can always have more than one group with the same Base Page Number, but just make sure that none of your pages overlap! It is possible to have all pages in one group (ie. with Base Page Number 100), and offsets up to 799 (giving actual page 899), but it is not recommended.

Page Ordering

Try to keep items covering similar topics grouped together in groups of sequentially numbered pages. This allows users of televisions with forward and backward page step facilities to use these buttons, rather than having to keep typing in the complete page numbers. E.g. if the database is to contain the national weather forecast, and forecasts for a number of local areas, these could be put into consecutive pages.

Keep different topics separate from one another. This helps to stop users 'overrunning' from one topic to another. Different magazines can be used to broadly separate topics, which may then be subdivided in groups of pages within the magazines.

Menu Pages

The default base page is 100 and it is recommended that this be used as the main menu page. Subsequent menu pages should have distinct groups (e.g. 200, 300, etc.) which are clear to the user.

Automatic Updating

If a number of items of information all cover the same topic, or if an item needs to be spread over a number of screens because of its size, it is easier for the user if the items are all placed in different sub-pages of the same page. In this way, the information is updated automatically, with all screens being displayed in sequence at a rate that can be set for each sub-page.

Time between Pages

When sub-pages are read, each page appears for a specific length of time. The time can be set in Page | Set Page Attributes | Refresh time. This basically corresponds to how long it takes to read a page, and this factor varies from page to page. Advertisement pages may only need 5 seconds, News pages may need 10 seconds, and Football and Racing results more. It really is down to individual judgement as to how long a page will appear for.

Animation

It is possible to implement a rudimentary form of animation by drawing the various frames required onto different sub-pages of a particular page. As the sub-pages are displayed, the screen shown on the Teletext screen will change. The effect may be improved by varying the display time of the sub-pages, although if this is too short, and especially if there are a reasonably large number of other pages, the system may slow down appreciably, as it tries to display all of the pages in the required time.

Large Graphics Text

The Graphics Rectangles can be used to create customised large text of any size and shape. Simply select Page | Define a Rectangle and paint onto the rectangle in graphics mode, constructing the text using the pixels.

Appendix D - Problem Solving

Running the Software for the first time

Q. My system crashes when TXTVS.COM is run.

A. Make sure you have an expanded memory driver installed - but do not use QEMM, as this will cause your PC to crash.

Q. The VinetexT driver (TXTVS.COM) installs, and the bitmap image loads, but no Teletext information is received on the TV.

A. Check pages 898 and 899. If there's still no Teletext reception, then you almost certainly have an interrupt problem. Check that the software is being told the correct interrupt number to use (see 'Hardware & Driver Configuration' chapter), and that no other hardware is using that interrupt number.

Using the VinetexT System

Q. The page I select is not displayed, even after a considerable wait.

A. The required page may not be in the current Teletext database, i.e. it does not exist, and is therefore not being transmitted. Choose another page number.

Q. The time and date displayed on the TV are incorrect.

A: The time and date that appear at the top of the Teletext pages are read from the system clock of the host PC. If this clock is incorrect, the time and date transmitted will be as well. The system date and time can be altered from within Windows' Control Panel.

Transmitting Teletext Pages

Q. I am unable to retransmit updated pages.

A. The Group File may not have been saved. This is necessary if you have made any changes to the pages in the group and want to re-transmit the whole group. When you require to re-transmit the pages in a group, save the Group File if you have made any changes. This ensures that any changes incurred will be displayed on the TV screen.

Q. I transmitted pages and closed down the VinetexT software. The pages continued to transmit, but when I re-opened the software at a later stage, the pages stopped transmitting.

A. The TXTVS.COM file will continue to transmit the pages when the software is closed. This file will continue to run as a small TSR file.

On re-running the software, the Teletext pages are cleared. The reason for this is to prevent a previous transmission from mixing with an updated transmission (Note: You

can transmit several groups at once.) The solution to the problem is to re-transmit the group(s) if you re-open the software.

Q. How do I set the language for the Service Name appearing on page headers.

A. The language font used here is the same as the terminal font set on your PC. This can be set via the Control Panel.

Q. How do I implement the language fonts for Teletext pages.

A. The fonts can be set for each page in the Edit Group Contents Dialog Box. Special text can then be typed using the ALT key plus numeric keys. The ALT + numeric key combinations are as standard specified by the European Teletext Specifications.

