PAL
OVERSCAN

BROADCAST TITLER

A Super High Resolution
Titling and Effects System
For The AMIGA™

VERSION 2

CONVENIENT
mouse or keyboard
operation

MORE
anti-aliased fonts

NEW
page and line effects
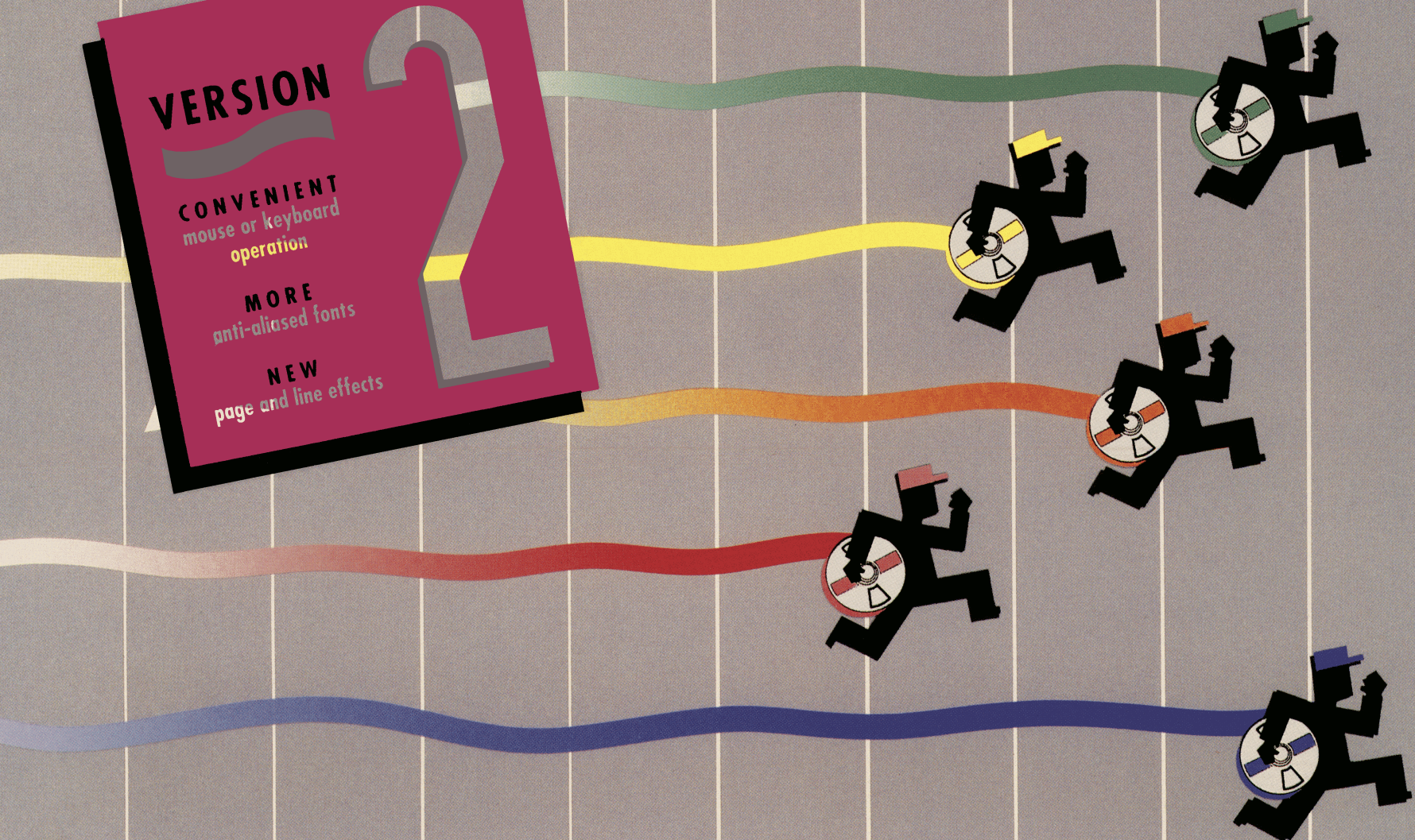
InnoVision Technology

InnoVision Technology Program License Agreement

READ THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT CAREFULLY BEFORE OPENING THE PACKAGE CONTAINING THE PROGRAM DISKETTES, THE COMPUTER SOFTWARE THEREIN, AND THE ACCOMPANYING USER DOCUMENTATION (THE "PROGRAM"). THIS LICENSE AGREEMENT REPRESENTS THE ENTIRE AGREEMENT CONCERNING THE PROGRAM BETWEEN YOU AND INNOVISION TECHNOLOGY, AND IT SUPERSEDES ANY PRIOR PROPOSAL, REPRESENTATION, OR UNDERSTANDING BETWEEN PARTIES. BY OPENING THE PACKAGE CONTAINING THE PROGRAM, YOU ARE ACCEPTING AND AGREEING TO THE TERMS OF THIS LICENSE AGREEMENT. IF YOU ARE NOT WILLING TO BE BOUND BY THE TERMS OF THIS AGREEMENT, YOU SHOULD PROMPTLY RETURN THE PACKAGE UNOPENED, AND YOU WILL RECEIVE A REFUND FOR YOUR MONEY.

1. LICENSE GRANT. InnoVision Technology hereby grants to you, and you accept, a non-exclusive license to use the Program Diskettes and the computer software contained therein in object-code-only form, and the accompanying User Documentation, only as authorized in this License Agreement. The Software may be used only on a single computer owned, leased, or otherwise controlled by you: or in the event of the inoperability of that computer, on a backup computer selected by you. Neither concurrent use on two or more computers nor use in a local area network or other network is authorized without the advance written consent of InnoVision Technology and the payment of additional license fees.

YOU AGREE THAT YOU WILL NOT ASSIGN, SUBLICENSE, TRANSFER, PLEDGE, LEASE, RENT, OR SHARE YOUR RIGHTS UNDER THIS LICENSE AGREEMENT.

IF YOU TRANSFER POSSESSION OF ANY COPY, MODIFICATION OR MERGED PORTION OF THE PROGRAM TO ANOTHER PARTY, YOUR LICENSE IS AUTOMATICALLY TERMINATED

Upon loading the Software into your computer, you may retain the Program Diskettes for backup purposes. In addition, you may make one copy of the Program on a second set of diskettes for the purpose of backup in the event that the Program Diskettes are damaged or destroyed. Any such copies of the Program Diskette shall include InnoVision Technology's copyright and other proprietary notices. Except as authorized under this paragraph, no copies of the Program, its documentation, or any portions thereof may be made by you or any person under your authority or control.

2. LICENSOR'S RIGHTS. You acknowledge and agree that the Program consists of proprietary, unpublished products of InnoVision Technology, protected under U.S. copyright law, and trade secret laws of general applicability. You further acknowledge and agree that all right, title, and interest in and to the Program are and shall remain with InnoVision Technology. This License Agreement does not convey to you an interest in or to the Program, but only a limited right of use revokable in accordance with the terms of the License Agreement.

3. TERM. This License Agreement is effective upon your opening of this package and shall continue until terminated. You may terminate this License Agreement at any time by returning the Program and all copies thereof and extracts therefrom to Licensor. InnoVision Technology may terminate this License Agreement upon the breach by you of any term hereof. Upon such termination by InnoVision Technology, you agree to return to InnoVision Technology the Program and all copies and portions thereof.

4. LIMITED WARRANTY. THE PROGRAM IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

InnoVision Technology does not warrant that the functions contained in the Program will meet your requirements or that the operation of the Program will be uninterrupted or error free. However, InnoVision Technology warrants the diskette(s) on which the program is furnished, to be free from defects in materials and workmanship under normal use for a period of (90) days from the date of delivery to you as evidenced by a copy of your receipt.

5. LIMITATION OF LIABILITY. IN NO EVENT SHALL INNOVISION BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, OR EXEMPLARY DAMAGES OR LOST PROFITS ARISING OUT OF THE USE OR INABILITY TO USE SUCH PROGRAMS EVEN IF INNOVISION TECHNOLOGY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

6. GOVERNING LAW. This License Agreement shall be construed and governed in accordance with the laws of the State of California.

7. ACKNOWLEDGEMENT. YOU ACKNOWLEDGE THAT YOU HAVE READ THIS LICENSE AGREEMENT, UNDERSTAND IT, AND AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS. YOU ALSO AGREE THAT THIS SUPERSEDES ALL PROPOSALS OR PRIOR AGREEMENTS, VERBAL OR WRITTEN, AND ANY OTHER COMMUNICATIONS BETWEEN THE PARTIES RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT.

Should you have any questions concerning this Agreement, please contact in writing InnoVision Technology.

BROADCAST TITLER 2 ADDENDUM
OCTOBER 19, 1990

PLAYING THE PROVIDED DEMO DISK SEQUENCE

The Demo Disk included with the program requires at least 2 megabytes of RAM to accommodate the extended demo sequence on the disk. The extra memory is required because the provided demo sequence contains several IFF pictures, extra fonts and sample pages showing the new Super High Res video mode. This special sequence requires at least 2 megabytes because of the associated memory demands.

However, you can still place your own sequences on a copy of the demo disk to create auto-booting sequences that will play on any machine having the minimum 1.5 megabyte configuration.

PREVENTING TAPE DECKS FROM LOCKING-UP THE AMIGA

Using the fast shuttle search or rewind functions on professional tape decks can sometimes completely lock-up or freeze the Amiga while you are editing. When this occurs, the Amiga hardware itself cannot maintain proper video sync during fast tape shuttling operations, and can cause any software running at the time to appear to freeze as a result. This problem is hardware-related and may or may not occur in your setup, depending on the specific Amiga model, genlock and tape equipment you are using.

Broadcast Titler 2 provides an special feature to prevent this from happening on your system.

1) Enter the Text Edit Mode and press function key F10 to activate the "shuttle safeguard" feature

2 Now you can safel shuttle to the next edit point on your source tape without risking a system freeze.

3 Then click either mouse button or press any key from the keyboard to resume your normal editin and playback operat'ons.

1

INTERNATIONAL ACCENTED CHARACTERS

Two of the standard Broadcast Titler fonts provided with the NTSC version contain the full set of international accented characters. The Swiss_50 and Minerva_50 contain the full ASCII 256 character set, while the other NTSC fonts only contain the first 191 characters (which contain the special symbols such as ©, ®, , etc., but do not contain the character accents such as ö).

The international accents require considerably more space in resident font memory, and are only included in these two fonts so that Broadcast Titler will run on a 1.5 megabyte Amiga.

THE STANDARD NTSC FONT LIST

The standard Broadcast Titler fonts for the PAL version of the program are listed on page 96 of the User's Guide. The NTSC version contains a slightly different set of fonts, specifically with a larger size of the Holiday font than is provided with the PAL version.

For the NTSC version the BTFONTS.LOAD file contains the following fonts, listed in order of occurrence:

Swiss_50.btf, Swiss_67.btf, Swiss_37.btf, Swiss_25.btf, Swiss_15.btf, Minerva_67.btf, Minerva_50.btf, Minerva_37.btf, Minerva_25.btf, Minerva_15.btf, Sports_80.btf, Sports_40.btf, Sports_20.btf, Holiday_70.btf, Holiday_35.btf, Swiss_100.btf


SAVING A PAGE AS AN IFF PICTURE

A new feature has been added so that Broadcast Titler pages are now saved with full Anti-aliasing. The description of this function on page 93 should be changed to reflect that character anti-aliasing IS preserved in the saved IFF picture file.

NLCS SCORES			
	R	H	E
Giants	3	4	1
Cubs	2	10	1

ALCS SCORES			
	R	H	E
A's	4	4	0
Blue Jays	3	9	0

BEFORE
ceo
ceo
AFTER

ABCD
ABCD
ABCD
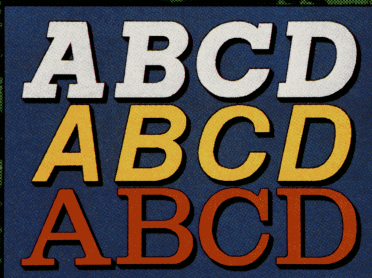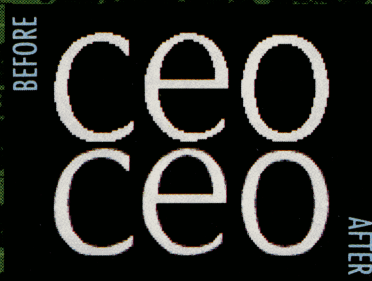
LOOK AT CAMERA 9

The genlock board for the Amiga 2000 allows you to combine the Amiga's display with the output from a VCR, video

AMIGA VIDEO

Broadcast Titler

Professional character generation comes to the Amiga with Broadcast Titler! Included fonts contain four level anti-aliasing which matches the quality of character generators costing thousands more. Use Standard/ Color Amiga fonts to expand the Broadcast Titler font library. Screens may contain up to 320 colors. Includes many broadcast quality line and page effects.

Broadcast Font Enhancer

Bring additional super crisp fonts into Broadcast Titler by enhancing standard Amiga fonts with four level anti-aliasing. Accurately reduces large fonts to get that exact size you want, while preserving original detail.

Broadcast Font Packs

Each font pack includes broadcast quality fonts and symbols. These fonts are in both Broadcast Titler anti-aliased format and standard Amiga format. Each font pack contains carefully selected fonts similar to those seen in actual broadcasts.

Super Prompt

With Super Prompt, professional teleprompting is affordable. Use the powerful text editor included within Super Prompt, or any other word processor, to enter your scripts and away you go! User friendly features like colorful menus, large typefaces, and quick keystrokes make teleprompting quick and easy. Ideal for both the amateur and the professional.

Video Effects

Convert two dimensional pictures into three dimensional animations! Powerful routines produce super smooth animation at sixty fields a second. Two dimensional objects can be automatically extruded into 3D without any knowledge of three dimensional modeling. Digital video effects are now just a mouse click away!

INNOVISION
TECHNOLOGY

BROADCAST TITLER 2 — *Broadcast Quality Video Character Generator*

❏ Convenient Mouse or Keyboard-driven Interface.
❏ On-Line Storage for up to 600 Pages of Text and Graphics.
❏ Includes 16 Anti-aliased fonts, 4 attractive styles.
❏ Accepts Hundreds of Amiga Fonts and Color Fonts., up to 50 RAM Resident Fonts at a Time.
❏ Character Attributes include Outline, Highlight, Underline, Solid and Cast Shadows in 8 Directions.
❏ Intermix Multiple Fonts, Sizes and Colors on any Line.
❏ Up to 320 Colors per Screen in High Resolution, 16 Colors per Line.
❏ Full Overscan Display eliminates Video Borders (736 x 480 pixels).
❏ Silky Smooth Page and Line Transitions: ROLL, CRAWL, FLIP, WIPES, TELETYPE, many others.
❏ Random Access, GPI or Continuous Playback, nine effect speeds.
❏ Requires Amiga computer with 1.5 Megabytes of Memory, one Disk Drive.

BROADCAST TITLER 2 FONT ENHANCER — *Enhancer for Standard Amiga Fonts* — REQUIRES BROADCAST TITLER 2

❏ Converts Standard 1 Color Amiga Fonts to Broadcast Titler's Anti-aliased format.
❏ Accurately Resizes fonts to smaller sizes while preserving original detail.
❏ Dramatically Improves Amiga Font resolution by adding four-level Anti-aliasing.
❏ Resulting Fonts occupy five times less memory, allowing many more resident fonts.
❏ Customize Fonts or Logos in other Font Editing Programs, Anti-alias them with the Font Enhancer.

BROADCAST FONT PACK 1 — *High Quality Amiga and Broadcast Titler 2 Fonts*

❏ Mathematically correct font design yields stylish, professional quality typefaces.
❏ All fonts are in both Anti-aliased Broadcast Titler 2 and Standard Amiga Font formats.
❏ Standard Amiga Fonts can be used by other graphics/desktop publishing programs.
❏ 10 Font styles in Multiple Sizes up to 160 Scanlines high.
❏ Create additional sizes for Broadcast Titler 2 with Font Enhancer (Above).

SUPER PROMPT — *Professional Video Teleprompter*

❏ Use Super Prompt's text editor to quickly enter text for scrolling, or load in ASCII text files from other Amiga word processors.
❏ Scroll Text at 10 different speeds, adjustable on-the-fly.
❏ Includes 10 programmable director's prompt messages to flash cues on screen.
❏ Hard copy output of scripts in large graphic format or as regular text.
❏ Three Font Sizes to choose from.
❏ Requires 1 Megabyte of Memory, 1 Disk Drive.

VIDEO EFFECTS 3D — *Generates Exceptional Animations And Special Effects*

❏ Manipulates 8 Color High Resolution Pictures from Amiga Paint/Graphics Packages.
❏ High Resolution 704 x 480 pixel overscan display.
❏ 3D Perspective WIPES, TUMBLES, TURNS, FLIPS, SPINS, ZOOMS and FLY IN effects.
❏ Super Smooth playback at 60 Fields per Second.
❏ Extrude 2D IFF Pictures to 3D Objects without experience in 3D Modeling.
❏ Creates unlimited effect combinations.
❏ Effects can be genlocked over a video background.
❏ Convenient on screen instructions make operation quick and easy.
❏ Requires 1 Megabyte of Memory (1.5 Recommended), 2 Disk Drives or Hard Drive, IFF Pictures.

INNOVISION
TECHNOLOGY

BROADCAST

TITLER 2

User's Guide

Acknowledgements

Special thanks to my wife Susan, Todd Lee, Patrick Wolf, Gene Buban, and you, for which none of this would have been possible.

This manual and software was created entirely using Commodore Amiga computers.

Disclaimer

■ TABLE OF CONTENTS ■

■ INTRODUCTION ■

InnoVision Technology is happy to announce the second generation of its desktop video character generator package for the Amiga, Broadcast Titler 2.

Broadcast Titler 2 is a powerful Amiga-based Character Generator that combines the high-end functionality of dedicated video production equipment with the flexibility and cost-effectiveness of Amiga Desktop Video Systems. Sharp looking anti-aliased fonts, eye catching special effects, plus convenient editing and layout functions let you compose title sequences quickly and creatively.

The use of existing Amiga/Color fonts such as the Kara Fonts package and the Masterpiece Fonts package gives you a wide variety of fonts to choose from. User-created typefaces from an Amiga font editor, such as Interactive Softworks' Calligrapher, can also be used in Broadcast Titler. Using the optional Broadcast Titler Font Enhancer, these fonts may also be converted into anti-aliased fonts to remove the "jaggies" seen in the high resolution 70 nanosecond graphics mode.

Each text line in Broadcast Titler can have its own adjustable 16 color palette. As many as 20 lines per screen can be displayed, thus allowing up to 320 direct colors per screen. This feature allows you to break the 16 color per screen limit found in the high resolution mode of the Amiga.

SYSTEM REQUIREMENTS

An Amiga computer with at least 1.5 megabytes of RAM. For additional fonts and pictures, at least 2 megabytes of RAM is recommended, as well as a second floppy drive or hard disk.

MULTITASKING

Broadcast Titler 2 has been designed to take maximum advantage of the Amiga's sophisticated graphics hardware. But in order to do this it was necessary for the program to take full control over the Amiga's hardware, temporarily disabling normal operation of Amiga Intuition (CLI and Workbench) and multitasking.

If you have other programs running in memory, Broadcast Titler may fail to boot. We believe that multitasking is important, but in order for our transitions to be as smooth as possible we need as much horsepower as the Amiga can provide.

REGISTRATION

Be sure to fill in and mail the enclosed registration card as soon as possible to qualify for Technical Support, future updates, and other important information.

GENLOCKS

Broadcast Titler has its own built in SuperGen fade effects that are controlled automatically by the Broadcast Titler program. It is not necessary to load the SuperGen's own software drivers before running Broadcast Titler.

Commodore A2300 Genlock Users: You should be aware that the A2300 Genlock operates differently from any other genlock on the market in terms of its treatment of video sync and overscan. As a result of these differences, it shifts the Amiga video display down the screen by about six scanlines. In addition, it interferes with the normal video timing of the Amiga system. This is especially evident when you supply incoming video.

If you find that supplying video to the A2300 causes Broadcast Titler's menus to become non-interlaced or unreadable, you can restore proper video timing by pressing CTRL "G" in the Main Menu. This is necessary only for the A2300 Genlock, and does not apply to any other genlock brand.

RAM DISKS

Although it might be possible to run Broadcast Titler from a RAM disk, there would be no advantage in doing so because Broadcast Titler keeps all pages, fonts and graphics entirely in RAM. It is recommended that you do not run Broadcast Titler using a RAM disk.

COPY PROTECTION

We have decided not to institute any copy protection procedures on Broadcast Titler, but we strongly advise you to always work from a backup copy. Distributing this software, or anyone else's work, eliminates a possible customer which will then reduce the resources needed to provide adequate support and future updates. In other words, PLEASE do not distribute this software.

USING FLOPPY DISKS

Always wait until all disk drives are inactive before ejecting a disk, resetting the Amiga, or turning the power off. It is a good idea to keep a few blank formatted disks around for storing your work. It is recommended that you save your work often to prevent any accidental loss of data.

■ CHAPTER 1 ■■■■■■■■

□ OVERVIEW OF BROADCAST TITLER 2 □

WHAT DOES BROADCAST TITLER 2 DO?

Broadcast Titler 2 performs most of the functions of a dedicated video character generator. With this program, the user can create and edit one hundred or more pages of text and user-created graphics. All pages, graphics, and fonts are held in resident memory for quick retrieval, and can be loaded and saved on disk for later use.

The program takes full advantage of the Amiga's powerful graphics and video chips to create smooth, eye-catching special effects. Each page or line can be assigned a separate transition effect with selectable speed and delay controls. The program also uses the hardware to extend the maximum number of on-screen colors from 16 to 320 colors via line-by-line palette controls.

Type and edit pages of text using the sharp-looking anti-aliased fonts included with the package. Standard sizes range from 100 scanline "banner-size" fonts down to miniature 15 scanline "disclaimer" fonts.

You can access additional fonts by using the Font Converter package which is included with the program. The Font Converter allows Broadcast Titler to use hundreds of commercially available Amiga Fonts and Color Fonts (multi-color pattern fonts) in high resolution, with sizes ranging from 15 to 200 scanlines in height.

If you purchase the optional Font Enhancer package, you can add Broadcast Titler's four-level anti-aliasing to these fonts. You'll also be able to resize the font to any smaller size from 12 to 200 scanlines, without sacrificing font quality. This feature can be quite useful for making multiple sizes from a single large Amiga Font.

The program provides many text editing features such as cut and paste, adjustable margins, automatic and manual kerning, character spacing, centering and tab stops. Font style, size, color and border options can be changed on a character-by-character basis. Attributes can easily be picked-up and planted via keystroke commands. Text can be accurately repositioned on the screen anytime, even after you have already laid down your text.

FEATURES NEW TO BROADCAST TITLER 2

The Broadcast Titler 2 character generator software has been revised to include many new features not found in the original version.

All of the menus in the original Broadcast Titler have been either consolidated or revised to

provide easy access to everyday functions. New menus such as the Page and Layout Menus provide the user with a high degree of control for editing and formatting pages and sequences.

Broadcast Titler 2 now incorporates a mouse-driven menu interface, which lets you make changes more quickly and with a lot less effort.

The program has been developed using the latest optimizing compilers and efficient assembly code in order to obtain top performance from the Amiga. All this translates into a program with better features and improvements in both speed and dependability.

NEW INTERFACE FEATURES

- Mouse and/or Keyboard menu operation
- Change Numbers via mouse/keyboard inputs
- Easy to Use Consolidated Menus
- Support for GPI (General Purpose Interface) activation
- Comprehensive User Guide and Tutorials

NEW EDITING CONTROLS

- Full Margin and Layout Controls
- Cut and Paste for Lines and Pages
- RGB and HSV palette slider controls
- Place Text virtually anywhere on screen
- Reposition Text even after it has been typed
- More precise Auto Kerning, Tuck and Space
- Page Menu shows entire Sequence for quick editing
- New Sequence Append

EXPANDED CAPABILITIES

- Automatic Pattern Filled Text from IFF Brushes
- New Character Borders
- Sharper Anti-aliasing
- More standard Font Sizes and Styles
- New Font format requires less Resident Memory
- Greater compression for Amiga Fonts and Color Fonts
- Supports International Keymaps
- Accepts ASCII 256 Fonts with International Accents/Special Symbols

NEW PLAYBACK OPTIONS

- Additional Line and Page Transitions
- Presto Pages for rapid-fire sequence playback
- Playback Modes: Presentation, Random, Sequential, Key Advance, Loop
- Preview Status Bar

OPTIONAL SUPER HIGH RES PROGRAM UPGRADE

- Support for Amiga's new 1472 x 480 Super High Res Mode (35 ns)
- Super Sharp Display, True 35 nanosecond Pixels Plus Anti-aliasing
- Mixed High Res / Super High Res modes on a page
- Fully NTSC compatible, use any NTSC Monitor
- Requires 1 megabyte CHIP RAM and new "Super High Res Denise" chip
- Works with Amiga DOS 1.3 and 2.0.

USING BROADCAST TITLER ON YOUR SYSTEM

Broadcast Titler 2 makes extensive use of FAST RAM, or system memory, to give the user as much power and flexibility as possible. It is used to run the Broadcast Titler program, to store resident fonts and pictures, and to hold the current sequence being edited.

Additional FAST RAM can be added to your Amiga to give you up to eight megabytes of system memory. Broadcast Titler 2 requires at least 512 K of true FAST RAM, with 1 megabyte being the preferred amount. If you have more FAST RAM installed in your system, you will be able to work with more resident fonts and pictures, and can create longer sequences.

The following table approximates the expected program capacity for an Amiga system configured with two disk drives and 512 K of CHIP RAM.

MEGABYTES FAST RAM	RESIDENT FONTS	MAXIMUM PAGES
1	16	100
2	50	200
2.5	50	400
3	50	600

The above values are approximate, and will vary slightly from machine to machine based on the following factors:

- The amount of installed CHIP RAM
- The number of Floppy Disk Drives installed
- Hard Disk buffers and drivers

- Use of Amiga Dos 1.3 vs. 2.0
- Use of Workbench in Interlaced or Productivity modes
- Execution of other tasks in the background
- The file sizes of additionally loaded fonts

The other type of memory in the Amiga is called CHIP RAM, or graphics memory. It contains the high resolution screen image seen on your monitor, plus instructions and data for the graphics chips. Broadcast Titler 2 requires only 512 K (half a megabyte) of CHIP RAM, which is the minimum amount built in to all models of the Amiga.

A NOTE ON THE AMIGA 3000

Broadcast Titler 2 has been designed to run on all models of the Amiga computer, including the new Amiga 3000. The Amiga 3000 is designed to run the new Amiga DOS 2.0. Broadcast Titler 2 works with both the A3000 and Amiga DOS 2.0, but for the reasons detailed below, you will probably need to add an additional megabyte of RAM on your system for the program to run.

