

Talespin

TalespinTM

Graphics Adventure Creation System

Published in the U.S.A. By
MicroDeal U.S.A., Inc.
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Talespin™

For All Atari ST Computers

Software by Mark Heaton

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1. Chapter 1: Introduction

1.1. First Steps

Talespin™ is a unique product, simplifying the process of creating a graphics adventure almost beyond belief. Pictures, text and sound can be joined together to form a 'page'. Successive pages are then further connected into an interactive story, guide, or textbook, which is read simply by using the mouse to point to the scene and clicking on the drawings or text.

Variables may be used to control the flow of a narrative, or record progress made through an adventure. Talespin itself is entirely mouse-driven and very user-friendly. In fact, no programming skills are required.

Talespin includes its' own art package and can also import Neochrome™ and Degas™ pictures. Digitized sounds created with Replay 4™ are also easy to import.

Features of Talespin include:

- Full detail of disk space usage.
- Location of all pages referring to any particular page, drawing, sound, or variable.
- Completely interactive development allowing changes to any part of a title at any time.
- Copying drawings and sounds from other titles.
- Chaining other titles. (This permits spreading a story or textbook across several disks.)
- Demo mode (Allows a title to run on its own for demonstration purposes.)

Talespin can be used for many purposes. You can create interactive adventure games for entertainment or instruction.

Business uses include creating sales demonstrations, or product service manuals.

Talespin can be used in educational applications to teach the design and logic of computer systems in a non-technical way, or as a vehicle for the teaching of any other subject from user created storyboards.

You might even use Talespin to create an expert system or an interactive magazine. You are limited only by your imagination.

Talespin is ideal for applications requiring interlinked graphics and text, and can be used by people with no programming expertise. Above all else, it's fun!

1.2. The Evolution of Talespin

Mark Heaton wrote Talespin to inspire his artist son, Rudy. Rudy loves drawing and adventure games, but hates programming computers. Rudy created "The Grail", the first Talespin adventure to be published, which is included (in a shortened version) as part of this package.

Play "The Grail", then examine the mechanics and find out how it was put together. Try it out yourself. Modify the program to create your own unique storyline.

1.3. Equipment Requirements:

Talespin works with any Atari ST™ computer (520, 1040 or Mega ST), and a color monitor or television set (for ST's with a built-in modulator). To record your own sounds, you'll also need *Replay 4*, available from MicroDeal.

Talespin consists of two disks The Program disk, "The Grail" disk (which contains the demonstration adventure), and of course, this Manual.

1.4. Making Backup Copies

Neither of the disks are copy-protected and you should make copies for everyday use, keeping the 'master' disks in a safe place. (If you should ever accidentally damage your work disks, you can then create a new copy.) Consult your Atari ST Owners' Manual if you are unsure how to copy a disk.

Please note that much time and effort went into the writing of Talespin. Contrary to what you may have heard, freelance programmers do not make a fortune! Please do not share this copy with your friends.

However, any games you develop using Talespin remain your property to publish or share as you please. The Telltale program, which can be used to run stories created with Talespin, has been placed in the public domain. In other words, you may give TellTale to your friends.

1.4.1 Disk Contents

The Program disk contains:

- The Talespin program itself
- Telltale, the run-only module for Talespin
- Two library files.

The Grail Disk

- The Grail (Sample Adventure).

1.4.2 Talespin

Talespin is a self-contained program which handles all aspects of adventure and other title creation interactively, including viewing and testing the product as development proceeds. Only sounds, if required by your application, need to be externally created (using a package such as *Replay 4*). Neochrome and Degas drawings may be imported, although Talespin includes its own drawing package.

You can also create 'demonstration' titles which play automatically on loading.

Your creations may also be 'locked' when complete to prevent any further changes.

1.4.3 Telltale

Telltale is the 'read-only' version of Talespin and can be used to play adventures such as 'The Grail' or 'The Wolf'. You will not be able to investigate their structure, nor write your own stories with Telltale.

Telltale is a 'public domain' program: it may be freely distributed along with your Talespin creations.

1.4.4 The Library Files

These files contain a selection of drawings and sounds that can be used in making your own titles. Game developers will probably find them more useful than business or educational users. They include:

- ALPHABET.TAL – with one set of numbers and two alphabets, one ornate, and one plain (which you can copy and alter to suit your needs).
- THEWOLF.TAL – a short story based on “Little Red Riding Hood” used as an example in Chapter 5 ‘Writing an Adventure’, and containing drawings and sounds which may be copied for your own use.

Any of the drawings or sounds from any of the titles (“The Grail”, “The Wolf”, “Alphabet” or “Start”) may be copied for your own use. None of these titles are ‘locked’. You can find full instructions on how to use any of these files in the Library files section of Chapter 3.

1.4.5 The Grail Disk

This disk contains “The Grail” demonstration adventure, created by Rudyard Heaton. To play, first insert the Program disk and double click on Telltale or Talespin and follow the instructions. For further details, refer to Chapter 2.

1.5. About The Author

Mark Heaton is a 40 year old computer systems designer. He taught Transcendental Meditation for some years before switching to computers, and has trained as a psychoanalyst. He is married to a language teacher and has five children, all of whom helped in the creation of Talespin.

1.5.1 Acknowledgements

Thanks to:

Rudyard (age 19) for being inspired to write “The Grail”.

Celayne (18) for writing the Help messages.

Anselm (13) for debugging the system.

Luke (8) and Jody (6) for playing with Talespin.

Nicola (38) for writing the manual.

Two Bit Systems for the sound replay source code.

John Symes at MicroDeal for snapping it up as soon as he saw it.

Talespin is a public domain program distributed along with your Talespin creation.

1.2.1

1.4.4 The Library Files

These files contain a selection of stories and drawings which you can use in your own stories. Some developers will probably find them useful for teaching or educational work. They include:

ALPHABET.TAL - a simple drawing of the alphabet, and one page which you can copy and alter to suit your needs.

THE WOLF.TAL - a short story based on "Little Red Riding Hood" and a drawing of a wolf and a basket which may be used. It was written by a girl in my class.

Any of the drawings or stories from any of the files ("The Owl", "The Wolf", "Alphabet" or "Star") may be copied for your own use. None of these files are "locked". You can find full instructions on how to use any of these files in the Library file menu of Chapter 3.

1.4.5 The Owl Disk

This disk contains "The Owl" demonstration adventure, created by Studyard Systems. To play, first insert the program disk and double click on Talespin on the icon and follow the instructions. For further details, refer to Chapter 2.

1.5 About The Author

Mark Huxley is a 40 year old computer systems designer. He taught Transwarp on a Macintosh for some years before, switching to computers, and has trained as a professionalist. He is married to a language teacher and has three children, all of whom helped in the creation of Talespin.

Chapter 2: Getting Started

Starting Talespin

Copying 'Talespin' from the Program Disk

Place the Program Disk in Drive A (the Internal Drive) and switch on your computer. The screen will show the GEMTS Desktop with a program icon called 'Talespin'. Double click on this icon to start the program. When the screen shows that the program is running, you can see the first page.

Chapter 2

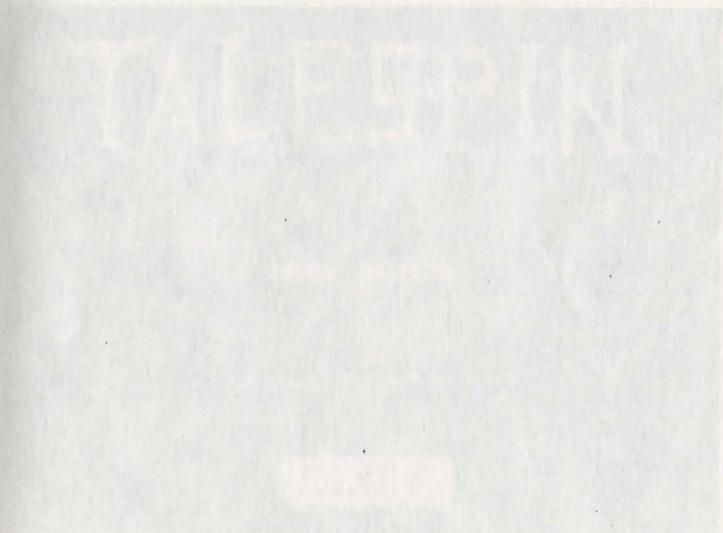


Figure 2-1 Talespin Title Screen

2. Chapter 2: Getting Started

2.1. Starting Talespin

2.1.1 Loading 'Talespin' from the Program Disk

First place the Program disk in Drive A (the internal Drive) and switch on your computer. The screen will show the GEM™ Desktop with a program icon called TALESPIN.TOS displayed within a window. Move the mouse pointer over this icon and quickly click the left mouse button twice.

While Talespin is loading the screen will stay white. After a few seconds, the screen will change to black and a 'loading' message will appear. The first page will then be displayed.

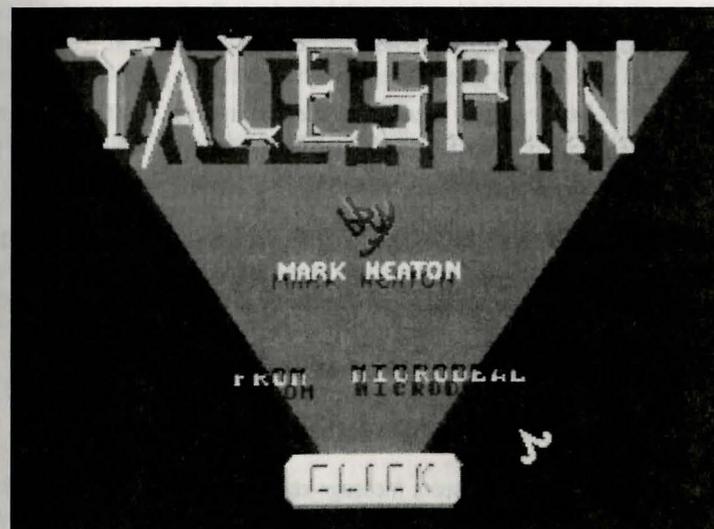


Figure 2-1 Talespin Title Screen

2.1.2 Loading 'Telltale'

Insert the Program disk as described above, and double click on TELLTALE.TOS. The same instructions will appear, although you will not be able to create your own story using this system. This program is 'read-only', that is, it can only read programs created with Talespin.

2.1.3 Talespin

When Talespin is loaded the first screen contains the titles and credits and a box with 'Click' on it. Position the mouse in this box and click the left mouse button. Text will appear giving you a choice of playing "The Grail" adventure or creating your own project.

Make your selection by moving the cursor (i.e. mouse pointer) over either the top or the bottom half of the text window and clicking on it. Notice that each half highlights separately, giving you two options.

2.1.4 Correcting Selection Errors

If you selected the *Start creating your own Title* text in error, wait until the next page appears. When it does, click on the 'CLICK' box and then click on the part of the text which says "OOPS! If you want to restart, CLICK here."

If, however, you clicked on the "The Grail" option in error, ignore the 'Insert disk' prompt and press the right mouse button to abort and bring down the Control Menu. Cancel this menu (by clicking outside of it) and you're back where you started.

2.2. Option - Playing The Grail Adventure

Select this option and you will see a message requesting you to change disks or select a different disk drive. Remove the Program disk and insert the Grail disk. (If you have more than one disk drive and have inserted the Grail disk in another drive, switch drives and click on the appropriate highlighted text area on the screen.)

When "The Grail" has loaded the Title page of the adventure will appear. [Note that if you have copied the contents of both disks on to a double sided disk or a hard disk, "The Grail" will just load without any additional prompts.]

2.2.1 About "The Grail"

"The Grail" is the first of the new mouse-driven generation of adventure games. You no longer need to type in text to see what will happen. In "The Grail", you use the mouse to click on objects and text to explore further.

The story features a wizard and his henchman setting off to seek the Grail, the reputed cure of all ills, in order to rid the land of a terrible curse. It is up to you to make the right choices to help the wizard find the Grail and thus bring health and happiness to this blighted land.

2.2.2 How to Start Playing

You are looking at the first page of the story with the goal of everyone's desires, "The Grail", in the middle of the picture. Start playing by clicking on different parts of the picture, objects, characters, and background to find the text windows.

At the bottom of the first text window (located to the left of the Grail), you will see a scrolling arrow which highlights when you pass the cursor over it. Click on this arrow to see the rest of the text. Part of this additional text will be highlighted when the cursor passes over it: click on that part of the text to move on to the next page.

If you just click outside the window it does nothing more than close the window. Now you are on your own – but watch out, there may be clues in the text!

REMEMBER:

- Click on different parts of the picture to see text, produce sounds, and so forth.
- A scrolling arrow at the bottom (or top) of a text indicates there is more text to be seen by clicking on it. A line or two may be repeated.
- Some text becomes highlighted when the cursor passes over it: click on these to make choices.
- A "zz.." message means you are moving to another page. You cannot click until the cursor reappears.

- Press the right mouse button outside the window to see the Control Menu: Press the left mouse button to cancel the window.

NOTE: If, after you have made a choice, the cursor does not disappear it means that there are further texts to be found on that page. The same object or character may have more than one text.

Clicking on *Help!* in the Control Menu provides the above information (and more) on-line.

2.2.3 Saving your Place in "The Grail"

You can save your place at any page in an adventure by using the *Set Placemark* option selected from the Control Menu (which is called by a clicking the right mouse button). Click on *Set Placemark* and you will be asked for a file name for saving your current position. Type in a name and press Return. This will set your place at this page. [If you don't type in a name and press Return, or if you click outside the window, the operation is cancelled.]

Note that there is not a lot of room on the disks as distributed. You may prefer to insert a previously formatted disk for this operation. You will have to re-insert the original title disk before continuing the game. Don't worry, the system will prompt you for it, if you forget.

2.2.4 Finding Your Place Again

When you want to find your place again, click on *Find Placemark*. A list of previously saved placemarkers will be displayed. Select the appropriate one by clicking the left mouse button while pointing to the title, and you will return to the saved place in the game. Should the selected Placemark have been saved while viewing a different title the system will tell you and ask you to load that title first.

2.2.5 Erase Placemark

Use this option to clear any placemarkers that you no longer require, or if you need to create some more disk space. Click on the appropriate file name.

2.2.6 How to Cheat

Provided you have loaded "The Grail" from within Talespin (as opposed to Tell-tale), you may switch to Development mode and, using the *Turn to Page* option, jump to any part of the adventure. However, as various Variables (explained later in this manual) are used, the adventure will not have been set up as would be the case if you had proceeded from page to page in the normal manner. You may get some unexpected results. [You *could* use the *List/Set Variables* option, explained later in this manual, to correct this problem, but you'd probably be better off playing the game and reading the rest of the manual first!]

Alternatively, you could click on *Autorun* in the Control Menu and watch the game play (at random) on its own. This is sometimes useful for finding hidden areas of text! Hold the right button down to end the *Autorun*. [This is used to test Demonstration mode – see Chapter 4 under Backup for details].

When you want to move on from playing "The Grail", insert the Program disk into the drive, press the right mouse button to call the Control Menu. From this menu select *Choose & Load Title*. The title you are looking for is 'START'. This takes you back to the 'First Page' section discussed at the beginning of this chapter.

2.3. Doing it yourself

This time, click on the text in the lower portion of the text window to create your own title. As soon as you have made your selection by clicking on the text, the cursor will disappear and a 'zz...' message will appear on the screen. Another page is being assembled. Soon you will see various drawings. Click on these with the left mouse button to see the corresponding text windows which tell you about the different sections of the manual. Click on the 'CLICK' box to proceed.

You are now going to create a title of your own and will need to change disks. (There isn't much room left on the Program disk.) Be certain the new disk is formatted. (Refer to your Atari ST Owners' manual if you aren't sure how to format a disk.) Talespin can not format a disk.

Click the right mouse button (outside any open window) to call the *Control Menu*. On the Control Menu you will see all the possible operations in the system at this point. Move the cursor to point to *Create New Title* and click the left mouse button. This will take you directly into Development mode.

Talespin will prompt you for a file name for your title. Legal file names may contain up to eight characters. The operating system will not permit longer names. Type in your unique title and press Return. (Note that all title files end with the suffix .TAL. If you rename it to anything else the system will no longer recognize it as a Talespin title.)

2.4. Control Menu

The Control Menu, which is displayed when you click on the right mouse button, is a list of the available operations at the top level of the Talespin and Telltale systems.

Exactly what is available depends on what you are doing. If you haven't loaded any title or, for example, if you are playing the unlocked "The Grail" adventure using Talespin, all the operations will be available to you.

If you are playing "The Grail" using Telltale or you are playing a 'locked' Talespin adventure, you will not be offered *Autorun* or the opportunity of switching to Development mode.

[If you switch to Development mode, a different menu will appear, called the *Development Menu*. For more information, turn to the Reference section of Chapter 7.]

Here is a brief description of each of the operations of the Control Menu:

2.4.1 Choose & Load Title

This will select and load a Title from the current drive or folder. You may have a choice of one only, as on the Grail disk, or of several, as on the Program disk. The title START contains the sequence of instructions you see on the screen when you first load Talespin or Telltale; note that any title called START.TAL will be automatically loaded when either Talespin or Telltale is first run.

2.4.2 Create New Title

This operation is not available in Telltale. In Talespin, clicking on *Create New Title* will take you directly to Development mode and will ask you for a file name

for your own title. Type in your chosen name and press Return. [Clicking outside the window cancels the operation.]

2.4.3 Set Placemark at this Page

Placemarkers enable you to save your position at any point while playing an adventure such as "The Grail". If you click on this item you will be asked for a file name to save your current position to disk. Type in a name and press Return. This will set your place at this page. [Clicking outside the window will cancel this operation.]

The Grail disk has only enough room for three placemarkers. If you try to set a fourth placemaker, you will be informed that there is insufficient disk space for this operation. You may either use a separate formatted disk or erase one of the existing placemarkers on the Grail disk and try to save your position again.

2.4.4 Find Placemark

This will list all placemarkers on the current drive\folder. Clicking on the appropriate one will return you to your place in the game. You will receive a warning message should the placemaker not 'belong' to the currently loaded title, i.e. if it was saved from another title.

2.4.5 Erase Placemark from this Disk

Use this to clear out any placemarkers that you no longer require: click on the appropriate file name.

2.4.6 Select Drive\Folder

This operation is only applicable if you have a second disk drive, a hard disk, or a RAM disk. You can select a different drive or folder for loading a title or finding and setting placemarkers.

2.4.7 Switch to Development Mode

Once a title is loaded (provided it is not 'locked' or 'read-only'), you may go into the Development mode to investigate, make changes or browse through the Library files. You will see a different Control Menu. For details of the Development menu refer to Chapter 7, the Reference section.

2.4.8 Autorun

This mode allows a story to be played automatically, making random selections for use as a demonstration copy or for testing. It is not available with Telltale, or if the title is 'locked'. To stop Autorun, hold the right mouse button down until the Control Menu appears. For full details see Chapter 4.

2.4.9 Help

This option displays the Help messages relating to the Control Menu. These messages contain most of the information from this section. It is mainly intended to assist users of Telltale. Click outside the window to cancel.

2.4.10 End Session

Click here if you wish to stop playing or writing. Click on the highlighted text "Confirm End Session" message to return to the Desktop screen. If you have clicked on End Session by mistake, just click outside the window to cancel the operation.

2.4.11 Create New Title

This option is not available in Telltale. In Talespin, clicking on Create New Title will give you directly in Dev System mode and will ask you for a title name.