Q. I am unable to get a black foreground colour on any other background colour.

A. Black is the only colour of the possible colours Red, Green, Yellow, Blue, Magenta, Cyan and White that cannot be used as a foreground. It can only be used as a background colour.

Q. On requesting transmission, the message box 'TXTVS.COM not installed appears' . How do I install it.

A. Return to MS-DOS mode and type TXTVS from the C:\VINEINFO command prompt.

Q. Several pages with the same page number are being transmitted.

A. You may have forgotten to request stop transmission of some pages. Stop transmission of all pages and then retransmit the groups you require.

Q. The TV takes much longer to find some pages.

A. The refresh time for these pages may be high. Select Page | Set Page Attributes, and assign a lower refresh time to these pages.

Drawing graphics

Q. When using the 'Graphics' facilities, the graphics characters are replaced by text or characters and symbols when placed on the edit area.

A. In order for graphics to be displayed on any particular Teletext line, the first graphics character must be preceded by a control code that sets the graphics mode.

This code must be one that selects the colour of the graphics characters as well, and may be followed by another code setting the graphics mode to separated or contiguous (which is the default).

Q. How can I create graphical pictures with different colours.

A. This can be done using the following:

Background colour Place the cursor at the point just before the start of the graphics rectangle. Click on the required colour (on the Tool Bar) with the right mouse button. This creates a background colour for that line. Repeat this for each line.

Embedding rectangles First draw a rectangle which will encapsulate the whole area of the picture. Subsequent rectangles with different colours can then be drawn over this rectangle, producing areas with different colours. Select the appropriate finish colour (see Fig. 3.) to correspond to the colour of the underlying graphics rectangle. There is no limit to the amount of rectangles that can be embedded on top of each other.

Q. What if I make a mistake when drawing, such as defining a rectangle at an incorrect area of the screen.

A. Select Edit | Undo. This undoes the operation.

Q. How can I create template graphics to use on different pages.

A. Create the graphics on individual pages and then cut and paste the pages to suit your needs. You could for example create a template page with a few graphics rectangles. Save this as to a group file which will not be transmitted, and whenever you want to use these graphics again, choose **Page | Load** from Group File and copy and paste the graphics to pages in the current group file. (Note that there are two Paste options - see the Edit Menu description in the 'The Main Menu' chapter earlier in this manual.)

Q. How can I embed normal text within graphics.

A. Choose Page | Define A Rectangle or the tool bar option, and place the rectangle over the graphics rectangle. Select the start code (see Fig. 3.) as text and the finish code as graphics with the colour being the same as the underlying graphics rectangle.

Q. How can I create large text using the Graphics facilities

A. Define A Rectangle, defining it as a graphics rectangle (see Fig. 3.) and construct the text using pixels.

Tip: It may be useful to use a PaintBrush program to see how pixels are placed to create text. In such a program select text and type the required characters on the screen. Then zoom in on the characters and you can see how each of the characters are constructed.

Q. How do I create a moving graphics effect.

A. This can be done by using sub-pages with a short refresh time (e.g. 1 or 2 seconds). Each sub page will be almost exactly the same, the only changes being the changes in the graphics. When selected on the TV screen, view will flick from sub-page to sub-page, showing the changing graphics. Only the changed graphics will appear to move.

Editing Text

Q. When using a coloured background and a coloured foreground text, the text doesn't appear.

A. The reason for this is straightforward. When using background and foreground colours together, always select the background colour first, and then the foreground colour. For example, to have a yellow background with red text, first click on the yellow toolbar button with the right mouse button; then click on the red toolbar button with the left mouse button, and then type text as you wish.

Q. I am using Double Height text, but the text doesn't appear to be double height.

A. Double Height is achieved by clicking on the toolbar button when the cursor is at the required position. The cursor then remains on the top of the two lines taken up by double height. Type on the top line and the text will appear as double height. If, however, you type on the bottom of the two lines, the text will not appear as double height.

Q. How can I have double height text, normal height text, and normal size graphics on the same line.

A. Click on the double height toolbar button to start double height text. When you want to change to normal text click on the normal toolbar button. Repeat this for the bottom line. The normal mode will ensure that the graphics will appear as normal and not as double height graphics! To create graphics define a rectangle, change to paint mode and use the right and left mouse buttons for drawing.

Q. How can I efficiently set the text colours for several lines in a row?

A. The quickest way to do this is by defining a rectangle, choosing the colour and setting the CTRL type as text.

Q. Can I select black foreground text?

A. No, black can only be selected as a background colour.