The Reason: When you apply power to an Amiga, the Amiga starts up by running special startup programs and libraries called "Kickstart". In previous models of the Amiga, this special program code was contained in ROM chips on the motherboard, and did not occupy any valuable CHIP or FAST RAM.

As of this writing, the final Amiga 3000 "Kickstart" ROMS were not ready, and for now Amiga 3000's must load "Kickstart" into FAST RAM at boot time. The loading process occurs during the gray "Loading Kickstart" screen, which appears just after turning on the machine.

The problem is that the stock Amiga 3000 ships with only 1 megabyte of FAST RAM, and loading Kickstart into RAM steals about 700 K of FAST RAM from the system. As a result, on a 2 megabyte machine, you get only 1.28 megabytes of memory after booting. (The total amount of memory available after booting is displayed at the top of the Workbench screen.)

Unfortunately, 1.28 megabytes is not enough memory for Broadcast Titler 2 to load its fonts, and the program will fail to load properly. So until the Amiga 3000 ROM Kickstart is available, the best way around this problem is to add an extra megabyte of memory to the system. This way Broadcast Titler is not "crowded-out" of memory, and can fully load all of its fonts and buffers into RAM.

The most convenient way to add memory is to install one of the memory expansion boards available for the Amiga 2000, 2500, or 3000, bringing the total installed memory to 3 megabytes. This will give you a total of 2.3 megabytes of RAM after booting your system, which is plenty of memory for running Broadcast Titler 2.

THINGS TO BE AWARE OF

Memory Expansion on the Amiga 500

Although 1.5 megabytes of total RAM are required to run the program, the access speed of the available memory is an important consideration. Broadcast Titler requires that at least 512K of the available memory is true FAST RAM in order to operate properly. Most memory expansion boards for the Amiga 1000, 2000, 2500 and 3000 are FAST RAM boards.

However, most memory expansion boards for the Amiga 500 which are installed in the A501 memory expansion slot (located under the machine) fall under the category of SLOW RAM. The extra memory installed there suffers from "Direct Memory Access Slowdown" during High Resolution Overscan display and during Blitter operations. This slot was originally designed to hold an additional 512K of CHIP RAM, and therefore the slot is set up with the same DMA bus arbitration as CHIP RAM. This can result in dramatically reduced performance if program code uses this slower memory.

It is therefore desirable to expand the Amiga 500 with "Internal Memory Boards". Placed inside the unit itself, these memory boards offer true FAST RAM performance since they do not use the A501 expansion slot, and are therefore not subject to any DMA arbitration.

■ CHAPTER 2 ■
☐ INSTALLATION AND BACKUP ☐

THE FLOPPY DISK AUTOBOOT MENU

Broadcast Titler's Autoboot Menu appears when the Amiga is powered while the Broadcast Titler Program Disk in drive DF0. The menu is only available if the system has no hard disk. The Autoboot Menu provides a function key driven "Shell" to quickly start the program, run the Font Converter, or to execute additional utilities.

MAKING BACKUP COPIES

Dual Floppy Disk Drive Users

1. Power on the Amiga system. When asked to insert a Workbench disk, insert the write protected Broadcast Titler Program Disk in internal drive DF0:.

2. Insert a blank disk in the other disk drive (either DF1:, DF2: or DF3:).

3. Make a note of which drive contains the blank disk.

4. When the Autoboot Menu appears, press function key F4.

5. Type EXECUTE [SPACE] BACKUP [SPACE] DF0: [SPACE]

6. Type the drive name of the drive containing the blank disk (DF1:, DF2:, or DF3:) followed by a colon ":" and then press RETURN.

7. Once you are prompted to press RETURN, do so.

8. Once ALL disk drive lights are off, the backup process is complete. Store the original disk in a safe place, and use the backup copy as your program disk.

Single Floppy Disk Drive Users

1. Power on the Amiga system. Insert the write protected Broadcast Titler Program Disk in internal drive DF0: when asked to insert a Workbench disk.

2. When the Autoboot Menu appears, press function key F4.

3. Type EXECUTE [SPACE] BACKUP [SPACE] DF0: [SPACE] DF0: [RETURN]

4. Once you are prompted to press RETURN, do so.

5. Once ALL disk drive lights are off, the backup process is complete. Store the original disk in a safe place, and use the backup copy as your program disk.

If you make a backup within Workbench, make sure that the Broadcast Titler disk is named "BT" and not "Copy of BT". Do this by clicking the "Copy of BT" icon on the Workbench screen. Hold down the right mouse button and highlight the Rename function in the Workbench Project menu. Release the mouse button and delete the "copy of " part of the name so that only "BT" remains. Press RETURN once you have finished.

HARD DISK INSTALLATION

Broadcast Titler may be installed onto a hard disk using our Hard Disk Install program. All Broadcast Titler fonts, pictures, and data may be saved or retrieved from a hard disk. To install all necessary files from the Broadcast Titler Program Disk to your hard disk, follow these installation instructions.

Before you attempt to install Broadcast Titler on your Hard Disk, make a backup copy of your Broadcast Titler Program Disk. Then follow the installation procedure below using your backup disk.

1. Decide which hard disk drive device onto which you want Broadcast Titler to be installed. For example: DH0, DH1, FH1, HD0, WORK, etc. We recommend A2500/A200HD users to use drive device "Work".

2. Boot your hard disk so that you get a Workbench screen with disk icons.

3. Insert the BACKUP copy of the Broadcast Titler Program Disk in drive DF0:

4. Double click the Broadcast Titler disk icon named BT.

5. Double click the icon named HDInstall.

6. Once the icon window appears, type EXECUTE [SPACE] BTINSTALL [SPACE].

7. At this point, type in the hard disk drive device name you wish to use (followed by a colon) and press RETURN. Example:

Execute [SPACE] BTInstall [SPACE] Work: [RETURN]

8. The BTINSTALL Program will now begin to create a drawer named "BTitler2", with an associated icon, and copy all the necessary programs, files and icons onto the hard disk partition you selected. If you already have Broadcast Titler 1.0 installed on your hard disk, it is in drawer "BTitler", and it will not be affected by installing Broadcast Titler 2.

9. You may need to rearrange the drawer icon location so that it can be easily seen from your hard disk window in Workbench.

PLEASE NOTE (A2500/A2000HD owners EXCLUDED): If you start Broadcast Titler from the Workbench screen be sure to run FastMemFirst before you run Broadcast Titler. Most Amiga hard disk systems are currently configured such that the Amiga DOS command "FastMemFirst" is automatically executed at boot time via a line in the "Startup-Sequence" file.

If this command is not in the System drawer of your hard disk, then you can copy it from either the Broadcast Titler Program Disk's System drawer or the Workbench 1.2/1.3/2.0 disk's System drawer. You can run FastMemFirst from the Startup-Sequence file of the hard disk so that it is activated each time you boot your system.

Simply add a single line at the end of the file that contains the command "FastMemFirst". In older versions of Amiga DOS, this command was named "SlowMemLast", but it performs the same function as the newer FastMemFirst command.

Refer to Appendix A : Using ED The System Text Editor, for further instructions on editing the Startup-Sequence file.

MAKING WORKING DISKS

Before you use Broadcast Titler for the first time, you will need to FORMAT or INITIALIZE two diskettes. Please refer to your Amiga owner's manual for instructions on formatting blank disks. Label the first blank disk BTFonts and the other, BTSequences. As a convenience, floppy disk users can format a blank data disk in the Autoboot Menu by pressing function key F5.

▲ When formatting data disks, do not type "FONTS" to declare the name of the disk as it may confuse the system. Instead, use a name such as "BTFonts".

LOADING BROADCAST TITLER

Floppy Disk Drive Users

1. Power on the Amiga System. When prompted to insert a Workbench disk, insert your BACKUP copy of the Broadcast Titler Program Disk in drive DF0. Broadcast Titler's Autoboot Menu will appear.

2. Press function key F1 to start the program. In a few moments, the "Main Menu" screen will appear. Welcome to Broadcast Titler!

Hard Disk Users

1. Boot your hard disk as usual.

2. When the Workbench screen appears, Double-click on the hard disk icon for the drive on which Broadcast Titler was previously installed.

3. Double-click on the drawer icon labeled "BTitler2".

4. Double-click on the BT! program icon. In a few moments, the "Main Menu" screen will appear. Welcome to Broadcast Titler!

NOW ON TO THE TUTORIALS!

Now that you have started Broadcast Titler it is probably best to follow through the step-by-step tutorials included in Chapter 3 to get on the fast-track to mastering the program and its new features. After that you will probably want to skim through Chapters 4 through 10 which serve as a detailed reference for each of the program's menus.

■ CHAPTER 3 ███████████████████████

☐ TUTORIALS ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

The following set of mini-tutorials will help to demonstrate how to navigate through menus, create and play effects, load and place IFF pictures, Roll credits, Crawl messages, and save the resulting sequence onto a disk.

In order to save the sequence, this tutorial requires the use of a ready formatted floppy disk for storing the sequence data files.

To begin, start Broadcast Titler by clicking on the BT! icon or by pressing F1 from Broadcast Titler's Autoboot Menu as described in Chapter 2.

☐ BASIC OPERATION - NAVIGATING THROUGH MENUS ☐

Broadcast Titler's menus have been designed to use both the mouse and the keyboard. For most users, the using mouse is probably the fastest and the most preferred method for operating Broadcast Titler. The specifics of mouse and keyboard menu operation are covered in this section.

This section also defines the standard working terminology used throughout this manual. To get the most out of this section you should first start up Broadcast Titler following the instructions given in Chapter 2.

JUMPING BETWEEN TEXT EDIT MODE AND THE MAIN MENU

After the program has loaded, slowly click the Right Mouse Button a few times. With each click of the Right Mouse Button, the menu bar at the bottom of the page will either appear - revealing the Main Menu, or disappear - showing the blue Text Edit Mode screen.

Keyboard-only users should press the ESC key instead of clicking the Right Mouse Button.

ENTERING THE TEXT EDIT MODE

Click the Right Mouse Button so that the menu bar at the bottom of the screen disappears. This screen without the menu bar is the Text Edit Mode in which all text editing occurs.

Type in a line of text from the keyboard. As each character is typed, notice that the yellow vertical Text Edit Cursor advances to the next character position in the line. This cursor marks the insertion point at which text is inserted or deleted from the current line.

To move the cursor within the line, press the Left or Right Arrow keys from the keyboard. To move the cursor vertically, press the Up or Down Arrow keys. The BACKSPACE and DEL keys are used to delete existing characters. These as well as numerous other useful editing commands are fully explained in Chapter 4 : The Edit Mode.

ENTERING THE MAIN MENU

From the Text Edit Mode, click the Right Mouse Button or press ESC from the keyboard. The Main Menu will appear. Move the mouse slightly and you will see a rounded yellow dot moving on the screen. This is the MOUSE POINTER, and it is used to make selections in the menu bar.

HIGHLIGHTING A BUTTON

Move the Mouse Pointer on top of the PAGE button on the Main Menu. When you do this notice that the PAGE button changes from blue to red. This is referred to as HIGHLIGHTING a menu button.

Highlighting can also be accomplished via the keyboard. Press the Right Arrow key on the keyboard five times. Each time the Arrow key is pressed, the menu highlight advances to the next button on the menu. To move the highlight in the opposite direction, press the Left Arrow key.

SELECTING A BUTTON

Using the mouse, highlight the FONT button in the Main Menu and click the Left Mouse Button once. The Font Menu appears. This process of highlighting a menu item and then clicking the Left Mouse Button is called SELECTING.

Or to select the menu item via the keyboard, press Left or Right Arrow key to highlight the FONT button. Then press the Right ALT key from the keyboard. Pressing the Right ALT key serves the same function as clicking the Left Mouse Button.

CHANGING NUMBER VALUES

In the Font Menu, highlight the SHADOW SIZE button. Move the mouse so the Mouse Pointer is placed just to the right of the "2" inside the button. To increase the number, click on the right side of the number "2". The value will change to "4". With each click on the right side of the number, the value will increase and the new Shadow Size will be displayed in the button. To decrease the number, click just to the left of the displayed number.

Alternatively, number values can be changed from the keyboard by highlighting the button and then pressing the Up Arrow or Down Arrow keys to increase or decrease the value.

DIRECT KEYBOARD NUMBER ENTRY

Numbers may also be entered directly from the keyboard by highlighting a number button, typing in a numeric value, and then pressing RETURN. If you make a mistake while typing, press the BACKSPACE or DEL keys and retype the number. Numbers that are out of range for a given operation will be automatically capped to the maximum allowable value.

BROWSING THROUGH LIST-STYLE BUTTONS

Highlight the RESIDENT FONTS button in the Font Menu. This is a list-type button that selects an entry from a list of names. Click on the right half of this button. The next font name in the list will appear inside the button. Each click will advance to another font name, and will cycle through to the start of list when the last font is reached. To go back to the previous font in the list, click on the left half of the button.

Similar list-style buttons in this menu are the FACE and FACE PATTERN buttons. Such buttons are also encountered in the Line Pattern Menu, the Picture Menu and the Effects Menu.

From the keyboard, highlight the button, and then press the Up Arrow or Down Arrow keys to step through the listed items.

RETURNING TO THE PREVIOUS MENU

To exit the current menu and return to the previous one, click the Right Mouse Button or press ESC from the keyboard. As a shortcut, one may return directly to the Text Edit Mode from inside any menu by pressing the Right Amiga key from the keyboard.

LEARNING THE REST OF THE MENU FUNCTIONS

Now that you have learned the basic operation of the menus, you should be able to navigate comfortably through Broadcast Titler's and investigate the more advanced features of the program.

For a hands-on guided tour of Broadcast Titler, follow the tutorials in the remainder of this chapter. To learn more about editing in Broadcast Titler's Text Edit Mode, refer to Chapter 4 : THE EDIT MODE. Chapters 5 through 10 discuss each of the primary menus in detail, and give step-by-step instructions for several of the most commonly used functions.

⬜ CREATING PAGE TRANSITIONS ⬜

This tutorial will create two pages of text, demonstrating how to assign page effects and play back a sequence.

1. For simplicity, start with a new sequence. If you already have a sequence in memory, select CLEAR SEQ from the FILE MENU to delete it. Press "Y" to confirm the action. Press "N" in response to the "Reload Fonts?" prompt.

2. Press the Right Amiga Key to enter the Text Edit Mode. At the top of the page type the word "TELETYPE!", but don't press RETURN at the end of the line.

3. With the Text Edit Cursor still at the top of the page, simultaneously press CTRL and "K".

4. Press RETURN. Next, simultaneously press CTRL and "P". The word "TELETYPE!" will be pasted onto line two.

5. Repeat step 4 above until you reach the bottom of the page.

6. Click the Right Mouse Button to display the Main Menu. Select PAGE. The Page Menu appears.

7. Select the Effect Name Button for page one which says "Cut". The Page Effect Menu appears.

8. Click on the "Teletype" button at the upper left of the menu. Click the Right Mouse Button to exit the menu. The Page Menu reappears.

9. Select the APPEND button at the bottom of the menu. A new blank page is added to the end of the sequence, and is highlighted in the Page List.

10. Click on the highlighted Effect Name Button for page two (it currently says "Teletype"). The Page Effect Menu appears.

11. Select the "Weave" effect button, which is one column over from "Teletype". Click the Right Mouse Button three times to return to the Text Edit Mode, or you can press the Right Amiga Key as a keyboard shortcut.

12. Type the word "WEAVE!", but do not press RETURN at the end of the line.

13. With the Text Edit Cursor still at the top of the page, simultaneously press CTRL and "K".

14. Press RETURN. Next, simultaneously press CTRL and "P". The word "WEAVE!" will be pasted onto line two.

15. Repeat step 14 above until you reach the bottom of the page.

16. Click the Right Mouse Button to display the Main Menu. Select PAGE. Select LAYOUT. The Layout Menu appears. Under PAGE CENTERING, select "Right". Click the Right Mouse Button twice, to return to the Main Menu.

17. Select the "H" (Home) button on the menu. Page one "TELETYPE!", appears. Press function key F1 from the keyboard to play the sequence.

THE ROLL EFFECT

The Roll effect will scroll consecutive pages of text and graphics vertically up the screen. The Roll is most often used at the end of a program during the finishing credits. Broadcast Titler 2 offers a smooth, gap-free, evenly spaced, full overscan Credit Roll under normal speeds.

The Roll effect is one of the most complex within Broadcast Titler, yet it is also simple to use. You have full control over the speed, time, page cropping, and length of the Roll. The Roll effect can have the following attributes:

- Each page can have its own Roll Speed.
- A different 16 color palette can be displayed on each page
- The Roll will automatically end by holding the last page on screen. To end the Roll with the last page scrolling off the screen, add a blank page after the last page of text.
- Page backgrounds and 16 color IFF pictures can be included in the Roll.
- The Roll effect can be interspersed with other effects in the sequence, i.e. it is not necessary to Roll the entire sequence.

PRE-TIMED ROLLS

As with other effects, there are nine speeds to choose from. However, for the Roll, Speed 1 is different from all the other speeds. When you choose Speed 1, you can set the amount of time that you wish the Roll to last, in order to fill a specific time segment with credits.

The first page in the Roll having Speed 1 determines the total Roll segment duration via the value in the HOLD time button for that page. During the Roll, the actual scroll rate is averaged for all consecutive pages which have Roll Speed 1, so that the Roll sequence completes in the designated time.

Example:

For instance, suppose you wanted five pages of text to be scrolled in 20 seconds. First, type in the five pages of text. Then on Page One you should select the Roll effect and set the effect SPEED to "1". Then highlight HOLD, type in a time of "20.00", and press RETURN. DO THIS ONLY FOR PAGE ONE.

In the Page Menu, click on REP EFFECT four times to set the Roll effect and Speed 1 for the remaining pages.

▲ There are potentially over 1,000 speeds available with the Speed 1 Pre-timed Roll option. However, some speeds will look much better than others, in part due to side effects of video interlacing and vertical motion at some speeds.

It is best to set the Roll Speed so that each page Rolls on and off the screen in 3 to 5 seconds, with the ideal speed being about 4 seconds per page. If the result is not what you desire, you can still use one of the pre-defined speeds (2 through 9) which have been selected for optimum smoothness.

▲ If you are Rolling complex pages, or are Rolling at very high speeds (Speed 7 or higher), you may want to use the Presto Page option to prevent gaps from appearing between successive pages.

ROLL CROP MARGINS

Because you can use fonts in many different heights, there may be a possibility of Roll gaps appearing between successive pages. To alleviate this problem, you can change the ROLL CROP settings. The ROLL CROP allows you to adjust the top and bottom areas of each page that will be seen during the Roll.

Enter the PAGE MENU and select LAYOUT. Highlight the BOT button under ROLL CROP to change the bottom Roll cropping. The text window in the top half of the page will shift up to show the ROLL CROP indicator. The BOT value can be changed by typing in a number and pressing RETURN, or by depressing the Left Mouse Button on the left or right side of the displayed number. The Roll will scroll the entire area between the TOP and BOTTOM Roll Crop Margins.

Refer to ROLL TUTORIAL 2 below for a complete example.

ROLLING PRESTO PAGES

With slower processors, the Amiga may not always manipulate graphics fast enough to display all the Roll pages continuously. This is most evident when using smaller sized fonts. The Presto Page option can help remove any gaps that may appear between these pages. Presto Pages are set in the PAGE MENU and must be pre-rendered in the PLAY MENU before playing the Roll sequence.

To declare a Presto Page, highlight a page in the PAGE MENU and select the PRESTO button on the lower right side of the menu. The letter "P" will appear on the right side of the selected page. When drawing Presto Pages, each page is converted to a compressed format that Broadcast Titler will display as fast as possible during playback.

▲ The Presto Page feature is intended for speeding up text rendering and will not support full page IFF Pictures or large patterns due to the complexity of its compression routines. Using some pictures or patterns may require some experimentation.

ROLL TUTORIAL 1 : Rolling Even-Length Pages

This tutorial will Roll three pages of text. It also demonstrates the advantages of using a 50 scanline font size to create even-length Roll pages which fit exactly within the program's default Roll Crop Margins.

1. Select CLEAR SEQ from the FILE MENU. Type "Y" to confirm. Then type "N" at the "RELOAD FONTS?" prompt.

2. Select the SWISS 50 font from the FONT MENU. Then go to the Text Edit mode by clicking the Right Mouse Button.

3. Press CTRL and "C" simultaneously. This will center all new text that will be typed.

4. On Line One, type "1" and press RETURN. On Line Two, type "2" and so on until you reach Line 8 at the bottom of the page. (PAL users will type until you reach Line 10.)

Press the SHIFT and PgDn keys simultaneously to create another page.

Continue to type "9" on the first line, "10" on the next until you reach "16" at the bottom. (PAL users will type from "11" through "20".)

Press the SHIFT and PgDn keys again to create the third page.

Continue to type "17" on the first line, "18" on the next until you reach "24" at the bottom. (PAL users will type from "21" through "30".)

5. Now enter the PAGE MENU and click on the Effect Name button for Page One. The Effect Name buttons are located to the right of the page listings.

Doing this will automatically bring up the EFFECT MENU for Page One.

6. Select the Roll Effect Button located on the upper left side of the menu.

Press ESC or click the Right Mouse Button to return to the PAGE MENU.

Now you've set the effect for the first page, but not for the rest of the pages. Locate the REP EFFECT button under the Effect Name boxes.

Click on this button twice to replicate the Roll effect onto the second and third pages.

7. Now exit to the MAIN MENU by clicking the Right Mouse Button. Click on the "H" (Home) button in the Main Menu to jump to Page One in the sequence, or press HOME from the keyboard. Press F1 to play the sequence.

As you watch the text Roll up the page, you will notice that there are no gaps between the pages, due in part to the even line spacing of the size 50 Swiss Font, which happens to entirely   fill the whole page with text, leaving no extra space at the bottom.

The Roll will end shortly, holding the third page on the screen.

8. To keep the last page on screen for a longer time, you need to change the HOLD time for the very last page of the Roll as follows.

From the MAIN MENU, select PAGE. Click on the Effect Name button for Page Three. Highlight the HOLD button with the Mouse Pointer. Type in a Hold value of "10.00" seconds, and press RETURN.

Click the Right Mouse Button twice to return to the Main Menu. Click on the "H" (Home) button. Press F1 to play the sequence again. The last page of the Roll (page 3), will now hold on screen for a total of 10 seconds.

ROLL TUTORIAL 2 : Rolling Odd-Length Pages

This tutorial will Roll two pages of text. It also demonstrates the use of the Roll Crop Margins to eliminate the extra blank space at the bottom of some pages. Extra blank space can occur when text on a page cannot reach the very bottom of the screen because of the font size used.

1. Select CLEAR SEQ from the FILE MENU. Type "Y" to confirm. Then type "N" at the "RELOAD FONTS?" prompt.

2. Select the SWISS 37 font from the FONT MENU. Then go to the Text Edit mode by clicking the Right Mouse Button.

3. Press CTRL and "C" simultaneously. This will center all new text that will be typed.

4. On Line One, type "1" and press RETURN. On Line Two, type "2" and so on until you reach Line 10 at the bottom of the page. (PAL users will type until you reach Line 10.)

Press the SHIFT and PgDn keys simultaneously to create another page. Continue to type "11" on the first line, "12" on the next until you reach "20" at the bottom. (PAL users will type from "11" through "20".)

5. Now enter the PAGE MENU and click on the Effect Name button for Page One. The Effect Name buttons are located to the right of the page listings. Doing this will automatically bring up the EFFECT MENU for Page One.

6. Select the Roll Effect Button located on the upper left side of the menu. Press ESC or click the Right Mouse Button to return to the PAGE MENU.

Now you've set the effect for the first page, but not for the rest of the pages. Locate the REP EFFECT button under the Effect Name boxes. Click on this button once to replicate the Roll effect onto the second page.

7. Now exit to the MAIN MENU by clicking the Right Mouse Button. Click on the "H" (Home) button in the Main Menu to jump to Page One in the sequence, or press HOME from the keyboard. Press F1 to play the sequence.

As you watch the text Roll up the page, you will notice that there are gaps between the pages because the text lines typed in the SWISS 37 font does not quite reach the bottom of the page, thereby leaving an empty space between pages during the Roll.

8. To remove the gap between the pages, select PAGE from the Main Menu. Select LAYOUT, and the Page Layout Menu appears for Page One.

9. *NTSC Version:*

Highlight the ROLL CROP BOT button. Type in a value of "416" and press RETURN. Click the Right Mouse Button twice to return to the Main Menu.

Press F1 to play the sequence again. This time the text on lines "10" and "11" will show no gap since the Roll Crop Bottom margin has been fine-tuned to fit the layout of the text on the page by eliminating the blank area at the bottom of Page One.

PAL Version:

Highlight the ROLL CROP BOT button. Type in a value of "518" and press RETURN. Click the Right Mouse Button twice to return to the Main Menu.

Press F1 to play the sequence again. This time the text on lines "13" and "14" will show no gap since the Roll Crop Bottom margin has been fine-tuned to fit the layout of the text on the page by eliminating the blank area at the bottom of Page One.

CRAWLING MESSAGES

The Crawl Effect will slide a page of text one line at a time from right to left across the screen. Text can be Crawled at almost any scanline position on the screen. Each line of text will be crawled continuously, one after the other.

It is recommended that all lines in the Crawl have the same height in order for the Crawl to run properly. However, it is possible to use different font sizes and styles as long as the line heights are made the same. Do this by selecting the largest font size, pressing RETURN several times to create blank lines of that font's height, and then typing in the text with any styles and sizes desired.

The Crawl effect will also work with small IFF brushes, such as symbols or logos, placed within the Crawl Text lines.

To have all of the text Crawl smoothly without gaps, the entire Crawl Message must be contained in one page of text. The amount of information that you can Crawl continuously depends on the size of the font being used. Multiple Crawl pages can be placed back to back, but a short gap will appear after the end of each page.

For instance, if you use a size 37 font, about 10 lines of text (13 PAL) can be Crawled without a gap. If you use a size 50 font, about 8 lines of text (10 PAL) can be Crawled. Additional text lines can be squeezed onto a page by expanding the TOP, BOTTOM, LEFT, and RIGHT Page Margins in the LAYOUT MENU.

There are several guidelines to keep in mind when using the Crawl effect:

TYPING TEXT FOR THE CRAWL

▲ The Crawl works most best when the font sizes used are the same height (MAX. HEIGHT 120).

▲ When typing the last word on a line, the word should NOT be split by typing half of the word and pressing RETURN, then typing the rest of the word on the next line. If a word will not fit on the line, the whole word should be placed on the following line.

▲ All of the text must be left justified.

WORD SPACING CONTROL FOR CRAWL LINES

If during playback, the last word on a crawl line runs too close to the first word of the following line, you may need to add a little space between the two words to maintain even spacing.