Chapter 3: Doing It Yourself

Creating Your Own Titles

Chapter 3

Always Remember

If you have just entered Development mode by clicking on **Create New Title** in the Control Menu and entered the new title name, you will now see the **Development Screen**. At the top, this screen displays the title name and the current **Development Page** has been defined. The page "Content" is displayed.

3. Chapter 3: Doing It Yourself

3.1. Creating Your Own Titles.

This chapter provides a detailed explanation on how to start from scratch and create a page using some simple drawings. We'll proceed with a step by step explanation of how to put a short story together. Then we'll add one or two of the more sophisticated operations. Whatever your intended final use for Talespin, this is a good way to begin. If you have not yet done so, we recommend that you spend some time playing "The Grail" adventure before proceeding. You will have a better feel for how Talespin titles operate after playing.

Although it helps if you can draw, it is not essential by any means. You can create an adventure with the simplest of graphics. Those who are not budding artists can copy drawings, letters and numerals from the library files. Also included are a few sample sounds for those who do not have Replay 4 (available from MicroDeal) but wish to experiment with sound.

You may also download picture and sound files from GENIE™. We are presently building a sound library for Replay 4 in the MICHTRON on RT. (See the last page in this manual for more information about GENIE.)

The full range of drawings from "The Grail" and the "Start" title on the Program disk are also available for use. Refer to the Library Files section below to find out how to use them. Then create your own three page story as outlined in this chapter using drawings from the library files. Chapter 5, "Writing An Adventure" deals with the theory and practice of adventure writing in greater detail.

3.1.1 Where to start.

Assuming you have just entered Development mode by clicking on *Create a New Title* in the Control Menu and entering the new title name. You will now see the Development Menu. At the top, this menu displays the title name and the current page name. Since no page has been defined, "No Page Selected" is displayed.

Begin either by defining a page or by creating a drawing. Pages are the connecting units in the Talespin system. A title or adventure consists of interconnected pages, each of which may use many drawings (and sounds).

Let's define a page. As with the title, you will be prompted to supply a name. Names of pages, drawings, sounds and variables may be up to 64 characters long – the system will not let you type in any more.

Note that the first page of your title should be called START. The Talespin system recognizes this as the first or starting page and will display this page when you first load a title. [If no page is called START, the title starts with no page selected.] You may rename any page to START later. There's no need to do it now. The naming of subsequent pages is up to you.

3.1.2 Page Definition

Click on *Page Definition*, which will call another menu. Then click on *Create New Page*, type START, and press Return.

You have now created a page called START, albeit a blank one. This is shown at the top of the Development Menu. The next thing to do is to create a drawing to put on the page.

3.1.3 What to Draw

So what type of drawing and what sort of page are you going to create? You might want to experiment with the drawing utilities first and not attempt to draw anything in particular until you are familiar with how the whole system works, or you might prefer to start with the first drawing of a mini story.

In this exercise, we will be creating a very short story (involving drawings of a boy and girl) and use it to guide you through the various stages of creating pages, creating drawings, building pages, adding text, adding options, and finally, more sophisticated additions using variables and conditions.

If you do not want to use this five minute story as the basis for this tutorial, make up your own. If drawing people is a problem for you, use pinmen or try something like a road maze where you just need lines and an object to move along them. Other ideas for your first title could be a treasure hunt, getting out of jail, or a simple fairy

tale. Fairy tales are in fact very useful for trying things out. You have a set story to work with, and many possible variations.

3.1.4 Palette Considerations

Talespin offers a possible 512 colors out of which only 16, referred to as the palette, may be shown on the screen at one time; this is a hardware limitation of the Atari ST. This means that all the drawings on a page must have the same palette. Don't try to change the palette for different drawings until you are more familiar with Talespin.

Note also that the colors BLACK and WHITE (first and last palette entries) must always be present as they are used to display text; therefore, they cannot be modified. Even imported Neochrome or Degas drawings must meet this criteria. Also, the first palette entry (BLACK) is used to mean TRANSPARENT in drawings. Thus a drawing with a first-palette-entry BLACK section in the middle will, when placed on a page over the top of another drawing, allow the underlying drawing to show through. If you want a non-transparent Black you will have to use one of the other palette entries for this. (See *Modify Palette* below for this.)

3.1.5 Drawing Definition

Point to *Drawing Definition* on the menu and click the left mouse button. For full details of all the items on the drawing definition menu, see the next chapter. Right now, you will probably only need to use the top three items; *Create New Drawing*; *Modify Drawing*; and *Copy Drawing*. If you want to copy drawings from the library files, you will need the fourth item, *Copy Drawing from Another Title*. (Refer to the Library Files section later in this chapter for information on this function.)

Point to *Create a New Drawing* and click the left mouse button. You will be prompted to enter a name for your drawing. Type in a name and press Return. The drawing menu and the palette will now appear.

3.1.6 Drawing Menu

The Menu lists the Talespin drawing options detailed below. To get started right away, Click on a color and then on one of the brushes (Pencil, Spray, Mini-spray,

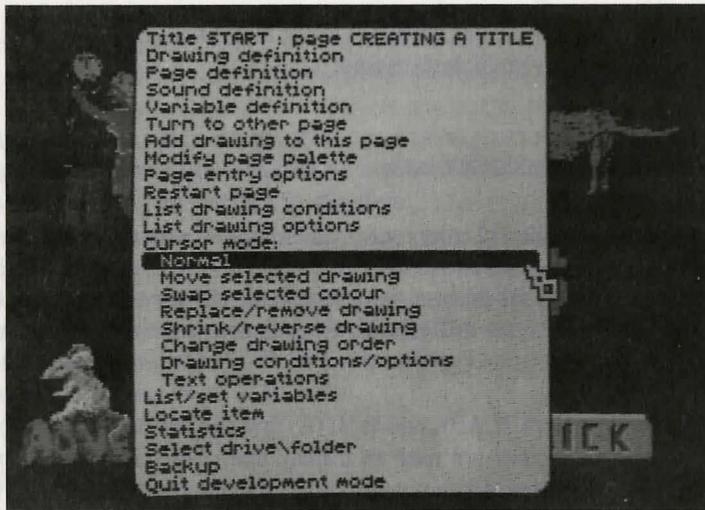


Figure 3-1: Drawing Definition Menu

Block and Blob) in the window. The screen will go blank except for the appropriate cursor. You can draw on the screen by holding down the left mouse button and moving the mouse. Right clicking brings back the drawing menu should you want to try another type of brush or select a different color. Made a mistake? Right click for the menu and click on UNDO. This will undo the last stroke you made.

To erase, click on color Black in the palette and then on BLOCK or BLOB and rub out the offending area. When your drawing is complete, click on *Save Drawing* to save it. The system returns you to the Drawing Definition Menu, ready for you to create further drawings. When you want to move on, turn to Section 3.2, "Drawing completed - What Now?"

3.1.7 Drawing Functions in Detail

Pencil Draws dots and lines a single pixel (dot) wide: used for detailed work and outlining shapes.

Spray & Minispray These two facilities give a sprayed effect. For example, for shading in trees or a person's hair. The longer you hold down the mouse button the more the area defined by the brush gets filled in. Moving the cursor at different speeds gives different densities.

Line This function is for drawing straight lines. The center of the cursor is used to give the start and end points and assists in accuracy. Press the left button to indicate the start of the line, then move the mouse to where the line should end. You will see a line being drawn. Release the button when the line is the required length and angle. This 'fixes' it, or locks it into position.. For a horizontal or vertical line, make sure the line is absolutely straight before releasing the button. The *Undo* option will erase all of any line just created.

Fill This fills an area of the screen with the currently selected color. Move the Fill cursor until the tip is inside the area to be filled and click: the Fill color will spread to all adjacent dots of the same color as that clicked on. Note that if you are filling a line drawing and there is a gap in the lines, the Fill color will 'leak' and the whole page will begin to fill with color. DON'T PANIC! Click the right mouse button to abort the Fill and then use UNDO. Select the pencil brush, look for the gap and fill it in so it is closed. Now try again.

Block Use this to draw right angled shapes, squares, rectangles etc. Also use it to erase mistakes by selecting Black from the palette first.

Blob Use it to draw thick outlines, to draw circles and rounded shapes, to do original lettering, or to erase small areas.

Lens

This is very useful for intricate work. Click on *Lens On/Off* to activate it. The Lens will stay on the screen until you click on *Lens On/Off* again to cancel it. This function is like a magnifying glass to help you identify which individual dots need changing or erasing. It magnifies the boxed area around the cursor wherever you move it. If you approach the Lens box with the cursor it will automatically jump to another part of the screen. This will permit you to adjust the pixels in the area occupied by the Lens Box.

Modify Palette

When you click on this, a new menu appears along with the palette. Note that the palette that shows up on your screen when creating a new drawing is the same as the default Neochrome palette. All 'The Wolf' drawings use this palette to make life easy: remember that all drawings present on a page have to use that page's palette. The first menu items assist with this problem in allowing the whole palette to be copied from a different drawing or page, to the current page (if any).

To change a color, click on the color you wish to change and look at the bottom half of the menu. Six choices are available:

- More Red
- Less Red
- More Green
- Less Green
- More Blue
- Less Blue

There are 7 different shades of each of the three primary colors Red, Green and Blue, plus a zero option of no Red, no Green, or no Blue. Click on one of the choices (e.g. More Red or Less Green) and see how the color changes. (Note that the color will change on any drawings with the selected color too).

At the bottom of the menu is a reference to the 'RGB Values'. These are the values of 0-7 for red, green, or blue. The value 777, or all red, all green, and all blue has a corresponding color of WHITE. The value 000 or no red, no green, and no blue has a corresponding color of BLACK.

The Current RGB value may be 641, which means 6 units of Red, 4 units of Green and 1 unit of Blue. This translates into a shade of brown. A value of 333 is mauve. Experiment with these values. You'll soon pick up how to get exactly the color you want effortlessly.

To create lighter and darker shades of any one color, first note the RGB value of that color (click on that color to see it), then click on the color you want to change and adjust it until you get the same RGB value (i.e. the 2 colors are the same).

To change to a lighter shade, add 1 Red, 1 Green and 1 Blue. For a darker shade, subtract 1 Red, 1 Green and 1 Blue. In other words, increase or decrease the values of all three colors equally to get a lighter or darker shade.

Changing the colors of the basic palette for a particular drawing can necessitate altering the colors on any page that uses that drawing. In some cases you will simply need to copy the palette from the drawing onto the page to rectify the situation (see under Use of Palettes in Chapter 4); otherwise some juggling will be necessary.

Undo

Clicking on this 'undoes' the last action performed (including clicking on Undo!). An action is here defined as whatever happened between the last press and release of the mouse button; so if you are doing a series of dots, only the last dot is removed.

Save Drawing

Select this option to save the drawing to disk and return to the Drawing Definition Menu, ready to create another drawing. Right click outside of this Menu to return to the Development Menu.

Quit

The system asks “OK to end without saving drawing?” to confirm your intention to quit. Click outside this window if you do not wish to abandon your drawing. If you do want to quit without saving anything, click on the text (which will be highlighted). You will then return to the Drawing Definition Menu.

3.2. Drawing completed - What now?

By now you have completed a drawing and want to start building up a Page. Click on the right mouse button to return to the Development Menu with a blank screen. Click on ‘Add Drawing to this Page’. Select your drawing, which now appears in the middle of the screen. To move the drawing, place the cursor over the drawing, and holding the left mouse button down, move the drawing to the desired position. A skeleton outline of the drawing will accompany the cursor. Release the left button and wait a few seconds until the drawing has been recreated in its new position. Move it again until it is in the exact position desired.

3.2.1 Building Up a Page

You now have one page with one drawing on it. Create another drawing and save it in the same way. Then bring it on to the page. You will probably need several drawings to make up a page. Maybe pictures of a person or two, or a couple of objects and some background – a hill, house, tree, street etc, all very simple. To make things clearer in demonstrating how to build up a page, we will use a specific example.

3.2.2 BOY/GIRL

The title for this story is BOY/GIRL and the first page is called START as suggested earlier. The drawings needed for this page are:

- BOY - front view
- GIRL - side view
- GROUND - Plain green with 2 bushes (using Spray)

[You can create your own drawings or use the drawings of the BOY and the GIRL from the START.TAL title on the Program disk. You will need to copy them from there. Select *Drawing Definition* from the menu. Then, select *Copy drawing from another title*. Select the BOY and GIRL pictures to copy. Refer to Library Files below for more details on copying files.]

The first stage in building a page is to add the drawings. Select a drawing – maybe a background drawing to create the scene. In this case, select GROUND. Reposition the picture, if necessary. To resize a picture, select *Shrink/Reverse drawing* from the menu. (This will be explained in more detail later.)



Figure 3-2: Adding a drawing to a page.

Now add another drawing – maybe BOY. He will appear in the middle of the screen. Place the BOY at the top right hand corner of the screen. The reason for this will become apparent when it comes to building up the third page.

Add the next drawing, the GIRL near the center facing the BOY as if she is calling to him. If more drawings are needed, continue adding drawings to the page. You can add the same one several times if you want to.

If the colors appear incorrect, this means you have modified the palette on one or more of the drawings in some way – use *Modify Page Palette* to either copy the whole palette from some drawing or modify the individual palette entries. [You

may also choose to set a Background color other than the default Black while in Modify Page Palette.]

3.2.3 Adding Text

Now let's add some text. Select *Text Operations* (under Cursor Mode). You will see that nothing happens! This is because you need to indicate which drawing is to have text added to it. Select a drawing. In this example, start with the GIRL. The text operation menu for the drawing GIRL will appear. Note that the menu tells you at the top which drawing you are working with. You will want to *Add Text Entry*, so click on that, and type in some text.

Let's start out with, "What a good looking guy! I'm going to say hello."

You can think of your own comments. Type them in and press Return. (Don't forget to press Return or the dialog will not be entered.

Beware: it is only too easy to click outside the window (thus cancelling it) and then wonder later why the text is no longer there!)

Note that text is automatically 'wrapped' to fit into the window. Pressing Return means 'end of input' NOT 'new line'! To make changes to your text, use the Delete and Backspace keys. You may use the mouse or the cursor keys to reposition the cursor within the text window.

Now to give the BOY something to say. Click the left mouse button outside the window to cancel the Text operations Menu for the drawing GIRL. Now click on the BOY drawing. The Text operations Menu for the BOY will appear. Select *Add Text Entry* and add some text. Maybe a simple comment such as:

"Wow! Isn't she gorgeous?"

Don't forget to press Return.

If you press the right mouse button to get back to Development Menu and select *Normal* (under Cursor Mode) and then click on different parts of the picture you will see the text you just entered appear when you click on the BOY and the GIRL. If you pass the cursor over these text windows, nothing particular happens. You probably know by now that some text windows, those that offer some choice, can highlight when the cursor passes over them. These windows highlight because an

'option' has been associated with them. Let's introduce some choice into our story by adding some options.

3.2.4 Adding Text for Options

Text options can only be added to existing Text entries. Create additional text entries for the BOY – they will appear together but each one will have its own option assigned to it. Add two more text entries for the BOY (using *Add Text* as above) offering two suggestions such as:

"Shall I try my luck with her?"

and

"or shall I ignore her – she might not like me and I couldn't handle another rejection?"

Note that the BOY now has a total of 3 text entries; the first one which is a sort of introduction, and the two new entries which are going to have options.

3.2.5 Adding Options

Although it's not possible in this example to complete entering the options at this stage (there are as yet no other pages to turn to!), it is useful to go through the operations to see what the possibilities are. On the Text operations Menu you will see an item called *Add/replace text Option*. Make sure the heading at the top still says BOY (i.e. you are not about to add an option to the GIRL's text) and select it. You will be asked to choose which Text entry is to have the option added to it. Move the cursor over the Text entries. you will see that they are highlighted separately (hence the need for separate Text entries). Select the middle one, the BOY's first option - "Shall I try my luck with her?".

You will see four types of options offered:

Play Sound at Frequency:

This is a little luxury, not necessary but fun! But you do need a Replay 4 (from MicroDeal) to record your own sounds. If you don't have Replay 4, you can use the sounds from the library files. See Chapter 4 under Using Options for more details.

Set Variable to Value: This option adds the variety and sophistication to the stories and is explained below in the section *Adding Variables*.

Go to Page: This is the way to interconnect the pages in a title.

Chain to Title at Page: This is a way of linking one title to another, for spreading stories across more than one disk. Refer to Chapter 4 under *Using Options* for details of this.

We'll use the *Go to Page* option. However, since there is as yet no other page to go to – let's create some more pages. Note that as soon as you try to do so (or even to leave the current page in any other way) a message 'Discard changes made to this page?' will appear. Click *outside* the text window to save your changes. Click *inside* the text window and the changes you have made to the page will not be saved and the page will be restored to its previous condition (which in this example would be a blank page).

3.2.6 The Second Page

We are no longer starting from scratch. You can use some of the same drawings or copy the original drawings and modify them. In this example, the second page will have the same background and the same two drawings of BOY and GIRL as the first page, but will be modified to show the BOY's arm round the GIRL (as this would follow the BOY's first text option, on "Shall I try my luck with her?").

To do this, enter *Drawing Definition* from the Development Menu and click on *Copy Drawing from this Title*. In this case select the BOY and give the new drawing a name, e.g. 'BOY HUGGING'. A message will appear confirming that the drawing BOY has been saved as BOY HUGGING and asking if you'd like to modify it. Click on this text, which takes you into *Drawing Mode* and use the drawing facilities to make changes.

Alter the BOY by drawing his right arm sticking out at right angles from his body, as though around an as yet imaginary girl.



Figure 3-3: FIRSDATE Page

3.2.7 Building Up the New Page

After you have altered or created your drawings, you need to build up the new page. Click on *Page Definition*, then *Create New Page* and (after allowing the system to save your previous page by clicking outside of the 'Discard Changes...' window) type in a name for the new page. For example, FIRSDATE. Start adding your drawings (using *Add Drawing to this Page*), moving the drawings around so they fit together, with the BOY HUGGING close to the GIRL so that his arm appears to go around her shoulders.

If you added the GIRL to the page before you added the BOY HUGGING, his arm will appear in front of her instead of behind her. To rectify this, you will need to use *Change Drawing Order*, which is one of the operations listed under 'Cursor Mode'. These are briefly detailed below. A more detailed description can be found in Chapter 4.

3.2.8 Cursor Mode

Note that the entries under Cursor Mode are all used to determine what happens when you next click on a drawing (in other words, nothing happens until you do subsequently click on a drawing); they determine the effect the cursor has.

Move Selected Drawing

Click on the drawing to be moved, and, holding down the button, move it to the desired position and then release the button. An outline follows the mouse movement and the whole picture is recreated with the drawing in the new position once the button is released.

Swap Selected Color

Point the cursor at the color on a drawing you wish to change; the palette appears. Click on the color on the palette that you want to change it to. All the areas on that one drawing having the first color will now change to the second color. Should things get too confusing, you can always click on *Reset to Original State*.

Replace/Remove Drawing

Removing a drawing removes it from this page only. It still remains in the title file for use with other pages. [Use *Delete Drawing* in the Drawing Definition Menu to remove a drawing permanently.] Replacing a drawing has the advantage that the new drawing retains the associated texts and options of the previous drawing, whereas these would be lost if the first drawing were removed.

Shrink/Reverse Drawing

When you click on a drawing, a chart of possible reductions (measured in percentages) for height and width will be displayed. Note that height and width are independent. Move the cursor to point to the desired percentage for height and click. Do the same for the width using the same percentage (unless you want a distorted reduction). You may simply want to reverse the drawing. Make your selection, then click on *Execute Selection*. In the BOYGIRL example you may want to reduce one or both of the characters to give an effect of perspective.