Each text line on the page starts at the Left Margin. By adding a small space between the Left Text Margin and the first word of the Text line, you are also effectively adding a small gap between the end of the last line and the beginning of the next line of text.

To do this simply type a SPACE as the FIRST character of each text line. This moves the text line slightly to the right, and slightly farther away from the Left Margin.

If necessary, the amount of space added at the beginning of each line can be fine-tuned by typing CTRL S (character Separate) or CTRL-T (character Tuck) at the beginning of the line until the line is placed just right.

SETTING THE CRAWL LINE POSITION

▲ The Crawl line can be placed on any vertical position on the screen by setting the CRAWL LINE position in the PAGE LAYOUT MENU for the page PRECEDING the Crawl page. This is intentionally set up in this manner so that the Crawl Line position can be visually aligned with text from the preceding page.

Therefore, you should go to the previous page before setting the CRAWL LINE in the LAYOUT MENU. In this way, the Crawl position can be accurately aligned with lines of text from the previous page which will remain on screen during the Crawl Effect.

Example:

(Page 1)   Background Text
                  CUT Effect
                  Set the Crawl Line Top for following Crawl Page.

(Page 2)   Crawl Text
                  CRAWL Effect
                  Crawl Line window position taken from page 1 setting.

▲ When Crawling over an existing page of text, it is usually best to match the top of the CRAWL LINE to the same position of an existing line from the previous page. This will prevent the possibility of background letters from the previous page being cut-off when the Crawl begins.

▲ The Crawl effect window uses the 16 color palette of the top line from the Crawl text page. If the previous page contains a different 16 color palette, it will still keep those colors intact while the Crawl is active.

▲ Only one page of text can be crawled at time. If there are additional pages to be crawled, a short gap will appear until the previous page has finished crawling.

TUTORIAL-CRAWLING A PAGE OF TEXT

1. For simplicity, start with a new sequence. If you already have a sequence in memory, select CLEAR SEQ from the FILE MENU to delete it. Press "Y" to confirm the action. Press "N" in response to the "Reload Fonts?" prompt.

2. From the MAIN MENU, select FONT. Select the Swiss 50 font. Click the Right Mouse Button to exit the menu.

3. Type one full page of text. If a word will not fit at the end of a line, delete the word, press RETURN and continue on the next line. Do not split words between lines.

4. Click the Right Mouse Button to enter the MAIN MENU. Select PAGE, then select EFFECT.

5. Select the CRAWL effect button in the effect list. Then click on the far right side of the SPEED button to change the speed to "4".

6. Double click the Right Mouse Button or press ESC twice to go to the MAIN MENU.

7. Press F1 to play the effect. The Crawl will begin from the right side of the screen and at the top of the page. Once all the lines have been Crawled, the MAIN MENU will appear.

▲ The HELP key on the keyboard can be used to pause the Crawl at any point while it is active. If you want to exit the effect while it is running, pressing the ESC key will automatically stop any running sequence.

CRAWLING AT THE BOTTOM OF THE SCREEN

1. To Crawl from the bottom line of the page, the CRAWL LINE must be adjusted. From the MAIN MENU, select PAGE, then LAYOUT.

2. Highlight the CRAWL LINE button. The CRAWL LINE "TOP" button refers to the scanline at which the topmost edge of the Crawl window will appear. The Crawl window can be placed on any even-numbered scanline on the page.

3. *NTSC Version:*

Move the CRAWL LINE down the page to scanline 408 by highlighting the CRAWL LINE button. Then type in "408" and press RETURN. This will start the Crawl at the bottom of the screen.

PAL Version:

Move the CRAWL LINE down the page to scanline 494 by highlighting the CRAWL LINE button. Then type in "494" and press RETURN. This will start the Crawl at the bottom of the screen.

4. Click the Right Mouse Button twice, or Press ESC twice to return to the MAIN MENU. Press F1 to start the Crawl.

CRAWLING TEXT OVER AN EXISTING PAGE

1. This example uses the page that was just created in the previous example to Crawl over the bottom line of another page.

2. Go to the PAGE MENU and select INSERT. This will insert a blank page (with a CUT effect) before the Crawl page. Once you've done this, select EDIT, which brings you back to the TEXT EDIT MODE.

3. Type in another page of text with the Swiss 50 font. Press F1 when you are done. You will notice that Page One Cuts onto the screen and then holds. Then Page Two Crawls over the bottom line of the previous page, leaving the existing text intact.

☐ CREATING LINE TRANSITIONS [_____]

This is a complete example showing how to create a page containing line transitions.

1. Enter the Main Menu by clicking the Right Mouse Button.

2. Press the SHIFT and PgDn keys simultaneously (Numeric Keypad 3) to create a new page.

3. Select FONT from the Main Menu.

4. Select the font "Swiss 50" if it is not already the current font. Click the Right Mouse Button to return to the Text Edit Mode.

5. Press RETURN four (4) times.

6. Type in the following lines, pressing RETURN after each line.

    USA   [RETURN]
    NIGHTLY [RETURN]
    NEWS   [RETURN]

7. Click the Right Mouse Button. Select FONT from the Main Menu.

8. Select the font "Swiss 37". Click the Right Mouse Button.

9. Type in the word "with" followed by your name. For example:

"with Julie Anderson"

10. Press the UP Arrow key once so the Text Edit Cursor is on the line containing the word "NEWS".

11. Simultaneously press SHIFT and the Hyphen key to type an Underline character. The Underline Menu appears.

12. Press the Up Arrow key ONCE to move the red Underline Cursor up by two scanlines. Next, press and hold the Underline key (SHIFT Hyphen), until the red underline extends slightly beyond the rightmost character on the page. Press ESC to exit the Underline Menu.

13. Click the Right Mouse Button to enter the Main Menu. Select LINE. Then select EFFECT from the Line Menu. The Line Effect Menu appears.

14. Click the Ln Up button on the menu a few times until the text line indicator reads "USA".

15. Select the "7 Slide Up" line effect box near the top of the menu.

16. Click on the Ln Down button. The text line should display "NIGHTLY". Select the "7 Slide Up" line effect box near the top of the menu.

17. Click the Ln Down button again and the text line should now display "NEWS". Select the "7 Slide Up" line effect box.

18. Click on the Ln Down button once more. The text line should now display "with Julie Anderson". Select the "5 Ease Right" line effect box.

19. Click the Right Mouse Button three times to return to the Text Edit Mode. Press F1 from the keyboard to view the effect for this page.

This was an example of "Simultaneous" line transitions. The specifics of both Line-by-Line and Simultaneous effects playback are covered in the Line Effect section of the Line Menu chapter.

☐ CREATING BRUSHES IN DELUXE PAINT ☐

THIS TUTORIAL EXPLAINS HOW TO CREATE IFF BRUSHES FOR PATTERNED TEXT FILLS IN BROADCAST TITLER USING Deluxe Paint.

Necessities for this tutorial: Deluxe Paint and a formatted data disk.

• Brushes should be created in high resolution (640 x 400 pixel resolution). If the brush pattern is less than half of the full screen width, Broadcast Titler will automatically repeat the pattern for every character across the page.

• Brushes must be at least the full height of the chosen font in order to fill the text properly. If the brush is not the full height of the font, the bottom of the characters may be black. The brush pattern must be limited to eight colors.

To begin, insert your Deluxe Paint program disk and click on the DPaint icon to start up the program.

1. When the Choose Screen Format requester appears, select Hi-Res 640 x 400, LOAD ALL, and Number of Colors = 8. Leave all other settings at their default values.

2. Press the Right Mouse Button at the top of the screen to access the PREFS Menu. From the PREFS menu, select COORDS to display the cursor coordinates. Next, click on the GRID tool, or press "g" on the keyboard.

3. Now we will make two brushes with gradient spreads. One will be a horizontal spread, the other a vertical spread.

MAKING A VERTICAL SPREAD BRUSH

1. Press "p" from the keyboard to bring up the Palette Menu. The following steps will show how to create a range of colors. The eight colors in the palette are numbered from Color 0 to Color 7, starting from the upper left to the lower right.

2. To create a spread of colors from a color in Position 1 to a color in Position 7, click on the Color 1 box in the Palette Menu (the Cream color). Then click on the SPREAD button. Now select the Color 7 box. A spread of colors will be created from Colors 1 to 7.

3. We will now create a range for the new spread of colors. The range must be adjusted before the gradient spread is created.

Locate the RANGE Numbers 1 - 6 to the right of the RANGE Button. Leaving the selected color on Color 7 (Light Blue), click on the Number 2 box by the RANGE Button. Now click on the RANGE Button, then the Color 1 box in the palette. Select OK.

4. Now choose the FILL TYPE requester by pressing SHIFT "F" from the keyboard. To create a vertical gradient spread, press the TOP-TO-BOTTOM ARROW button to the right of the word "Gradient:". Select OK. A small rectangle will appear on the TITLE BAR showing the gradient colors.

5. Press SHIFT "R" to select the FILLED RECTANGLE tool. The pointer will turn into a crosshair cursor.

6. Now create a 105 x 105 pixel rectangle. Go to the center of the screen. Press and hold down the Left Mouse Button while dragging the Mouse down and to the right. Notice the coordinates on the top right of the title bar change as the mouse moves. Move the Mouse until the coordinates are at 105 x 105, then release the Mouse Button. The rectangle will be filled with a gradient spread from top to bottom.

7. To grab the brush, click on the BRUSH SELECTOR tool or press "b" from the keyboard. Place the crosshairs on the top right of the spread. Click and hold down the Left Mouse Button, moving to the right and down until the coordinates are at 105 x 105. When you release the Mouse Button, the pointer will be carrying the brush.

8. Go to the Brush Menu and select SAVE. Put the formatted data disk into DF0: after the requester appears. Click on the DF0: gadget after the disk drive light turns off.

When saving brushes for text fills, it is convenient to save the brush with a name followed by the height of the font which it will be used for. For example: VSpread.105.

9. Click on the box next to the word "File". Type in "VSpread.105", then click on SAVE to save the brush to the floppy disk.

MAKING A HORIZONTAL SPREAD BRUSH

1. Select CLR or press SHIFT "K" from the keyboard. Press SHIFT "F" to bring up the FILL TYPE requester again.

2. Select the (middle) LEFT-TO-RIGHT Arrow button to the right of the word "Gradient:" to select the horizontal direction gradient fill. Select OK.

3. Press F10 to remove the Title Bar and Toolbox from the screen, then press F9 to show the Title Bar. This will make room to create the horizontal spread on the screen.

4. Select the FILLED RECTANGLE tool, or press SHIFT "R", and make a rectangle from the far left of the screen to the extreme right, until the displayed size is 641 x 105 pixels. Check the coordinates to get the exact size.

5. Press "b" to select the BRUSH SELECTOR tool. Grab the whole rectangle as a brush the same way that the vertical brush was selected in the previous example.

6. Save the brush from the Brush Menu using the file name "HSpread 105". Refer to #8 in MAKING A VERTICAL SPREAD BRUSH in the previous tutorial.

7. After saving the brush, select QUIT from the Picture Menu to get back to the Workbench.

☐ FILLING TEXT WITH IFF BRUSH PATTERNS ☐

User created IFF brushes can be applied to text to add variety to the single color characters that are used in Broadcast Titler. In order to use this feature, one must start with an IFF brush pattern or a digitized image, using up to eight colors. This tutorial will show how to load in previously created IFF brushes and type with text filled with patterns from these brushes. This tutorial will also demonstrate how to change the color palette of the text to achieve different coloring effects with patterned text.

This tutorial has been created to be used with a single-disk-drive system.

CREATING A REPEATING PATTERN TEXT FILL

1. Boot Broadcast Titler. Once the program has loaded, remove the Broadcast Titler Program Disk from DF0:, and replace it with your Data Disk containing the IFF brushes created in the previous tutorial.

2. In the MAIN MENU, select FILE, then LOAD PICTURE.

3. Select the "VSPREAD.105" entry in the list of files that are displayed in the DOS MENU for DF0:. If this name does not appear in directory window, click on the Down Arrow button to the directory window, or press the Down Arrow key on the keyboard to list additional files. Once the picture is loaded it will be stored in resident memory for use as either a picture or as a text fill pattern.

4. To fill text with the brush pattern, go to the FONT MENU.

5. In the FONT MENU, select a font you wish to use with the brush pattern. A larger font size should be used since the brush size is 105 scanlines high. Ideally the height of the brush should closely approximate the height of the characters that will be used for the filled text.

6. When the font has been chosen, locate the FACE PATTERN button on the last row of buttons. The standard setting is "SOLID". Clicking on this button will list consecutive names of IFF pictures or brushes that have been loaded during this session.

Click on the word "SOLID" to show the "VSPREAD 105" brush. The letter "A" displayed on the menu will be filled with the brush pattern to preview the fill effect for that font.

If the font is short, and only uses the top portion of the brush pattern, you can select a larger font. Text typed with the larger font will use more of the brush pattern's surface area.

7. Press the Right Mouse Button or ESC from the keyboard to enter the Text Edit mode. Type out a full line of text. As you type each character, the brush pattern will be used repeatedly for each character that is typed on the line. This is because the brush that has been used for this example is only a fraction of the width of the screen, in which case the pattern is reused for each character on the line.

▲ When using this feature, Broadcast Titler's anti-aliasing feature is automatically disabled.

CREATING A WIDE PATTERN TEXT FILL

The second part of this tutorial will demonstrate the use of a wider brush pattern that will reveal itself from left to right as text is typed across the page. This option is ideal for color spread fills that progress from left to right with horizontal color gradients or blends.

Each character typed across the page reveals the portion of the brush that lies underneath the character, allowing one to "See through" to the underlying brush.

1. In the Text Edit mode create a new line by pressing RETURN. In the Main Menu select FILE and then select LOAD PICTURE. When the file requester appears select the "HSPREAD.105" brush created from the previous tutorial.

2. Go to the FONT MENU. Click on the FACE PATTERN button until the "HSPREAD.105" brush name appears in the button. When multiple IFF pictures or brushes have been loaded, the names will appear the order in which they were loaded from the File Menu.

3. Press ESC or the Right Mouse Button to enter the Text Edit mode. Type a full line of text across the page. The text will be filled with the wide brush pattern as if it was stamped from the "HSPREAD.105" brush.

GUIDELINES FOR USING PATTERN FILLED TEXT

There are numerous applications for using textured brushes for pattern filled text. Feel free to experiment with brushes of your own. It is important that the brushes used for this feature are made using only the first eight colors in the color palette.

It is equally important that the height of the brush be as tall as the largest letter in the font that you will be using. This is to insure that the pattern is capable of filling the entire height of the text you will be using.

▲ To conserve memory, it is important to limit the height of the brushes to about 150 scanlines high, or smaller.

If the brush is too short or too narrow, the filled text may show a blank border area on the right and lower edges of the character face. If in doubt, make your brushes just a little taller than the height of the font and at least the width of the letter "W". Also, it is best to use large fonts with this feature as it makes the pattern details more apparent.

By selecting different patterns for each character or selecting other patterns for each line of text, it is possible to display a variety of different patterns on a single page. Brush patterns such as the gradient spread brushes in the previous example can also be color cycled with the CYCLE 1-7 option in the PAGE EFFECTS Menu.

TRANSPARENT CHARACTERS

In general, one should create patterned brushes using color 1 through 7 only. Color 0 which is normally the genlock video color, should generally not be used in the pattern. However, if Color 0 is used in the pattern, the corresponding area of the character face will show through to genlock video. This can be desireable if you wish to create transparent video characters.

To create transparent characters, simply make a large brush that contains only video Color 0. This can be done by cutting out a blank (Color 0) area of the screen in a paint package and saving it as a brush.

CHANGING THE COLORS OF A BRUSH FROM WITHIN BROADCAST TITLER

After typing your patterned text, enter the Main Menu, select LINE, then select PALETTE. As you will see, the brush colors for the current line are placed in Color Register boxes 1 through 7. These colors can be quickly modified with the Broadcast Titler Palette Menu.

    (a) Click on the Color 1 box in the row of 16 color registers.
    (b) We will now change Color 1 to Black, and then create a ramped spread to Color Register 7. Locate the "V" (value) slider and drag it to the far left using the mouse. As you do this, the color in Color Register 1 will darken and turn completely Black.
    (c) Now select the SPREAD 1-7 button or press F5 from the keyboard. This will create a gradient color spread from Color Register 1, which is Black, to Color Register 7. You will also see the patterned text change on the screen to reflect the new gradient color values.
    (d) Alternatively, some of Broadcast Titler's built-in spread palettes can be used. To use this feature simply click on the PRE-SPREAD button on the left side of the menu or press F6 until a desireable palette appears.

☐ LOADING AND PLACING IFF PICTURES ☐

Creating the Picture

1. Create a high resolution IFF picture file using a paint package or digitizer. The picture can be the full 16 color 736x480 pixel screen size (736x560 for PAL) or it can be a smaller IFF brush. If you are going to type text actually on top of the picture, it is best to create an eight color picture to prevent color palette conflicts. Hold and Modify (HAM) graphics mode pictures are not supported.

2. Copy or save the picture onto the Broadcast Titler sequence disk you will be using.

Loading the Picture into Resident Memory

3. In Broadcast Titler, place the sequence disk in drive DF0. Select FILE from the Main Menu, then select LOAD PICTURE. In a moment the Disk Directory Menu will appear listing the directories and files on the floppy disk.

4. Select the name of the picture file you wish to load from the Disk Directory. The file will load into Broadcast Titler's Resident Picture Storage, but it will not be displayed.

Displaying a Resident Picture

5. In the Text Edit Mode, move the Text Edit Cursor to the page and line which is to contain the Upper-Left portion of the picture.

6. From the Main Menu, select LINE. Then select PICTURE. The Picture Menu appears.

7. Click on the Picture Name button to step through the list of resident pictures.

8. When the correct picture name appears, adjust the LEFT and TOP values to position the picture on the page as desired. The position is indicated by a horizontal and vertical marker. The actual picture will not appear until the you exit the menu.

9. If you need to readjust the position of the picture, enter the Picture Menu again and change the position values accordingly.

Adjusting the Palette

10. Ideally, it is easiest to place background pictures on the page before entering lines of text, since the correct color palette for the picture is already in effect for the page.

However, if you add a full-page picture to a page that already has text, you may find that only the top line on the page has the correct color palette for the picture. This is because Broadcast Titler assigns the picture and its associated palette to an individual line.

To remedy this, replicate the correct palette over the entire page. Select LINE from the Main Menu. Select PALETTE. Move the palette window cursor to the line containing the correct palette. Select CUT PAL. Select AFFECT PAGE, then select PASTE PAL. Exit to the Text Edit Mode to resume editing.

☐ SAVING A SEQUENCE ⌷⎽⎽⎽⎽⎽⎽⎽⎽⎽⎽⎽

1. To save a sequence onto a disk for later retrieval, one should first have a formatted floppy disk on hand if you are not using a hard disk. Make sure that the floppy disk is not write-protected, and place the disk in floppy drive DF0.

2. Enter the Main Menu and select FILE. Then select SAVE SEQUENCE. In a moment the Disk Directory Menu appears, showing the names of all directories and files on the disk.

3. From the keyboard, type in the name of the sequence you would like to save. The complete disk path should also be specified.

As you type, the path and file names will appear in the red DISK PATH box at the bottom of the menu. When the name is entered, press RETURN.

Path Examples:

DF0:MyFirstSequence

Work:Video/BTitler2/MyFirstSequence

These examples create a Broadcast Titler Sequence file named "MyFirstSequence.BTS". The ".BTS" extension is automatically supplied by the program, and designates the file as a sequence file.

4. To start a new sequence, select CLEAR SEQUENCE from the File Menu. Type "Y" at the "Are You Sure?" prompt. Then type "N" at the "Reload Fonts?" prompt. Or, to exit Broadcast Titler, simultaneously press CTRL and ESC while in the Text Edit Mode.

5. Using the CLI or a file transfer utility, copy any IFF picture files used in the sequence onto the sequence disk. This is necessary so that Broadcast Titler can easily find and load these pictures when the sequence is loaded at a later time.

If you are going to transfer the sequence to another disk by copying individual files in Amiga DOS or a file transfer utility, remember to copy all of the following files:

MyFirstSeq.BTS
MyFirstSeq.LOAD
MyFirstSeq.PICS
Any IFF picture files used in the sequence.

■ CHAPTER 4 ■■■■■■■■■■■■■

☐ THE TEXT EDIT MODE ☐_____

MAIN ➤ RIGHT MOUSE BUTTON

To enter the Text Edit Mode from the Main Menu, click the Right Mouse Button, or press ESC, or the Right Amiga key from the keyboard. The menu bar disappears from the bottom of the screen to allow full editing of the page.

Most of the basic text editing functions as well as the more advanced page formatting abilities of Broadcast Titler are outlined in this chapter.

The sequence effects playback can also be activated from the Text Edit Menu by pressing function key F1 from the keyboard. Refer to the Play Menu Chapter for information concerning other play options.

To exit the Text Edit Mode and re-enter the Main Menu, click the Right Mouse Button, or press either ESC or the Right ALT key from the keyboard.

☐ SECTION ONE - CURSOR FUNCTIONS ☐_____

DEFINING A NEW TEXT LINE

New lines of text are created in the Text Edit Mode by pressing RETURN or the Down Arrow key after a line of text has been entered. Pressing RETURN moves the Text Edit Cursor one text row lower on the page, and starts a new line of text. The height of this new text line is determined by the height of the current font. To make fine adjustments to the new line's vertical position with respect to the previous line, see the following section on Vertical Character Positioning.

VERTICAL CHARACTER POSITIONING

Minor adjustments can be made to the vertical placement of characters that you are about to type on a line. Simultaneously press SHIFT and Up Arrow to move the Text Edit Cursor up by two scanlines, or press SHIFT and Down Arrow to move the Cursor down by two scanlines. This technique also provides accurate, user controlled placement for subscripts and superscripts.

DELETING A CHARACTER

To delete the character directly to the right of the cursor, press the DEL key from the keyboard (located next to the HELP key on the keyboard).

To delete the character to the left of the cursor, press the BACKSPACE key from the keyboard (located above the RETURN key on the keyboard).

CURSOR MOVEMENT CONTROLS

To move the Text Edit Cursor one character to the right, press the Right Arrow key. To move to the left, press the Left Arrow key. The cursor cannot be moved past the Left or Right Page Margins, which are controlled from the Layout Menu.

MOUSE PLACEMENT OF TEXT EDIT CURSOR

To quickly place the Text Edit Cursor at any character position on the page, move the Mouse Pointer over the desired character, and click the Left Mouse Button. The Text Edit Cursor will jump to the selected line and character position. Editing resumes from the new position.

CURSOR JUMP FUNCTIONS

To place the Text Edit Cursor at the beginning of the current text line, simultaneously press CTRL and Left Arrow.

To place the Text Edit Cursor at the end the current text line, simultaneously press CTRL and Right Arrow.

To place the Text Edit Cursor at the top line of the page, simultaneously press CTRL and Up Arrow.

To place the Text Edit Cursor at the bottom line of the page, simultaneously press CTRL and Down Arrow.

☐ SECTION TWO - LINE FUNCTIONS ☐

LINE-BY-LINE CENTERING

Any line of text on the page can be aligned with the Left Page Margin, Right Page Margin or it can be centered between the two margins. Move the Text Edit Cursor to the line to be centered. Simultaneously press CTRL and C. For left justified text, simultaneously press CTRL and L. For right justified text, simultaneously press CTRL and R.

▲ The Layout Menu provides a facility for centering the entire page of text all in one step.

ADVANCE TO NEXT TAB STOP

Five horizontal Tab Stop positions are available for each page. To place the Text Edit Cursor at the first Tab Stop position, press the TAB key once. Pressing the TAB key a second time will advance the Text Edit Cursor and any text following it at the second Tab Stop position. The Tab Stop locations for the current page may be viewed or changed in the Layout Menu.

Pressing the TAB character from the keyboard actually adds a TAB character to the text line. To release a tab position, simply move the Text Edit Cursor to the tab location in the line, and press the BACKSPACE key to delete the Tab character embedded in the line.

DELETING TEXT ON A LINE

To delete all text from a line, leaving an empty line in its place, press the DEL key (the decimal point key on the Numeric Keypad). This operation only clears text from the line and does not remove the line's space from the page.

REMOVING A LINE

To completely remove a line from the page, moving all lower lines up in position on the page, simultaneously press SHIFT and DEL (the decimal point key on the Numeric Keypad).

INSERTING A LINE

To insert a new line of text between two existing lines, place the Text Edit Cursor on the line at which you wish to insert. Press the INS key ("0" on the Numeric Keypad). The lines below the insertion point will be moved a distance down the page equal to the line height of the current edit font.

COPY LINE / PASTE LINE

To copy a line of text into the Text Copy Buffer, move the Text Edit Cursor to the line you wish to copy, and simultaneously press CTRL and K.

To paste a copy of the line in the Text Copy Buffer onto the current line, simultaneously press CTRL and P.

REPOSITIONING ALL TEXT LINES ON THE PAGE

All of the text lines on the page are positioned relative to the Left Page Margin. Changing the Left Page Margin in the Layout Menu will move all lines of text to a new horizontal position.

Similarly, the vertical placement of all text lines on the page is based on the location of the Top Page Margin. Therefore changing the Top Page Margin in the Layout Menu will move all lines of text on the page to a new vertical position.

REPOSITIONING A SINGLE TEXT LINE

To move a single line of text after it has been typed, move the Text Edit Cursor to the line to be moved. To shift the text line up two scanlines, simultaneously press the SHIFT key and the "8" key on the Numeric Keypad.

To shift the text line down two scanlines, simultaneously press the SHIFT key and the "2" key on the Numeric Keypad.

To shift the text line to the left, simultaneously press the SHIFT key and the "4" key on the Numeric Keypad.

To shift the text line to the right, simultaneously press the SHIFT key and the "6" key on the Numeric Keypad.

For more rapid cursor movement, keep holding down the keys until the cursor is near the desired position, and then release.

☐ SECTION THREE - CHARACTER FUNCTIONS ☐

COPY CHARACTER ATTRIBUTES

When editing an existing page with multiple fonts and character attributes, it is often desirable to be able to "Pick Up" a font style and full character attributes directly from any character on the page. Normally these attributes would have to be re-established by the user via the Font Menu.

To take the guesswork out of this operation, simply place the Text Edit Cursor on the Left side of the desired character. Then press the Left Amiga key to pick up the attributes of the character to the right. These attributes are then established as the current text edit attributes. If desired, these new attributes can be viewed in the Font Menu.

PASTE CHARACTER ATTRIBUTES

To plant the current character attributes over existing text having different attributes, place the Text Edit Cursor to the Left of the first character to be changed. Simultaneously press the CTRL and Left Amiga keys. All characters to the right of the cursor will change to the current character attributes.