Change Drawing Order

This changes the order of the drawings, that is, which drawing is in front of which. This order is determined initially by the order in which the drawings are added to the page, later drawings appearing in front of previous ones. Click on a drawing and its current position will be indicated on a chart with the drawings at the front of the page appearing at the top of the chart. Supposing you wanted to change the order of the two drawings, the BOY HUGGING and the GIRL if the current order was:

GIRL
BOY HUGGING
SKY
GROUND

Click on the BOY HUGGING, which will show the list as above, with the words *Current Position* appearing instead of the BOY HUGGING. To move the BOY HUGGING in front of the GIRL, click on GIRL in the list.

Drawing Conditions/Options

This allows for the placing of conditions (see below under 'Adding Variables') and options directly on drawings, i.e. with no text intervening.

Text Operations

This handles all aspects of adding Texts to drawings, along with conditions and options on those texts.

3.2.9 The Third Page

Before adding more information to page two, FIRSTDATE, create a third page. This page will relate to the second text option on page START: "or shall I ignore her....". This time we are going to create a different page with no new or modified drawings, which makes it a lot quicker. From Page Definition, click on *Copy Page*. Select the page to be copied (in this case START) and give it a new name (REJECTION).

Remember, our START page has the drawing BOY on the right of the screen at the top, and the drawing GIRL is near the center, facing him. Now, change the new page as follows:

Click on *Move Selected Drawing* and then the BOY and move him from the top right of the page to the top left. Click on *Shrink/Reverse Drawing* and then the BOY and reduce him to 75% to show he is going away. Then click on the GIRL (you should still be in the *Shrink/Reverse Drawing* cursor mode) and reverse her so she is facing the other way. Then click on *Move Selected Drawing* and select the GIRL. Move her down to the bottom right and you have a different page, with the GIRL still desperately trying to attract the BOY's attention, and the BOY vanishing into the middle distance, hoping she'll go away.

Note that as these drawings were copied from page START, the attached text windows will have been copied too, so you need to delete them. Click on the following in sequence:

'Text operations'
The GIRL
'Remove Text Entry'
The text entry to remove
Now do the same for the BOY.

Click:

Outside the window (to cancel it)
On the drawing BOY (to reopen it for the BOY)
On 'Remove Text Entry'
On each of the text entries in turn.

You can now add some new text windows if you like.

3.2.10 Joining Pages

Now comes the final touch, connecting the pages. Click on *Turn to Other Page*. A message 'Discard changes made to this page' will appear. Click outside the window to save your changes. [If you click on the window, the changes you have made to the page will not be saved.] Select START and wait for this page to appear. Now it is a matter of adding the *Go to Page* options (which we couldn't add before) to the appropriate texts.

Click on 'Text Operations' and then on the BOY. Select *Add Option* from the Text operations Menu. You will be asked to select the text to which the option is to be added. Click on the first text "Shall I try my luck with her?". Then select the option 'Go to Page' and, from the pages offered, select FIRSTDATE. Click outside the window to cancel adding options to this text and repeat the process for the text "or shall I ignore her.....?", selecting page REJECTION to go to. Click outside the window to cancel. (Clicking the right mouse button will take you back to the Development Menu.)

Congratulations! You have created your first sequence of pages. Now to test it!

3.2.11 Testing

Click on *Normal* under Cursor Mode in the Development Menu. This will enable you to see whether what you have done works, and still stay within Development mode. Click on both characters and try the options. Notice that only the two text entries on the BOY that have options highlight. The first entry does not and neither does the GIRL's text. Select one of the options and you will be asked to confirm. Go to Page REJECTION or FIRSTDATE. This is a way of testing without having to activate the options; it would be a real nuisance to have to leave the page every time you wanted to test it! If you do want to carry out the option, click on the 'Execute the following text options' message. [If you had made any changes to the page (which in this example you have), the system will query whether you want to discard these before turning to the new page and if not, save them to disk.]

3.2.12 Problems?

If something hasn't come out right, go back and check what you have just done. Maybe you forgot to press Return for one of your text entries, or selected the wrong text entry for an option.

IF:

1. The right texts don't appear for a particular character:

Click on Text Operations for that character. Click on *Edit Text Entry*. If necessary: Select the text to edit and alter it, not forgetting to press Return to save the changes. [Clicking outside the window will just cancel the operation.]

2. The right texts don't highlight, or the option doesn't work as expected:

Check the text entries (see above) and check that each text has been entered separately. Then check the options:

Click on *List Options* in the Text operations Menu to verify them.

If they are wrong:

Click on *Add option* to replace the incorrect 'Go to Page' option with a new one.

If you leave Development Mode now by selecting *Quit Development Mode*, you can see what this story looks like from a user's point of view. This is very similar, except that there is no query before executing the options. Also, once you have progressed to pages *FIRSTDATE* or *REJECTION*, there is nowhere else to go.

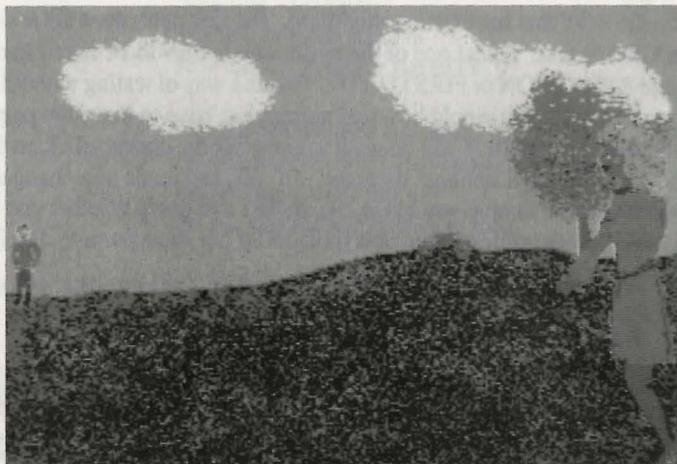


Figure 3-4: REJECTION Page

You might want to temporarily put in *Go to Page* options on these two pages leading you back to page *START*. In this manner you can avoid having to continually return to Development Mode to start again (using 'Turn to Other Page'). For further enhancements of this simple example would require using variables to control the flow of action. This subject is covered in the next section.

3.2.13 Adding Variables

Variables offer a way to control particular text entries (and, as we shall see later, drawings). Each variable is defined along with the values that it may have. An example could be a variable called *GOLD* along with 2 Values *HELD* or *NOT HELD* which could be used to indicate in a story whether the hero had or had not found the gold. This could then be used to control the text windows appearing so that other characters would only ask him for the gold if he had found it.

In our particular *BOY/GIRL* example we will use a variable *CONVERSATION* with many values *LEVEL 0*, *LEVEL 1*, *LEVEL 2*, and so on to control the dialog between the characters.

A variable of this kind is highly useful and can be used in almost any story or sequence of pages, to create a two way dialog. Here's a simple demonstration using the *FIRSTDATE* Page from our story:

3.2.14 Creating a Variable

Click on *Variable Definition* in the Development Menu and then on *Create New Variable*. Type in *CONVERSATION* and press Return. The system will ask for any values to be given for this variable. Type in *LEVEL 0* and press Return. When the same message reappears, type in *LEVEL 1* and press Return, and so on up to and including *LEVEL 3*. Then press the right mouse button while the mouse cursor is outside the window to return to the Development Menu.

You have now created a variable *CONVERSATION* with *LEVELS 0* to *3* as the possible values for this variable. (More values can be added at any time). We are going to allow the characters to have several text windows appearing in sequence rather than altogether.

First, it is necessary to give the variable a particular value. This is done by using an option, *Set Variable to Value*. Then it is necessary to be able to use the fact that a variable has or has not a particular value to control which text windows (or drawings) appear. This is done using *Conditions* (which may be applied to either text windows or drawings).

It will be necessary to put some text entries on page *FIRSTDATE*; here's a sample dialog:

GIRL:	"What do you think you're doing? Let go of me!"
BOY HUGGING:	"Not so fast – you looked keen enough just now"
GIRL:	"Yes, but I thought you were someone I knew"
BOY HUGGING:	"Well you do now! Hey, what's happening here? Take your hand off my wallet!"

We'll leave it to your imagination to complete this sequence. Each character now has two text windows and all four text windows must be put into the right order. Once you have entered the text, click on *Normal* to test them and you will find that the two text windows for each character appear together and that none of them highlight. At this point there are no options.

3.2.15 Adding Conditions

Conditions are principally a way of testing a variable against a value in order to control some event, which, in the current example, is whether text appears or not. Their format (for both text windows and drawings) is as follows:

IF Variable CONVERSATION IS Value LEVEL 0

or

IF Variable CONVERSATION IS NOT Value LEVEL 1

To add some such conditions to our current example do this: Click on *Text Operations* and then on the GIRL. Next select *Add Text Condition* and select the text "What do you think ..." (the top one of the two).

You will see three condition types for the appearance of a text entry. The third variable introduces a new and interesting dimension – that of probability. (Refer to Chapter 4 for more information.) Here we need the first type of condition, so click on that. CONVERSATION is our only variable so there is little choice of variable here. Select LEVEL 0 as the value to be tested. The text "What do you think..." will appear 'IF CONVERSATION IS LEVEL 0'. There is nothing more to be done with this dialog. Click outside the window to return to the text operations menu for the GIRL. Again, *Add Text Condition* but select the "Yes but I..." text and continue as before except that you will need to select value LEVEL 2 for this text. [Note that value LEVEL 1 will be used to allow BOY HUGGING's reply to appear.]

Now it is the BOY HUGGING's turn. So make sure that you use the Text Operations Menu for BOY HUGGING, and add conditions to each of texts "Not so fast..." and "Well you do now...". Test CONVERSATION against LEVEL 1 and LEVEL 3 respectively.

If you return to Normal Cursor Mode and click on the drawings of BOY HUGGING and GIRL you will see absolutely nothing happening. This is because the

variable CONVERSATION has none of the four possible values required for text to appear. In the lower half of the Development Menu you will see an entry called *List/Set Variables*. Select this and you will see that the current value of CONVERSATION is undefined, i.e. it has no value. If you click on the entry 'CONVERSATION is undefined' you can manually set its value to one of the four values defined for it. Then, if you click on one of the characters, the corresponding text will appear. As this is obviously not possible (or desirable) while playing a game, it is necessary for there to be some way of setting variables to specific values when entering a page. This is done by means of a *Page Entry Option*.

3.2.16 Adding a Page Entry Option

These options are executed when the page is first loaded. In order to set CONVERSATION to LEVEL 0 at the start of this page, click on *Page Entry Options*. Select *Set Variable to Value* and then, in turn, click on CONVERSATION and LEVEL 0 in response to the prompts. Click the right mouse button outside the window to return to the Development Menu.

To test, select *Restart Page*. The system will query whether you wish to execute the option. Click on *Execute Page Entry Options* and then click on the GIRL. Make sure the first part of the conversation appears. [If it doesn't, recheck the conditions and Page Entry option.]

The text doesn't highlight when the cursor passes over it. We need to add in options on the texts to allow the conversation to progress from level 0 to 1, to 2, and to 3.

3.2.17 Adding Options

You need to put in an option on the GIRL's first text segment to set CONVERSATION to LEVEL 1 (which will display the BOY HUGGING's first text). Do this by clicking on *Text Operations* and then on the GIRL. Then click on *Add Option* and the first text. Select *Set Variable to Value* and then choose CONVERSATION as the variable and LEVEL 1 as the value when prompted. Continue in this manner setting CONVERSATION to LEVEL 3 on the GIRL's second text. Only the BOY HUGGING's first text needs an option, to set CONVERSATION to LEVEL 2 as (at the moment) nothing further happens after his last piece of repartee.

WELL DONE! You've made it!

Now test it using *Normal*. Notice that now, only one text appears initially on the GIRL and none on the BOY HUGGING. There will be no options on the BOY HUGGING's final speech. We have stopped there. Now it's your turn to forge ahead..

Test this storyline also in 'User' mode. Don't forget, this is only the start – use many other variables to make your story more interesting.

3.2.18 Any Problems?

If it doesn't quite work, go back and check all the variables, conditions and options as follows:

Variables Click on List/Set Variables and check that CONVERSATION is at the level it ought to be at. Click on CONVERSATION to check that the four values are indeed available.

Conditions and Options Check the conditions and options by clicking on *Text Operations*, first for one drawing and then the other. Click on *List Text Conditions* to see if the right text appears with the right condition. Click on *List Options* to check the options. If you need to change any conditions or options, go through the instructions after clicking on *Remove Text Conditions* or *Remove Text Option* and adding the correct one (not necessary in the case of *Go to Page* or *Chain* options as there can only be one of these per text). Finally check that you put in the *Page Entry Option* to set CONVERSATION to LEVEL 0.

It should now all work. If not, think it through again. Go through all the steps mentally or writing it out on paper and it will probably become clear where you went wrong.

Congratulations!

You have now graduated from 'Starting from Scratch' and are ready for the 'Advanced Level' of Chapter 4, where you will find details of all the Talespin Options.

3.3.

Library Files

Here is how you may use the Library Files. The contents of the files (including START and THEGRAIL) are as follows:

- 1. ALPHABET.TAL** This contains a set of numerals and one alphabet of ornate letters (as used in the START title page) and one alphabet of plain letters for you to use in titling. Using the Shrink/Reverse operation, you can reduce the letters to whichever size you want (sometimes reducing the height more than the width can be effective). Or you can copy them (see below) and embroider them to your taste.
- 2. THEWOLF.TAL** This file contains all the drawings in 'The Wolf' adventure. The names of the drawings provide a clue as to what they are. The palette used in all 'The Wolf' drawings is the default palette so there will be no need to alter the colors unless you have modified a palette.

The following sounds are also on 'The Wolf' title:

<u>Sound</u>	<u>Length</u>
LAUGH	20,688 bytes.
CRY	6,966 bytes.
HELLO	4,886 bytes.

As sounds take up a lot of disk space, the number of sounds we could put on these files for your use was limited.

- 3. START.TAL** The first page of this title contains the drawings TITLE SCREEN (which is specific to the Talespin title) and CLICK. The second page contains the following drawings:

BOY
GIRL
BOY HUGGING

These three drawings can be used to create the BOY/GIRL story outlined above.

WOLF NASTY (Drawing copied from 'The Wolf' title.)

QUESTION Icon

MOUSE Icon

REF Icon

CLICK Icon

- 4. THEGRAIL.TAL** (on the GRAIL disk) This is the demonstration adventure written by Rudyard Heaton. All these drawings are available for your use as well as the following three sounds:

Sound	Length
BEAST1	16,562 bytes
MUTANT	8,950 bytes
MUTANT2	8,164 bytes

Note that the palettes on the drawings from 'The Grail' are different from the default palette so you may need to play with the palette and swap the colors around on any pages you create using these drawings.

3.3.1 Using The Library Files

There are two aspects: browsing through the files to see what is there, and copying a drawing to your own title for use in your own stories.

Looking through the Files

If you want to 'look' at the files on the Program disk, first load Talespin. If you wish to look at:

The 'Start' title: This will automatically be loaded and the title page will appear. Right click for the Control Menu; enter Development mode and carry on as outlined below.

The 'The Wolf' title: Once Talespin has been loaded, right click to bring down the Control Menu and click on *Choose & Load Title*. Select 'THEWOLF' and a START page will appear on the screen once the title has loaded. Note that 'The Wolf' title is a story in its own right, so you can 'look' at the drawings by playing the game from User mode; or you can 'look' at the drawings directly by clicking the right mouse button to call the Control Menu, enter Development mode and continue as outlined below.

The 'Alphabet' title: Right click as above for the Control Menu and click on 'Choose & Load Title'. Select 'ALPHABET' and, once loaded, the Control Menu only will appear as there is no START page. Click on *Switch to Development Mode*. Note that in the 'Alphabet' title, there are no pages. A shorter Development menu will appear as a result.

In Development mode, click on *Drawing Definition* and then on *Modify Drawing*. Select a drawing to view; when you want to leave this drawing right click for the Drawing Menu and select *Quit*. When you have finished looking at the drawings in this title, right click to call the Development menu. You will need to Quit Development Mode in order to load a different title.

To Play the Sounds (only present on 'The Wolf' and 'The Grail' titles):

Click on *Sound Definition* and then on *Play Sound*. Select your sound and you will then be asked to select a rate of replay in Kilohertz (for full details, refer to 'Using Sounds' in Chapter 4). For now, just try them out. Click to return to the Sound menu, right click to return to the Development menu.

3.3.2 Looking at the Grail disk

To sample the drawings and sounds from 'The Grail' title, follow the instructions on the first page of the START title, and the system will chain to 'The Grail' title, asking you to insert the Grail disk where necessary. Then you may 'look' at the drawings from 'The Grail' in the same way as with the titles on the Program disk.

3.3.3 Copying from the Library Files

Having browsed through the Library files and established what you want to copy, follow these instructions from the Development Menu, having created (or reloaded) your own title.

Insert the Program disk (if you want to copy a drawing or sound from one of the titles on this disk), or the Grail disk (if it is 'The Grail' drawings you want), or switch your disk drive if the other disk is on another drive (using *Select Drive\Folder*). Select the drawing or the sound definition. Select *Copy Drawing (or Sound) from Another Title*. The system will search the current drive\folder for any titles present; select whichever you want.

If you don't want any of the titles on that disk (or any of the drawings or sounds on the title), click outside the window to cancel it, insert a different disk and start again. The system will save the drawing or sound under the same name unless there is already a drawing or sound of that name present in your title. In this case you will be asked for a new name. If you've changed disks, you will be asked to reinsert your work disk. [In the case of drawings, you are given the opportunity to immediately modify the drawing.] The drawing or sound is now available for use by your title.

Chapter 4: Advanced Level

Chapter 4

4. Chapter 4: Advanced Level

This chapter provides a more detailed discussion of Talespin and its capabilities via an analysis of 'The Grail' and 'The Wolf'. For a more direct description of all the operations in the Development Menu, see Chapter 7 "Reference Section". For guidelines to the basic design of a full length adventure, refer to Chapter 5 "Writing an Adventure".

4.1. Combining Pages and Drawings

To appreciate the concept of using pages and drawings, you must first understand that when a drawing is copied to a page, it means that there is a pointer to that drawing on the page. The actual drawing itself is not copied on to the page (that would take up a lot of room). Using the same drawing on many different pages is very economical on space; however if you subsequently make any modifications to a drawing, the changes will show on ALL the pages where that drawing is used.

Drawings, along with sounds, variables and pages themselves, are considered to be 'global'. In other words, they can be referred to from any page throughout the title, whereas text, conditions and options are 'local' to the page on which they appear. This is reflected in the layout of the Development Menu. At the start of the Development Menu each of drawings, pages, sounds and variables has its own Definition Menu.

4.1.1 Statistics

Unless you are creating a very short title, where you do not need to concern yourself with 'space saving', it is useful to understand how Talespin organizes disk space. Each Talespin title is a self-contained file which has a 'directory' pointing to all the pages, sounds and drawings which are contained in the file.

Details of this space usage are available from the Development Menu facility, *Statistics*. Examining this will show that variables and values do not take up any more room on the disk other than a Directory entry for each. However, by clicking on any of drawings, pages or sounds you can get details of the size, in bytes, of any individual item. Drawings and sounds take up the most space on the disk.