CHARACTER KERNING

Broadcast Titler builds special inter-character spacing information, or "Kerning" values into its fonts. Kerning improves the appearance of evenly spaced characters by varying the spacing between irregularly shaped characters. Broadcast Titler automatically uses kerning in its standard fonts, as well as any fonts converted with the Font Converter or the optional Font Enhancer.

Without Kerning, the word "To" in a large font will have too much space between the letters "T" and "o". This is because standard "Proportional Spaced" characters do not take into account how to best position two adjoining characters having different shapes. Whereas with automatic Kerning, characters are carefully fitted together based on character shape information. This difference is illustrated below.
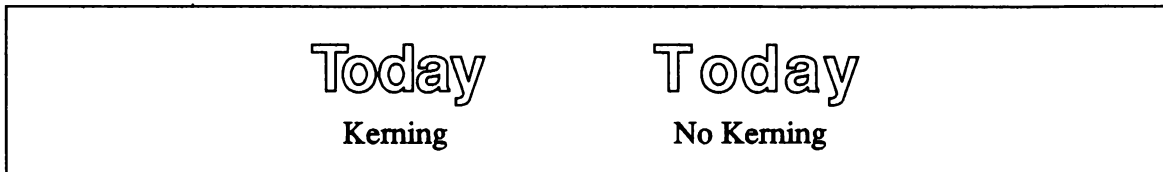
Kerning   No Kerning

CHARACTER TUCK

Although Broadcast Titler provides automatic Kerning, a manual Character Tuck feature is provided on a character by character basis for added flexibility. To "Tuck" any two characters slightly closer together, place the Text Edit Cursor between the two characters. Press CTRL and T simultaneously to Tuck the characters one pixel closer to each other. Larger typefaces may require several repetitions of this command to fully close large gaps.

In some cases you may wish to separate two characters without using the SPACE BAR, since a SPACE character adds about eight pixels between characters. For finer adjustments, place the Text Edit Cursor between the two characters to be separated. Press CTRL and S simultaneously to "micro-space" the characters one pixel at a time.

SQUEEZING IN EXTRA CHARACTERS ON A LINE

Additional characters may be added to a full line of text by pressing SHIFT and Left Arrow simultaneously. The command will need to be repeated several times. By holding down the keys continuously the auto-repeat feature will speed up the process. Each time this command is entered it reduces by one pixel the space between ALL characters on the line. The characters seem to squeeze together, providing more room at the end of the line for additional characters.

The opposite effect is obtained by simultaneously pressing SHIFT and Right Arrow. The space between EACH character on the line is increased by one pixel.

Another alternative for adding more space on the line is to extend the Left and Right Page Margins in the Layout Menu. However, one must be careful not to extend the margins beyond the Safe Titling Area. Otherwise some characters may not be visible on all Televisions or Monitors.

⬜ THE UNDERLINE MODE ⬜

CHARACTER BY CHARACTER UNDERLINING

Broadcast Titler provides a character-by-character underlining function which is incorporated into Broadcast Titler's Text Edit mode. To underline a word or any set of individual characters on a line, enter the Text Edit mode and move the Text Edit Cursor to the desired text line. Type an underline character by holding down the SHIFT key while pressing the underline/hyphen key on the keyboard (Next to the "+" key). The red Underline Menu will appear at the bottom of the page.

Notice also that a small red underline cursor appears at the left margin of the current text line. This is the Text Underline Cursor which is used to select the starting position for the text underline. With the Text Underline Cursor placed at the left edge of the word to be underlined, type in the underline by repeatedly pressing the SHIFT-UNDERLINE key from the keyboard. With each underline character typed, the underline cursor will advance one position to the right and leave behind a solid underline. Type all the way across to the end of the underlined word. If satisfied with the underline as it appears, type one additional underline character, and press ESC from the keyboard to return to the Text Edit mode.

MAKING CHANGES TO THE UNDERLINE

While in the Underline Mode, the underline may be erased by pressing the BACKSPACE key from the keyboard, or by placing the Underline cursor over the underline section to be erased and pressing the SPACE BAR. Removing all underlines from the current text line is done by pressing the DEL key from the keyboard.

UNDERLINE VERTICAL POSITIONING

To move the underline up, press the Up Arrow key from the keyboard while in the Underline Mode. To move underline down, press the Down Arrow key from the keyboard. The new vertical position will be represented by the Text Underline Cursor only. The rest of the underline will remain in the old position until you return to the Text Edit mode and the page refreshes itself.

CHANGING THE THICKNESS OF THE UNDERLINE

In the Underline Mode, press the "H" key from the keyboard to increase the height of the underline, or press "h" to decrease the height of the underline. The underline height will be reflected only by the height of the Underline Cursor itself. The actual underline will be displayed correctly upon returning to the Text Edit mode when the page refreshes itself.

DOUBLE UNDERLINES

One interesting variation of the standard underline is a double underline which is obtained by setting the underline height to a thickness of ten scanlines or greater. The text underline cursor will appear to split into two separate underlines, one on top of the other. To return to the single underline style, press the lower case "h" from the keyboard until the text underline cursor becomes a single underline.

CHANGING THE UNDERLINE COLOR

The underline color can be changed by altering Color 4 from the Palette Menu. The underline shadow takes on the same color and dimension as the character shadow for the text line.

☐ INTERNATIONAL AND SPECIAL CHARACTERS ☐

The following keystroke sequences will generate an "`" accent mark on the letter typed. For example an "à" is generated by simultaneously pressing the Left ALT and "G" keys together, releasing both keys, and then pressing the "a" key.

ALT G	THEN	RESULT
ALT G	A	À
ALT G	a	à
ALT G	E	È
ALT G	e	è
ALT G	I	Ì
ALT G	i	ì
ALT G	O	Ò
ALT G	o	ò
ALT G	U	Ù
ALT G	u	ù

The following keystroke sequences will generate an "'" accent mark on the letter typed. For example an "á" is generated by simultaneously pressing the Left ALT and "F" keys together, releasing both keys, and then pressing the "a" key.

ALT F	THEN	RESULT
ALT F	A	Á
ALT F	a	á
ALT F	E	É
ALT F	e	é
ALT F	I	Í
ALT F	i	í
ALT F	O	Ó
ALT F	o	ó
ALT F	U	ú
ALT F	u	ú

The following keystroke sequences will generate an "^" accent mark on the letter typed. For example an "â" is generated by simultaneously pressing the Left ALT and "H" keys together, releasing both keys, and then pressing the "a" key.

ALT H	THEN	RESULT
ALT H	A	Â
ALT H	a	â
ALT H	E	Ê
ALT H	e	ê
ALT H	I	Î
ALT H	i	î
ALT H	O	Ô
ALT H	o	ô
ALT H	U	Û
ALT H	u	û

The following keystroke sequences will generate an umlaut accent mark on the letter typed. For example an "ä" is generated by simultaneously pressing the Left ALT and "K" keys together, releasing both keys, and then pressing the "a" key.

ALT K	THEN	RESULT
ALT K	A	Ä
ALT K	a	ä
ALT K	E	Ë
ALT K	e	ë
ALT K	I	Ï
ALT K	i	ï
ALT K	O	Ö
ALT K	o	ö
ALT K	U	Ü
ALT K	u	ü

The following keystroke sequences will generate a tilde accent mark on the letter typed. For example an "ñ" is generated by simultaneously pressing the Left ALT and "J" keys together, releasing both keys, and then pressing the "n" key.

ALT J	THEN	RESULT
ALT J	A	Ã
ALT J	a	ã
ALT J	N	Ñ
ALT J	n	ñ
ALT J	O	Õ
ALT J	o	õ

The following special characters are generated by simultaneously pressing the ALT key and the indicated letter. For example to generate the"æ" character, simply press the Left ALT key and the "a" key simultaneously. Many of the following special symbols are included with the NTSC version.

ALT	PLUS	RESULT	ALT	PLUS	RESULT
ALT	A	Æ	ALT	S	§
ALT	a	æ	ALT	V	ª
ALT	B	º	ALT	W	°
ALT	C	Ç	ALT	y	¤
ALT	c	ç	ALT	Y	¥
ALT	E	©	ALT	z	±
ALT	i	¡	ALT	Z	¬
ALT	L	£	ALT	1	1
ALT	M	¿	ALT	2	2
ALT	N	‾	ALT	3	3
ALT	O	Ø	ALT	4	¢
ALT	o	ø	ALT	5	1/2
ALT	P	¶	ALT	6	1/4
ALT	Q	Å	ALT	7	3/4
ALT	q	å	ALT	8	•
ALT	R	®	ALT	9	«
ALT	s	ß	ALT	0	»

▲ A special opening quote character is obtained by pressing SHIFT - BACKSLASH.

▲ In the interest of saving space in Resident Font Storage, the NTSC version of the program contains Special Symbols, but does not contain the International Accented Characters. The PAL version of the program contains the full set of International Characters and the Special Symbols.

If you need accented characters for the NTSC version, contact InnoVision Technology directly for ordering information. A total of 1.5 megabytes of FAST RAM and 512 kilobytes of CHIP RAM is required for the extended fonts.

If you own Amiga Fonts containing the full ASCII 256 International Character Set, then the Font Converter and the optional Font Enhancer will convert all of the characters contained in the font. See the Font Converter documentation in the Appendix of this manual.

Since Broadcast Titler supports International Keymaps and the full ASCII 256 character set, it possible for users to define their own special characters in an Amiga Font editor. Simply convert the resulting font in the Font Converter or the optional Font Enhancer for use in Broadcast Titler. Most special characters currently used are located in the range of characters ASCII 160 through ASCII 191.

☐ SECTION FOUR - PAGE FUNCTIONS ☐

HELP KEY PAGE REFRESH

Some editing operations, such as vertical shifting of characters, and deleting or inserting lines require that the page be redrawn periodically to insure that the display is accurate and up to date. To refresh the page press the HELP key from the keyboard.

CREATING A NEW PAGE

To add a new page to the end of a sequence, simultaneously press SHIFT and PgDn ("3" on the Numeric Keypad). A new blank page will be created and the Text Edit Cursor will appear on the top line. This same command is also available in the Main Menu.

A convenient menu-driven selection for both Appending and Inserting pages is provided in the Page Menu. See that chapter for further details.

MOVING TO ANOTHER PAGE

The following commands access other pages in the sequence:

> **PgUp** - Jump to the previous page
> **PgDn** - Jump to the next page
> **HOME** - Jump to page one
> **END** - Jump to the last page in the sequence
> **SHIFT PgDn** - Create a new page at the end of the sequence

These commands are also active in the Main Menu. In addition, the Main Menu also provides direct entry of page numbers for random access capability. In addition, the Page Menu provides a convenient means of accessing pages by listing ten pages at a time. See the Main Menu and Page Menu chapters for details.

INSERT / COPY / MOVE / DELETE PAGE

For simplicity and ease of use, these page-handling functions are accessed in the Page Menu. See the Page Menu Chapter for a complete explanation of these functions.

■ CHAPTER 5 ■

☐ THE MAIN MENU ☐

The Main Menu is the central control point for most of the non-text editing functions available in Broadcast Titler. The Main Menu provides rapid access to most of the common editing, layout and disk functions used in Broadcast Titler.

From this Menu, the **FONT MENU** provides access to font selection and character attribute settings.

The **LINE MENU** assigns individual functions or characteristics for a particular line of text on a page, such as effects, palette changes, IFF backgrounds, and patterns.

The **PAGE MENU** selection is used to edit the ordering, layout, effect, and palette for each page in the sequence. It also provides numerous editing functions for moving, deleting and inserting pages.

The **PLAY MENU** is a special menu that customizes the manner in which the sequence is played back. As a convenient shortcut, some of these playback functions are also available in the Edit Mode and Main Menu as keyboard commands. A Screen Options Menu is also included in the Play Menu for adjusting the screen offset and displaying the status bar for users of the Manual Play feature.

The **FILE MENU** is used for selecting mass storage operations on floppy or hard disk drives. This includes loading and saving sequences and pictures, and loading fonts and ASCII text files into a sequence.

JUMPING TO ANOTHER PAGE

The Main Menu allows you to jump to any page in the sequence. To move to the previous page in the sequence, select the PAGE UP button from the menu or press the PgUp button (numeric keypad 9) from the keyboard. To move to the next page in the sequence, select the PgDn button or press PgDn (numeric keypad 3) from the keyboard. To jump to the first page in the sequence, select the H (Home) button or press HOME (numeric keypad 7) from the keyboard. To jump to the end of the sequence, select the E (End) button on the menu or press END (numeric keypad 1) from the keyboard.

RANDOM PAGE ACCESS FROM THE MAIN MENU

In the Main Menu, random access to any specific page in the sequence is accomplished by typing the desired page number from the keyboard which will call up the specified page. Type 01 for page one , 02 for page two, etc. If your sequence contains more than 99 pages, then a three digit number must be typed, i.e. 001, 050, 250 etc.

APPENDING A NEW PAGE

Appending a new page to the sequence is accomplished by pressing and holding down the SHIFT key and then pressing the PgDn key (keypad 3) from the keyboard. This can also be done through the Page Menu. The SHIFT-PgDn combination prevents the accidental addition of unwanted blank pages at the end of your sequence.

RETURNING TO TEXT EDIT MODE

To return to the Text Edit mode for the current page, press the Right Mouse Button or press ESC from the keyboard. The Text Edit cursor will reappear and you can resume typing and editing. Press the HELP key from the keyboard. To access the Main Menu from the Text Edit entry mode, click the Right Mouse Button, or press ESC or the Right ALT key from the keyboard.

EXITING BROADCAST TITLER

To exit the program and return to the AmigaDos Workbench or the Auto-Boot menu, simultaneously press CTRL and ESC from the Main Menu.

■ CHAPTER 6 ██████████████

☐ THE FONT MENU ▭

MAIN ➤ FONT

The Font Menu contains a number of character attribute options such as the following:

- Selecting a Font
- Changing the Face Color for text entry
- Adjusting Shadows & Outlines
- Switching the Anti-alias setting
- Selecting the Pattern Filled Text option

CHOOSING A FONT
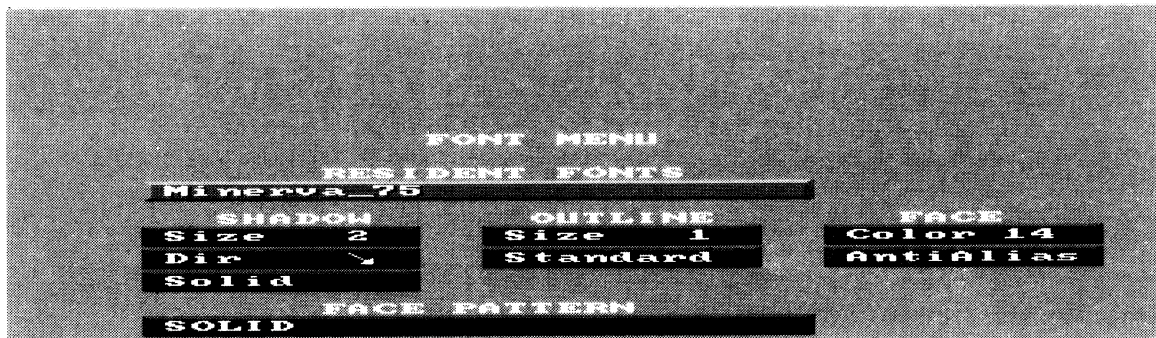
Move the cursor to the RESIDENT FONTS button on the menu. The current font name is displayed in this button along with its size in scanlines. The actual font and selected style is also displayed on the bottom of the menu by the letter "A".

Click on the Right side of the RESIDENT FONTS button to advance through the list of available fonts until the new font you desire appears. With each click, the letter "A" at the bottom will be displayed in the new font style. To go back to the previous font, click on the Left side of the RESIDENT FONTS button.

If the font you desire is not listed in the set of resident fonts, you probably have not loaded the font from the File Menu. Only the fonts that have been loaded at the start of the program from the BTFONTS.LOAD file, and those loaded directly from the Load Font menu will be displayed in the resident font list. See the FILE MENU chapter for details on loading additional fonts.

CHANGING THE SHADOW SIZE

The shadow size is a line-by-line attribute that specifies how far the shadow will extend from the face of the character. To increase the size of the shadow, move the mouse pointer to the right side of the number in the SHADOW SIZE box, and click the Left Mouse Button. The value for the shadow will increase by two scanlines for each click of the mouse button. The maximum shadow size is 32 scanlines.

To decrease the size of the shadow, click on the left side of the shadow size number and the value will decrease by two. To remove the shadow, set the value to zero. As with most numeric boxes on the Broadcast Titler's menus, it is possible to enter a value directly by highlighting the SHADOW SIZE box, typing in the desired value, and pressing RETURN.

CHANGING SHADOW DIRECTION

The character shadow direction is another line attribute. There are eight shadow directions from which to choose. Click to the left or right of the shadow direction arrow to rotate through the eight shadow direction settings.

SELECTING CAST OR SOLID SHADOWS

There are two types of shadows available for characters. The standard setting is for a Solid shadow which makes the character look like it was carved from a solid block. By clicking on the SHADOW/CAST button, the shadow can be changed to a Cast shadow which gives the impression that the shadow is being projected onto the background of the page.

The distance between the face and the cast shadow is controlled by the SHADOW SIZE attribute. The larger the number, the farther from the face the cast shadow will appear. In addition, the shadow direction determines the apparent light source for the cast shadow.

SETTING THE CHARACTER OUTLINE SIZE

The character outline is a line attribute controlling the size and style of the character outline. To make characters stand out from the background video, it is common practice to place a black outline and shadow around alphanumerics used in video production. Also, text with outlines or shadows tends to be easier to read.

To change the Outline Size, move the mouse pointer into the OUTLINE SIZE button and click to the right of the OUTLINE SIZE number to increase the size, or to the left of the OUTLINE SIZE number to decrease it. You may also enter a value from 0-6 via the keyboard, and press RETURN.

SETTING THE OUTLINE STYLE

Normally, the Outline is in the STANDARD setting which draws an outline around the face of the character. The other option is the HIGHLIGHT Outline in which both the face and the shadow are completely surrounded by the outline.

In order for the HIGHLIGHT style to display correctly, the Outline Size must be "1" or greater, the Shadow Size must be "2" or greater, and palette color 8 (SH) should be set to a different value than color 12 (OL).

CHANGING THE FACE COLOR

The face color is a character-by-character attribute. For standard text, there are four pre-assigned color groups which permit up to four anti-aliased face colors per line of text. The standard color used for the character face is color 14.

To change the color used for the face of the characters you are about to type, click inside the FACE COLOR box to change the face color to a value of 2, 6, 10 or 14.

▲ If you are using background patterns or IFF pictures in your pages, it is recommended that face color 10 or face color 14 be used for text. This is because background patterns or IFF pictures using colors 1 through 7 may interfere with the anti-alias colors for color 2 or color 6 text.

CHARACTER ANTI-ALIASING

The Anti-alias character attribute button is provided as a means of turning on and off the automatic anti-aliasing feature within Broadcast Titler. In order for Broadcast Titler's anti-aliasing to work correctly, one should be sure that the anti-alias option is set to ANTI-ALIAS.

▲ Only Broadcast Titler's default fonts and fonts converted with the optional Broadcast Titler Font Enhancer contain anti-aliasing. Amiga Fonts that have been brought into Broadcast Titler through the Font Converter package provided with Broadcast Titler will not have anti-aliasing, regardless of the Anti-alias attribute setting.

BRUSH PATTERN TEXT FILLS

Aside from the standard single-color face characters, Broadcast Titler provides a means of mapping user created eight-color pictures or patterns on top of plain characters. This feature uses brush colors 0 through 7 as the colors for the face pattern.

To use this feature, one must first create a pattern in a paint package or digitizing program in up to eight colors. Details covering this procedure are provided in the Text Fill Tutorial in Chapter 3.

If multiple eight-color face patterns have been loaded into Broadcast Titler, the desired face pattern may be selected by clicking in the face pattern box to cycle through the available IFF brush pattern names that have been loaded into resident memory.

With each click of the mouse button, the next face pattern will become visible in the character preview window at the bottom of the menu. To return to the normal single-color text mode, click on the face pattern box until the name "SOLID" appears.

HIGH RESOLUTION/SUPER HIGH RESOLUTION MODES

Normally Broadcast Titler will operate in the "High Resolution" 16 color, 70 nanosecond, 736 x 480 pixel graphics mode. With the advent of the Amiga 3000, and the new Super High Resolution Denise video chip upgrade for Amiga 500, 2000, and 2500 Broadcast Titler now offers an optional 35 nanosecond "Super High Resolution" upgrade which will allow you to take advantage of the Amiga's new and improved resolution capabilities.

The Broadcast Titler Super High Resolution Upgrade increases the number of actual horizontal screen pixels from 736 to 1,472. This gives Broadcast Titler characters a very sharp look that rivals the best high-end character generators on the market today. Broadcast Titler also adds its own anti-aliasing to these characters to improve the resolution even further.

If you have purchased the Broadcast Titler Super High Resolution Upgrade, the MODE button will have two settings. By clicking on the MODE button, the Super High Resolution character mode will be invoked. This is a line-by-line attribute in which all characters on a single line are displayed in either High Resolution 70 nanosecond mode, or 35 nanosecond Super High Resolution mode.

As a line attribute, the Super High Resolution mode may be interspersed with standard High Resolution lines on the same page. This can be useful for displaying 16 color digitized images, while displaying text in lines above or below using the sharper Super High Resolution mode. The Super High Resolution mode is limited to only 4 colors per line, although Broadcast Titler allows a new 4 color palette for each text line on the page, providing a total of up to 64 Super High Res colors per page.

▲ If you are interspersing High Resolution lines with Super High Resolution lines on a page, you may occasionally notice a single scanline fringe pattern effect that appears on the first scanline of a High Resolution to Super High Resolution boundary. This is not a serious problem as it involves only color zero, which is normally genlocked, and will not be displayed in the final video output.

This visual artifact only appears if you are mixing Super High Resolution and standard resolution lines, and is caused by the Amiga's Multiplexed Hardware implementation of the Super High Resolution color palette.

This artifact can be eliminated by setting the background color 0 to a full Black value (R=0, G=0, B=0).

▲ It is important to keep in mind that pages containing Super High Resolution lines must use one of the designated Super High Resolution effects. Normally this distinction is automatically handled by Broadcast Titler, which selects the appropriate effect based on the resolution used for the page.

■ CHAPTER 7 ▬▬▬▬▬▬▬▬▬

◻ THE LINE MENU ▭

MAIN ➤ *LINE*

The Line Menu provides the following operations on a line-by-line basis:

- Selecting Line Effects
- Changing Line Palettes
- Placing Pre-loaded IFF Picture Backgrounds or Brushes
- Creating & Placing Line Patterns

The current line being edited is marked by the yellow Text Edit Cursor on the left side of the menu. To move to another line on the page, select the LN UP or LN DN Arrow buttons on the menu, or press the UP or DOWN Arrow keys from the keyboard. The Text Edit Cursor will move to the new line.

▭ THE LINE EFFECT MENU ▭

MAIN ➤ *LINE* ➤ *EFFECT*

During playback, each new page of a Broadcast Titler sequence is introduced by a transition effect. Those effects that move the entire page as a single unit are called PAGE TRANSITIONS, and are discussed in the PAGE MENU chapter.

The other class of effects that introduce the next page's text one line at a time are called LINE TRANSITIONS, which are explained in this section.

Each line on a page may contain a different line transition. This capability lends itself to creating numerous customized transitions that can appear to animate selected areas of the page.

To add line transitions to a page, select LINE from the Main Menu. Select EFFECT to enter the Line Effect Menu.
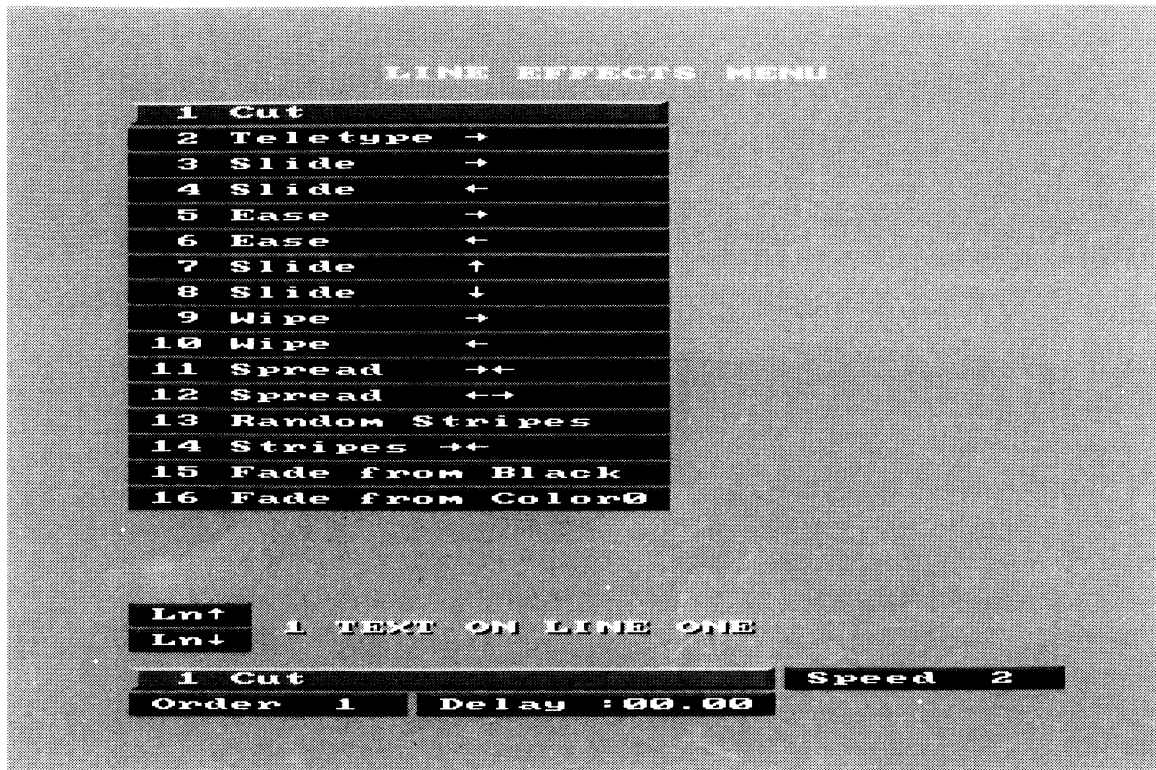
LINE EFFECT DESCRIPTIONS

Cut - Instantaneously displays the current line with no special effects.

Teletype - "Types" each character one at a time from left to right on the current line.

Slide - Slides in the current line over the previous line from the direction specified.

Ease - The current line rapidly accelerates toward the direction specified, then gradually decreases speed as it gets closer to the center.

Wipe - Horizontally wipes the current line over the previous line.