By way of illustration, look at the Statistics for 'The Grail' (you will need to load it first). The largest page is STREET3, which has many drawings and text windows on it, with 1872 bytes. Most of the drawings use much more space than that, up to 14K of memory (K stands for 'Kilobyte'). Compare the overall number of bytes: 25K for 31 pages, compared to 291K for 69 drawings and 33K for only 3 sounds. Admittedly your drawings do not have to be as detailed as those used in 'The Grail'. Simple figures use about 2K (as in the BOY/GIRL example in Chapter 3).

4.1.2 Technical Details of Statistics

Some further items are shown in Statistics which may not be immediately obvious, but without which the sums would not add up. By way of explanation, note that when you modify a drawing or page, and the new version is saved to disk, a 'hole' may be left in the file (where the previous version used to be located). This is referred to as an 'unused block' and this space will be re-used by any further items being saved. In the long run, a number of small fragmented unused blocks may accumulate throughout the file. The process called 'Backup' (explained later in this chapter) clears these out.

Also, when a page, drawing, sound or variable is deleted, (removed entirely from the file) some pages may still refer to the deleted item. References to these items are still kept in the Directory under the heading 'deletions' until the presence of any references to them from anywhere within the title can be checked. This is also done during Backup.

4.1.3 'The Grail' Drawings

A brief analysis of some of the pages and drawings in 'The Grail' will demonstrate how you can build up many pages using only a few drawings. The pages we will use for this example are in the forest. They are all created using one simple foreground and two simple types of tree. The foreground is drawing FIELDS3, used with some of the colors swapped to give different effects. This drawing is used three times in Page COTTAGE.

The trees are drawing TREE4, a tall thin red tree used in all of the forest scenes, and drawing TREE8, a short fat green branchy tree, which is used in the routes to and from the forest. Embellishments include a smaller red version of TREE8, and a couple of bunches of leaves and a bush.

The variations in the different pages are all made by reducing, reversing, and duplicating these few drawings, adding leaves and, on one occasion, the drawing SKY reduced. In this way many pages are created using only a few drawings. This also helps when it comes to sorting out the palettes.

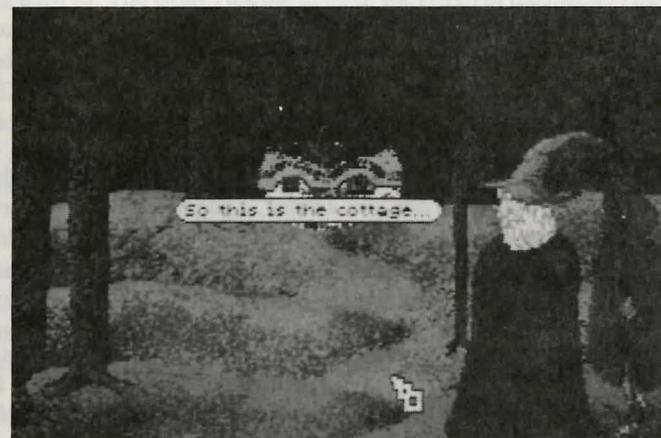


Figure 4-1: COTTAGE Page from "The Grail"

4.2.

Use of Palettes

Making full use of the 512 colors available on the Atari ST requires a little forethought and strategy. The system is limited by the palette capacity of the Atari ST, 16 colors on the screen at one time.

Analyzing some of the palettes in 'The Grail' can demonstrate some of the difficulties resulting from this limitation and how to handle them. The palettes of the WIZARD and BILLOT drawings are fairly similar, except for the bottom line of the palette. The colors needed for the WIZARD are two shades of red for his cloak, three blues for his robe and two skin shades. The colors for BILLOT are similar except for the green of his trousers. Now look at the page palettes of any of the scenes outside the town, and you will see that all these colors are in the same places in the page palettes as on the drawing palettes.

Inside the town it is a different matter. Almost all the STREET scenes have a totally different palette, although all must still have the necessary colors for the WIZARD, even if the blues are sometimes slightly different shades. But these are not in the right position on the palette. When the drawing is added to the page, you will need to change the colors around using *Swap Selected Color*. Sometimes a compromise must be made. Notice on Page STREET that the Wizard's cloak is not as red as elsewhere.

4.2.1 Using Palettes

The page palette is taken from the first drawing added to the page. If the palette of this first drawing is not the one you wanted, using *Modify Page Palette* (from the Development Menu), you can copy the whole palette from another drawing or page. Note that Copying a Palette only copies palette entries that are non-black. If you copy the palette from a drawing in which only the top eight palette entries are used and all the lower half of the palette has been set to black, then any colors present in the lower half of the palette will remain unchanged. Thus you can combine palettes from different drawings.



Figure 4-2: FOREST from "The Grail"

4.2.2 Examples from 'The Grail'

4.2.3 The Forest

Referring back to 'The Grail', the make up of the pages in the forest is designed to make maximum use of drawings and palettes. The pages consist of very few drawings, all differently arranged. The palette for all of them has been copied from the WIZARD. The colors on this palette which are not used for the WIZARD have been used in various ways on each of the pages, to create a different impression. Pages as different as COTTAGE and GATE or GUARD all use the same palette, except for these five unused colors from the WIZARD's palette.

4.2.4 The Town

As mentioned before, this system breaks down in the town, mainly because the principal drawings became the STREET drawings. The WIZARD and BILLOT had to take second place. This is because the STREET drawings were done before the author realized quite what he was going to use them for and therefore hadn't



Figure 4-3: STREET3 from "The Grail"

thought to make provisions in the palette for the colors needed by WIZARD and BILLOT. So the WIZARD's colors were slotted into the few unused spaces in the palette, necessitating a fair amount of color-swapping when the characters were brought on to the page.

4.2.5 Using Black and White

Note that the Black and White default colors on the palette cannot be modified (i.e. the top left and bottom right positions on the palette). This is because they are always needed for the display of text. [If you are importing Neochrome or Degas pictures, you will be warned and these palette entries forced to Black and White if they are not so already.]

The unchangeable black top left palette entry is also special in that it represents 'Transparent'. If you need a non-transparent black, one through which any underlying drawings will not show, you will need to set a different palette entry to Black for this. [Note that this will then not copy (see above) so perhaps color '001' (a blue so dark as to be invisible) would be a better choice.]

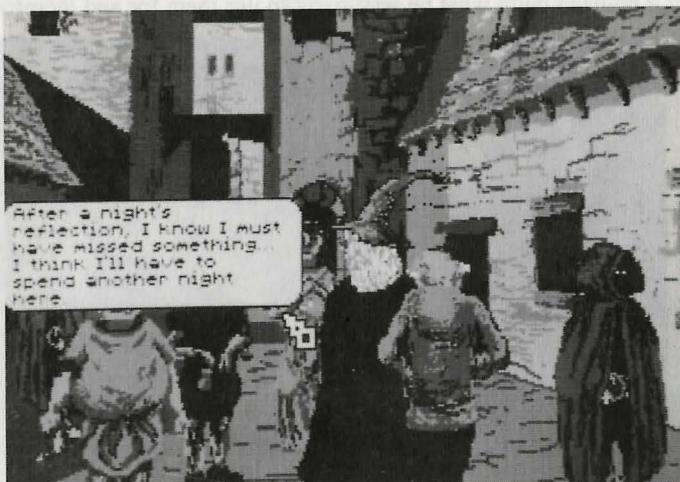


Figure 4-4: Text Window

4.3.

Using Text Windows

Text windows are found by clicking on drawings. They are always 'local' to a page. In other words, one page cannot refer to another page's text windows. The appearance of Text can be controlled by the use of 'conditions', and 'options', as will be explained shortly. Conditions and Options can be placed on text windows to control the action in various ways. Note that the maximum amount of text that may appear on a page is 6K (6144) characters, spread between ALL the text on that page. The various uses of text include:

Narrative

It is sometimes useful to have some narrative to set the scene at the start of an adventure. In 'The Grail' this kind of narrative is to be found on the START page by clicking on the drawing GRAIL and on the END page by clicking on one of the characters. Otherwise all the narration is in the dialog. If you wanted more narrative and less dialog, one idea might be to use a 'narrative icon', for example, a drawing of a mouth in a box, which could always be located in the corner of the screen and which would produce narrative text if selected.

Comic Elements & Clues

You can use comic asides on characters to add color to your story and to encourage players to click on everything. A character may say something different next time around. This device is used in the crowd scenes in 'The Grail' and with Billot, who acts as the Wizard's sidekick. Also, minor characters are used to give clues as to how well the player is doing and what to do next. Comments such as the one the beggar makes on the page FIGHT WITH BANDIT gives hints. This text is 'unconditional' (always appears), but many other hints are controlled by 'conditions' so that they only appear when needed.

Dialog with Options

This is an essential part of the text operations. These text 'options' are necessary to move the action from one place to another and also to allow for two or three way dialog, where text becomes available in set sequence rather than all at once. For more details, refer to *Using Options* below.

4.4.

Using Variables and Values

The variables are the key to using Talespin effectively. It is the variables which let Talespin titles be more than just computerized comic strips and give them their flexibility. A Talespin 'variable' is simply a name up to 64 characters long which may have a 'value' assigned to it. A 'value' is simply another name (also up to 64 characters long).

You might have a variable called STATE OF MIND which could have the values HAPPY, SAD, ANGRY or FRIGHTENED. Each value needs to be defined (in *Variable Definition*) as belonging to a particular variable, although more may be added in at any time. The value of a particular variable remains 'undefined' until it is given a value by using a *Set Variable to Value* option (see below for Options).

The variable retains this value unless changed by another *Set Variable to Value* option. It is a sort of memory, used to indicate a particular event or state. Once created, variables are used to control the appearance of drawings and text via 'conditions' such as 'IF Variable IS Value' or 'IF Variable IS NOT Value' (see below for details of Conditions). The variable STATE OF MIND could be used to control which of a range of expressions should appear on a face.

4.4.1 Different Uses of Variables

Variables may be used to create apparently different pages from one page. Taking an example from 'The Grail', the variable ENT (for entrance) allows the Pages BEGINNING and WIZ & BILL MEET GA to be used in different situations. They are used first as the initial introductory pages, setting the scene, with the variable ENT set to value NOT REACHED. Then when the Wizard and Billot reach the page GATE, ENT is set to REACHED [(on the option to return to the forest) or (if they go into the town)] on page ENTRANCE.

When they return to the forest, they will re-enter the two pages BEGINNING and WIZ AND BILL MEET GA, but as the variable ENT now has a different value, they appear without the initial dialog and without GA. Both of these factors are controlled by conditions, on text and drawings respectively. This isn't perhaps the most obvious way of going about things (especially when GA no longer appears on a page called WIZ AND BILL MEET GA), but it does save on disk space.

Another use of variables is to create dialog using the variable CONVERSATION and values LEVEL 0, LEVEL 1 and so on. On the first page BEGINNING there are three text windows controlled by the variable CONVERSATION. This variable is set to LEVEL 0 on the *Page Entry* option (these are Options that are executed when a page is first loaded, see below under Options for details). The WIZARD's first text is conditional on CONVERSATION being set to LEVEL 0. An option on this text sets CONVERSATION to LEVEL 1. BILLOT's text is conditional on CONVERSATION being LEVEL 1, and an option here sets it to LEVEL 2, and so on.

Variables may also be used to determine which text window to display in a scene. In 'The Grail', the Wizard on page STREET3 has five different text windows depending on which of various conditions have been fulfilled.

Variations of the same scene may be created when a scene is revisited by using variables. For example, look at page INSIDE THE INN. If you list the variables (*List/Set Variables*) you will see that there is a variable INSIDE THE INN with possible values of ONE, TWO or THREE. This variable is used to vary the scene each time the Inn is visited. The first visit, when the variable INSIDE THE INN is ONE, Billot has a drinking companion who is interested in the Grail and encourages him to continue in the quest. The second time around (INSIDE THE INN is now TWO) a blind beggar appears – a sign of increased decay in the town. On the third visit, no one else is at the Inn and Billot is fading fast himself!

The necessary conditions for successfully completing an adventure may be set by variables. Decide on the criteria for completing your adventure, define them as variables and give these variables at least two possible values (true or false). If all the criteria according to these variables are fulfilled, then the adventure can be completed. The criteria used in 'The Grail' are MERCY, STRENGTH and CHARITY. 'The Wolf' requires the variables CLEVER and APPEALING. Of course, you can select anything – states of mind, skills, status, wealth, knowledge, power.

Variables can be used to further the progress towards the ultimate goal. These variables are used to achieve the desired criteria. For example, the CURE is needed in 'The Grail' to be able to help the woman in the cottage and attain the status of CHARITABLE. Also, unless the variable BILLOT has the value GOTRIDOF, the MENDIANT leading the WIZARD to the cottage will not appear.

You can also create variations within a page by using a variable with drawing conditions. Drawings can appear and disappear during a page. This allows many more choices on a page. (See below under Using Conditions for details.) However, note

that the whole page must be re-drawn each time, and the delay is similar to that experienced when moving from one page to another (the 'zz..' icon appears).

Variables are also used to vary the *Go to Page* options. The choices the player has made up to this point (i.e. how the variables have been set), will determine where it is possible to go to next. This has to be done indirectly, using conditions to control different text or drawings which have the different *Go to Page* options.

Complex maps may also be created by skillful use of variables. FROM, for example, is used in the forest in 'The Grail' to establish which page the Wizard has just come from. This will determine the text and options on the current page, and is a way of making the few forest pages seem like many more (it is possible to go round in circles in both directions). This is the basic methodology in creating a maze.

4.4.2 Using Conditions

A condition applied to a drawing or text determines whether or not the drawing or text appears. There are three types of conditions which may be applied to drawings and text windows:

if VARIABLE is VALUE

The drawing or text will only appear when the variable is set at that value and not at other times. In 'The Grail', as mentioned before, the page WIZ & BILL MEET GA is first entered in the early stages of the tale before they reach the entrance to the town. After this point they will probably return to this page several times, only GA will no longer be there. This is because there is a condition on the drawing GA that it will only appear:

if ENT is NOT REACHED

Once the variable ENT has been set to some other value than NOT REACHED, GA will not appear again. When first putting such a condition on a page, the drawing (or text) will vanish if the variable concerned is undefined or set to a different value. A variable remains undefined until it is set manually via *List/Set Variable* (or a *Set Variable to Value* option is created and executed for that variable, see below under Options). The rule is, if a text or drawing having a condition isn't showing, check the current value of the variable.

if VARIABLE is not VALUE

The drawing or text will always appear, except when the variable is that value. This allows them to disappear under certain circumstances. This can be illustrated using an example from 'The Wolf'. On Page RRH MEETS HUNTSMAN, if you click on *List Drawing Conditions*, you will see that a condition for drawings HUNTSMAN TALKING and RRH STANDING is:

if WOLF is not CHASED

This means that these drawings will appear UNLESS the variable WOLF is set to the value CHASED.

% Probability

This is very useful for varying scenes, as in the crowded street scene (STREET3) in 'The Grail'. Here, nearly all the drawings of people appear only some of the time, i.e. with a 40% – 80% probability, making it look different each time you come to this page. Probabilities can also be used to make the story more difficult to advance. For example, in 'The Grail' you can only get the cure from a cripple in the gutters; but the drawing CRIPPLE only appears with a 30% probability, so it is possible to go round the town three times before seeing him. [A hint that this might be necessary is given in one of the other scenes.]

4.4.3 Combining Conditions

In many situations, it is necessary to combine conditions. For example, look at the drawing BANDITONE on Page UPSTREET in 'The Grail'. He only appears if the following conditions are met:

if BILLOT is GOTRIDOF AND if CURE is HELD AND with 40% probability

This ensures that he only appears towards the end of the adventure, if the wizard is alone, and then only 40% of the time. These conditions are all joined by AND. This means that ALL of the conditions must be met for the drawing to appear. It would also have been possible to join them with an OR instead of AND, in which case ANY of the conditions being met would be sufficient to make the drawing appear. However, you may also combine OR's and AND's to produce any required logical result; but note that ANDs 'bind' tighter than ORs. So

Condition A AND Condition B OR Condition C AND Condition D

is equivalent to

(Condition A AND Condition B) OR (Condition C AND Condition D)

In English: both A and B or both C and D. If what you wanted was: A and either B or C and also D, i.e.

Condition A AND (Condition B OR Condition C) AND Condition D

you could achieve this by doing: all of A and B and D or all of A and C and D, which is logically the same.

In Talespin, this is:

Condition A AND Condition B AND Condition D OR Condition A AND Condition C AND Condition D

This is slightly longer, but it achieves the result without the use of parentheses. Just remember that groups of ANDs go together. For this reason, when you add additional conditions (after the first one) the system asks you where you want to insert it, as its location is very important as regards its effect on the combined logic of the conditions.

4.4.4 Drawing Conditions

These are entered by selecting *Drawing Conditions/Options* and clicking on the required drawing. The menu presented allows you to enter, remove and list conditions on any specific drawing. Click directly on *List Drawing Conditions* in the top Development menu to see ALL drawings on a page together with any conditions. A typical example is on Page RRH MEETS HUNTSMAN in 'The Wolf'. Here is a list of all the drawing conditions for the page.

Conditions

**IF WOLF is CHASED
AND if CONVERSATION
is not LEVEL 2
OR if WOLF is not
CHASED**

**IF WOLF is CHASED
AND if CONVERSATION
is not LEVEL 2**

**IF CONVERSATION is
LEVEL 2 AND WOLF
is CHASED**

**IF WOLF is CHASED
AND if CONVERSATION
is LEVEL 2**

Drawings

HUNTSMAN TALKING

RRH STANDING

HUNTSMAN FIGHTING

SCARED RRH

This page is visited twice, before and after the Huntsman goes after the Wolf in the story. Although the text windows will be different, the drawings, at least initially, will be the same. However, under certain circumstances, the drawings change during the page. The only situation in which SCARED RRH and FIGHTING HUNTSMAN appear is IF WOLF IS CHASED (the huntsman didn't kill the Wolf in the previous page) AND CONVERSATION IS LEVEL 2 (we've reached the point at which the page changes in mid conversation). Note that this same set of conditions must be responsible for making HUNTSMAN TALKING and RRH STANDING disappear; otherwise all four drawings would appear together!

4.4.5 Text Conditions

Text Conditions are used to determine what text appears on a Page. They offer the same facilities as Drawing Conditions, except that with text windows the effect is less dramatic in terms of what the page looks like. The effects are only discovered by clicking on drawings.

Text Conditions are entered by selecting *Text Operations* and clicking on the required drawing. The menu presented allows you to add, remove and list text conditions. In this example from 'The Grail', the Wizard on page STREET3 has five

different text windows depending on which of the various sub-goals have been achieved. The text is used to give hints to the player.

<u>Condition</u>	<u>Gist of Text</u>
if CURE is NOT HELD	Hint to go round again
if CURE is HELD	Neutral comment
if CRIPPLE is CURED AND if BILLOT is PRESENT	Billot might not be a suitable companion...
if BILLOT is GOTRIDOF AND if CRIPPLE is CURED AND if COTTAGE is not DONE	You should head for the forest to find the old woman to cure.
if CRIPPLE is CURED AND if BILLOT is GOTRIDOF AND if COTTAGE is DONE	You've nearly made it!

[Note that the cripple can't be cured if the cure is not held; so if you get Text 1, you won't get any of the others. But if you have the cure and yet failed to cure the cripple, well, you just don't deserve any hints!]

Logic such as this becomes easy to understand if you use meaningful variable and value names. Setting X to 1 if someone is alive, and to 2 if they are dead is a recipe for disaster when it comes to debugging (finding and removing hidden errors) as you'll forget only too soon the meaning of abstract symbols. Also, resist the temptation to have variables do things other than those implied by their name: create a new variable instead – in the long run, it'll pay off.

4.5. Using Options

Options DO things, like playing sounds, setting variable values, turning to another page or chaining to a different title. They can be placed on text windows, drawings or at the entry to a page, offering different degrees of control to the player.

4.5.1 Options on Text Windows

From the player's point of view, there is always a visible choice to click on, as any text with an option on it will highlight when the cursor passes over it. It is up to the player which way he/she goes. These options are entered by selecting Text Operations from the Development menu, clicking on the required drawing, and then on the required text belonging to that drawing. Execution is by clicking on a section of highlighted text.

4.5.2 Options on Drawings

From the user's point of view, there is a choice of drawings to click on, but the choice is not clear as the consequences of each click are not known: nothing 'highlights' to show you that an option is present on a drawing. Thus an element of chance is introduced. [If however, the player has been through parts of the game several times, he/she will have some experience of what consequences belong to each click.] These options are entered by selecting *Drawing Conditions/Options* and clicking on the required drawing. They are executed just by clicking on a drawing (in Normal cursor mode).

4.5.3 Page Entry Options

There is no choice at all here, not even chance. The *Page Entry* options are controlled solely by the author of the story. These options are always executed when the page is loaded. These are entered via *Page Entry Options*, and executed in Development mode (other than by leaving and re-entering the page) by *Restart Page*.

4.5.4 Execution Order of Options

There are four types of options: *Play Sound*, *Set Variable*, *Go to Page* and *Chain to Title*. On Page Entry options, the variables are set, the page displayed accordingly, and any sound is played before Going to another Page or Chaining to another Title. This is what you would expect: you want to see the picture, then hear the sound before anything else happens.

With Text and Drawing options, the page is already displayed. The first thing to happen should be the Sound, after which the page should only be re-displayed if

there have been any changes made to it (only if there is no *Go to Page* or *Chain* option present).

4.5.5 Sound Options

Decide whether you want to have your sounds played:

- Once only, as the page fades in (use Page Entry Options)
- Repeated on clicking on same text (use Text Options)
- Repeatable at any time (use Drawing Options)

4.5.6 Page Entry Sound Options

A sound will be heard as soon as the page is displayed and before anything else happens. This is a useful way of setting up a one-time sound as the result of some action, for instance a monster appearing and a girl screaming. Other uses include creaks and other noises, exclamations, and so forth, or any Page Entry musical notes (though this could use up a lot of memory, see Memory Limitations below).

4.5.7 Text Sound Options

A sound will be heard as soon as the highlighted text is clicked on, but before any changes are made to the page. The sound will be heard before any drawings appear or disappear. Use sounds on appropriate text windows – a roar from a monster, a wail from a ghost or a shriek from a girl, or maybe a cackle of laughter. As the sound options on text windows are always assigned to a particular text window, they will only repeat if that particular text window is re-selected. The sound is not played until after the text has been clicked on, so you can see the sound written in the text (“Aaaagh!” for example) and then hear it when you click on the text.

4.5.8 Drawing Sound Options

A sound will be heard as soon as the drawing is selected, and every time it is re-selected, before any changes are made to the page and before any text windows are displayed. If there are several text windows on a drawing and you don’t want the sound to be repeated prior to the appearance of each text window, put the sound on a Page Entry option (see above) or on the text windows themselves. You can

use *Drawing Sound* options for exclamations of surprise, fear, anger, enthusiasm, for animal, environmental or mechanical sounds to set the scene and create an atmosphere.

4.5.9 Entering Sound Options

Sound Options are entered using the *Add Option* operation in the *Page Entry Options*, *Text Operations* and *Drawing Conditions/Options* menus respectively. Since the order in which sounds are played is significant (as opposed to the order in which variables are assigned values, which is irrelevant), on entering any subsequent sound options after the first one, you will be asked where to insert the new entry. You are then asked for a replay frequency for each sound. This should be the same as the sampling frequency when the sound was digitized if you wish to recreate the original sound. Alternatively, you may play it back at different frequencies to create special effects. Playing the same sound back at different frequencies in different situations is one way of economizing on disk space. See below under Using Sounds for more details.

4.5.10 Memory Limitations

Note that all sounds on a page have to be present in memory before they can be heard. This limits the total sounds on any one page to around 64K bytes on a 520 ST with 512K of memory. Any further sounds will just be ignored. [On a 1040 ST or Mega ST, all of the available memory will be used as a buffer (temporary storage area) for both sounds and drawings, resulting in less time being spent accessing the disk].

4.5.11 Set Variable to Value Options

These options are essential for controlling all aspects of an adventure if it is to be more than a simple sequence of pictures. They form the instrument by which the adventure progresses. They can be executed at the entry to a page, on drawings or on text windows, as can all the options.

Other than being used to keep a record of the player’s progress, they are also frequently used in conjunction with conditions to allow for changes during a page; either on text windows, to allow a conversation or exposition to unfold, or on drawings, to allow objects to appear or disappear. These options can be placed:

a.) on a text item where a choice has to be deliberately selected.

b) on a drawing, when it is an unwitting selection, as nothing indicates to the player that the drawing does anything (unless the drawing is some form of icon or says CLICK in large letters!).

These options are also placed at the beginning of a page, with the Page Entry options, as a means of 'initializing' a variable, either for that page alone (e.g. set CONVERSATION to LEVEL 0), or for the whole adventure (e.g. set GOLD to NOT FOUND).

4.5.12 Page Entry

On loading a page, these options are executed first, setting the various variables to their specified values before evaluating any of the drawing conditions which determine which drawings to display. Some of the uses of these options are listed below.

1. Initializing Variables at the Start of a Title.

Variables, until they are 'set' (given a value), remain 'undefined'. Although you may use *List/Set Variables* to manually change the variable values to affect the outcome of conditions while testing, these values are not saved in any way and the variables will be found to be 'undefined' once more on re-loading the title.

Therefore, Page Entry options may be used to 'initialize' the variables in a title. At the beginning of 'The Grail', thirteen out of a total of twenty variables are set on the Page Entry option of the START page (the others are set later on in Page Entry or Text options).

2. Setting 'recurring' Variables.

Any recurring variables, i.e. variables used independently on different pages, such as CONVERSATION, should be set to the first level, in this case LEVEL 0, as the variable CONVERSATION might well have been left at value LEVEL 2 on the previous page.

Setting 'Achievement' Variables.

A variable may be set indicating that a certain page has been reached. For example, in 'The Grail', as soon as the Wizard and Billot reach the entrance to the town, the Page Entry options on Page ENTRANCE set ENT to REACHED and TOWN to VISITED. There may be several ways of arriving at a page, so it is often easier to set the variables establishing position or status on the Page Entry options of the page being branched to rather than on the Text options of the current page where the actual decision was made.

4.5.13 On Drawings

You can, for example, set a variable on a drawing so that the drawing (or a different one) will disappear (i.e. the page will be recreated without that drawing). Using an example from 'The Wolf', see how Red Riding Hood miraculously rises from the dead on Page WOLF KILLS RRH, if you click on her first. This is achieved as follows: Define the variable RRH DEAD with values YES and NO, and set RRH DEAD to YES. Set a condition on drawing RRH KILLED to appear: if RRH DEAD is YES Put an option on drawing RRH KILLED: set RRH DEAD to NO

She will now disappear if you click on drawing RRH KILLED.

You can then add text to the WOLF "Oh! Where's she gone?", putting a condition on this text 'if RRH DEAD is NO', so that this text will only occur if Red Riding Hood has vanished. So far so good – you can then recreate Red Riding Hood by adding the appropriate drawing to the Page (for example RRH STANDING) with the condition 'if RRH DEAD is NO', and can then add text to this drawing. [To make the scene look better, the drawing RRH CLOAK was also added with the same condition, so that by clicking on Red Riding Hood, the drawing of RRH KILLED disappears and the page is recreated with an empty cloak in her place, and she herself reappears behind the tree.] DON'T FORGET to add in a Page Entry option to set the variable RRH DEAD to YES so that the page is set up correctly; failing which neither drawing of RRH will appear when the page is first loaded.

In other scenarios where succeeding in the adventure involves finding objects, you can also make the object, a pot of gold for instance, remain hidden behind a tree, door or window, until you click on the tree, door or window. Once you have defined

the variables and values, set up a condition on the object to appear: if GOLD is VISIBLE Then add an option on the drawing TREE, DOOR or WINDOW: set GOLD to VISIBLE The final touch is to put in the Page Entry option: set GOLD to INVISIBLE

In any of these situations, which action takes place is determined by which drawing is clicked on first. This device can double or triple the number of possibilities available and make the story more intriguing.

4.5.14 On Text Windows

As with drawings this option adds variety and complexity to the story. With a choice of highlighted text windows to click on the possibilities are many.

1. Create Dialog

Do this using a variable such as CONVERSATION with values LEVEL 0, LEVEL 1 and so on. Add an option to set the CONVERSATION to a level one higher on each text controlled by a CONVERSATION condition in the required order. Don't forget to put in the Page Entry option to set CONVERSATION to LEVEL 0 at the start of the page, or the dialog will never get off the ground; and put in a condition for the first text to appear only if CONVERSATION is LEVEL 0.

2. Make a Change in the Current Page

You can make text appear or disappear in the same way as with Drawing options. You could, for example, set a variable to a value that will cause this to happen on a text such as 'I wonder what would happen if I pressed this?', and then something could appear or disappear.

3. Advancing the State of Play

An example of this is in 'The Wolf' on Page TALK TO WOLF where the choice is to tell the truth or to lie. Both options lead on to the cottage, but one sets the variable INTELLIGENCE to value PATHETIC and the other the same variable to value CLEVER, which will make a dif-

ference later on when Red Riding Hood confronts the wolf in the cottage. This is executed behind the scenes so that the player is unaware of it, but influences the way the story unfolds.

To give another example, this time from 'The Grail', the player may not realize (on Page UPSTREET) that making a choice to kill the Bandit will set MERCIFUL to NOT OBTAINED, and that this was his/her last chance to obtain the status of MERCIFUL; that is, without having to go round the town again until the Bandit reappears on page UPSTREET (there is only a 40% probability of this each time round, assuming the other conditions on drawing BANDITONE are met).

These conditions are entered using the *Add Option* operation in the Page Entry Options, Text Operations and Drawing Conditions/Options menus respectively. First select the variable; then you are offered a choice of the values previously defined for that variable in *Variable Definition*.

4.5.15 Go to Page Options

This moves the action from page to page and is executed after the other types of option, so that the sounds will be played and the variables set before the page is changed. For the differences, see below.

4.5.16 Page Entry Go to Page Options

A Go to Page option at the entry to a Page will display the page before going immediately to another page. [Otherwise you would see nothing.] In this way you can set up sequences of pages, which automatically run with or without sounds or even loop. [The only 'exit' here in User mode is obtained by holding the right mouse button down until the Control menu appears. The user may then load another title, or (if in Talespin, not Telltale) enter Development mode. If he just clicks outside the window, the system resumes looping.] You could use this facility as an introductory sequence to give an impression of the whole story, running through until a page is reached which does NOT have a Page Entry Go to Page op-

tion. It could also be used as a slow type of animation, illustrating different stages of a fight, stopping to make a choice of weapon or action, and then continuing. Leaving the realm of fantasy, it could also be used as stages in a demonstration, a cooking recipe, or how to service a car or a washing machine, stopping only when some choice needs to be made.

4.5.17 Go to Page Options on Drawings

As drawing options are executed before text is displayed, a Go to Page option on a drawing will leave the page immediately, and any text on that drawing will not appear. If you want a Go to Page option AND text assigned to a drawing, put the Go to Page option on the text.

If you have a Go to Page option on a drawing as well as a Set Variable option which changes something on the page (i.e. an appearance or disappearance) the change on the page will NOT be displayed. This is so that you can set variables just before you go to another page, to set the scene on that page, without affecting the page you're just leaving. [If you want to have a drawing appear and an immediate Go to Page option, use an extra page with the Go to Page as a Page Entry option.]

4.5.18 Go to Page Options on Text Windows

This is the most frequent use of Go to Page options, used on the last of a string of conditional text windows to turn to another page once the current one is done with. Note that, as with drawings, if a variable is set on a text window which changes the appearance of a page and a Go to Page option is added on the same text, the new page will NOT be displayed before the Go to Page option is executed.

The above are entered using the *Add Option* operation in the Page Entry Options, Text Operations and Drawing Conditions/Options menus respectively. You will be offered a choice of the pages already defined; if you haven't yet created the destination page, you will have to come back later in order to add in this option.

4.5.19 Chain Options

Chain options are used to link from one disk to another in the case of large applications, i.e. extensive adventures or tutorials. Chaining can also be used as the only way 'in' to a locked title with no START page (unless you've already been there

and saved a placemaker). Thus a monthly adventure magazine could be produced in which all of an introductory newcomers section could be skipped by readers 'chaining' from the end of the previous issue.

Chaining works by saving all the variable values in the current title, loading the destination title, turning to the required page in that title, and then restoring all the variable values for those variables which are common to both titles. Before you can enter a Chain option, you will need to define two variables: Title and Page. To each of these you should give as values a list of any title names and page names to which you could want to chain. For example, if you want to chain from title PARTONE, page END PAGE to title PARTTWO at page CONTINUE, you should create variable TITLE with value PARTTWO and variable PAGE with value CONTINUE on title PARTONE. Then when you come to enter the Chain option on Page END PAGE, you will be offered (and should select) PARTTWO and CONTINUE. When the option comes to be executed, the system will look for the requested Title on the current Drive\folder and, if present, load it without further ado. If it doesn't find it, it will ask the user to insert the requested title in the current drive OR to select a different Drive\folder on which to look.

This caters, in a generalized way, to users with multiple drives, and also to users who might copy different parts of an adventure (originally issued on separate disks) onto one drive. [Users may right click to abort this procedure and call down the Control Menu – if they cancel this without loading a different title or a placemaker, the system will resume asking for the to-be-chained-to title.]

4.5.20 Page Entry Chaining Options

Chaining can be used here to display a title page on title START (which will be auto-loaded as soon as Talespin or Telltale is run) before loading the main title, which could take a little time. This method also allows you to put Telltale (which takes up just under 50K bytes) on a program disk along with a short START title and so use ALL of a second disk to hold your main title. You could use this along with an autobooting program to automatically run a commercial adventure, so the player will just put the disk in and switch the machine on, and the START page will load: then the Chain option at the entry of the START Page will give instructions to switch the disk to the data disk.

Note that you cannot use an 'AUTO' folder, as Talespin and Telltale are .TOS files, and only .PRG files are executed from within an AUTO folder. [If you just rename the .TOS to .PRG, all may appear to be well, but the operating system will now

think that the program uses GEM (which it doesn't) and so will crash under circumstances requiring GEM error messages.]

Once entered, use *Restart Page* to test the chaining; you will then have to re-load the original title to carry on. Note that the Development menu names the current Title and Page at the top to let you know where you are. For obvious reasons, the system won't let you chain to a Locked title in Development mode.

4.5.21 Chaining Options on Text Windows and Drawings

Use a Chaining option on drawings and text windows to connect large stories in the middle of that story so that all the variables values are 'transferred' to the second title exactly as they were at the end of the first title (always providing that the same variables and values exist on the second title; failing which, they will just be ignored. Thus you don't have to bother defining the trivial, local-usage only variables in the second title.

PLEASE NOTE:

Once a Title has chained to another Title, you can no longer 'Go to' a Page on the first Title, without previously having re-loaded the first Title via another chain. As this loading takes a little while, frequent use should be avoided. So before setting up a Chain, make sure there is a cut off point in the title, such that once this point is passed, there will be no need to return to any previous stage (other than as a major event such as restarting a chapter or the whole adventure).

Just as any text or drawing can only have one Go to Page option, and inputting another will replace the previous (you can't go to two pages at once), likewise entering a Chain option will replace any previous Chain or Go to Page option.

4.6. Using Sounds

Sounds are used for effect and embellishment rather than for furthering the action. As such they can create an atmosphere and add liveliness to an adventure. Although in theory individual words could be used to build up sentences, in practice digitized sound takes up so much room as to make this impractical.

Sounds are executed as an option and can be played as a Page Entry option. This means that the sound will be heard immediately whenever the Page is displayed,

but will not be repeatable. A sound appropriate to the scene could be played at this point; the creaking of a door, ringing of a bell, cry of a bird or beast, or possibly the scream of a girl with a monster appearing at the beginning of the page.

Sounds can also be used as Text options, in which case they are played as soon as a highlighted text is selected, before anything else happens. It will only repeat if that particular text is available again and reselected. You could use this for emotional cries of anger, fear, surprise, enthusiasm, or for the cries of talking beasts. Finally sounds can be played on drawings as a Drawing option. The difference here is that they are directly repeatable.

As with all Drawing options, every time you click on a drawing with a sound option, the sound is played. Use sounds on drawings for animal noises or bells or fighting noises rather than for speech, otherwise the same sound will be played every time you want that drawing to have text. If you want a one-time scream on a drawing, insert an extra page and put the scream on the Page Entry option instead of on the drawing itself.

4.6.1 Sound Definition

Sounds can be added in two ways:

1. Copied from another Title, 'The Grail' or 'The Wolf' for example, or another Talespin adventure.
2. Imported from an Replay 4 sound file.

In most cases you will have to switch disks or drives for either operation. Do so before you click on *Copy Sound from another Title*, or *Import Sound from Replay 4 sound file*; as soon as you do so, the system looks on the current Drive folder for titles (.TAL files) or sounds (.SPL files). Select your sound and the system will (if necessary) ask you to re-insert your work disk. When you want to play the sound you will be asked to select a frequency. More information follows about how the sounds are sampled and about the frequency levels.

4.6.2 Creating Sounds

To create sounds yourself you must have Replay 4 and the accompanying software available from MicroDeal. This Replay system allows an ST user to sample a

sound via a microphone (typically on a cassette recorder) and then to replay it. The module is only needed to sample and modify the sound, not to replay it, which Tell-tale and Talespin do on their own. For details of how to use the module, read the Replay 4 manual. Here is just a brief description of how sampling works.

4.6.3 Sampling

Sampling basically does what its name implies: it takes a sample, a 'slice', of the sound being played into the microphone at regular intervals. Providing the 'slicing' is done often enough, playing back the level found at each slice at the same speed as that at which the sampling was done recreates the original sound. The higher the sampling rate, the better the resulting fidelity of reproduction. But here's the rub: if you double the sampling frequency, you double the amount of data that has to be stored. The Replay 4 range of sampling frequencies offers a choice of six between 5 Kilohertz (5000 samples per second of sound, giving a fairly coarse quality especially with any musical sounds) and 31 Khz (31000 samples per second). Talespin offers eleven levels between 5 Khz and 31 Khz to give you greater variety with each sound as regards playback.

4.6.4 Replaying

Unless you created the sound yourself and took note of the frequency level it was sampled at, you will not immediately know which frequency level will sound best. Once you have copied or imported a sound to your current title (or loaded the title on which the sound exists), play it at different frequencies to see which one is suitable for your purposes. That may depend on the frequency level it was sampled at. A man's voice sampled at 10 Khz is high pitched if played back at 15 Khz, whereas a man's voice sampled at 20 Khz is in 'slow motion' at 15 Khz.