Spread - The current line is wiped onto the screen either from the center to the left and right edges (Spread In) or from the edges to the center (Spread Out)

Random Stripes - Randomly places thin vertical strips of the current line onto the previous line.

Stripes - Thin vertical slices of the image are layered onto the screen.

Fade Black - All colors on the previous line gradually decrease to Black, then the current line fades from Black.

Fade Color 0 - All colors on the previous line gradually blend into the shade in Color register 0, then the current line fades in.

LINE EFFECT MAP

1 Cut	9 Wipe Left
2 Teletype	10 Wipe Right
3 Slide Left	11 Spread In
4 Slide Right	12 Spread Out
5 Ease Left	13 Random Stripes
6 Ease Right	14 Stripes
7 Slide Up	15 Fade Black
8 Slide Down	16 Fade Color Zero

CHOOSING A LINE TO PLACE AN EFFECT

Locate the LN UP and LN DN buttons on the lower left of the menu. This is the current line selector. Just to the right are the current line number and the text contained on the line.

Each time you move to a new line in the Line Effect Menu, the line effect data for the new line is displayed in the menu buttons. The current line effect is highlighted from the Line Effect List at the top of the menu. Clicking on another effect name in the list will select that line effect for the current line. From the keyboard, highlight the Effect Name Button on the bottom of the menu, and press the UP or DOWN Arrow keys until the desired effect name appears.

SETTING THE SPEED OF THE EFFECT

Each line effect can be set to execute at nine different playback speeds, with speed 1 being the slowest, and speed 9 the fastest. After selecting the desired effect, highlight the SPEED button. Click to the left of the speed value to decrease the speed, or to the right of the number to increase the speed. From the keyboard, the UP and DOWN Arrow keys are used to change the SPEED value. In addition, the SPEED value may be typed in directly from the keyboard and entered by pressing RETURN.

SETTING THE "ORDER" FOR LINE-BY-LINE EFFECTS PLAYBACK

Each line on the page can transition onto the screen in any order of appearance. The ORDER value controls the order in which the lines will appear. Setting the ORDER value on a line to "1" will make that line the first line to appear on screen. This line will move onto the screen and then hold in position. Only after the first line has completed its move will the next line, with ORDER "2" begin to move onto the screen, and so forth.

These are called line-by-line transitions since only one line transition is executing at a time. Be aware that the initial ORDER value for each line on the page is automatically set to ORDER "1", which is the setup for the Simultaneous Playback mode covered in the following section. Therefore to achieve Line-By-Line Playback you must set the ORDER value for each line to a different numeric value.

SHARING THE SAME "ORDER" FOR SIMULTANEOUS EFFECTS

Simultaneous line transitions move lines having the same ORDER value at the same time. If two or more lines have the same ORDER value, then those lines will begin their transitions all at the same time. For example, if three lines on the page have an ORDER value of "1", then those three lines will begin to move all at once. Only when these three lines have finished moving will any remaining lines with ORDER values of "2" or greater begin to execute.

▲ The first time you enter the Line Effect Menu, all lines on the page already have an ORDER value of "1", so they will default to simultaneous playback.

USING "DELAY" FOR STAGGERED START OF SIMULTANEOUS EFFECTS

Expanding on the discussion of Simultaneous Effects from above, it is sometimes desirable to add a timed delay before starting a line effect. As just stated above, all line effects sharing the same ORDER will allow those lines to move at the same time. By adding an additional DELAY control, any line can be made to start moving a set number of video fields later.

If all of the line DELAY times are set to "0.00", then each line effect will start and finish at the same time. While a DELAY of "0.10" for one of the lines will cause that line effect to lag slightly behind other lines.

The WEAVE Page Effect is a working example of this concept. Each line of the WEAVE Page Effect is set up to alternate between a SLIDE LEFT or SLIDE RIGHT line transition. All of the lines for this effect are automatically set to ORDER "1" so that they can move at the same time. However, starting from the top line on the page, each successive line going down the page has a progressively longer DELAY value. The first line has a DELAY of "0.00". The second line has a DELAY of about "0.10", and the third "0.20", etc. During playback, each line appears to start moving just a little bit later than the previous one. This gives the staggered start appearance for the effect.

The amount of time that the page will "hold" on the screen must be set in the HOLD box in the Page Menu. The KEEP OLD PAGE feature in the Page Menu may also have to be adjusted to create certain effects.

LIMITATIONS OF SIMULTANEOUS LINE EFFECTS

A majority of the Broadcast Titler line transitions can be set to run at the same time so that multiple lines of text may move, even in different directions, all at the same time. The WEAVE Page Effect is an example of a series of line SLIDE effects running simultaneously.

However, some other line effects require a greater amount of real-time processing power, and cannot be run with other effects at the same time.

For this reason the following effects will only run one-at-a-time:

* SLIDE UP and SLIDE DOWN effects cannot be run at the same time.
* The TELETYPE effect does not run with other simultaneous effects.
* WIPE, SPREAD, STRIPE and RANDOM effects will only run one-at-a-time.

☐ THE PALETTE MENU ☐

MAIN ➤ *PAGE* ➤ *PALETTE*
or MAIN ➤ *LINE* ➤ *PALETTE*

The Broadcast Titler Palette Menu is a convenient tool for manipulating or copying color palettes on any line or page of a Broadcast Titler sequence. There are 16 different colors available on each line of text or graphics on a page. Normally the Amiga video hardware can display a maximum of 16 colors on the entire page. Broadcast Titler extends this capability by allowing each line of text on a page to be displayed with a different set of 16 colors, providing up to 320 colors per page.
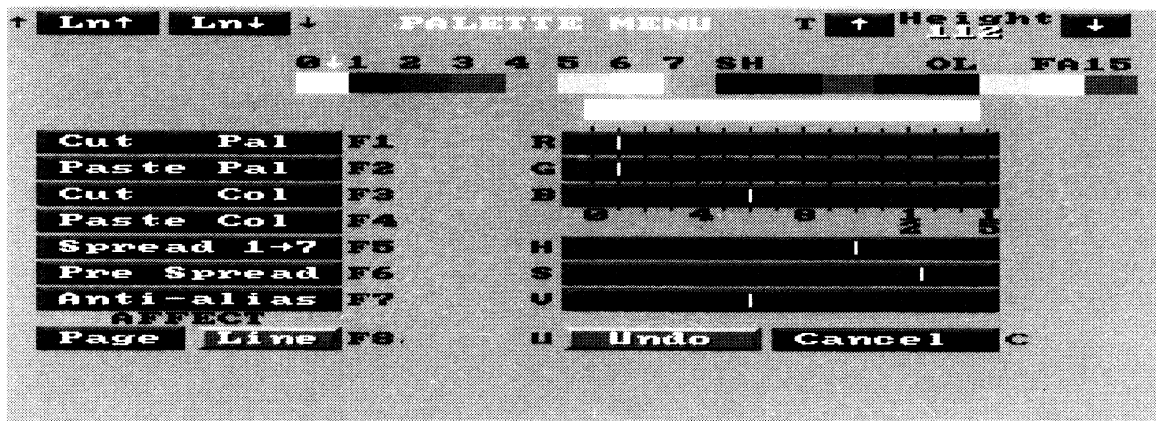
CHANGING COLORS ON A LINE OR PAGE

If you wish to change colors only on a specific line, select the AFFECT LINE option on the bottom of the Palette Menu. Individual color palette changes can then be made on a specific line of text.

If you wish to change a color over the entire page, then select AFFECT PAGE before making any changes to the color palette. This will automatically update the entire page with new color changes you make.

▲ Upon entry into the Palette Menu the AFFECT LINE option is always selected since most of the time you will probably want to change colors on a specific line. To change colors over ALL lines on a page, select AFFECT PAGE.

PALETTE MENU KEYBOARD COMMANDS

If you are using Broadcast Titler from the keyboard without using the mouse, the Palette Menu functions can be accessed via the following keystroke commands.

LEFT and RIGHT ARROW KEYS highlight the next color box. (This is the same as clicking on a color box.)
UP ARROW moves the text cursor to the next higher color window.
DOWN ARROW moves the text cursor to the next lower color window.

"R" increases the Red value for the edit color.
"r" decreases the Red value for the edit color.

"G" increases the Green value for the edit color.
"g" decreases the Green value for the edit color.

"B" increases the Blue value for the edit color.
"b" decreases the Blue value for the edit color.

"H" increases the Hue value for the edit color.
"h" decreases the Hue value for the edit color.

"S" increases the Saturation value for the color.
"s" decreases the Saturation value for the current color.

"V" increases the Value or brightness of the current color.
"v" decreases the Value or brightness of the current color.

"U" undoes changes to the edit color.
"C" cancels all changes to the color palette.

"T" increases the height of the current color window.
"t" decreases the height of the current color window.

CHANGING THE TEXT FACE COLOR

To change the face color of text that has already been typed on the screen, enter the Palette Menu. Select AFFECT LINE if you wish to change only the text color on a single line. Otherwise select AFFECT PAGE to change the text color over the entire page. Click on the LN UP or LN DN button on the left side of the menu to bring the desired text lines into view. The yellow text cursor will indicate the current line that is being modified. Each line on the page has an independent 16 color palette. As the yellow text cursor moves up and down the page, the color register boxes in the menu will reflect the individual palette for the current text line.

Locate the row of 16 color register boxes near the top of the menu. These boxes represent Color Register 0 on the left through Color Register 15 on the right. These registers show the 16 color palette that is in effect for the current text line. The color boxes are labeled with numbers or abbreviations for special purpose colors. For example the "SH" color indicates the color position used for the Character Shadow. The "OL" box indicates the color position used for the Outline Color. The "FA" box denotes the current text Face Color.

To change the Face Color move the mouse so the mouse pointer is over the color register box labeled "FA". Now using the left mouse button, click inside the "FA" color box. Notice that a small White arrow is now pointing at the "FA" color box.

Move the mouse pointer down into the Red, Green and Blue slider boxes. These slider boxes represent the 16 levels of intensity for the Red, Green and Blue video beams. By sliding the Red, Green and Blue indicators it is possible to obtain any of 4,096 available colors.

For example, to create Green colored text, simply slide the Red level indicator to the far left, and do the same for the Blue level indicator. Then slide the Green indicator to a Value of approximately 12.

USING THE HUE SLIDER AS A QUICK COLOR PICKER

If you wish to create a new color but are not sure which Red, Green and Blue combination is needed to achieve the color, then select the (H)ue slider, and drag it from side to side to view a wide spectrum of shades. To get the widest possible range of colors, slide the (V)alue indicator to the far right before changing the Hue. This method provides a rapid color selection capability using only a single control. Using the Hue control is analogous to selecting the general chromatic value from a rainbow spectrum.

USING THE SATURATION SLIDER TO MAKE PASTEL SHADES

Once this chromatic base color has been selected, using the (S)aturation slider allows this color to be altered by adding or subtracting White from this color. This saturation control gives a wide range of pastel color effects to any selected color, and is analogous to adding White paint to another color of paint.

USING THE VALUE SLIDER AS A BRIGHTNESS CONTROL

To change the brightness of the color, click the on the (V)alue slider and drag it from left to right. This has the effect of changing the brightness of the color by adding or subtracting Black from the color.

▲ Note that as you make changes to a color, the changes are shown in the text window as well. In addition, the anti-alias levels are also updated automatically to smooth out text jaggies. These anti-alias levels are the two colors located to the left and to the right of the Face Color "FA" register.

CHANGING A LINE'S COLOR WINDOW HEIGHT

Each line of text in Broadcast Titler is capable of displaying a separate 16 color palette out of a total 4,096 available colors. This effectively increases the total number of colors that can be displayed on a single page from 16 to 320 colors. There are situations in which the boundaries of the separate color "windows" come into play, particulary in the case of line transitions and in special colorizing effects.

When you type text on the page, each line of text is contained within a color window that is about the same height as the current line of text. Adjustments to the line's color window can be made through the Palette Menu's LINE HEIGHT control, which is located on the upper right portion of the menu.

Simply select the LN UP or LN DN buttons to pick the line whose height you wish change. Then move over to the HEIGHT Control boxes and select the UP box to bring the bottom of the current line's color window closer to the top of the screen. To increase the height of the color window click on the DOWN ARROW HEIGHT box.

Note that with each click of the box, the height of the current line is displayed numerically in scanline increments. This allows for easy comparison of line heights on a page and between pages.

▲ Line transitions use these color window boundaries as the cut-off point for each line effect. It may be necessary to adjust these line heights as desired to compensate for extra-long character shadows, or if mixed font sizes are used on a line, to insure that the proper text and graphics area is included in each line transition.

COPYING AND MOVING A COLOR

To copy a single color from one line to another line, simply enter the Palette Menu and select AFFECT LINE. Select the LN UP or LN DN buttons until the text cursor is on the line containing the color you wish to copy.

Select the individual color you wish to copy from the palette by clicking on the color box for that color. Select CUT COLOR, or press F3 from the keyboard which copies the specific color just chosen into the copy buffer.

Select LN UP or LN DN to move to the line on which you wish to paste the new color. Select PASTE COLOR or press F4 from the keyboard. The new color will be copied over the old color, and the new color scheme will be displayed in the Palette Menu's text window.

COPYING AND MOVING PALETTES BETWEEN LINES AND PAGES

To copy the entire palette of sixteen colors from one line to another line, go to the Palette Menu and select AFFECT LINE. Select LN UP or LN DN to move the text cursor to the line containing the palette you wish to copy. Select the CUT PAL button or press F1 from the keyboard. This will copy the contents of the sixteen color palette into the copy buffer.

Next select LN UP or LN DN to move to the line over which you wish to paste this new color palette. Select PASTE PALETTE or press F2 from the keyboard. This copies the palette contained in the copy buffer over the current line's palette. The color changes will be displayed in the text window.

CREATING COLOR PALETTE SPREADS

This option provides a way of generating a sequence of seven colors that gradually blend between any two colors of your choice. To use this feature simply click on Color register 1. The White arrow will point to this box. Change the Red, Green and Blue values of this color to the starting color to be used in the spread. Select CUT COLOR or press F3 from the keyboard. Click on color box #7. Select PASTE COLOR or press F4 from the keyboard. Color 1 and 7 are now the same. From this point, the following steps illustrate how to create three different types of color spreads.

A. HUE SPREAD

With Color 7 still highlighted, use the mouse to drag the (H)ue slider from left to right to alter the Hue of Color 7. Doing this changes the hue between the two colors, while they share the same Value and Saturation.

To complete the spread select the SPREAD 1-7 box or press F5 from the keyboard. Colors 1 through 7 will now contain a gradient spread ranging from Color 1 through 7.

B. SATURATION SPREAD

With Color 7 selected from the previous example, drag the (S)aturation slider to add or subtract White from the color. Move the slider at least half the width of the slider bar so that enough gradient steps are available for the spread. Now Color 1 and Color 7 are related to each other in

both Hue and Value, but have a different Saturation. Color 1 and Color 7 appear to be pastel shades sharing the same Hue.

To complete the spread, select SPREAD 1-7 or press F5 from the keyboard. The color registers will show the new spread and all in between shades in the text window.

C. VALUE SPREAD

With Color 7 selected, drag the (V)alue slider about half the width of the slider bar. This will lighten or darken the selected color by adding or subtracting Black. Be sure to slide the V slider at least half the length of the slider bar in order to guarantee that there are enough steps between the two colors to make an effective spread. To complete the spread select SPREAD 1-7 or press F5 from the keyboard.

▲ These color spreads are used in conjunction with IFF Picture Backgrounds and Line Patterns that are found in the Line Menu. These line patterns use Colors 1 through 7 to achieve gradient fills, spreads, cylindrical bars, and Pattern Filled Text.

It is important to note that if no patterned backgrounds, IFF pictures, or patterned characters are used, the color spreads outlined here will not appear on the screen since these colors have not been used. All the patterns in Broadcast Titler, as well patterned characters, are designed to use the full range of colors from Color 1 through Color 7 to achieve their color effects. Colors 1 through 7 are also used for the Color Cycle page effect.

USING PRE-DEFINED COLOR SPREADS

A number of interesting pre-defined gradient color spreads using Colors 1 through 7 have been included in the program. They work particularly well with background patterns and pattern filled characters. To access these color spreads, click on the PRE-SPREAD button or press F6 from the keyboard. With each click on the button, a new color spread will appear in Colors 1 through 7. Once you have selected the correct palette, press the Right Mouse Button or press ESC to exit the Palette Menu.

AUTOMATIC ANTI-ALIASING / MANUAL COLOR CONTROL

Color palette boxes 2, 6, 10, and 14 provide four different Face Colors for text. These four Face Colors can be selected through the Font Menu. In order to maintain proper anti-aliasing for text, Broadcast Titler employs an automatic anti-aliasing feature which adjusts the two colors adjacent to the Face Color so that they contain the proper anti-alias color values. If the Face or Outline Colors are changed through the Palette Menu, the associated anti-alias levels will be changed as well.

However there are situations in which it is desirable to modify any of the colors in the palette without allowing the automatic anti-aliasing feature to adjust other colors in the palette. Only the color you are trying to change will actually be changed. To disable the automatic anti-alias

feature simply select MANUAL CONTROL/ANTI-ALIAS or press F7 from the keyboard to display the MANUAL CONTROL option. While MANUAL CONTROL is displayed, any color in the palette can be changed without invoking the automatic anti-alias color changes. When your changes are complete, you may wish to restore the anti-alias mode so that any future changes to the Face Color of your text will use the automatic anti-alias feature.

UNDO/CANCEL

If you make a mistake while in the Palette Menu and wish to change the current color back to its original value, select UNDO. If you made changes to a several colors in the palette and wish to discard all changes and return to the original palette, select CANCEL and the palette will be restored to its original condition.

THE PICTURE MENU

MAIN ➤ LINE ➤ PICTURE

Standard Amiga "IFF" format pictures may be displayed as background images on any line or page. Each line of text may contain an IFF Picture or Brush.

The first step is to load the picture file from disk into resident memory via LOAD PICTURE in the File Menu. Refer to the File Menu chapter for instructions on loading pictures from disk.
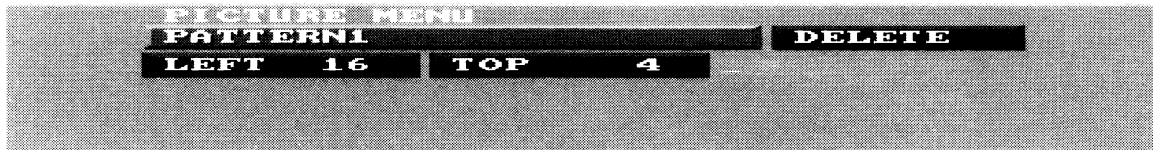
Select PICTURE from the Line Menu. If there are pictures loaded in resident memory, the names of those pictures will appear in the long Picture Name Button. Clicking on this button will advance through the pictures available in resident memory.

Once the name of the desired picture appears in the name button, the next step is to place the picture on the page by setting both the LEFT and TOP position values. The current position will be reflected by the yellow marker in the text display area of the Picture Menu.

To change the position of a previously placed picture, move the Text Edit Cursor to the line containing the picture. Select PICTURE to enter the Picture Menu, and alter the setting of the LEFT and TOP position values.

To remove a picture from a line, move the Text Edit Cursor to the line containing the picture. Select PICTURE to enter the Picture Menu. Select DELETE to remove the picture from the line. The picture will still remain in resident memory, but will no longer be displayed on the page.

▲ For more a more comprehensive discussion of loading picture files, the use of resident picture storage, and automatic picture loading, refer to the LOADING & PLACING IFF PICTURES section of the Tutorials chapter.

THE PATTERN MENU

MAIN ➣ *LINE* ➣ *PATTERN*

A number of background spreads and patterns are built into Broadcast Titler. These patterns use Colors 1 through 7 to achieve Cylinders, Stripe Patterns and other background spread effects.

With the Text Edit Cursor on the desired line, select PATTERN from the Line Menu. The words "No Pattern" will appear in the Pattern Name Button. Click on this button to advance through the names of the available line patterns. Only the pattern name will be displayed. The actual pattern will be shown upon returning to the Line Menu.

Set the TOP and BOTtom positions for the pattern by clicking on those buttons, or typing in the desired position and pressing RETURN. The new location for the pattern is marked by the white indicator lines in the menu's text window. By adjusting the TOP and BOTtom positions, you can create full page patterns.

Set the LEFT and RIGHT pattern edges to other values if you do not want a full-width pattern.

As a convenience, selecting the PALETTE button will bring up the Palette Menu for the purpose of quickly selecting or creating a color spread palette for the chosen pattern.

PATTERN DESCRIPTIONS

No Pattern - The standard setting. Disables the pattern on the current line from the screen.

Vert Spread - Displays a dithered spread of colors from the TOP to the BOTtom position set in the menu. With this pattern, it is best that the color values of Color 1 and 7 be fairly close so that there is an even color spread.

Cylinder - Creates a horizontal cylinder with Color 2 in the center and Color 7 on the outer edge.

Out Cylinder - Creates a Cylinder with a Black Outline on the top and bottom of the pattern.

Lit Cylinder - Creates a Cylinder with a highlight.

Stripes - Creates horizontal stripes alternating between Color 2 and 7.

Box - Creates a Box with Color 2.

Col 1 BG - Creates a plain pattern with Color 1.

■ CHAPTER 8 ▇▇▇▇▇▇▇▇▇▇▇▇

▯ THE PAGE MENU ▭▭▭▭▭▭▭▭▭▭

MAIN ➤ PAGE

The Page Menu contains a number of handy functions for editing and rearranging pages in a sequence. The following can be accomplished in the Page Menu:

- Access the Page Effect Menu to select page effects, color cycle, and flash effects
- Access the Layout Menu to alter page margins, tabs, and centering
- Copy & Paste Pages
- Insert and Append Pages
- Clear and Delete Pages
- Declare a PRESTO page
- Jump to any page

Although the menu may look intimidating at first, it is actually designed to provide you with a birds-eye view of your sequence.
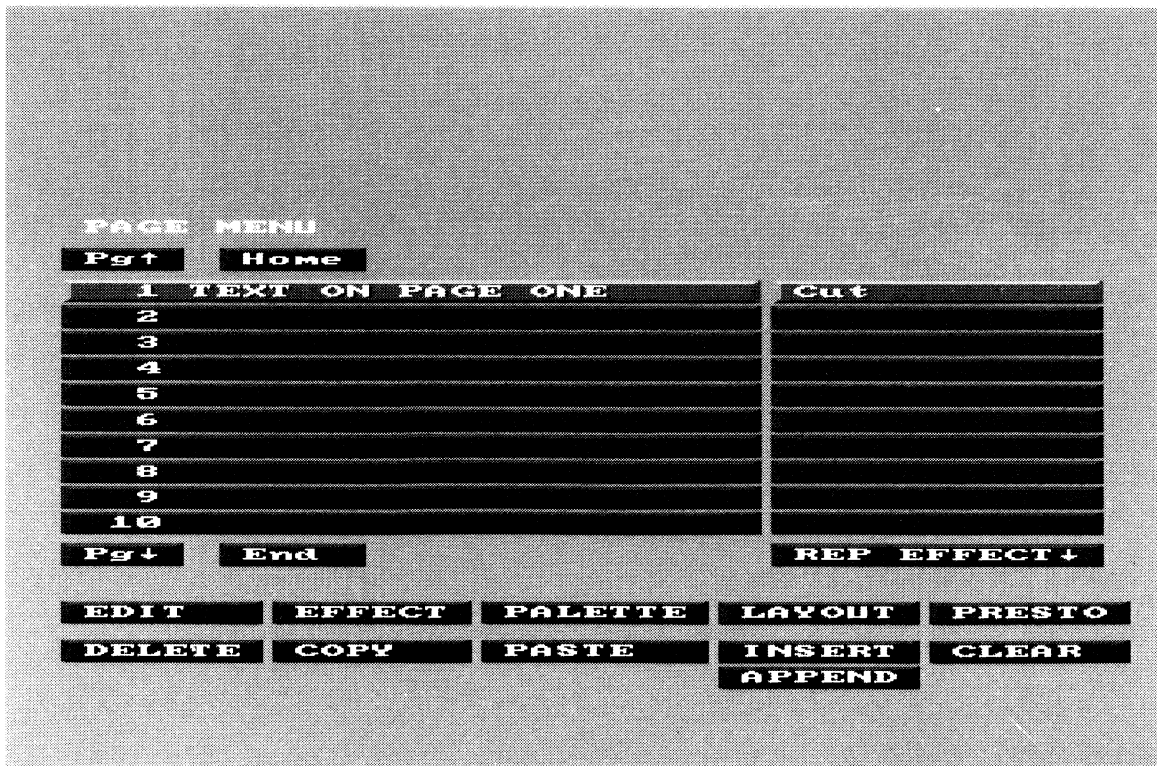
In the center of the menu is a page information list which includes the page number, the first line of text from the page, and the effect for each page.

FINDING A PAGE IN THE SEQUENCE

You can locate a specific page at a glance by looking at the text lines listed for each page of the sequence. If the desired page does not appear in the page list, simply click on the Page Down button or press PgDn ("3" on the Numeric Keypad) from the keyboard, and the next set of ten pages will be displayed.

To jump to the end of the sequence, click on the END button or press END ("1" on the numeric keypad) from the keyboard. To jump to the first page in the sequence, click on the HOME button or press HOME ("7" on the numeric keypad) from the keyboard.

To advance to the previous set of ten pages, click on the PAGE UP button or press PgUp ("9" on the numeric keypad) from the keyboard. When the desired page appears in the page list, click on the wide page text button to select that page for editing operations.

To edit text on the page, select EDIT to return to the Text Edit Mode with the selected page as the current edit page.

To change the Page Effect for the selected page, click on the EFFECT button, or click on the effect name that appears on the right side of the menu. The Page Effect Menu appears.

To modify the palette for the selected page, select the PALETTE button, which will enter the Palette Menu. To change the page margins, page centering, or tab stops, select the LAYOUT button.

To enable the Presto Playback feature for the selected page, select PRESTO. See the Play Menu chapter regarding the use of this option.

APPENDING A PAGE TO THE END OF A SEQUENCE

To add a new blank page to the end of a sequence, select APPEND at the bottom of the menu. A new page will be created and the page highlight will move to the very bottom of the page list. To edit that page, select EDIT and type in the text for the new page.

▲ Appending a new page can also be done in either the Text Edit Mode or the Main Menu by pressing SHIFT-PgDn from the keyboard.

INSERTING A NEW PAGE IN THE SEQUENCE

To insert a new blank page above any existing page in the sequence, select the page location in the page list at which you wish to insert the new page, then select INSERT. The pages below the insertion point will be moved down one position, and the new blank page will be created in the location selected. To enter text for this new page, select EDIT.

DELETING A PAGE

To delete a page from the sequence and place a copy of it into the page copy buffer, click on the page you wish to delete in the page list. Then select the DELETE button and the page will be deleted from the sequence. All lower pages will be moved up one position in the page list.

This option does not just clear the page, but rather it completely removes the page from the list. Before the page is deleted, it is automatically copied into the page copy buffer. If needed, the contents of the deleted page can be retrieved by selecting INSERT and then selecting PASTE.

DUPLICATING A PAGE

To make two identical copies of a page, click on the page you wish to duplicate. Then select COPY, which copies that page into the page copy buffer. Then select INSERT to insert a new blank page at the point you wish to insert the duplicate page. Finally, select PASTE to paste a copy of the page onto the blank page just created.

CLEARING TEXT FROM A PAGE

To clear all of the text and color windows from a page, click on the page you wish to clear. Then select CLEAR at the bottom of the menu. This will clear the page, with no line height definitions or color windows yet defined. It does not actually add a page to the sequence, it merely clears an existing page.

▲ If you wish to clear the ENTIRE sequence, you should use the CLEAR SEQUENCE option in File Menu.

REPEATING AN EFFECT OVER SEVERAL PAGES

This function gives the user a quick and easy way of changing effects over successive pages without having to repeatedly enter the Effect Menu and change the effect for each page. Normally, as you create new pages in the sequence, the effect for the previous page is copied onto the new page automatically.

However, suppose you are creating a Roll sequence of ten pages and you have forgotten to set the Roll effect before going on to create the second through tenth pages. Your sequence will contain ten Cut effects instead of ten Roll effects.

To remedy this, on the right side of the menu select the first Page Effect Name Button in the list and the Effect Menu will appear. Set the Effect and Speed to the values you desire, in this case "Roll". Click the Right Mouse Button or press ESC to return to the Page Menu.

At this time, the list will show Page One with a Roll effect, and the remaining pages still have Cut as their assigned effects. With the first page still highlighted, click on the REP EFFECT button. The Page Menu highlight will advance to the next page and the effect for that page will automatically be changed to Roll as well. Continue selecting REP EFFECT until all desired pages have the same effect.

SETTING PRESTO PAGES

The PRESTO option is provided to increase the speed at which complex pages are built during playback. For a complete explanation of this feature, refer to the USING PRESTO PAGES section in the Play Menu Chapter, as well as the ROLLING PRESTO PAGES section in the ROLL EFFECT Tutorial, Chapter 3.

SETTING PRESENTATION PLAYBACK PAGE GROUPS

The Page Menu chapter fully describes the operation of the Presentation Mode Playback option. To select a specific page as the first page in a Presentation Playback sequence, select the page in the list which is to be called up when function key F1 is pressed. From the keyboard, press function key F1. The function key you have pressed will be indicated to the left of the page list.

The ten function keys F1-F10 can be assigned to any pages in the sequence. During Presentation Playback Mode, pressing F1 will play from the chosen page.

If you wish to remove a Presentation function key label, simply select the page containing the label, and press the indicated function key. The function key label will be removed from the page list. See the Play Menu chapter for more information.

☐ PAGE EFFECT MENU ☐

MAIN ➤ PAGE ➤ EFFECT

FULL PAGE TRANSITIONS

During playback, each page of a Broadcast Titler sequence can be brought onto the screen in a variety of different ways. The Effect Map section later in this chapter gives an overview of some of the transitional effects that can be selected to introduce each page. Most of these effects can operate at nine different speeds. These full Page Transitions introduce one page of text at a time. The Page Effect Menu selects the transition type, and controls its timing and speed.

Cut	Wave ↗	Spread→+←	Fade Black
Roll ↑	" ↘	" ←→	Fade Bkgnd
Crawl ←	" ↙	Cross	Sail ←
Teletype	" ↖	SeqWipe↑	
Push ↑	Weave	" ↓	
" ↗	Sew	Zig Zag	
" →	Pop ↑	Stripes	
" ↘	" ↓	RndStrip	
" ↓	Build ↑	SpiralIn	
" ↙	" ↗	" Out	
" ←	" ↘	Checker	
" ↖	" ↓	Stack →	
Ease ↑	" ↙	" ↓	
" ↗	" ↖	Paint	
" →	Flip On	Falls ↓	
" ↘	FlipCoin	Random	
" ↓	Tumble 2		
" ↙	" 5		CutDissolv
" ←	Layer ↑		Dissolve F
" ↖	" ↓		Dissolve M
Pull ↑	Wipe ↑	Clock 24	Dissolve S
" ↓	" →	Clock 12	DislvBgIn
Reveal ↑	" ↓	DateTime	DislvBgOut
" ↓	" ←	CountDwn	SKIPthisPg

| 1 Cut | | Cycle 0 |
| Speed 2 | Hold :02.30 | CLEAR Old Page |

SELECTING AN EFFECT

To select an effect for the current page, use the mouse to click on the desired effect name from the list at the top of the menu. Or using the keyboard, highlight the numbered effect name box at the bottom of the menu, and press the UP Arrow or DOWN Arrow keys to advance through the available effect names. To exit the menu click the Right Mouse Button or press ESC from the keyboard.

SETTING THE SPEED OF THE EFFECT

Each page effect can be set to execute at nine different playback speeds, with speed 1 being the slowest, and speed 9 the fastest. After selecting the desired effect, highlight the SPEED button. Click to the left of the speed value to decrease the speed, or to the right of the number to increase. From the keyboard, the UP Arrow and Down Arrow keys are used to change the SPEED value. In addition, the SPEED value may be typed in directly from the keyboard and entered by pressing RETURN.

The Roll Effect is special in that if set to SPEED 1, it will invoke the variable 1,000 speed mode for all successive Roll Pages. See the ROLL EFFECT Tutorial in the Chapter 3 for a complete example.

SETTING THE HOLD TIME

After the effect brings the new page onto the screen, it will remain visible, or "HOLD", for the amount of time specified in the HOLD button. The HOLD time is represented as minutes:seconds:video fields. Minutes and seconds are self explanatory, a value of 2:01.00 represents two minutes and one second. Fractional seconds are represented in the video fields area.

For the NTSC version, the video fields value has a range of 00 to 59. There are 60 NTSC video fields in a second. So 0:00.30 is half a second, and 0:00.59 is just one video field shy of a full second.

For the PAL version the video fields value has a range of 00 to 49. There are 50 PAL video fields in a second. So 0:00.25 is half a second, and 0:00.49 is just one video field shy of a full second.

The standard HOLD time is set to 0:02.30 (0:02.25 PAL) or 2.5 seconds. To increase the HOLD time, highlight the HOLD button and press and hold the Left Mouse Button to the right of the HOLD time, or press the UP Arrow key from the keyboard.

To decrease the HOLD time, highlight the HOLD button and click and hold the Left Mouse Button on the left of the HOLD time, or press the DOWN Arrow key from the keyboard.

To enter a new time value directly from the keyboard simply type in the desired time and press RETURN. Typing in the time punctuation marks is optional. Entering "12030" and pressing RETURN will produce a time of 1:20.30, or one minute, twenty seconds, and 30 video fields.

▲ When using the Clock, DateTime and CountDown effects it is necessary to set the HOLD time to indicate how long the clock timer is to keep running before advancing to the next page in the sequence.

▲ If you need to advance to the next page in less than two or three seconds, and find that reducing the HOLD time does not bring the next page up soon enough, it is possible that the page is too complex to be generated in such a short time. Extensive use of shadows, outlines or small fonts can slow down the page building process to the point that several seconds are needed to build the next page, causing the last page to remain on screen longer than desired.

In order to speed up page rendering during playback, Broadcast Titler provides a pre-rendered PRESTO PAGE playback mode that can dramatically reduce the amount of time needed to draw the next page. Refer to the SETTING PRESTO PAGES section earlier in this chapter for further details.

CLEAR OLD PAGE / KEEP OLD PAGE

Normally you will not need to change this option. This button controls what happens to the last page when the next page effect begins.

If you wish the previous page to disappear as soon as the next page transition begins, then select the CLEAR OLD PAGE option. This is useful in side-to-side transitions when the new page has a different color palette than the previous page. Rather than displaying the previous page with the wrong color palette (the Amiga can't switch color palettes horizontally), it is better to blank out the old page, switch to the new palette and bring on the new page. The effects that might especially benefit from this setting are Left or Right Page Push, Weave, Wave, Sew, and pages containing individual Line-by-Line Transitions.

If color palette conflicts are not a problem, and the line heights of the last and current page are acceptably aligned, then KEEP OLD PAGE may be chosen to leave the old page visible while the current effect transpires. In this way the current page can push off the previous page or text lines.

An interesting special application of the KEEP OLD PAGE feature involves the Cut effect. Normally the Cut effect uses the CLEAR OLD PAGE option. But if KEEP OLD PAGE is selected, the previous page will not be cleared and the new page will type on top of the previous page, giving a multi-layered effect.

▲ These features are provided only for the purpose of alleviating color palette and line height conflicts for Side to Side moving transitions. Any further application of this feature for any other purpose is not supported, and may not give the desired result.

COLOR CYCLING

Color Cycling is a color palette effect that makes images and patterns drawn with Colors 1 through 7 appear to move in a smooth wave-like manner. Color Cycling is used extensively in video weather maps to represent the flow of the Jet Stream moving across the globe.
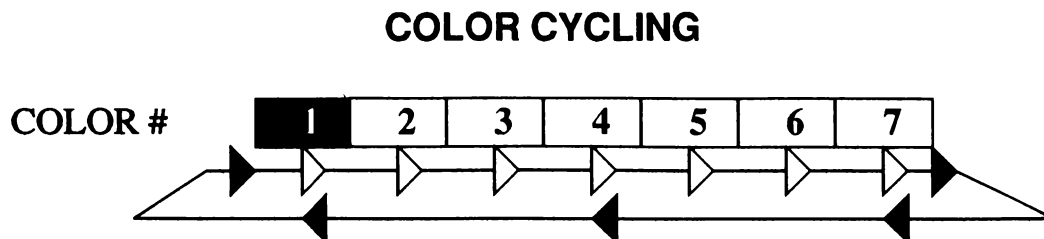
COLOR CYCLING

Color Cycling works best with a gradient spread of colors in the palette ranging from Color 1 through Color 7. See the CREATING COLOR PALETTE SPREADS section in the Line/Palette Menu chapter for more details on how to create color spreads.

The rate at which the Cycled image appears to move is in part determined by the CYCLE speed button located at the bottom of the Page Effect Menu. Cycle speed 0 indicates that Cycling is turned off. Cycle speed 1 is for slow cycling, Cycle speed 32 is for rapid cycling.

If a Cycle speed of 1 through 32 is selected for a page, all instances of color 1 through color 7 on the current page will cycle at the selected rate. The color cycling works independently of the Page or Line transitions in effect for the page.

▲ Do not use Cycle speeds 33 through 64 for color cycling. These speeds are reserved for the FLASHING TEXT feature described below.

FLASHING TEXT

Flashing Text is a special color palette effect that flashes any text on the page which is drawn with color 10. To create Flashing Text, go to the Font Menu and click on the FACE COLOR button until "Color 10" is displayed. Type in the text that is to flash while the page is played. Type in any non-flashing words using Color 14, Color 2 or Color 6 only.

The best results are obtained if Color 10 and Color 14 are similar colors. Enter the Palette Menu. Click on the "FA" Face Color Box (Color Box 10). Change Color 10 to nearly the same shade as Color 14, but make the color a little darker than Color 14 to make it easier to identify the flashing characters separately while editing text.

In the Page Effect Menu select a Cycle speed of 33 for slow flashing to 64 for rapid flashing. A Cycle speed of 50 is a good recommended flash rate.

During playback, the text drawn with color 10 will appear to alternate between the shade in Color Register 14 and Color Register 0.

PAGE EFFECT DESCRIPTIONS

Build - The current page is created by moving each line in the direction of the arrow in the Effect Name Box. Diagonal direction "Builds" specify the order and direction of the text lines. For example, diagonal direction "upper right" will move all text lines from the left to the right, starting from the bottom of the page.

Cross Wipe - The current page is split into top and bottom halves. The top half is "wiped" from left to right. The bottom is "wiped" from right to left. Both halves of the wipe are executed at the same time.

Cut - Instantaneously displays the current page with no special effects. Transition speed has no affect on this transition.

Ease - The current page rapidly accelerates toward the direction specified, then gradually decreases speed as it gets closer to the center.

Fade Black - All page color values of the previous page gradually decrease to Black (Red=0,Green=0,Blue=0). The current page fades in from Black.

Fade Color 0 - All foreground text or graphics gradually change to the shade found in background color register 0. The new text fades in from Color 0.

Flip Coin - The previous page "rotates" on it's horizontal axis, changing to the current page in the sequence as it completes it's rotation.

Flip On - Creates the illusion that the next screen is rotated from a flat horizontal position.

Layer - Reveals the current page with progressive dual-direction line spreads.

Pop - Causes the lines of the current page to appear one line at a time in the direction specified.

Pull - Moves the current page over the previous page in the direction specified.

Push - Moves the current page in one of eight directions while "pushing" the previous page off the screen in the same direction.

Random Stripes - Randomly places thin vertical strips of the current page onto the previous page.

Reveal - Moves the previous page in the direction specified while revealing the current page underneath.

Roll - "Credit Rolls" one or more pages from the bottom of the screen to the top.

Sequential Wipe - Individually "wipes" each line onto the page starting from either the top or bottom.

Sew - Each line eases in one at a time from alternating sides of the screen.

Skip - This effect will completely ignore the current page in the sequence and "skip" to the next page. This is most useful for users running 24 hour information displays that need to display pages only at certain times.

Spread - The page is wiped onto the screen from the center to the left and right edges of the screen (Spread In), or from the edges to the center (Spread Out).

Stripes - Thin vertical slices of the image are layered onto the screen.

Teletype - "Types" each character, one at a time from left to right. The rate of the character typing is determined by the transition speed.

Tumble - The previous page flips away, and the current page is revealed by rotating it on its horizontal axis.

Wave - Each line on the current page appears in a wave-like pattern in the direction specified.

Weave - Each line eases in from alternating left and right sides of the screen, creating a weaving pattern. Although similar to the "Sew" effect, the delay times in which the lines move are shorter than the delay times used in the "Sew" effect.

Wipe - A moving edge appears to cross the page, revealing the new page as it moves.

Zig Zag - Reveals the lines of a page in an alternating right-to-left, then left-to-right pattern progressing down the page.

PAGE EFFECT MAP

|		
1 Cut	28 Wave Upper Left	55 Stripes In
2 Roll	29 Weave	56 Random Stripes
3 Crawl	30 Sew	57 Spiral In
4 Teletype	31 Pop Up	58 Spiral Out
5 Push Up	32 Pop Down	59 Checker
6 Push Upper Right	33 Build Up	60 Stack Right
7 Push Right	34 Build Upper Right	61 Stack Down
8 Push Lower Right	35 Build Lower Right	62 Paint
9 Push Down	36 Build Down	63 Falls
10 Push Lower Left	37 Build Lower Left	64 Random Squares
11 Push Left	38 Build Upper Left	65-68 * RESERVED *
12 Push Upper Left	39 Flip On	69 24 Hour Clock
13 Ease Up	40 Flip Coin	70 12 Hour Clock
14 Ease Upper Right	41 Tumble 2	71 Date and Time
15 Ease Right	42 Tumble 5	72 Countdown Timer
16 Ease Lower Right	43 Layer Up	73 Fade Black
17 Ease Down	44 Layer Down	74 Fade to Background
18 Ease Lower Left	45 Wipe Up	75 Sail
19 Ease Left	46 Wipe Right	76-89 SUPER HIGH-RES
20 Ease Upper Left	47 Wipe Down	EFFECTS
21 Pull Up	48 Wipe Left	90 Blank and Dissolve In
22 Pull Down	49 Spread In	91 Dissolve Fast/Slow
23 Reveal Up	50 Spread Out	92 Dissolve Med/Med
24 Reveal Down	51 Cross Wipe	93 Dissolve Slow/Fast
25 Wave Upper Right	52 Sequential Wipe Up	94 Dissolve Background In
26 Wave Lower Right	53 Sequential Wipe Down	95 Dissolve Background Out
27 Wave Lower Left	54 Zig Zag	96 Skip Over This Page

THE PAGE PALETTE MENU

MAIN ➤ PAGE ➤ PALETTE

The Page Palette Menu is identical to the Line Palette Menu. The only difference is that it is more convenient to alter the palettes of multiple pages within the Page Palette Menu than the Line Palette Menu. For complete descriptions of the Palette Menu, refer the Line Palette Menu section, located in the Line Menu chapter.

THE LAYOUT MENU

MAIN ➤ PAGE ➤ LAYOUT

The Layout Menu lets the user change the formatting of any page within a sequence, giving the user control over page centering, text margins, tab stops, the position of the Crawl line effect, as well as vertical cropping for the Roll effect.
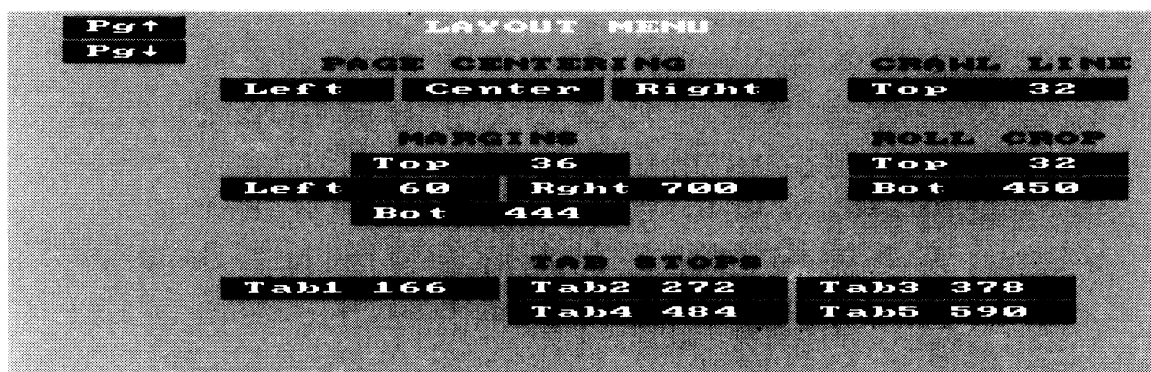
PAGE CENTERING OPTIONS

While the Text Edit mode allows independent centering of any text line via CTRL "L" (left justify), CTRL "C" (center justify), CTRL "R" (right justify), the Layout Menu will center all of the lines on the page all at once. Select the LEFT, CENTER, or RIGHT option in the Layout Menu and the page will be redrawn with the new centering option in effect for all lines on the page.

To adjust the centering of additional pages, select PAGE UP or PAGE DOWN from the menu, or press PAGE UP or PAGE DOWN from the keyboard.

SETTING THE PAGE MARGINS

The top, left, right and bottom text margins are represented in the upper portion of the Layout Menu by a box outlining the text on the page. Text can only be typed within the area bounded by these margin settings. The margins are designed to keep the text typed on the page within the "Safe Titling Area" which represents the central 80% of the screen that is always visible even on severely overscanning television sets and monitors. Text typed outside this area may not be visible on all televisions, so it is important to keep this in mind if you are going to change the margin settings in Broadcast Titler.

To change the setting of any of the margin values, highlight the appropriate margin button. Click to the left of the number to decrease the margin position value, or click to the right to increase the value. The margin indicator line will move to the new location for the correct margin setting. The number can be changed rapidly by pressing and holding the mouse button, and the number will continue to change in the direction you have chosen. In addition, with the margin button highlighted, the number may be increased or decreased by pressing the UP or DOWN Arrow key from the keyboard. Direct type in entry of the value is accomplished by highlighting the margin button, typing in the new value, and then pressing RETURN.

▲ When the Bottom Margin button is highlighted, the page display area of the Layout Menu will be shifted upwards so that the Bottom Margin indicator can be seen.

REPOSITIONING THE PAGE

All lines of text on the page are positioned relative to the placement of the Top Margin. By raising the Top Margin for the page, all lines of text for that page will be shifted up by the same distance. Similarly, lowering the Top Margin will shift all lines of text down by the same distance.

SQUEEZING IN EXTRA TEXT LINES

If you should need to add one more line of text to the page, but the current margin setting won't let you type at the bottom of the page, then adjusting the Top and Bottom Margins will give you a little more room to work with. Start by moving the Top Margin up by about ten scanlines, and lowering the bottom margin by about sixteen scanlines.

▲ If you have changed the top margin on a page that already contains lines of text, you may need to change the color window line heights for each line if you are going to use line transitions for the page. See the Palette Menu chapter for more information on changing color window heights.

SQUEEZING IN EXTRA CHARACTERS ON A LINE

If you wish to add more characters to a line of text than can fit between the Left and Right Margins, simply decrease the Left Margin value by about twenty pixels and increase the Right Margin value by the same amount.

Be certain to leave enough blank space on the far left and right of the page to keep the text within a reasonable Safe Titling Area.

Alternatively, additional characters may be squeezed into individual lines by pressing SHIFT and LEFT Arrow while in the Text Edit mode. This squeezes all of the characters on a line together by a small amount, which frees-up additional space at the end of the line. You can then type in a few additional characters without changing the margin settings or sacrificing the Safe Titling Area. See the Text Edit Mode chapter for more details.

MARGIN SETTINGS FOR SUBTITLING

Subtitles are commonly used in films or documentaries to caption foreign language translations in a few lines at the bottom of the page. Broadcast Titler normally will place the first line of text for a page at the top of the screen. For subtitling applications, it is helpful to have the text entry cursor and the first line of text appear at the bottom of the page where the subtitling captions are to be placed. This saves the user from having to enter a number of blank lines before reaching the bottom of the page.

This also is helpful when using the ASCII LOAD function for entering subtitles. For example, if exactly two lines are alloted for each caption, then an ASCII file can be created with just two lines per caption. For short captions, this could be one line of text and a second blank line. Each Broadcast Titler page will then be filled with exactly two lines of text, and then the next caption page will be filled in, and so on.

To achieve this setup, simply set the Top Margin to about 40 to 80 scanlines above the Bottom Margin. This will depend in part upon the size of the font which you will be using. Create the subtitling pages, and for each new page created, the same margin settings will automatically be used for the new page.

SETTING TAB STOPS

There are five user definable Tab Stop positions available for each page of text. Tab Stops are handy for creating even columns of text for annotating charts, diagrams and creating columned tables. Pressing the TAB key, located above the CAPS LOCK key on the keyboard, will advance the Text Edit Cursor to the next Tab Stop position. Each additional Tab key pressed will advance to the next of the five available Tab Stops.

The standard Tab Stop settings can be changed in the Layout Menu by clicking to the left or right of the Tab Stop number to change its location. The five vertical dotted lines represent the positions of the five Tab Stops for the current page. Each time the Tab Stop position is changed, the corresponding Tab Stop indicator is moved to the new position. To enter the values directly, simply highlight the button, type in the numeric value from the keyboard and press RETURN.

POSITIONING THE CRAWL EFFECT LINE

The Crawl Effect scrolls a single long line of text from right to left across the page. The crawl line can be placed vertically anywhere on the page, allowing the crawl to occur across the top, middle, or bottom of the page. The top scanline on which the top of the crawl message is to occur is controlled by the Crawl Line button. To change the position of the Crawl Line, click to the left or right of the numeric value, or enter a scanline value from the keyboard and press RETURN. The Crawl Line is represented as a solid white line on the page. When moving the Crawl Line to the bottom half of the screen, the page display area will shift upward for proper viewing.

▲ See the Crawl Effect Section in the Tutorials chapter for a complete example.

CHANGING THE ROLL CROP MARGINS

In order to prevent unwanted gaps between pages in a Roll Effect, it is necessary to display only the areas of each page actually containing text. To do this, a special top and bottom Roll Crop indicator is provided to cut away the top and bottom overscan areas from each page. Only the scanlines contained between the Top and Bottom Roll Crop Margins will be included in the Roll. These controls give precise adjustments so that multiple pages of evenly spaced text can be Rolled without any seams appearing between pages.

▲ See the Roll Effect section of the Tutorials chapter for more information.

■ CHAPTER 9 ███████████████████

⊓ THE PLAY MENU ⊏_____⊐

MAIN ➤ PLAY

The Play Menu provides the following options for playing back a sequence in a variety of ways:.

- Single Play, Continuous Loop, Random Access and Keywait Advance playback modes. The playback can start from any page in the sequence.
- Playback can begin immediately for quick rehearsals, or it can be initiated via the Keyboard, a Mouse Click, or through a GPI contact closure.
- The Presto Page rendering option will pre-render a series of pages to speed up the playback of complex pages.
- The Screen Options Menu gives access to Video Centering controls, and sets the Status Bar Position for Random Access Playback.
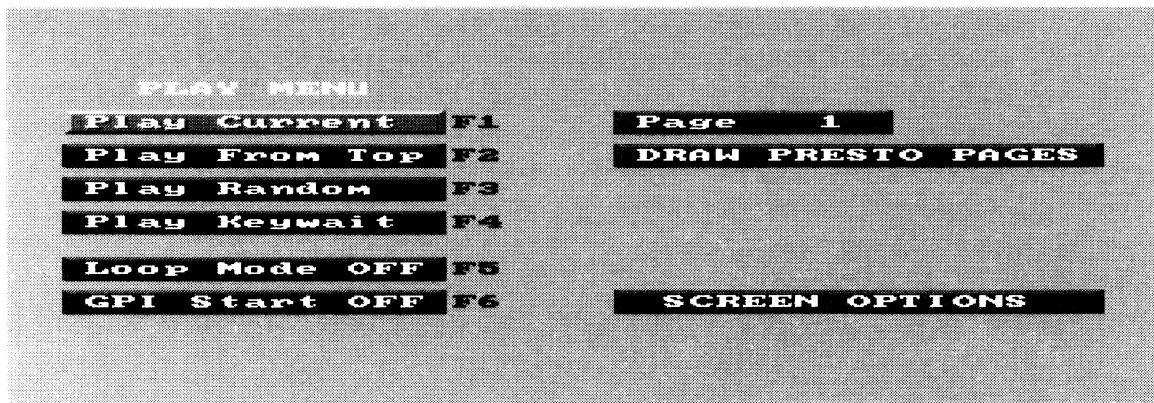
The following four playback options can be invoked by pressing the corresponding keyboard function key (F1 through F4) in either the Main Menu, the Text Edit Mode or in the Play Menu.

F1 - PLAYING FROM THE CURRENT PAGE

To begin playing the sequence from the current page, select PLAY CURRENT or press F1 from the keyboard. This serves as a quick playback rehearsal for the effects governing the current and successive pages.

The "Current page" is the page last edited in the Main Menu or the Page Menu. To change the current page without having to leave the Play Menu, highlight the PAGE button to the right of the PLAY CURRENT button. Click to the left of the page number to decrease. Click to the

right of the page number to increase. Or enter the desired starting page via the keyboard, and press RETURN. Press F1 to initiate the effects playback from the specified page.