4.6.5 Setting Sound Options

As mentioned before, sound options can be executed on drawings, text and at the entry to a Page. A sound can also be played several times on one option at different or the same frequencies, or different sounds can be played together. When you add a sound option, you will be asked to select the sound and a frequency. You will then be offered the opportunity to insert an additional sound, only this time you decide in which order the sounds will be played. Once you have selected the position, you then select the sound and frequency.

4.6.6 Sounds and Disk Space

Please note: sounds take up a lot of disk space. Look at the statistics on 'The Grail' or 'The Wolf' and you will see that each sound takes up at least 5K of memory, ranging up to 20K. So, unless you are unconcerned with disk space, be economical in your use of sounds. The number of bytes used depends on the sampling frequency as well as the length of the sample, with higher frequency levels using more bytes, which is the cost of the better quality. This is why it is not, in practice, feasible to use the sound option to reproduce dialog in spoken form, rather than seeing the written text on the screen.

4.7. Testing

Test everything you create using Normal cursor mode, and in User mode. Make sure you Restart the page you are testing to check out the Page Entry options. In Normal cursor mode while in Development mode, the system queries before executing any options, to enable you to check whether the options are correct and to avoid doing things you don't want to do, like Going to another Page. Assuming it works, Quit development mode and try it out as a user and see what it looks like without all the querying.

4.7.1 If It Doesn't Work

1. Check that all the correct variables, values, text windows, conditions and options have been defined and added to the appropriate drawings or text. Use the LIST operations for each item. If they are incorrect, alter them as below.

Text Windows: Edit Text

Text Conditions: Remove Text Condition and Add Text Condition

Text Options: Add/Replace Text Option

Drawing Conditions: Remove Drawing Condition and Add Drawing Condition

Drawing Options: Add/Replace Drawing Option

Page Entry Options: Add/Replace Page Entry Option

2. Check that the page has been set up correctly. If you have used LIST/SET variables to manually adjust the value of a variable when developing, make sure there is a Page Entry Option to set it to this value when the game is being played. Check for values being 'left over' from previous pages rather than being initialized on the current one. Check that you Restarted the page before testing.

3. Check the logic of your variables, conditions and options. For this purpose, particularly with a long story, it is a good idea to keep track of your variables on a flow chart along with the pages. There may be a logical reason why, for example, a drawing does not appear where and when it should. It could be caused by an omission or an error with the variable setting a few pages back.

4. To this end, check the references to any particular item using Locate Item from the top development menu. Locate Item will tell you which pages contain a reference to the item you are checking. Turn to that page and List the Page Entry options, text and drawing conditions or options to locate how the item was used.

5. If you have deleted an item, there may still be a reference to that item somewhere which will cause an error when you turn to the page containing it. Use Locate Item to search for references to any deleted items. Although they are deleted, they will still be held on the directory until a Backup is made (see below) and will only be removed once Backup has checked that no references to that item remain.

6. Note that if you delete a page, drawing, etc., you can recreate another page, drawing, etc., with the same name, but the system will not allow you to Rename a page to that same name, as it is still on the directory as being a Deleted item. Normally, you can just use a different name. However, in some cases, such as the page START, the name is important. The solution is either to use Backup (see below) or to create a new START page, rename that to something quite different and then delete it, so that the name START is now available. You can now rename your chosen page to START.

4.7.2 Testing the Whole Adventure

One way of testing an adventure, to make sure that there are no pages where the story would 'hang' or get stuck, is to let it *Autorun* overnight (see below for details).

AUTORUN

This facility is for debugging (removing hidden errors) and for testing demonstration titles, i.e. titles which can be distributed to demonstrate your adventure or sys-

tem. In *Autorun* (selectable from the Control Menu) the system runs automatically, clicking randomly on drawings and text windows.

As a debugging aid, set your title to *Autorun* and check every hour or so to see that the system has moved on to a different part of your title. If it appears to get stuck, quit *Autorun* by holding down the right mouse button until the Control menu appears and then check that your variables have not arrived at such a combination of values that there is no longer any exit from the page. As *Autorun* selects randomly, it will eventually cover all possible alternatives, including some that will probably not have occurred to you.

4.7.3 Demo Titles

Backup allows you to create a backed-up title in demo-mode, which means that on loading it will *autorun* automatically (and also be locked, so that no one can get into Development mode and interfere with your work). Rather than potentially give the whole of your adventure out as a demonstration, you may prefer to produce a cut-down version, which could also have the advantage of running on one disk (whereas your full length title could be spread over several disks).

Note that if your adventure occupies two or more disks (using Chaining), when the *Autorun* reaches the Chain option, it will ask and wait for the second disk to be inserted (or the Drive\folder to be switched) UNLESS the to-be-chained-to title is on the same Drive\folder.

4.7.4 Backup/Statistics

The Backup facility is a means of 'compacting' your adventure, using the disk space in the most economical way. It reclaims no-longer-used areas of the title file and releases deleted directory entries for further use. It also allows the directory to be enlarged if necessary. To explain, look at Statistics, which gives out details of directory and disk space usage.

4.7.5 Statistics

If you select Statistics, you will see displayed the number of entries in the Directory and total number of bytes used for each type of entry. The Pages, Drawings,

and Sounds, all highlight if you pass the cursor over them, and when selected will display the number of bytes used in each individual page, drawing or sound.

Statistics also tells you the total file size (including the room taken up by the directory) and the amount of room left on the disk.

4.7.6 Unused Blocks

If you have made any modifications at all in your adventure there will be unused blocks. If an original drawing (or page or sound) uses 1000 bytes and you then modify it, so that it now uses 1200 bytes, the modified drawing will now be added at the end of the file, leaving 1000 free bytes. A subsequent smaller drawing of, say, 650 bytes will be fitted into this slot, leaving a still smaller free block of 350 bytes and so on, until no more items can fit into this space. But there will, in all probability, always be a few bytes left over, where nothing can fit. Over time, the file will become more and more fragmented, with each unused block needing a directory entry to keep track of it. The number of unused blocks is noted on the Statistics screen, along with the total number of bytes used in these free blocks.

4.7.7 Deletions

These items, even though deleted, are still present in the directory, whether or not there are still references to them in your story. It is only safe to remove them once the system has checked that there are no references to them left; this relatively lengthy task is performed at backup time. Any Deletions remaining after a Backup indicate that there are still references to these items on one or more pages; use Locate Item to uncover these references.

4.7.8 Directory Entries Used

This refers to the total number of actual entries used in your title. In other words, Directory Entries Use is the sum of all the figures above the line, including the number of unused blocks and deletions.

4.7.9 Current Directory Size

The initial directory size is 128 and uses up 4368 bytes. If there are less than 64 entries left free, you will be asked by Backup if you want to enlarge on the current size in modules of 128 up to a maximum of 1024.

4.7.10 Backup

When you Backup a Title, the unused blocks are removed, as well as the Deletions, provided there remain no references to the deleted items anywhere in the title. Any items with references still present will remain on the directory, so it is a good idea for maximum economy to check this (using Locate Item) before doing a Backup. In this way a file size of 103433 bytes was reduced to 94160 bytes, about a 9% reduction.

4.7.11 How To Backup

Select Backup from the top development menu, and three types of Backup file will be offered to you:

- | | |
|------------------|--|
| Unlocked: | This means that, as currently, development mode is available for use. |
| Locked: | This means that only User mode is available, and Development mode will not be available on the Control menu, even in Talespin. This type of file is for commercial resale. For a completely automatic run, use an auto-loading product to self-load and run your Title with the supplied Telltale program. |

Autorun is disabled when the file is locked (i.e. Autorun will not appear on the Control menu), to prevent a user from selecting Autorun and discovering how to play the game from the not-quite-random selections (it selects from drawings with options or text windows on, even if these are very small and might not be noticed for a long time by the user).

Demo:

This is specifically for public demonstrations of your adventure. The system is locked and will Autorun on loading. As it is locked, only Autorun is available on that Title and you cannot run it manually or go into development mode. For a completely automatic run, use an auto-loading product to self-load and run your Title. Use the supplied Telltale program, having Backed-up your Title as a Demo file. When the machine is switched on, your Title will automatically load and Autorun. If anyone should stop the Autorun the only options open are to Choose Title (should there be any other Titles on that disk) or Find a Placemark (which you can supply, as reviewers often prefer to jump from place to place in an adventure rather than having to work their way through it).

4.7.12 Enlarging the Directory Size

If, on your current directory, there are 64 or less free entries left, you will be offered the possibility of increasing the directory in size by 128. The directory can be enlarged only in modules of 128, each module using an extra 4368 bytes, up to a maximum of 1024 entries.

4.7.13 Completing Backup

Once you have selected the type of Backup file, you will need to name it. If you are backing it up on to the same Drive\Folder, you will need to choose a different name from the current one; as long as you keep the .TAL suffix, you can rename it later (using Show Info under GEM). The Backup file will then be saved; it will take a little while as it will be re-writing the complete file and checking on references to any deleted items throughout the story. Once this has been completed, you may want to exit from the current Title and select the backup Title to see how much space has been saved and to use it further. Unless you wish to retain both the original file and the Backup file on your disk (probably the case with a Demo or Locked file), you will also need to delete the original file. BEWARE! always keep an un-locked version of any Demo or Locked titles; failing which you will never be able to correct any unforeseen bugs or make any changes.

PLEASE NOTE that the Backup operation requires both the source and destination titles to be on-line simultaneously; disk-swapping is NOT allowed.

This means that if you have a double sided disk drive, you can Backup a single sided disk size adventure, having both source and destination titles on the same disk. Alternatively, if you have 1 Megabyte or more of memory, you could use 400K or so of it as a Ram-disk and Backup to or from this. However, there is not enough memory available for a Ram-disk on an unexpanded 520. If you have a 520 ST with one single sided disk drive only, Backup can only be executed with adventures using up to half the available disk space (175K); perhaps it's time to go and get a second disk drive?

Chapter 5

5. Chapter 5: Writing an Adventure

Writing a full length adventure requires thought and planning. You can start with just one page and build on that, allowing your imagination to take over. Some writers prefer to do this and work out the sequences as they go along. Although Talespin permits this, things can get complicated later as choices affect previous scenes and variables. A lot of editing will become necessary. You may also find that you are using many more drawings and backgrounds than you need. Planning your storyline in advance is much more efficient in time and disk space.

5.1. Planning an Adventure

5.1.1 The Storyline

First decide what your adventure is going to be about: the basic storyline, the participants and what the ultimate goal will be. One way of starting is to lay out the direct route from the beginning to the end of the adventure (which could, for example, be a simple classical tale such as Little Red Riding Hood) and then add in detours and sub-plots to turn a trivial story into something more interesting. With just this example in mind, and as a means of illustrating the creation of a more complex story, we have included a title file called WOLF.TAL on the Program disk, which will serve as the basis for the rest of this chapter.

Should you wish to practice writing an adventure of your own using drawings that have already been created, you could copy WOLF.TAL on to your own disk, renaming it to something more appropriate. (Remember to use the .TAL suffix, Talespin and Telltale won't recognize a file as a Talespin title without it.) Then delete all pages and variables from WOLF.TAL, leaving just the drawings and sounds. After you've completed your own adventure, you can delete any unused sounds/drawings and then Backup the title to reclaim any unused file space. Otherwise you would have to copy each drawing separately from the WOLF title on to your own disk. Note that all the WOLF drawings use the default palette, so any additional drawings with different palettes may not be compatible. If this is the case, you may have to swap some colors around.

5.2.**The Wolf File**

The WOLF title was originally the first test story created by Rudyard Heaton while Talespin was still in development. The file contains all the drawings required for a basic Red Riding Hood story with one or two variations, such as the inclusion of an extra character, Jack, who could change the course of events. Also, the possibility of a murderous huntsman is introduced with the drawings HUNTSMAN BEHEADING RRH and RRH HEADLESS. Use all these drawings to create your own version. Examples will be used from a variation of this tale in this chapter.

5.2.1 Planning Disk Space

With any adventure you need to pay attention to using your disk space efficiently. Otherwise you could find that you have used up a whole disk with relatively few drawings, pages and sounds. Looking at the Statistics screen of 'The Grail' or 'The Wolf' you will see that sounds take up the most space. One approach would be to add sounds at the end of development phase at appropriate places depending on how much space you have left. Of course, this would depend on how essential sounds are to your story.

Next in terms of byte-greediness come drawings. Drawings take up far more space than pages. Adding a drawing to a page uses only a few bytes compared to the thousands that the drawing itself can take up. So plan your pages carefully. Use the same drawings on many pages in different combinations. Using one large drawing as a background may sometimes be necessary, but you can often split it up into component parts (for example, separate houses in a street scene) in order to be able to use the component drawings more than once. Within a town or a house, the scenes can change drastically from one to the other, so it is not so easy to keep on using the same drawings. However in forests and other rural backgrounds, the same collection of drawings can be used in many different ways to create different looking scenes. Using the WOLF drawings, 5 different forest scenes were created, ranging from a bright green meadow with a couple of trees to a dark and mysterious forest. However, for the Cottage Outside and Inside scenes, full screen drawings were used.

If the adventure is to last at all, (which 'The Wolf' doesn't) it is generally necessary to make the scenes revisitable (the player is allowed to return to any page several times), using variables and conditions to create different appearances and dialog according to events that may have happened elsewhere in the story. The

question only becomes: to what length are you prepared to go to make a page look different on subsequent visits?

On a simpler level, in 'The Wolf', pages INSIDE COTTAGE and RRH MEETS HUNTSMAN are re-used as the same places but with different variable values controlling the text and drawings, depending on whether the wolf is about to be killed, has been killed, or has been adopted as an ally. Similarly, page SETTING OUT differs according to whether Jack has been met or not.

In bigger adventures you can have characters repeatedly returning to a scene as in a maze, where it is easy to move in circles, or in a town where a failure to make the best choice can result in a return to a previous stage in the adventure.

Pages, however, apart from the text they contain, consist principally of 'pointers' to the drawings and sounds they use. Thus, they are economical in space usage. Although it's possible, it is generally not worth while making a page fulfil lots of different functions. The danger being that the page becomes incomprehensible and impossible to make any changes to without getting tangled up in knots of logic.

Limit the number of drawings of each main character that you need. Remember that each drawing can be reversed, shrunk and palette-swapped to appear different. For crowd scenes you can use only a few characters over and over again. The WOLF drawings include 7 versions of the wolf, 6 of Red Riding Hood and 5 of the huntsman.

5.2.2 Structuring the Game

Providing structure for your game consists of two parts. First the unfolding of the game in terms of the goals achieved as shown by the values of the different variables. And second, the sequences of pages, as in a comic strip.

The minute-to-minute situation, to which the player must react, is determined by what is on the screen but the actual state of gameplay, that which determines winning or losing, is governed by unseen variables, controlling the overall flow of the game. The interplay between these two parts creates interest. Use too much of the former and the game will seem superficial; too much of the latter and the game will be too abstract.

5.2.3 Variables and Values

Variables control the action and determine whether the adventurer can win the game. They can be used in two main ways: to determine a winning status, and to determine the actions leading to that status. It is a good idea to plan out the first type of variable before you start. Decide which variables are going to be the criteria for success. For example, in the WOLF tale the criteria for success are intelligence and attractiveness, (i.e. Red Riding Hood had to be smart to get away from the wolf and seductive to entice the huntsman into killing him for her). The variable INTELLIGENCE was used with values CLEVER and PATHETIC, and RRH CHARM with values APPEALING and REJECTING.

One tip – it is also useful with characterization variables to include a neutral value (in this case UNMEASURED and NORMAL respectively) in order to set the variable on the START Page Entry Option. If you leave them undefined at the START, and the game is played more than once (assuming you include some sort of loop back to the start from the end to save the player from having to reload the whole adventure) then the values will remain as they were at the end of the previous game. However, if you want players to be able to return to the beginning of the adventure without changing any variable values, it would be best to have some other page, perhaps a title page, called START on which the variable values could be initialized and which could perhaps do a Page Entry Goto option to your adventure-beginning page.

The second type of variable which determines the text, enables pages to be revisited and controls most of the action can be planned out first. You may find the need for others to be added while you are developing the story. The variable CONVERSATION or DIALOG, with values LEVEL 0 and up, is one means of controlling conversations and will be essential unless you do not intend to have any two way dialogs.

Some variables will be obvious to you before you start, others may occur to you as you build up the page sequences. Variables with values MET and NOT MET or PRESENT and NOT PRESENT are useful for revisiting pages and determining whether drawings of accompanying characters appear or not; also variables with values DEAD and NOT DEAD (as with the WOLF drawings) where various endings or branchings are possible depending on who is dead!

Other useful variable values can be SEEN and NOT SEEN for hidden objects, OBTAINED and NOT OBTAINED for objects or qualities necessary to win the game. In a maze, the variable FROM is useful. What happens next can be dependent on

which page the hero/heroine has just come from. This entails a fair amount of setting up on all the possible 'came-from' pages, though.

5.2.4 Outlining the Pages

At this stage there are two ways of implementing your adventure:

- A. Sketching in all the Pages first, with rough drawings and skeletal text.
- B. Completing each Page in its entirety before moving on to the next.

The first method is more professional, in the sense that it implies that you have a complete grasp of the whole story in the abstract, just as a professional programmer should have an abstract overview of the system before attempting to write any of the code in detail. This system is more likely to produce a bug free story and will be more economical and precise in its mechanics.

Some professionals, however, in any creative field (including computer programming) prefer to use the second method as it is more flexible and allows for more spontaneity. This way of creating is more concrete and detailed initially. It is more immediate. You can see some results almost at once, and as such is more satisfying. But it does require a lot more editing and having to remember or take note of details that have to be added later. It is more prone to error and you will find yourself abandoning work that you spent many hours on as you find it no longer fits in!

5.3. The Scientific Method

If you use the Scientific Method, a flow chart is helpful. Start with a simple chart indicating which pages will go where, and expand it later. Later, include a chart of how the variables change and where. With a maze, a diagram is essential. Otherwise even you will get lost.

Assuming you have drawn up a flow chart, start by creating all the necessary pages. Obviously if you are using the WOLF file you only need to add the appropriate drawings to each page, just the character drawings and something as a background. Add enough for all the pages in the story or section of a story to be available on screen. If you're starting from scratch, just sketch in outlines of the characters and very basic backgrounds, enough to be able to distinguish one page from another.

On those pages which will have conditional drawings, put all of them on the page, so you can see clearly where to add the conditions.

5.3.1 Variables

You now have all the pages in skeleton form, so you can now organize your variables. Use your flow chart to decide which variables and values will be necessary for the action. You may find it useful at this stage to draw up a second flow chart showing which variables are set to various values at different stages.

5.3.2 Building up the Pages

With the complete plan at your disposal you can now build up each page in its entirety, starting with the drawing conditions. Add the text, text conditions and options for each set of conditional drawings. Then alter the necessary variable for any other conditional drawings to appear on the page, and complete the text and so forth for these.

Alternatively, on pages with several drawing conditions you can add all the text, text conditions and options on all the drawings and only add the drawing conditions afterwards, so you don't have to keep changing the variables to work with a different drawing. With complicated pages, you may find it helpful to draw up a plan of the page so you don't leave anything out. That way you can see at a glance what needs to be done.

Keep track of what you are doing on your variable flow chart, expanding it if necessary. Test each page and then the whole story. Finally, perfect the drawings and layout of the pages. Note that if you REPLACE a drawing, the text attached to the first drawing will reappear on the second drawing. If you don't want the same text REMOVE the first drawing and then ADD the second drawing.

5.4. The Artist's Method

As mentioned before, this method is more immediate, and requires less forethought and patience. The tricky work comes later fitting all the pieces together. This is the method used in Chapter 3 describing in detail how to create a mini 3 page story. The longer the adventure, the greater the need to pre-plan, so this method is more suited to shorter adventures.

Start with the first page. Add the desired drawings from 'The Wolf' or create your own. Create the variables you have decided on so far, and add in the texts, conditions and options as far as you can. You will not be able to add in any *Go To Page* options as the pages ahead have not been created yet. Make a note of which ones to add in later. Then carry on with the next page of the story, creating any new variables or values where necessary. As you go on you may find it helpful to draw out a flowchart to show the variables and conditions that you have created so far, noting in red the items you need to add in later. It's probably easier with this method to stop after every few pages and go back to put in the *Go To Page* options and any new variables, values, or *Set Variable* options, than to wait until the end.

Continue through the story, going back to previous pages as indicated on your flow chart and adding in any new items, sculpting the adventure into a form you like as you progress. Where a page 'becomes' revisitable and you add in different drawings with conditions to handle the subsequent visits, make sure that you add conditions on to the original set of drawings as well, so that they disappear to make way for the new set. Make sure that the *Page Entry* options are set correctly. If the page is highly complicated, it might help to make an outline of it.

5.4.1 Sounds

Finally add in the sounds, either from the Library files, or make your own if you have Replay 4. Check your disk to make sure you have enough space.

5.5. Final Testing

The best type of testing is to get a friend to play the game. Even better is to get several friends to play. Different people will react differently, and what may be obvious to one may not be so to the others. Avoid prompting them. Watching their mistakes is much more useful than having them solve the adventure quickly.

Testing every possible combination of circumstances is a long process. Autorun can help (see previous chapter for details) as it plays at random, and will (at least in theory) eventually play every possible combination. Your task is then to check every so often that the game has not gotten locked in a loop (the same few pages endlessly repeating) or stuck on the same page. If the system does appear to be bogged down, go into Development mode and prove to yourself that there is an exit from the situation. It may just be so improbable a combination of choices that it would take the random selector 100 years to hit on it. For example, if on three

connected pages you have five texts of which only one gets you to the next page (and all the other choices return you to the first page), then it will on average take 125 purely random attempts at the whole thing to get through.

5.6. Running Out of Space

It can sometimes happen that you run out of space unexpectedly in the middle of an operation – for example, you cannot copy a sound, or worse, you have made changes to a page, but cannot move on to another page or exit from the page at all without losing the changes. In such a situation, losing your last changes may be inevitable. Keep a running check on the space left on the disk you are using and the space left in the title directory. Statistics gives details of both of these.

If you do find yourself without disk space, see if there are any files you can delete or copy to another disk. If this fails, you may have to consider restructuring your story to fit onto two or more disks, using *Chain* to go from one to the other.

This is not a trivial change, as chaining is equivalent to loading a new title and takes a little while. The space gained is only partial as any drawings that you want in both parts of the adventure must be present in BOTH titles. Chaining is best employed at decisive ‘breaks’ in the story, from which no return to previous stages is expected. If you have run out of ‘directory’ space, you can expand or reclaim this by executing Backup (see previous chapter for details). Incidentally, this will also reduce the title file size if it contains any unused space.

5.7. Large/Commercial Adventures

When writing an adventure for commercial purposes, plan the use of your disk space carefully. A commercial adventure will need to be sent out with TELLTALE on the disk, which takes up 50K of memory. For a single sided disk adventure, this leaves you roughly 300K for your story.

For larger titles with two or more disks, you can either put the first part of the adventure on the first disk along with TELLTALE, and then chain to the second disk and so on. OR, you can create a START Title with a page of titles and credits on the TELLTALE disk and automatically chain to the second disk (via a Page Entry option). This will allow a START page to show on the screen while the second disk is loading. At the end of the second disk, you could always chain back to the TELL-

TALE disk, to a third title, to complete the adventure. [The commercial release of ‘The Grail’ was done this way.]

The point to emphasize is that you need to design in your ‘chain’ breaks from the start. Each disk is self-contained, chaining transfers only the variables and values from one disk to the other. So, having chained, you cannot then return to a previous page without reloading the first disk. Decide on a place to break the story so that the first part is complete and cannot be returned to, or recreate any necessary previous pages on the second disk. Unless you have already added them, remember to keep enough space on each disk for any sound effects.

5.7.1 Autobooting

Autobooting means a story is ‘self-starting’. In other words, the user needs only to put the disk in the drive and switch on the machine (or reboot). As mentioned in the previous chapter, you cannot run a Talespin title automatically using an Autofolder, which only works with .PRG files (which assume GEM is present), whereas Talespin uses .TOS files (which don’t use GEM). However, there are commercial products with which you can autoboot any file. Alternatively, you can shape a small window on the desktop to show TELLTALE.TOS (and save DESKTOP.INF). Have the player double click on this Icon to boot your title (which must be called START.TAL). The version of your title that is for release should be backed up in ‘Locked’ mode (unless you want other Talespin users to be able to change your work around). Needless to say, you should keep an unlocked version for yourself.

5.7.2 Demos

To send out a demo, Backup your story in Demo mode, either full length, or as a shortened version.

5.7.3 Quick & Aborted Title Loading

To abort loading a title in Talespin (not Telltale) or simply to save time on loading, you may press the Right mouse button while the title is loading. This aborts the pre-loading of drawings and sounds and the title will finish loading much more quickly. At this point, no page will show, just a blank screen with the control menu. You can either load another title, or, if you switch to Development Mode, you can

then use *Turn to Page* to load the page you want. This does mean, however, that on machines with more than 512K of memory, the transition from one page to the other will take a little longer as all drawings and sounds have to be loaded as each *Go to Page* option is executed. On smaller memory machines, where there wasn't enough memory to load many of the drawings or sounds anyway, it doesn't make that much difference.

5.7. Large Commercial Adventures

The first time you load a large commercial adventure on a hard disk, which takes up 20K of memory. For a single night you have you roughly 200K for your own use.

Click a *Loaded File Loading* button. The first time you load a large commercial adventure on a hard disk, which takes up 20K of memory. For a single night you have you roughly 200K for your own use.

5. Chapter 6: Other Uses of Talespin

as well as being a games development system. Talespin has many other uses in the fields of business, industry and education. It can be used for any application requiring inter-linked graphics and text (and sound), but its main advantage lies in the fact that Talespin can be used by non-programmers. Experts in their field can bring with a graphic artist if necessary, from design to implementation or teaching applications without requiring a professional programmer. At the other end of the scale it is easy enough for children to use: a 7 year old has created a simple three page story with just a little help, which opens up many opportunities in the field of education.

Chapter 6

A distributor such as this could be designed as a system for product information, sales promotion or advertising the various changes, or allowing interested customers to inform the store about which they'd like to know more. It could be done in the following way:

Create a drawing of the car in simple form, and then create further drawings of the different parts of the car, the hood, trunk, doors, wheels, and so forth. It is necessary to have the different drawings lined together either with the help of drawing lines or by using a grid. You can divide the parts of the car. Then add appropriate text to each part with perhaps a *Go to Page* option to a further page for more details, or a *Go to Page* option could be added directly to the part drawing itself without any intervening text.

6. Chapter 6: Other Uses of Talespin

As well as being a games development system, Talespin has many more uses in the fields of business, industry and education. It can be used for any application requiring inter-linked graphics and text (and sound), but its main advantage lies in the fact that Talespin can be used by non-programmers. Experts in their own field (along with a graphic artist if necessary) can design demonstrations or teaching applications without requiring a professional programmer. At the other end of the scale it is easy enough for children to use (a 7 year old has created a simple three page space story with just a little help), which opens up many opportunities in the field of education.

Some possible uses for Talespin could be:

Sales

Example: To Illustrate the Features of a Car

A demonstration such as this could be displayed in a showroom for potential customers, either Auto-running to advertise the various features, or allowing interested customers to choose the items about which they'd like to know more. It could be done in the following way:

Create a drawing of the car in skeletal form, and then create further drawings of the different parts of the car, the hood, trunk, doors, wheels, and so forth. It is necessary to have the different drawings fitted together rather than one large drawing, so as to be able to add text to individual parts of the car. Then add appropriate text to each part with perhaps a Go to Page option to a further page for more details, or a Go to Page option could be added directly to the part drawing itself without any intervening text.

These further pages would consist of that particular car part in greater detail and explanatory text; for example, a view of the engine in which once again each part could either yield information or lead on to further pages. Additionally, if full sized drawings of each part were made, then the 'assembled' versions could be built from reduced instances of each of the drawings.

In this way the design of a car could be unfolded on the screen, either using Demo mode (Auto-run) so that the sequence can run automatically in a showroom, or 'locked' mode requiring a user to click on highlighted texts.

Training

This example could be expanded further to include a teaching element. As in adventure titles, the system can ask questions and offer multiple choice answers. An answer, when clicked on, would go to another page (by adding a Go to Page option to that text), which would illustrate the answer (right or wrong), offer explanatory text, and so on. By using variables and conditions the user's progress can be charted, and he or she would only be given the possibility of advancing to a higher level, once the previous level had been satisfactorily completed. This can be assessed by having various grades of values attached to the variables used to chart this progress (for example a variable ACHIEVEMENT could have the values 1 - 5 or A to E perhaps, with 5 or E signalling the completion of this level), the values being upgraded by putting in a Set Variable to Value option when the right answer to a question has been selected. At the end of this section a condition would be added to the text with an option which offers advancement, so that it only appears if the value of that variable has reached the highest grade.

Servicing

A similarly structured title could graphically illustrate part numbers, allowing servicing personnel to quickly arrive at the level of detail required. Additionally, any changes can be easily made and distributed on a single re-usable floppy disk, obviating the need for expensive print runs. The sound facilities of Talespin could be useful in servicing many kinds of electronic equipment, which emit different 'beeps' to signal different states. Talespin could actually create the sound, far superior to trying to describe it in words! Talespin can also handle the language barrier, as a simple variable LANGUAGE could be used as a condition to select texts in the corresponding language.

Education

To Teach any Subject

In schools Talespin would be an efficient and fun way of teaching children, and not just about computers!

In fact Talespin could be used to design teaching applications in any subject, history, geography, maths etc. To take a simple example in mathematics, a sequence for teaching the four basic skills would consist of four pages, one for adding, one for subtracting, one for multiplying and one for dividing. On each page there would be many small drawings or icons, each one with a multi-choice question on the drawing text in ascending order of difficulty.

Initially, only one text would be available. The next text would only appear once the first question had been successfully answered. This could be achieved using a variable (say QUESTION) and values (LEVEL 1,2, 3 and so on) and text conditions in the same way that the variable CONVERSATION was used as an example in the earlier chapters to create two way dialogues. [i.e. by putting a text condition on the first text so that it only appears if variable QUESTION is value LEVEL 1 (having set QUESTION to LEVEL 1 as a Page Entry option), and then setting variable QUESTION to LEVEL 2 on the text with the correct answer, and so on with all the drawing texts until the final question was answered successfully].

A wrong answer could have a Go to Page option, going to an 'Adding Error' page with an ERROR icon which, when clicked on, would inform the pupil of this fact and then return him or her (via another Go to Page option) to the original ADDING page.

Having completed a page of adding, a Go to Page option on the final successful answer would send the pupil to the second page called SUBTRACTING. At the same time a Set Variable to Value option could record the pupil's progress. A variable ADDING LEARNT, initially set to NOT ACHIEVED could at this point be set to ACHIEVED; additional variables for each of the four pages would be set in the same way once the pupil had completed each page.

A final 'score' of the pages successfully completed in a certain time could be presented in the following way: add an extra drawing on each page to indicate the time, maybe a clock, which will be clicked on when the lesson is over. Add a Go to option to this 'clock' to go to a final page which would present the 'results'. This could be done in several ways with texts (stating Adding Learned, Multiplying Learned, etc.) or drawings (symbolizing these skills, or as a bar chart), the appearance of the text or drawing being conditional on the different variables ADDING LEARNED, DIVIDING LEARNED, etc. having been set to value ACHIEVED during the lesson. The amount learnt can be broken down into smaller levels using different values (QUARTER LEARNED, HALF LEARNED, THREE QUARTERS LEARNED, etc.).

To Teach Computers This is just a simple example to give you an idea of how Talespin could be useful to teach any subject, although its most obvious use is in teaching computer technology itself.

In teaching computer or information technology, although not all pupils will actually learn how to program, most will learn about the technological age we live in, the part that computers play in it, and will have the opportunity to use a computer. Talespin offers a wide range of possibilities for teaching the logic and design of computers in a non-technological way which will be fun for those not interested in learning a programming language. Designing a Talespin system only involves clicking the mouse on windows and texts (the only typing necessary is to name pages, drawings, variables etc) and is easy to pick up. A beginner can make a couple of simple shape drawings and create a page fairly rapidly, producing a quick, visible result, which always aids motivation! The logic of adding texts and options is easy to understand, as are the concepts of variables and values when they are put into context.

Once the pupil has grasped the basic logic of a simple sequence of pages, he or she can start designing his or her own project. The student will discover through experience the logical way in which computers work (for example, it is necessary to set a conversation type of variable to LEVEL 0 at the entry to a page, (in case it had reached LEVEL 3 on a previous page), as the system won't automatically 'remember' this fact). This 'project' can expand to a highly sophisticated system, useful in its own right, as well as an easy, efficient and fun way of finding out how computers work!

Conclusion

These are only a few general ideas for other uses of Talespin. This system has many other, more specialized uses, which will become apparent as its availability spreads to experts in different fields of knowledge.

Chapter 7: Reference Section

7.1. Control Menu

Chapter 7

- Change & Load Title** This will select and load (or reload) a Title from the current disk or folder. You may have a choice of one only, or one of several, or of several, or on the Program disk.

NOTE: Not any title called START.TAL will be automatically loaded when either Talespin or Telltale is first run.
- Create New Title** Requests the new title name (up to 3 characters long) and takes you directly to Up-Upgrade mode - see Chapter 2 & 4.
- Get File Extension** This function enables you to save your files in any other binary file extension, while retaining an extension such as 'The Grid'.

If you click on this menu you will be asked for a file name under which to save your current position on disk. Type the name and press RETURN. This will set your title to this page. (Clicking outside this window will abort this operation.)

7. Chapter 7: Reference Section

In this chapter the items on the Control Menu, the Development Menu, and the Drawing Menu (in that order) are listed, with a brief description, as they appear on each menu. For alphabetical location of these items, see the index.

7.1. Control Menu

This is a list of all the possible operations in 'User' mode (as opposed to Development mode). If Talespin has been loaded, all the operations are available. If Telltale has been loaded, the following three operations do not appear on the Menu – *Create New Title*, *Switch to Development Mode* and *Autorun*. If the title is 'locked', *Switch to Development Mode* and *Autorun* are not available.

Choose & Load Title This will select and load (or re-load) a Title from the current drive or folder. You may have a choice of one only, as on the Grail disk, or of several, as on the Program disk.

Note that any title called START.TAL will be automatically loaded when either Talespin or Telltale is first run.

**Create New Title
[not in Telltale]** Requests the new title name (up to 8 characters long) and takes you directly to Development mode – see Chapters 3 & 4.

**Set Placemark
at this Page** Placemarkers enable you to save your place at any point in any title, for instance, while playing an adventure such as 'The Grail'.

If you click on this item you will be asked for a file name under which to save your current position to disk. Type in a name and press return. This will set your place at this page. [Clicking outside the window will cancel this operation.]

- Find Placemark** This will list all placemarkers on the current drive\folder. Clicking on one of them will return you to the place in the game at which the placemaker was saved. You will receive a warning message should the placemaker not 'belong' to the currently loaded title. In other words, it was saved from another title.
- Erase Placemark from this Disk** Use this to clear out any placemarkers that you no longer require. Click on the name of the file to remove.
- Select Drive\Folder** This operation is especially applicable if you have a second disk drive (Drive B) hard disk (Drive C), or a Ram disk. Here it allows you to select a different drive or folder for loading a title or finding and setting placemarkers.
- Switch to Development Mode** Once a title is loaded, provided it is not 'locked' ('read-only'), you may go into Development mode to investigate, make changes or browse through the drawings and sounds when the title is used as a Library file. You will see a different Control Menu. For details of the menu in Development mode see below.
- Autorun** This mode allows a story to be played automatically, making random selections. It can be used either to view the 'Demo' mode or for testing. It is not available with Telltale, or if the title is 'locked'. To stop Autorun, hold the right hand button down until the Control Menu appears. For full details see Chapter 4.
- Help** This will give you Help messages relating to the Control Menu containing most of this information. It is mainly intended to assist users of Telltale. Click outside the window to cancel.
- End Session** Click here if you wish to stop playing or developing. Click on the highlighted *Confirm End Session* message to return to the Desktop screen. If you have clicked on End Session in error, just click outside the window to cancel the operation.

7.2.

The Development Mode Menu

In Development Mode, you may make changes to existing titles and expand new titles. At the top of the menu is the name of the title and the current page. Although file names are limited in length to only eight characters, all other names in Talespin may be up to 64 characters long.

Drawing Definition There are several ways of defining drawings in your Title:

1. *Create New Drawing* and use the Talespin drawing facilities. See below under the separate section 'Drawing Menu' for details of these.
2. *Modify Drawing* to make changes to an existing drawing.
3. *Copy Drawing from this Title*. You may give it a new name and make changes to it, leaving the original drawing unchanged. This is useful for drawings that are similar.
4. *Copy Drawing from Another Title* (such as 'The Wolf', 'The Grail', 'Start' or 'Alphabet'). If the title is on another disk, insert that disk first before you select this operation. You will be asked to select a title and drawing in turn. When you have selected the drawing to be copied, you will be asked to replace your original disk in the drive. If the drawing is on a disk in a different drive, switch the drive using *Select Drive\Folder* from the Drawing Definition Menu before clicking on *Copy Drawing from Another Title*. You may then modify the drawing in the usual way. Note that the system will save the drawing under the same name as it had on the other title. You are only asked for a new name if the existing one is in use.
5. *Import Neochrome Picture* – Refer to the next entry.

6. *Import Degas Picture*. Providing you have an already created Neochrome (.NEO) or Degas uncompressed low-resolution (.PI1) file, you may import it using the 'import' operation. It works in much the same way as the 'Copy from other Title' operation, only you don't get asked for a title name. Note that the Neochrome or Degas file will take up 32K on your disk, although the number of bytes used will be reduced considerably when it is imported into your Talespin title, as Talespin 'compacts' all drawings. This 32K file will still however remain on the disk, so you will probably find it useful to delete it when you have ended a session and returned to the desktop.

A note about Palettes: you may well find that the palettes of the drawings being copied or imported will not be compatible with the rest of the page upon which they are to be used, so you will have to adjust the colors using *Swap Selected Color* (see below). The first and last palette entries are always reserved in Talespin for black and white respectively. (This is the default palette for Neochrome, but not for Degas.) If Talespin finds that these palette entries are not as expected, it will set them to black and white respectively, and inform you of this fact, giving you the opportunity to abort the import. Talespin will save the drawing under the same name as that of the .NEO or .PI1 file, querying you only if this name is already in use.

7. *Rename drawing*. This allows you to change the name of a drawing throughout a title. Used, for example, when you created a drawing LITTLE GIRL only to find out later it was really MATURE WOMAN. Note that you cannot rename a drawing to a name that has been deleted (see next entry).

8. *Delete drawing*. Removes a drawing permanently from a title. However, as references to that drawing may still exist on various pages, the deleted drawing will nevertheless remain as a directory entry until the title is Backed up (see below under Backup). For this reason the system will not allow you to rename a drawing to the name of a deleted drawing (use a different name). [You may re-create a deleted drawing, and, if required, rename it to something else in order to 'liberate' the desired name.]