To terminate the playback at any time before reaching the end of the sequence, press ESC from the keyboard.

If very rapid access to pages is needed, page drawing time may be reduced for complex pages if the Presto Page option is used. The Presto option is described later in this chapter.

F2 - PLAYING FROM PAGE ONE IN THE SEQUENCE

To begin playing from page one in the sequence, press F2. To terminate the playback at any time before reaching the end of the sequence, press ESC from the keyboard.

Used in conjunction with the GPI Start option described below, this function is ideal for final playback of the sequence for recording to video tape. The GPI Start causes the program to wait for any keypress, left mouse button click or a GPI contact closure to start playing at a precise time.

If very rapid access to pages is needed, page drawing time may be reduced for complex pages if the Presto Page option is used.

F3 - RANDOM PAGE PLAYBACK

The Random Access Playback Mode lets the user play pages in any order by typing the page number of the next desired page. If the Status Bar option has been activated from the SCREEN OPTIONS Menu, then the page number and the first line of text from the page will be displayed at the bottom of your RGB monitor for verification.

▲ If the sequence contains 99 or fewer pages, page numbers should be typed as two digits. For example, type "02" for page two. If the sequence contains 100 or more pages, enter all page numbers as three digit values. For example type "002" for page two, "010" for page ten, etc.

The page is now drawn and is ready for display. When ready, press RETURN to initiate the effect for the page, or type in a new page number if you do not wish to show this page after all.

Other keyboard playback commands available:

HOME	- Go to page 1 in the sequence
END	- Go to the last page of the sequence
PAGE UP	- Go to previous page
PAGE DOWN	- Advance to next page
SPACE BAR	- Advance to next page
LEFT MOUSE	- Advance to next page
BACK SPACE	- Cancels page number currently being typed
ESC	- Terminate playback and return to the Play Menu
F1-F10	- Calls up a series of Presentation Playback pages

If rapid access to pages is needed, page drawing time may be reduced for complex pages if the Presto Page option is used. If the pages are to be accessed sequentially, page access time is also improved by using the F4 PLAY KEYWAIT option.

F4 - WAIT FOR KEYPRESS BEFORE EACH PAGE

The Wait For Keypress Playback Mode lets the user step through pages in a linear order, waiting for a mouse click or SPACE BAR keypress before advancing to the next effect.

After pressing F4 or selecting PLAY KEYWAIT, the screen will display a blank page. Press the SPACE BAR to bring up the first page. The first page played will be the page selected in the PAGE button in the Play Menu.

Other keyboard playback commands available:

HOME	- Go to page 1 in the sequence
END	- Go to the last page of the sequence
PAGE UP	- Go to previous page
PAGE DOWN	- Advance to next page
SPACE BAR	- Advance to next page
LEFT MOUSE	- Advance to next page
ESC	- Terminate playback and return to the Play Menu
F1-F10	- Calls up a series of Presentation Playback pages

If rapid access to pages is needed, page drawing time may be reduced for complex pages if the Presto Page option is used.

PRESENTATION PLAYBACK MODE

The presentation Playback Mode works in conjunction with the F3 - Random Access and the F4-Play Keywait playback modes. It allows keyboard function keys F1 through F10 to call up a subset of pages from the sequence. This segmented playback ability has many useful applications for live presentations.

Example:

This example assumes that you have ten or more pages in your sequence. Go to the Page Menu. Select Page 1 in the page list. Press function key F1 once. You will see a white "F1" indicator to the left of Page 1 in the list, indicating this page is to be accessed by function key F1.

Select Page 5 in the page list. Press function key F2 once. The white "F2" indicator marks Page 5 as the page accessed by function key F2.

Function key F1 will serve to play Pages 1 through 4 on command. Function key F2 will play from Page 5 through the last page of the sequence.

Enter the Play Menu. Select PLAY KEYWAIT, or press F4 from the keyboard. The initial blank screen appears. When ready, press function key F1. Pages 1 through 4 will appear in order with the transitions and hold times assigned to those pages. The playback will hold on Page 4 until you press another key since the next page (Page 5) is assigned to a different function key.

Press F2. The playback will resume with Page 5, and will continue until the last page of the sequence is reached. The last page will be held on screen until another function key is pressed, or until the ESC key is pressed to terminate the playback.

The ten function keys can be assigned to any page, and in any order you choose. To remove a function key assignment, select the indicated page in the Page Menu, and press the function key listed for that page. The function key label will be removed from the list.

GPI START PLAYBACK

The sequence playback can be initiated by a GPI trigger (General Purpose Interface) or contact closure through mouse port 2 on the Amiga. The actual signal line corresponds to the Left Mouse Button pin of the second mouse port.

To use this feature, select the GPI START button so that it says "GPI START ON". Then select one of the playback modes outlined above. The program will play when a GPI trigger pulse is received, or when the Mouse Button is clicked (either mouse port).

LOOP PLAYBACK MODE

The effects playback can be set to repeat over again after playing the last page of the sequence. To activate Loop Playback, select the LOOP MODE button so that it displays "LOOP MODE ON", or from the keyboard press F5. Then select one of the above play options to run the sequence of effects.

VIEW PAGE/ HIDING THE CURSOR

Sometimes it is desirable to view a selected page and hold it on screen while hiding all cursors. This option is useful for photographing the screen, making slides, and for composing pages. To do this, go to the Text Edit Mode. Move to the desired page. Press F5, and the cursors will disappear. When ready, press any key to bring back the cursors.

USING PRESTO PAGES

Presto Pages are pre-drawn pages that can be generated and displayed very quickly during playback. Complex pages having heavy shadows or densely populated with text may require up to several seconds to generate, which may delay the appearance of the page even beyond the assigned Hold time.

Even though Broadcast Titler utilizes the best performance available from the Amiga's hardware, the high resolution overscan display used by Broadcast Titler, along with the processing demands of sharp, four-level anti-aliased characters, limits the speed at which complex pages can be generated.

Effects such as Roll may require rapid generation of pages to prevent gaps from appearing between successive pages. If the next page of a Roll cannot be generated in time, there may be a series of blank scanlines inserted before the next page. Using Presto Pages for selected pages that need to be generated in a hurry will help to eliminate this problem.

To set the Presto option for a page, enter the Page Menu. Select the page you wish to make a Presto Page. Select the PRESTO button from the menu. A "P" will appear to indicate that page is set for Presto playback. In the Play Menu, set the first page to be played in the PAGE button. Then select DRAW PRESTO PAGES. The message DRAWING PAGE # will appear, and will indicate the amount of Presto Page memory available. As many pages as will fit in available memory will be rendered.

▲ If the message "NO PRESTO PAGES" appears, check to see that the PAGE number button is set to the first page you wish to play, usually Page 1. Also verify that the Presto option has been set for the desired pages in the Page Menu.

When the Presto Page pre-rendering operation is complete, select the playback option you wish to use (F1-F4). The selected pages should be generated more quickly than before, allowing virtually uninterrupted playback regardless of page complexity.

▲ Be aware that the Presto Page feature is intended for pages composed primarily of Text. If the page contains large IFF brushes or large dithered background patterns, the Presto Page feature may not always display the page properly. Use Presto Pages primarily for text pages.

If you return to the Text Edit Mode you will need to select DRAW PRESTO PAGES again before playing the sequence another time. Rendered Presto Pages are not saved with the sequence. They are generated only by selecting DRAW PRESTO PAGES in the Play Menu.

☐ THE SCREEN OPTIONS MENU ☐

MAIN ➤ PLAY ➤ SCREEN OPTIONS

The Screen Options Menu is provided to customize the Amiga's display to provide control over the video screen position, and the operation and placement of the Status Bar for random access playback.

To compensate for the horizontal screen delays introduced by some genlock devices, the Screen Position control allows the screen to be shifted left or right to one of four positions. Although the graphics display on the Amiga RGB monitor may appear centered, once the video is viewed through a genlock on your edit monitor, the entire screen may appear to be shifted to the right.

To compensate for this shift, which may be more severe depending on the make of your genlock, select screen positions 1, 2, 3 or 4 to shift the screen to the left or right so that the image appears centered on your NTSC monitor.

To aid in centering the text on the page, the current left and right text margins, which represent the Safe Titling Area, are outlined on the upper portion of the menu. Center these indicators so they are spaced evenly between the extreme left and right horizontal blanking. This is best accomplished using the Underscan Switch of your monitor, or by using an overscan monitor that has been accurately centered with respect to horizontal blanking.

ACTIVATING THE STATUS BAR FOR RANDOM ACCESS PLAYBACK

The Status Bar is a special on-screen message area designed to cue the operator with status information during the Random Access Playback Mode. The Status Bar allows the operator to actually see the page number being typed for the next page. It also informs the operator that the page has been generated and is ready for display. The Status Bar also displays the first line of text from the page to verify that this is the correct page. Pressing RETURN, the SPACE BAR, or the Left Mouse Button triggers the effect for the new page.

To activate the status bar, click on the STATUS BAR button and choose either the HIGH, MEDIUM or LOW position for the Status Bar. On the HIGH setting, the Status Bar will appear about forty scanlines from the bottom of the screen so that the bar can be seen on an overscan monitor. On the MEDIUM setting, the Status Bar appears approximately 16 lines above the bottom of the screen. On the LOW setting, the status bar appears in the last eight scanlines of the display.

For the low and medium settings, it may be necessary to use the Underscan switch setting on your monitor, or you may need to adjust the vertical height setting which is an available adjustment on most monitors, to allow the entire 480 line display area to be seen on the monitor.

The Status Bar operates such that the status information is only visible on the RGB monitor, and is not displayed on the genlock output channel. The operator can see what pages are being accessed via the RGB Monitor, without having this information displayed on the live channel.

▲ To use this feature, it is important that the genlock is receiving either an incoming video signal or Blackburst.
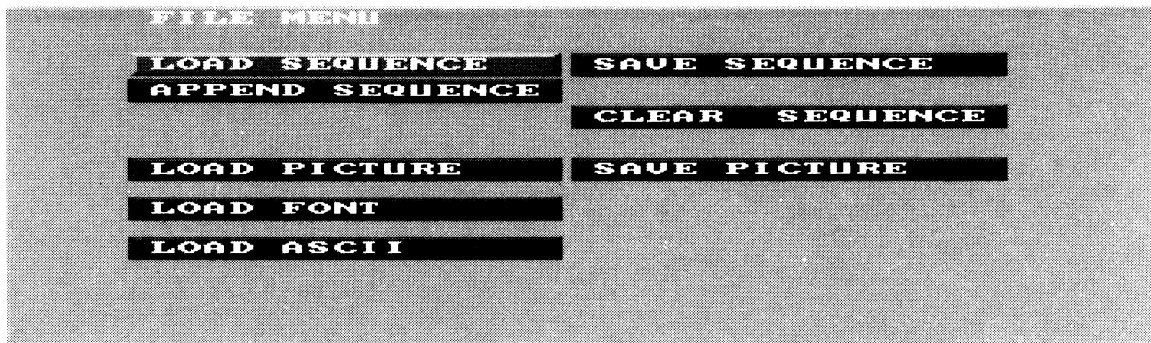
▌ CHAPTER 10 ▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌

⊔ THE FILE MENU ⌷

MAIN ➤ FILE

The Broadcast Titler File Menu handles disk storage and retrieval operations for the various file formats used in Broadcast Titler. These include:

- Loading/Saving/Appending Sequence files (.BTS)
- Loading/Saving/IFF Picture files
- Loading Font files (.BTF)
- Loading ASCII Text files.

▲ Before working with Broadcast Titler you should have a formatted floppy disk on hand to store your sequence.

LOADING A SEQUENCE

To load a new sequence into Broadcast Titler select FILE from the Main Menu. If you are going to load the sequence from a floppy disk, place the disk containing the sequence file in the floppy drive now.

Select LOAD SEQUENCE. The disk drive light will go on and in a moment the Disk Menu will appear. It will list all of the Broadcast Titler Sequence (.BTS) files found on the Root Directory of the disk.

If the file you are seeking is not on the list, type in the name of another disk drive or disk path containing your sequence file.

Once the filename appears in the Disk Directory List, use the mouse or keyboard to highlight and select the file from the list.

▲ In order for the sequence to load properly, all auxiliary files used by the sequence must also be in the same directory as the sequence (.BTS) file.

These files include:
- the Broadcast Titler Sequence file (.BTS)
- the Picture List file (.PICS)
- the actual IFF Picture files which are listed in the .PICS file.
- the Font List file (.LOAD)

For additional information about these specific file types, refer to the following sections which cover these file formats in detail.

USING THE DISK DIRECTORY MENU

When loading and saving files through the File Menu you will be prompted to select the disk drive and path name for your files via the Disk Directory Menu.
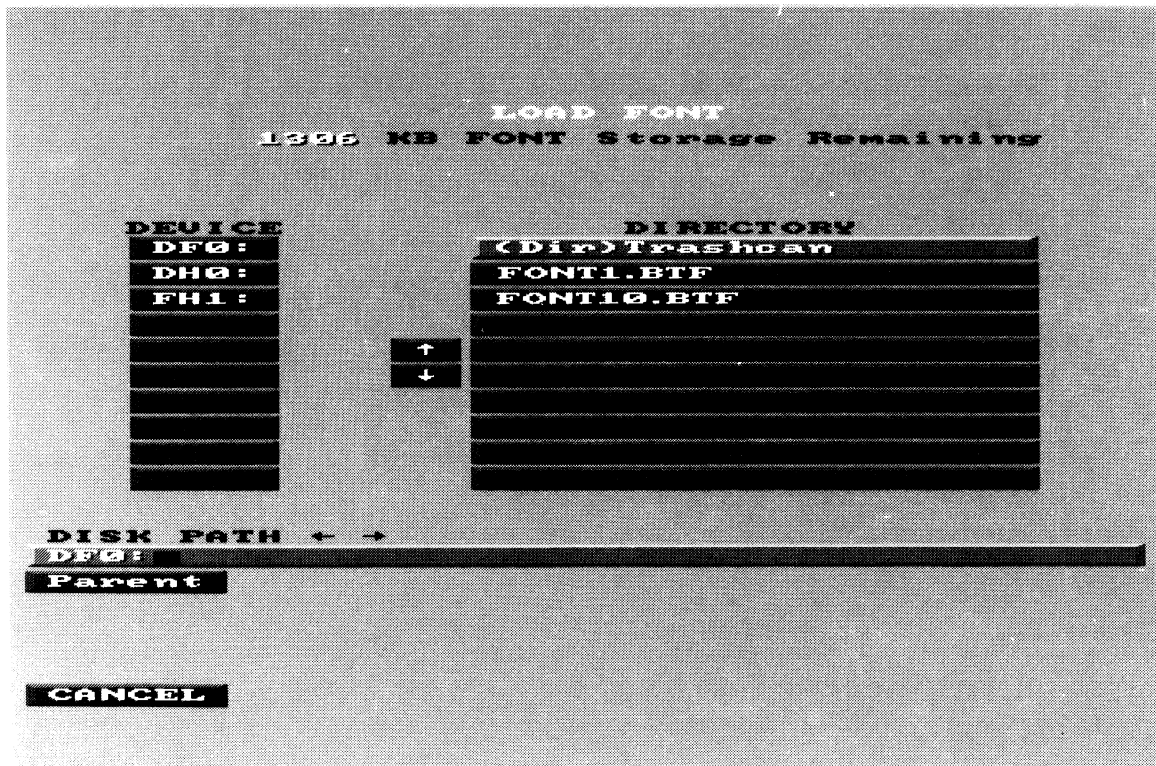
A. SELECTING A DISK STORAGE DEVICE

The available disk storage devices on your system are listed in the DEVICE buttons on the left side of the menu. To list the files that are on one of these disk drives, simply select the button for

the disk you wish to use. From the keyboard just type the name of the disk drive, followed by a colon character ":" and press RETURN, i.e. type DF0: and press RETURN.

▲ Any time you place a new floppy disk in the disk drive while in this menu, you will need to select the DEVICE button for that disk in order to see the list of files on the new disk.

B. SELECTING A DIRECTORY PATH

Directory names in the DIRECTORY list are preceded by the prefix (Dir). To list the files contained in a directory on the current disk, select the DIRECTORY button containing the directory name that contains the file name.

Or from the keyboard, type in the directory path name and press RETURN, i.e. type FH1:BTitler2 and press RETURN to access the BTitler2 directory on hard disk FH1. To access a directory within a directory, or what is called a subdirectory, one would enter a path such as this: FH1:VIDEO/BTitler2. BTitler2 is a subdirectory, which is contained in the VIDEO directory, on hard disk FH1:.

C. SELECTING A FILE TO LOAD OR SAVE

Once the file name appears in the DIRECTORY list, select the file name in the DIRECTORY list to load or save that file. To save a file under a new name, type in the file name from the keyboard and press RETURN.

D. RETURNING TO THE PREVIOUS DIRECTORY

To list the files from a Parent Directory while you are in a subdirectory, select the PARENT button. The path name for the parent directory will be displayed in the DISK PATH bar on the bottom of the menu.

A fast way to return to the Root or main directory of the disk is to select the disk drive name from the DEVICE list.

E. MONITORING REMAINING RESIDENT STORAGE SPACE

Additional Fonts and IFF Pictures that are loaded into Broadcast Titler are stored in a large Fast RAM buffer. Additional Fast Memory (or main computer memory) installed in a system provides extended Resident Storage for extra Fonts and IFF Pictures.

The amount of memory available for storing Fonts and Pictures in main computer memory is indicated in a memory status line at the top of the Disk Menu. The Message, "520 KB Font Storage Remaining", indicates that there are approximately 520,000 bytes of unused main computer memory that can be used to store additional Fonts and Pictures.

▲ If the amount of memory available drops much below "30 KB", you should not try to load additional files. To start with a fresh set of Fonts and Pictures, you can select CLEAR SEQUENCE in the File Menu, and respond by typing "Y" at the "RELOAD FONTS?" prompt. This will release all of the Resident Font Storage, purging the existing set of fonts so that a new set can be loaded. After doing this, one should immediately load new fonts by selecting LOAD FONT.

F. MONITORING REMAINING DISK STORAGE SPACE

Saving data files requires that enough unused disk space is available that the files will fit on the disk without completely filling it up. This is an important consideration for floppy disk users. It is best to use a fresh disk for storing sequences if the current disk is more than about 75% full. During file Save operations, the amount of free space on the disk is displayed at the top of the menu, along with the percentage of the disk capacity that has already been used. If less than 200,000 bytes of disk space is remaining, or the disk is more than 75% full, then it may be advisable to store new files on a fresh disk.

This is most important to keep in mind when working with large sequences. Saving a new 200 page sequence will occupy approximately 200,000 bytes of unused disk space. A 100 page sequence requires about 100,000 bytes, and a 50 page sequence requires about 50,000 bytes.

G. DISK DIRECTORY MENU TIPS

▲ Always save your work often. It is good a practice to save your work every 30 minutes or so to prevent losing perhaps several hours of creative work in the event of an inadvertent hardware, software or power failure.

▲ Always keep extra formatted disks available for saving sequences and fonts. Disks can become full if you are saving several sequences on the same disk, or if you save sequences on old disks which have not been cleared of old data.

▲ If the Disk Directory Menu should go blank for an extended period, or if it should become inoperative, a disk system error may have occurred. To recover, simultaneously press both the LEFT Amiga key and the "b" key. Do this at least twice or until the menu reappears.

SAVING A SEQUENCE

Before you begin, be sure there is plenty of free storage remaining on the disk you are using. In general it is best to store your sequences on newly formatted disks. (You should not try to save sequences onto the Broadcast Titler Program Disk.)

Select SAVE SEQUENCE to store all of the text pages and effects for the current sequence on a disk. When the Disk Directory Menu appears, select the disk drive that you will be using.

If necessary, select the directory and subdirectory in which the file is to be saved.

When the red DISK PATH bar contains the proper device and path name, type in the file name you wish to use for the sequence. For example if you wish to save the sequence in the Root Directory on drive DF0:, you would see "DF0:" displayed in the DISK PATH bar.

Example:

To save a file called "MySequence", you would type in the name so that the DISK PATH bar contains the file name "DF0:MySequence", and press RETURN.

If saving to a directory or subdirectory, the file name must be preceded by a "/" character, which is the key found next to the LEFT SHIFT key on the keyboard. For example if you wish to save the sequence in the BTitler2 Directory on drive FH1:, you would see "FH1:" displayed in the DISK PATH bar.

To save a file called "MySequence", you would type in the name so that the DISK PATH bar contains the file name "FH1:BTitler2/MySequence", and press RETURN. Again, note the Slash character separating "BTitler2" and "MySequence".

A. THE SEQUENCE ".BTS" FILE

The SAVE SEQUENCE function will create a Sequence File containing all of the Text Pages, Palettes, Patterns and Effects for the current sequence. This information is saved in a ".BTS", or Broadcast Titler Sequence file, i.e. "MySequence.BTS". This Sequence File can only be changed by loading it into Broadcast Titler. It cannot be modified by using a text editing program.

B. THE FONT LIST ".LOAD" FILE

SAVE SEQUENCE also creates an editable ASCII text file containing the names of all Fonts that were in Resident Storage when the sequence was last saved. This information is stored in a ".LOAD" file, i.e. "MySequence.LOAD". Therefore the file "MySequence.LOAD" contains all of the default font names resident when Broadcast Titler was started, plus all additional fonts loaded via the LOAD FONT option in the File Menu.

When you next load the sequence "MySequence.BTS", the font list "MySequence.LOAD" will automatically be loaded into Broadcast Titler. If the font files in this list match the same fonts that are already present in Broadcast Titler, then no additional fonts will be loaded. However, if the font files in the list differ in name or ordering from the fonts currently loaded, then Broadcast Titler will Clear all existing fonts from Resident Storage and then reload the font files listed in the "MySequence.LOAD" file.

An example of this file type is the special purpose file named "BTFONTS.LOAD", which can be

found on the Broadcast Titler Program Disk. This is a special reserved file name that Broadcast Titler looks for and automatically reads when the program first starts. This file contains the names of all fonts that are to be loaded as default fonts when the program begins.

The BTFONTS.LOAD file provided with the program looks like the following when viewed in a text editing package:

    Swiss_50.btf
    Swiss_67.btf
    Swiss_37.btf
    Swiss_25.btf
    Swiss_15.btf
    Minerva_67.btf
    Minerva_50.btf
    Minerva_37.btf
    Minerva_25.btf
    Minerva_15.btf
    Sports_80.btf
    Sports_40.btf
    Sports_20.btf
    Holiday_35.btf
    Holiday_25.btf
    Holiday_20.btf
    Swiss_100.btf

These fonts are loaded into Broadcast Titler in the order in which they appear. The first font in the list is used as the default edit font when you first start typing in Broadcast Titler.

All ".LOAD" files may be viewed or changed by using a word processor such as ED. See Appendix A - Using ED the System Text Editor for details on editing ASCII text files.

Each file name in the list must be on a separate line and must end in a ".BTF" extension. If you are deleting a name from the list you must completely delete that line in the list. There should be no blank lines in the list.

C. THE PICTURE LIST ".PICS" FILE

SAVE SEQUENCE also creates an editable ASCII text file containing the names of all IFF Pictures and Brushes that were in Resident Storage when the sequence was last saved. This information is saved in a ".PICS" file, i.e. "MySequence.PICS". The file "MySequence.PICS" contains the file names of all IFF Pictures loaded via the LOAD PICTURE option in the File Menu.

When you next load the sequence "MySequence.BTS", the picture list "MySequence.PICS" will automatically be loaded into Broadcast Titler. Broadcast Titler will then load all of the pictures listed in the ".PICS" file into Resident Storage.

▲ It is imperative that all IFF Picture files used in a sequence are copied to the same disk and directory that contains the sequence (.BTS) file.

All ".PICS" files may be viewed or changed by using a word processor such as ED. See Appendix A - Using ED the System Text Editor for details on editing ASCII text files.

Each file name in the list must be on a separate line. If you are deleting a file name from the list you must completely delete that line in the list. There should be no blank lines in the list.

APPENDING A SEQUENCE

To tack an existing sequence to the end of the current sequence being edited, select APPEND SEQUENCE. The disk drive light will turn on and in a moment the Disk Menu will appear, listing all of the Broadcast Titler Sequence (.BTS) files found on the Root Directory of the disk.

If the file you are seeking is not on the list, type in the name of another disk drive or disk path containing your sequence file.

Once the filename appears in the Disk Directory List, use the mouse or keyboard to highlight and select the file from the list.

▲ This feature works best if the individual font .LOAD files for the two sequences contain the same fonts and if the fonts are listed in the same order in both files.

CLEARING THE CURRENT SEQUENCE

To erase all pages in the current sequence and start a new, completely empty sequence, select CLEAR SEQUENCE. Type a "Y" from the keyboard in response to the "Are You Sure?" prompt. Or type "N" to cancel.

If you wish to keep on using the same set of resident fonts for the new sequence type "N" to the "Reload Fonts?" prompt. If you wish to clear out all of the current resident fonts to load in entirely new ones, type "Y".

▲ Remember to save your current sequence before clearing it. Once a sequence is cleared, it cannot be recovered unless it has already been saved onto a disk.

LOADING AN IFF PICTURE

To load a picture into Broadcast Titler's Resident Storage for display as a page or line background, select LOAD PICTURE. For a more detailed discussion on loading and displaying IFF pictures, refer to the Tutorials chapter.

▲ It is very important to place a copy of the IFF picture file used in the sequence onto the same disk and Directory that contains the sequence (.BTS) file. If this is not done, the picture will not be available and will not be displayed the next time the sequence is loaded.

SAVING A PAGE AS AN IFF PICTURE

To save any Broadcast Titler page as an IFF Format Picture File, go to the Main Menu. Jump to the page you wish to save as an IFF Picture. Select FILE, and the chosen page will be now be displayed at the top of the menu.

Select SAVE PICTURE. The Disk Directory Menu appears. Select the Device, and Directory on which to save the picture. Type in the name under which to save the picture, and press RETURN. The screen will go blank for a few seconds, and the picture will be saved to disk. The picture file will automatically be saved with a ".PIX" file name extension for easy identification.

▲ Since the Amiga's standard IFF picture format does not recognize more than 16 colors in high resolution, only the topmost palette of 16 colors on the page will be saved with the sequence. The character anti-aliasing is not preserved in the IFF picture.

LOADING EXTRA FONTS

To load additional fonts into Broadcast Titler's Resident Font Storage, place the disk containing the Broadcast Titler Fonts (.BTF files) in a disk drive. Select LOAD FONT. The Disk Directory Menu appears. Select the Device and Directory which contains the fonts. Select one or more font files to load. Click the Right Mouse Button or press ESC when done to exit the menu.

Remember to check the FONT STORAGE REMAINING indicator at the top of the Disk Directory Menu to gauge the number of additional fonts that can be loaded based on the system's available memory.