9. *Select Drive\ folder*. Used to select a different drive or folder from the current one; in this case, for copying drawings from different places.

Page Definition

Pages are the basic units of Talespin. Note that if a page called START exists on a title, then this page will be displayed immediately whenever the title is loaded. The operations possible on whole pages are:

1. *Create New Page*. This creates a blank page with no drawings and returns you to the Development menu ready to add in drawings etc.

2. *CopyPage*. This allows the duplicating of whole pages in the current title. You are asked for the new page name. Note that a copied page will retain the text conditions and operations of the original page.

3. *Rename Page*. This allows you to subsequently change the name of a page. Note that if you delete a page the system will not allow you to rename a page to the deleted name as it is still on the Directory (see also Backup below). You can recreate another page with the same name. With most pages, you can just use another name; but with a START page which is automatically loaded, this may not be possible. The solution is to create a new START page, rename it to something else and then delete it, so that the name START is now available. You can then rename your chosen page to START.

4. *Delete Page*. Completely removes a page from the title.

Sound Definition

This menu is used to load sounds into your title. Talespin itself has no facilities for recording sounds since special hardware is required for this (e.g. Replay 4 from MicroDeal). The operations in this menu are:

1. *Copy Sound from Another Title* (e.g. The Grail or The Wolf). If the title is on another disk, insert that disk first before you select this operation. You will be asked to select a title and sound in turn. When you have selected the sound to be copied, you will be asked to reinsert your original disk. If the sound is on a disk in a different drive, switch the drive using *Select Drive\Folder* from the Sound Definition Menu before clicking on *Copy Sound from Another Title*. Note that the system will save the sound under the same name as it had on the other title. You are only asked for a new name if the existing one is in use.

2. *Import Replay 4 Sound File*. If you have a Replay 4 module (available from MicroDeal) you can sample your own sounds and import them to your title. (Note that the sound file must have the suffix .SPL for it to be recognized as such by Talespin.) If the file is on another disk, insert the new disk (or switch the drive if the disk is on another drive) before selecting *Import Replay 4 Sound File*. You will be asked to re-insert the current disk if it is necessary. Talespin will save the sound under the same name as that of the .SPL file, querying you only if this name is already in use.

3. *Play Sound*. This allows you to hear any of the sounds present on the current title without going to the trouble of putting a *Play Sound* option on a page first. It asks you for the speed (in Kilohertz) at which to replay the sound. For correct reproduction, this should be the same frequency as that at which the sound was originally sampled. Other frequencies may be used to create special effects.

4. *Rename Sound*. This allows you to change the name of a sound throughout a title.

5. *Delete Sound*. Removes a sound permanently from a title. However, as references to that sound may still exist on various pages, the deleted sound will nevertheless remain as a directory entry until the title is Backed up (see below under Backup): for this reason the system will not allow you to rename a sound to the name of a deleted sound. [You may however re-import or copy a deleted sound, and rename it to something else in order to 'liberate' the desired name.]

6. *Select Drive\Folder*. Used to select a different drive or folder from the current one; in this case, for copying sounds from different places.

Variable Definition

This menu is used to define variables and their values. They are used to control whether or not drawings and text appear on a page.

The possible operations on this menu are as follows:

1. *Create New Variable*. You will be asked for a name for the variable (up to 64 characters long) and then the system will ask you for any possible values that this variable may have. Note that in Talespin variable values are words, such as HOT and COLD, not numbers; they therefore must be explicitly defined. Click outside the window when all the values you currently require have been entered, which will return you to the Variable Definition menu. [Right clicking takes you back to the Development menu.] Note that when a variable is created, along with its possible values, the variable will remain 'undefined' (not set to any particular value) until it is explicitly set to a value using either *List/Set Variables* or a *Set Variable to Value* option.

2. *Rename Variable*. Use this to change the name of a variable throughout the title. Note that you cannot rename a variable to a name that has been deleted (see entry below).

3. **Delete Variable.** Use this to remove a variable from the title. However, as references to that variable may still exist on various pages, the deleted variable will nevertheless remain as a directory entry until the title is Backed up (see below under Backup). For this reason, the system will not allow you to rename a variable to the name of a deleted variable. You may however recreate a deleted variable, and then rename it to something else in order to 'liberate' the desired name.

4. **Add New Value.** Used to add extra values to a variable, after that variable was initially created. The system will ask you to select the relevant variable and then to enter the new value. You are offered the opportunity of adding as many new values as you wish, until you click outside the window to return to the Variable Definition menu.

5. **Rename Value.** Use this to rename a value throughout the title. You will be asked to first select the variable to which the value belongs and then the value itself. See under 'Delete Variable' above for remarks about re-using deleted names.

6. **Delete Value.** This removes a value permanently from the title. See 'Delete Variable' above for remarks about re-using deleted names.

Turn to Other Page

This is a way of manually moving from one page to another. If you have altered anything on the first page, the system will query whether you want to discard the changes made to that page: click OUTSIDE the window to save the page with the changes; clicking ON the window throws the changes away.

Add Drawing to this Page

Select the drawing to be added. Once the drawing has appeared on the page, you may immediately move it by passing the mouse over the drawing, holding the mouse button down and moving the mouse to where you want the drawing to go. An outline will follow the mouse and when you release the button, the drawing will be recreated in that position. [This is because the Add Drawing operation puts you straight into 'Move Selected Drawing' Cursor mode.] You may add up to 64 drawings to a page, including the same drawing several times over if you wish. Note that the palette of the first drawing added to a page is adopted by the page.

Modify Page Palette

There are three ways of modifying the colors on a page:

1. **Copy Whole Palette from Other Page or Other Drawing.** Note that any palette entries which are BLACK (color 000) on the other page or drawing will not be copied across, leaving the corresponding palette entry on the current page untouched. This allows you to combine partial palettes from different drawings onto the one page, by setting the unused parts of each drawing's palette to BLACK.

2. **Make Selected Color:** More Red, Less Red, More Green, Less Green, More Blue, Less Blue. Select the color on the palette you wish to change and then make it less blue, more red etc one step at a time. Note that the color on the page will change at the same time as on the palette so you can immediately judge the effect. There are 7 shades of each of red, green and blue as well as a zero level for each, which, combined, form the 512 color palette of the Atari ST. These levels are shown as the 'RGB' (Red, Green, Blue) value; this helps in accurate color selection.

3. **Set Background Color.** This allows the background to be set to a color other than black; this color will show through any first-palette-entry BLACK (i.e. transparent) parts of any drawings on the page. Click on the desired color before selecting Set Background Color.

Page Entry Options These are used to set up conditions or create effects immediately when a page is loaded, using 'options'.

An *option* is an action used to set a variable to a value, go to another page, play a sound or 'chain' to a different title and page (for stories spread across more than one disk/title): an option can be executed on a text or drawing as well as at the entry to a page. [You may have up to a maximum of 128 options on a page.]

The possible operations here are:

1. *Add/Replace Page Entry Option.* Used to set one or more options to be executed on entry to a page, i.e. each time that page is loaded. It 'replaces' rather than 'adds' when it doesn't make sense to have two separate options. For instance, you can't go to more than one page, or set a particular variable to more than one value. Likewise, you can only have one of Chain or Go to Page, not both; thus adding in a Chain will replace any previous Go to Page (or Chain). For Sounds, the order (if there is more than one) is all-important; the system therefore asks you where to 'insert' any additional sound: there is no replacing.

2. *Remove Page Entry Option.* This removes an option from the entry to a page. If you wish to replace a variable in a Set Variable to Value option with a different variable or to replace a sound on a Sound option, it is necessary to remove the previous variable or sound, and add in the new one separately..

3. *List Page Entry Options.* This lists out the page entry options present on this page.

Restart Page Used to execute Page-Entry options without having to leave the page and come back to it; useful for testing the page. As with all options in Development mode, the system will list the options and query execution. This operation also mimics the normal loading of a page (in Development mode). It checks that all the drawings on a page that should be visible are displayed. If drawings are displayed which should not be displayed you can remove them from the page. The system also checks at this point for sufficient memory available to hold all the sounds on the page. This is necessary in order to be able to play them immediately if required.

List Drawing Conditions This lists all the drawings on the page, whether currently visible or not, together with any conditions governing their appearance. If you want to alter something on a drawing that only appears under certain circumstances, this facility is useful for finding out how to make it appear (which variables to alter to which value (using List/Set Variable, see below)).

A condition is a test of the kind 'If variable is/is not value' or a probability factor, used to control the appearance of a drawing, sound or text.

List Drawing Options This lists all drawings on the page together with any options that will be executed if the drawing is clicked on.

7.2.1 Cursor Mode

The entries under Cursor Mode are all used to determine what happens when you next click on a drawing (in other words, nothing happens until you do subsequently click on a drawing); they determine the effect that the cursor has.

Normal This mode is used for testing pages. It operates in the same way as in 'user' mode (i.e. after leaving Development Mode) except that the system queries any options, enabling you to test a page without having to execute every option.

Move Selected Drawing Click on the drawing to be moved. Holding down the button, move it to the desired position and then release the button. An outline follows the mouse movement and the whole picture is recreated in the new position once the button is released.

Swap Selected Color Use this operation to swap colors around on a drawing as necessary; perhaps to make several instances of the same drawing appear different. Point the cursor at the color on a drawing that you wish to change; then click on the color on the palette that you want to change it to. All the areas on that one drawing having the first color will now change to the second color. Should things get too confused, you can always click on 'Reset to Original State'. Click outside the window to cancel the operation.

Replace/Remove Drawing Removing a drawing removes it from this page only: it still remains in the title file for use with other pages. [Use Delete Drawing in the Drawing Definition Menu to remove a drawing permanently.] Replacing a drawing has the advantage that the new drawing retains the associated texts and options of the previous drawing, whereas these would be lost if the first drawing were removed. To cancel the operation, click outside the window.

Shrink/Reverse Drawing On clicking on a drawing, you will see a chart of possible reductions measured in percentages for Height and Width independently. Move the cursor over the desired percentage for height and click – do the same for the width (unless you want a distorted reduction). To make a drawing face the other way, i.e. left instead of right, select 'Reverse'. Then click on *Execute Selection*; clicking outside the window (as everywhere else in Talespin) cancels the operation.

Change Drawing Order This changes the order of the drawings, that is, which drawing is in front of which. This order is determined initially by the order in which the drawings are added to the page, later drawings appearing in front of previous ones. Click on a drawing and its current position will be indicated on a chart with the drawings at the front of the page appearing higher up the chart. Click on the drawing in front of which you wish the selected drawing to now appear; or outside the window to cancel the operation.

Drawing Conditions/Options This allows for the placing of conditions and options directly on drawings, i.e. with no text intervening.

A *condition* is a test of a variable, value, or a probability factor used to control the appearance of a drawing, sound or text. [You may have up to a maximum of 128 drawing conditions on a page.]

An option is an action used to set a variable to a value, go to another page, play a sound or 'chain' to a different title and page (for stories spread across more than one disk/title): an option can be executed on a text and at the entry to a page as well as on a drawing. [You may have up to a maximum of 128 options on a page.]

The possible operations are as follows:

1. *Add Drawing Condition.* You will be asked the type of condition to add, but note that on adding any additional conditions, it is necessary to 'integrate' the new condition in with the existing ones. First you will be asked the position at which to insert the new condition, and then how to combine it logically with the one before it. 'AND' means both conditions must be met, while 'OR' means either will suffice for the drawing to appear. Where there are many conditions, with mixed ANDs and ORs, the ANDs bind tighter, i.e. take precedence.

2. *Remove Drawing Condition.* This removes a condition from a drawing. To alter a condition, you need to remove it first and then add a new one (using Add Drawing Condition).

3. *List Drawing Conditions.* This lists any conditions present on this drawing.

4. *Add/Replace Drawing Option.* Use this to add an option to a drawing. It also can be used to replace a value on a *Set Variable to Value* option (for the same variable), or to replace a *Go to Page* or *Chain* option. For sounds, the order of execution is significant; for any additional sounds, the system asks you where to 'insert' the new sound.

5. *Remove Drawing Option.* This removes an option from a drawing. If you wish to replace a variable in a *Set Variable to Value* option with a different variable or to replace a sound on a *Sound* option, it is necessary to remove the previous variable or sound, and add in the new one separately.

6. *List Drawing Options.* This lists out the options added to this drawing.

Text Operations

This handles all aspects of adding, editing and removing Text on drawings, along with any conditions and options on those texts. Note that the total of all text on a page may not exceed 6K (6144) characters, spread among a maximum of 64 individual text entries.

A condition is a test of the kind 'If variable is/is not value' or a probability factor, used to control the appearance of a drawing, sound or text. [You may have up to a maximum of 128 text conditions on a page.]

The Text Operations are as follows:

1. *Add Text Entry.* Use this to enter new text and then press Return. A drawing may have several text entries, each created by separate uses of this operation - each one is an indivisible whole, and any options or conditions added to it, will apply to the whole of that one text entry: for individually selectable options, use separate text entries.

2. *Edit Text Entry.* Use this to edit a text entry or to check all of the text entered on a drawing without altering anything. You will be asked to select the text to edit. Note that at all times text is automatically 'wrapped', fitting as many words onto each line as possible.

3. *Remove Text Entry.* This removes a text entry from the drawing. You will be asked to select the text to remove.

4. *Add Text Condition.* You will be asked to select a text, and then the type of condition to be added. Note that on adding any additional conditions, it is necessary to 'integrate' the new condition in with the existing ones; so first you will be asked the position at which to insert the new condition, and then how to combine it logically with the one before it. 'AND' means both conditions must be met, while 'OR' means either will suffice for the drawing to appear. Where there are many conditions, with mixed ANDs and ORs, the ANDs bind tighter, i.e. take precedence.

5. *Remove Text Condition.* This removes a condition from a text. To alter a text condition, you need to remove the previous condition and then to add a new one (using *Add Text Condition*).

6. *List Text Conditions.* This lists all the text present on the selected drawing (abbreviated) along with any conditions.

7. *Add/Replace Text Option.* Use this to add an option to a text. It works also to replace a value on a *Set Variable to Value* option (for the same variable), or to replace a *Go to Page* or *Chain* option. [These types of options are replaced as any one variable can only be set to one value at a time, and only one *Go to Page* or *Chain* option can be executed at any one time. Many different sounds may be played or different variables set however.] For sounds, the order of execution is significant; for any additional sounds, the system asks you where to 'insert' the new sound.

8. *Remove Text Option.* This removes an option from a text. If you wish to replace a variable in a *Set Variable to Value* option or to replace a sound on a Sound option, it is necessary to remove the previous variable or sound, and add in the new one separately.

9. *List Text Options.* This lists out all the text present on the selected drawing (abbreviated) along with any options.

List/Set Variables

Used to manually change variable values (i.e. without executing an option). For example, to affect the outcome of a drawing condition, in order to render visible a previously invisible drawing. Use the List Drawing Conditions operation (above) to find out which variable values have what effect. Select the variable; and then the required value. Note that these manually set values are not in any way 'saved' by the system, and unless specific options exist explicitly setting variables to particular values, the variable values will be found to be 'undefined' next time the title is loaded.

Locate Item

Used to find references to any page, drawing, sound, variable or value, as well as any deleted items, throughout the title: lists pages on which item was found. Note that just because a variable, drawing, etc. has been created, it may not have been used on any page as yet; in which case it will not show up using this operation.

Statistics

Gives details of the file space usage of the current title, including remaining directory space, unused blocks on the file, and deletions. Also gives the sizes of individual drawings, pages and sounds (when you click on that item).

Backup

Copies the title to a new file, clearing out unused blocks and no-longer-referred-to deletions and expanding the directory size if necessary. Also allows the new file to be 'locked' (making it 'read-only', i.e. Development mode is no longer available) or 'demo' (auto-runs on loading, for demonstrations). Both source and destination files must be on-line simultaneously. Disk-swapping is not possible.

Quit Development Mode

Returns you to user mode. Right-click for the main system menu.

7.3.

Drawing Menu

This menu is brought down by selecting Create New Drawing or Modify Drawing from the Development Menu or by clicking on the window which gives you the option of modifying a copied or imported drawing.

Pencil

Draws dots and lines a single pixel (dot) wide: used for detailed work and outlining shapes.

Spray & Minispray

These two facilities give a sprayed effect – for example, for shading in trees or a person's hair. The longer you hold down the mouse button the more the area defined by the brush gets filled in; moving the cursor at different speeds gives different densities of spray.

Line

This facility is for drawing straight lines. Here the center of the cursor is used to give the start and end points and assists in accuracy. Press the left button to indicate the start of the line and move the mouse to where you wish the line to end. You will see a line being drawn. Release the button when the line is the desired length and angle; this 'fixes' it. For a horizontal or vertical line, make sure the line is absolutely straight with no 'kinks' in it before releasing the button. The Undo facility will erase the whole of any line just created.

Fill This fills an area of the screen with the currently selected color. Move the Fill cursor until the tip is inside the area to be filled and click: the Fill color will spread to all adjacent dots of the same color as that clicked on. Note that if you are filling a line drawing and there is a gap in the line drawing, the Fill color will 'leak' and the whole page will begin to fill with color. DON'T PANIC! Right click to abort the Fill and then use UNDO. Using the pencil, look for the gap and close it; then try again.

Block Use this to draw right angled shapes, squares, rectangles etc. Also use it to erase mistakes by selecting Black from the palette first.

Blob Use it to draw thick outlines, to draw circles and rounded shapes, to do original lettering or to erase small areas.

Lens This is very useful for intricate work. Click on *Lens On/Off* to activate it. The Lens will stay on the screen until you click on *Lens On/Off* again to cancel it. It is like a magnifying glass and helps you identify which individual dots (or pixels) need changing or erasing. It magnifies the boxed area around the cursor wherever you move it. If you approach the Lens box with the cursor (should you wish to work in that area) it will automatically jump to another part of the screen.

Modify Palette There are two ways of modifying colors on a drawing:

1. *Copy Whole Palette from the Current Page, Other Page or Other Drawing.* Note that any palette entries which are BLACK (color 000) on the page or drawing will not be copied across, leaving the corresponding palette entry on the current drawing untouched. This allows you to combine part-palettes from different drawings, by setting the unused parts of each drawing's palette to BLACK.

2. *Make Selected Color:* More red, less red, more green, less green, more blue, less blue. Select the color on the palette you wish to change and then make it less blue, more red etc one step at a time. The color on the drawing will change at the same time as the palette so you can immediately judge the effect. There are 7 shades each of red, green and blue as well as a zero level for each, which, combined, form the 512 color palette of the Atari ST. These levels are shown as the 'RGB' (Red, Green, Blue) value; this helps in accurate color selection.

Undo Clicking on this 'undoes' the last action performed (including clicking on Undo). An action is here defined as whatever happened between the last press and release of the mouse button. If you are doing a series of dots, only the last dot is removed.

Save Drawing Click on this to save the drawing to disk and return to the Drawing Definition Menu, ready for you to create another drawing. Note that changing a drawing will affect ALL the pages on which it is used; but that changing the palette of the drawing will have no effect at all, as it is the palette of the page that governs the colors used for that drawing on any particular page.

Quit The system queries 'OK to end without saving drawing?' if you have made any changes. Click outside this window, i.e. cancel the window, if you do NOT wish to abandon your drawing; you should then click on Save Drawing. If you do wish to quit without saving anything, click on the text and you will then be returned to the Drawing Definition Menu.

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