▲ Only fonts converted by the Broadcast Titler Font Converter, or the optional Broadcast Titler Font Enhancer, or the ready-to-go fonts from the optional Broadcast Titler Font Packs may be loaded into Broadcast Titler. Amiga Fonts and Color Fonts must first be converted by one of these programs before Broadcast Titler can use them. For further information on converting and using Amiga and Color Fonts in Broadcast Titler, refer to APPENDIX B: THE FONT CONVERTER.

LOADING TEXT FROM ASCII FILES

Text contained in ASCII format files may be loaded into Broadcast Titler. Such files are commonly produced in word processing programs. The file must be saved in the ASCII format rather than any other format provided by the editor. Text files produced with the Amiga's System Text Editor, ED, are automatically saved as ASCII files, and can be loaded directly into Broadcast Titler.

In the Text Edit Mode, move the Text Edit Cursor to the line and page in the sequence where the ASCII text is to be inserted. Select the Font, Size, Shadow and Colors to be used for the inserted text.

Select FILE from the Main Menu. Place the ASCII text file in one of the disk drives. Select LOAD ASCII. The Disk Directory Menu appears. Select the Device and Directory which contains the text file. Select the text file from the Directory. Each line of text from the ASCII file will be loaded into the Broadcast Titler Sequence. It may take up to a minute or more to complete the loading operation if the file contains more than about 400 lines of text.

▲ As of this release, the ASCII LOAD function will load text on a line-by-line basis, and does not do a word-wrap split of long lines. If there is a RETURN, or End-of-Line character encountered at the end of an ASCII text line, Broadcast Titler will start a new line in the sequence. Therefore it is important to keep the ASCII text lines short enough that they can be typed in a single line in Broadcast Titler with the currently selected font size.

■ APPENDIX A ■■■■■■■■■■■■■

◻ USING ED THE SYSTEM TEXT EDITOR ◻▭

This appendix gives specific examples of using the system text editor ED to view or change text files significant to Broadcast Titler's operation. The following topics are covered:

- Editing The BTFONTS.LOAD File
- ED Commands
- Editing The Startup-Sequence File

1. EDITING THE BTFONTS.LOAD FILE

This example demonstrates an easy way to change the contents of the BTFONTS.LOAD file using ED. The system text editor, ED, is included in the Broadcast Titler Program Disk. ED can also be found on the Amiga Workbench Disk provided with every Amiga system.

Although this tutorial modifies the BTFONTS.LOAD file, the example applies to editing any other .LOAD file as well. Recall from the File Menu chapter that each sequence is saved with its own font list .LOAD as well. The ability to add or substitute fonts in these lists can be a valuable feature for advanced users.

Floppy Disk Users

Floppy disk users should boot with the Broadcast Titler Program Disk in floppy drive DF0. Then place the disk containing the BTFONTS.LOAD file to be edited in drive DF1.

From the Broadcast Titler Autoboot Menu, type in the following command:

ED DF1:BTFONTS.LOAD and then press RETURN.

Hard Disk Users

Hard disk users most often will have Broadcast Titler and the BTFONTS.LOAD file located in the BTitler2 directory created by the hard disk installation procedure outlined in Chapter 2. This example assumes that hard disk partition containing Broadcast Titler is FH1.

From the Workbench CLI, type the following command:

ED FH1:BTitler2/BTFONTS.LOAD and then press RETURN.

Editing The File

The editor will load the designated ASCII text file and will display it on screen. The standard BTFONTS.LOAD file provided with the program should contain the following list of file names:

Swiss_50.BTF
Swiss_67.BTF
Swiss_37.BTF
Swiss_25.BTF
Swiss_15.BTF
Minerva_67.BTF
Minerva_50.BTF
Minerva_37.BTF
Minerva_25.BTF
Minerva_15.BTF
Sports_80.BTF
Sports_40.BTF
Sports_20.BTF
Holiday_35.BTF
Holiday_25.BTF
Holiday_20.BTF
Swiss_100.BTF

▲ Refer to the File Menu chapter for further information concerning the uses and proper format for the .LOAD file.

A tinted rectangular edit cursor will appear in the upper left corner of the file. To move this cursor to the bottom of the list, press the DOWN Arrow key from the keyboard several times.

To insert a blank line at the cursor position, press RETURN. A new blank line will be created, and additional text may be entered.

To completely remove a line from the file, move the edit cursor to the line to be deleted, and simultaneously press CTRL and B.

To save the changes to the file on disk and then exit the program, press ESC, then press X.

To exit without saving any changes, press ESC, then press Q. Then type a Y to confirm the operation.

2. SUMMARY OF ED COMMANDS

ESC X	Saves current text file with any changes to disk, and exits ED.
ESC Q	Exits ED without saving the current text file to disk.
CTRL B	Completely removes the current line from the text file, moving all lower lines up one position.
DEL	Deletes the character under the cursor.
BACKSPACE	Deletes the character to the left of the cursor.
UP Arrow	Moves cursor up one text line.
DOWN	Arrow Moves cursor down one text line.
LEFT Arrow	Moves cursor one character to the left.
RIGHT Arrow	Moves cursor one character to the right.

ESC SA/filename.txt Saves the current text file under the name "filename.txt".

3. EDITING THE SYSTEM STARTUP-SEQUENCE FILE

The Startup-Sequence is an ASCII text file containing a script of DOS commands that the system must execute as soon as the machine is powered on or after a system reset.

The commands listed in this file initialize several important system functions such as installing hard disk device drivers, setting up disk path aliases, and executing FastMemFirst to insure that programs load into Fast Memory.

Floppy Disk Users

To edit the Startup-Sequence file on a floppy boot disk, place the boot disk in drive DF1. Then type the following command from the Workbench CLI:

   ED DF1:S/Startup-Sequence and press RETURN.

Hard Disk Users

To edit the Startup-Sequence file on a hard disk, enter the following command from the Workbench CLI:

   ED Boot:S/Startup-Sequence and press RETURN.

Adding Commands To The File

The following example places several ASSIGN commands at the end of the Startup-Sequence file. It illustrates how to enter the hard disk path aliases outlined in Appendix D : Advanced Hard Disk Configurations.

This example is intended for hard disk systems only, although it may be possible to extend the example to address other physical or virtual devices.

Press ESC, then press B. The edit cursor moves to the last line in the Startup-Sequence file.

Press RETURN one time to create a new blank line at the end of the file.

Enter the following lines in the file, pressing RETURN after each line.

```
Assign  BTSEQ:   Work:BTitler2
Assign  BTFONT:  Work:BTitler2
Assign  BTPIC:   Work:MY_PICTURE_FONT_DIR
Assign  SOURCEFONT:  Work:MY_AMIGA_FONT_DIR
```

Press ESC, then press "X" to save the file.

▲ In the above example, you will need to substitute the names "MY_PICTURE_FONT_DIR" and "MY_AMIGA_FONT_DIR" with actual directory names used on your hard disk, i.e. "Work:Graphics". If in doubt, you can simply use "Work:".

■ APPENDIX B

☐ USING THE FONT CONVERTER ☐

Broadcast Titler's Font Converter converts Amiga and Color Font format fonts into Broadcast Titler 2's compressed format and adds extra Kerning and spacing information to the characters. However, it does not add anti-aliasing to the font. The Font Converter Program is provided on the Broadcast Titler 2 Program Disk. When formatting data disks, do not type "FONTS" to declare the name of the disk as it may confuse the system. Instead, use another name such as "BTFONTS".

Running the Font Converter

1. If you are going to save the converted Broadcast Titler 2 fonts onto a floppy disk, you will need to format a data disk before running the Font Converter program. A utility for formatting data disks is provided by pressing F5 in the Broadcast Titler's Autoboot Menu.

2. Floppy disk users should first boot with the Broadcast Titler 2 program disk in floppy drive DF0. To run the Amiga Font to Broadcast Titler 2 Font Converter Program, double click on the "Converter" icon, or press F2 from the Autoboot Menu. In a moment, the Broadcast Titler Font Converter Main Menu will appear.

Inserting the Amiga Font Disk

3. (VERY IMPORTANT) As soon as the Main Menu appears, floppy disk users should insert the disk containing the AMIGA FONTS in drive DF0.

Finding the Amiga Fonts Directory

4. Wait for the disk to validate, and select the "COPY FONTS FROM" button at the top of the menu. The Disk Directory Menu appears.

The purpose of this menu is to locate the directory on the disk containing the Amiga Fonts to be converted. For most commercially available Amiga Fonts, this directory is "DF0:FONTS", which is the default name that appears in the DISK PATH button at the bottom of the menu.

If you see a ".Font" file in the directory list, then you have located the correct DISK PATH for the group of fonts on the disk. If you indeed have the correct DISK PATH, then your directory list should look something like this:

> (Dir)MyFont1
> (Dir)MyFont2
> MyFont1.Font
> MyFont2.Font

If you are loading fonts from a hard disk, or if the Amiga Fonts are in a different directory, select the appropriate DEVICE, and then select the appropriate Directory. Do this by selecting directory names from the Directory List, or type in the path from the keyboard and press RETURN.

▲ DO NOT actually select any of the ".Font" files or font directory names that appear in this list. Simply verify that the Directory List contains the font names you are looking for.

5. Select DONE, or click the Right Mouse Button to return to the Main Menu.

Setting the Font Destination

6. Locate the "COPY FONTS TO" button, and the disk path name below it. This path should indicate where you wish the resulting Broadcast Titler fonts to be saved.

Saving to a Floppy Disk

To save the converted Broadcast Titler fonts onto a floppy disk, insert the formatted data disk in your second disk drive now (if you only have one floppy disk drive, skip to step #7.)

If the "COPY FONTS TO" path is incorrect, then select "COPY FONTS TO", and select the desired DEVICE and directory path.

Saving to a Hard Disk

Select "COPY FONTS TO", and select the DEVICE and directory path on which you wish to save your Broadcast Titler fonts. For example, you may wish to save the fonts in the hard disk directory "FH1:BTitler2". Click the Right Mouse Button to return to the Main Menu.

Selecting the Extended Character Set

7. Select "ASCII 128 (USA)" if you want to access special symbols, but do not need to type with special international accents. This option also saves space if the original Amiga Fonts contain all 256 ASCII characters.

To convert all 256 characters in an Amiga Font defined with the full ASCII 256 international character set, select "ASCII 256 INTL".

Converting a Font

8. Take a moment to verify the "COPY FONTS FROM" and "COPY FONTS TO" font path settings. If they are correct, click on the SELECT FONTS button.

9. The AVAILABLE AMIGA FONTS Menu appears, listing the available Amiga fonts, along with their heights in scanlines. To view additional fonts in the list, click on the Up Arrow and Down Arrow buttons, or press the Up and Down Arrow keys from the keyboard.

10. Select the font you wish to convert into Broadcast Titler format. The Main Menu appears, and the selected font and size appears in the FONTS TO PROCESS list at the bottom of the menu.

11. To process multiple fonts, repeat the previous step to convert up to 11 fonts in a single batch. To delete a font from the batch list, select CLEAR LAST ENTRY.

12. Select CONVERT LIST. The Font Converter status screen appears. It indicates how many fonts and characters remain to be processed.

The conversion can take from about 2 to 10 minutes per font, depending on font size and the clock speed of the machine you are using.

The Font Converter works by scanning the font to add improved Kerning values to the font. It also compresses the font data so that the resulting font requires much less space on disk and in memory. For instance, a large 250 K Amiga Font file can be reduced to a 22 K Broadcast Titler Font, allowing many more fonts to be stored on-line in Broadcast Titler.

Each converted Broadcast Titler font is saved on disk as a ".BTF", or Broadcast Titler Font file, which is recognized by Broadcast Titler.

When the conversion is complete, the Main Menu will reappear. Select QUIT to return to the Workbench or to the Autoboot menu.

▲ Broadcast Titler and the Font Converter have built-in support for Color Fonts, so it is not necessary to run the Color Fonts utility "Color Text" required for most programs.

13. To load the resulting ".BTF" font files into Broadcast Titler, refer to the section "Loading Extra Fonts" contained in Chapter 10 : The File Menu.

▲ Fonts converted with the Font Converter will not contain any anti-aliasing. You can achieve anti-aliasing and resizing of third party fonts by purchasing the optional Font Enhancer program for Broadcast Titler 2.

■ APPENDIX C ■■■■■■■■■

CONTINUOUS OPERATION FOR 24 HOUR INFORMATION DISPLAY CHANNELS

Cable Information Channels often need to display information continuously, day and night, for weeks on end. It is imperative that such a system will automatically resume operation after an electrical power failure, without requiring any action from an operator.

The Broadcast Titler's Demo Disk provided with the program is designed to be used for this purpose. To set up such a system using an Amiga 500, 2000, 2500 or 3000 series computer do the following:

1. Make a duplicate copy of your original Broadcast Titler Demo Disk. Store the original in a safe place.

2. Delete all of the ".BTF", ".BTS", and ".PICS" files from the copy of the Demo Disk. This clears the disk of the standard Broadcast Titler demo, along with its associated fonts and pictures.

3. Run Broadcast Titler. Load the sequence you wish to run. Place the copy of the Demo Disk in floppy disk drive DF0. Save the sequence on drive DF0, using the file name "AUTODEMO". To do this select SAVE SEQUENCE from the File Menu. Backspace over the name in the red Disk Path box, and type in "DF0:AUTODEMO" and press RETURN. The sequence will be saved under the name "DF0:AUTODEMO.BTS". Now exit Broadcast Titler.

4. Using the Workbench CLI or a file transfer utility, copy all fonts used in the sequence onto the copy of the Demo Disk.

The list of fonts that must be copied onto the disk is contained in the text file "AUTODEMO.LOAD", which was automatically saved on the Demo Disk in step 3 above. This file can be viewed in a standard text editor or word processor, and will indicate which font files must be copied.

5. Using the Workbench CLI or a file transfer utility, copy all pictures used in the sequence onto the Demo Disk. The list of pictures that must be copied onto the disk is contained in the text file "AUTODEMO.PICS", which was automatically saved on the Demo Disk in step 3 above. This file can also be viewed in a standard text editor or word processor.

6. The Demo Disk is now ready to go. Place the disk in floppy disk drive DF0 and reboot the machine. The Demo Disk is set up to boot Workbench and then immediately start the Broadcast Titler Demo Player program whenever power is applied to the Amiga.

The Demo Disk Player program is special in that it automatically loads a sequence file on the disk named "AUTODEMO.BTS", which in this case is the sequence saved on the disk in steps 3 through 5 above.

After the sequence loads, it will be played and repeated continuously until power to the machine is turned off. As soon as the power comes back on again, the sequence will automatically load and play.

▲ If space on the Demo Disk is limited, a separate floppy disk containing just the font files used in the sequence can be placed in another disk drive, i.e. drive DF1. Broadcast Titler will look for fonts on drive DF0, and if a font is not found there it will look for the font on drive DF1 and then DF2. Placing the font (.BTF) files on a separate disk can save 200,000 bytes of disk space or more.

▲ If the memory expansion board used in the Amiga system is not auto-configuring, you may need to place an ADDMEM command line in the "Startup-sequence" file located in the "S" directory of the Demo Disk. This tells the system to recognize the extra memory as soon as the system is powered on.

■ APPENDIX D ■

ADVANCED HARD DISK CONFIGURATIONS

For this discussion it is assumed that Broadcast Titler has already been installed on a hard disk drive per the instructions in Chapter 2 of this manual.

When Broadcast Titler is installed on a hard disk, the program and its supporting files are copied into a directory named "BTitler2". Depending on individual setup preferences, this directory can be located in any disk partition, and under any number of hierarchical subdirectories. The disk path leading to the BTitler2 directory could be as simple as "FH1:BTitler2", or it could as or more complex than "WORK:Graphics/Video/BTitler2".

To simplify the task of specifying lengthy directory path names, Broadcast Titler utilizes a set of path name aliases allocate specific file types on a disk.

MODIFYING THE STARTUP-SEQUENCE FILE

To accomplish this, one or more of the aliases "BTSEQ:", "BTFONT:", "BTPIC:" and "SourceFont:" must be assigned to actual hard disk path names. These path name "ASSIGN" commands are to be placed in the "Startup-Sequence" file found in the S directory of your hard disk boot partition. This is usually the file "Boot:S/Startup-Sequence".

As an example, the following command lines should be entered at the end of the "Startup-Sequence" file. (Refer to Appendix A: Using ED the System Text Editor, for information on editing text files.)

```
ASSIGN  BTSEQ:     FH1:BTitler2
ASSIGN  BTFONT:    FH1:BTitler2
ASSIGN  BTPIC:     FH1:Graphics/Paint/Hi-Res
ASSIGN  SourceFont: FH1:AllMyAmigaFonts
```

The above ASSIGN commands are based on these assumptions:

Broadcast Titler has been installed in the directory "FH1:BTitler2". Broadcast Titler fonts are in the directory "FH1:BTitler2". IFF picture files are to be found in the directory "FH1:Graphics/Paint/Hi-Res". Amiga Fonts and Color Fonts in the directory "FH1:AllMyAmigaFonts". You may be using different directory names than these, so it will be necessary to change the path names used in the ASSIGN commands accordingly.

ADVANTAGES OF THIS CONFIGURATION

1. As already mentioned, it is easier enter the path name "BTPIC:" in Broadcast Titler's Disk Directory Menu than to remember and enter the name "FH1:Graphics/Paint/Hi-Res".

2. It provides a standard name for the location of specific file types for turn-key video systems.

3. Broadcast Titler automatically scans the system environment variable list, and if any of the alias names such as "BTPIC" are used, the Disk Directory Menu will default to the assigned directory for listing disk files of the specific file type.

Otherwise, the first time any Load or Save operation is used, the program will start listing files on drive DF0 instead of the hard drive.

4. In Broadcast Titler's Disk Directory Menu, the correct directory containing the desired file types will automatically be listed.

> The Load Picture function will list files from "BTPIC:".
> The Load Sequence function will list files from "BTSEQ:".
> The Load Font function will list files from "BTFONT:".

5. When using the Font Converter or the optional Font Enhancer, the "SourceFont:" alias is used to identify the source of the Amiga Fonts to be converted. This avoids the necessity of changing the system font variable "FONTS:" from its default setting at boot time, which is normally "Workbench:fonts".

The directory "Workbench:fonts" normally contains only the standard system fonts which are used within Workbench, text editors, etc. Most users install third party Amiga Fonts in their own directories in "Work:", or elsewhere on the disk.

Most of the time users are not concerned with the system fonts, they just want to access the additional video fonts they have purchased. This somewhat confusing distinction between sets of Amiga Font directories can be simplified by setting the desired Amiga Font at boot time via the assign variable"SourceFont:".

■ APPENDIX E ■■■■■■■■■■■■■■■■■

☐ BROADCAST TITLER COLOR THEORY ☐☐

A NOTE ON ANTI-ALIASING

The Amiga hardware produces a 70 nanosecond pixel resolution in the High Resolution graphics mode, the standard mode used in Broadcast Titler. At this resolution, stair-step edge patterns become apparent when the character face is placed against a dark background color. It is the sharp transition in contrast between the Face Color and the Background Color that makes the 70 nanosecond stair-step patterns, or jaggies, become so apparent.

In order to improve the visual appearance of fonts, Broadcast Titler employs a four-step anti-aliasing ramp to sharpen the character edges by adding extra luminance information to the edges of the character. Broadcast Titler's anti-aliasing is accomplished by generating a series of anti-alias color levels that range between the Character Outline Color and the Character Face Color.

To alleviate this problem, Broadcast Titler uses a Face to Outline anti-alias spread to reduce this stair-stepping effect and to add additional definition to the character. This anti-aliasing principle is used in both the standard Broadcast Titler Fonts and the fonts converted with the optional Font Enhancer package, which converts 70 nanosecond Amiga fonts into Broadcast Titler's anti-aliased format. The anti-aliased format yields an "effective resolution" of 23.3 nanoseconds. The difference between anti-aliased characters and non anti-aliased characters can be seen in the Font Menu by selecting the ANTI-ALIAS/STD HIRES option in the Font Menu.

CHANGING THE UNDERLINE COLOR

The character underline feature uses Color 4 as the underline color. To change the underline color on a particular line, enter the Palette Menu and select AFFECT LINE. To change the underline color for the entire page select AFFECT PAGE. Next select Color 4 and adjust the RGB or HSV color levels to create a new underline color. The Shadow for the underline is controlled by changing the Shadow color box labeled "SH".

PALETTE MENU OPERATION IN SUPER HI-RES MODE

The Amiga 3000 comes with a new version of the Denise video chip that doubles the Amiga's resolution by providing a new 35 nanosecond "Super High Resolution" graphics mode. This doubles the Amiga's sharpest resolution, from 70 nanoseconds to a broadcast quality 35 nanoseconds.

However as a trade-off for this improved resolution, the total number of colors that can be displayed on a page has been reduced from 16 colors per page to only 4 colors per page. For video, this represents 3 visible graphics colors plus keyed video.

The optional Broadcast Titler "Super-Hi Resolution Upgrade" takes advantage of this new resolution by using significantly sharper 35 nanosecond characters, and then adding Broadcast Titler's anti-aliasing on top of that. This gives Broadcast Titler's characters a truly professional look. In addition, Broadcast Titler's line-by-line color palette change capability increases the maximum number of simultaneously displayable colors from only 4 per page to a total of 64 per page.

If a page of text contains a line of Super Hi-Res text, the Palette Menu displays the colors for the line with Color 0 on the far left, and the Shadow, Outline, and Face colors are shown on the for right side of the color boxes. The other colors in the palette will be blanked out so they cannot be selected.

Because of the rapid multiplexing required to achieve the new higher resolution, there is an additional limitation in the depth of the color palette for the Super High Resolution mode. The total number of colors available is reduced from 4,096 to only 64 colors. A palette of 64 colors is still plenty for most any application, the only difference is that there are not as many fine transitional steps between the colors as are available with the larger 4,096 palette.

The color sliders in the Palette Menu will work in much the same way as in the standard 16 color High Resolution mode. However, the granularity in color changes will be coarser for the Super High Resolution mode, ie. there are only four shades of Gray, four shades of pure Red, four shades of pure Blue, etc. But even with the limited number of Red, Green and Blue levels, the total palette of 64 colors still provides enough color variety to create highly attractive pages.

In the Super High Resolution mode, only one intermediate anti-alias value is used. With the combination of superior pixel resolution and anti-aliasing, the resulting characters are as sharp as virtually any high-end character generation system on the market. The "effective resolution" for this mode is 17 nanoseconds. InnoVision Technology highly commends Commodore for their ingenuity in bringing true broadcast quality resolution to the Amiga.

MIXING RESOLUTIONS ON A PAGE

Broadcast Titler allows Super High Resolution text lines to be placed just above or just below standard High 16 High color Resolution lines containing text or digitized 16 color IFF pictures. As you select lines with different resolutions in the Palette Menu, the appropriate palettes and number of colors will be displayed.

MIXED RESOLUTION MULTIPLEXING ARTIFACT

If you are mixing High and Super High Resolutions on a page, you may notice a single scanline stripe pattern. This is due to the hardware multiplexing used in the Super High Resolution Mode. This pattern effect only involves Color Zero, the background color, and is not seen on the genlock video output. Again, this only occurs when you are actually mixing resolutions on a single page.

If necessary, this effect can be completely eliminated by setting the background Color 0 on the standard High Resolution line to full Black.

SELECTING THE BEST COLORS FOR VIDEO APPLICATIONS

The Amiga's video color palette contains 4,096 colors. In RGB video, all of these colors appear sharp and without any distortion due to the high-bandwidth of RGB monitors. However in the domain of low-bandwidth NTSC video, some of the Amiga's colors are unusable. This is because some color extremes are too saturated and too hot to be encoded in the color signal used by NTSC video.

Highly saturated, very bright colors can bleed, chroma crawl, or wash out in NTSC. Ideally, Black, White and Grays are the most stable colors to use for video graphics. As soon as bright computer-generated colors are used, there can be color values which introduce undesirable side effects.

It is best to pick colors for video while viewing an actual NTSC monitor, since the aforementioned side effects will be readily visible and therefore easy to identify and correct. By selecting slightly different color values, it is often possible to improve or eliminate the undesirable visual effects produced by overly hot colors.

Some simple guidelines can prevent these effects by allowing you to identify and select colors that will produce good results when viewed on NTSC monitors. Colors that work best with NTSC are Black, White and shades of Gray, since these colors use almost exclusively the NTSC luminance signal which is the black and white TV signal. Since the computer is capable of generating very hot Reds, Blues, Greens , and Yellows, the NTSC equivalents of these colors will in many cases produce "invalid" or "illegal" colors.

One way of reducing these problems is to decrease the Saturation, or "S" level, of the brighter colors. Doing this adds white to the color, making it more quiet and subdued. In addition, colors that have a high Value (V level) are very bright, and in some cases are too hot for NTSC video.

In general it is best to select colors that have Saturation and Value levels that are at approximately 8 to 13 on the Broadcast Titler color slider scale. Colors which use Red, Green and Blue values above 12 or 13 tend to have more artifacting than colors composed of lesser RGB values. Remember to work with an NTSC monitor, because the color you see is the color you'll get in your final output.

USING HSV COLORS TO CREATE BACKGROUND COLOR BAR RAMPS

If you are not using a genlock, there are applications in which the background Color 0 can be used to create color bar backgrounds for each line of text. This is often used in Cable Information Display Channels to add interest to video bulletin boards.

The best color bar backgrounds are obtained by using colors that are similar in Hue and Value, but differ from line to line in Saturation. Such a relationship gives a ramp of pastel colors. This concept has already been discussed in the Palette Menu section in Line Menu chapter.

Alternatively, the colors can be varied by Value or brightness, leaving the Hue and Saturation the same. This spread of colors ranges from Black through a spread of brighter shades.

Also interesting is a set of colors in which the Saturation and Value are the same, but the Hue is different for every line. This provides a very appealing set of rainbow colors.

Example:

To create the color bars in the Palette Menu, simply click on Color box 0, then select AFFECT PAGE. Create the brightest and most vivid color that you will be using. At this point, each line on the page will have the same background Color 0. Now select AFFECT LINE.

The next step is to change the color on each line progressing down the page. Click on the LINE DOWN box to bring the text cursor down to second line on the page. Adjust only one of the H, S or V sliders to change the color. Repeat this process for each line going down the page, successively sliding the Saturation or Value slider a little farther for each line as you move down the page.

▲ If you are using a genlock, this pattern can also be created using a "Color 1 Background" pattern from the Line/Pattern Menu which fills the full page. Just change Color 1 on each line instead of Color 0.

TWO-TONE CHARACTERS

Additional special effects can be obtained by splitting text lines between two or more color windows. This is done by reducing the height of two or more windows so they cut across a single line of text. One color palette is displayed for the top half of the text line, and a second color palette is displayed for the bottom of the text line, giving a two-tone effect to the character face. See the Palette Menu section in the Line Menu chapter for details on changing color window heights.

■ APPENDIX F

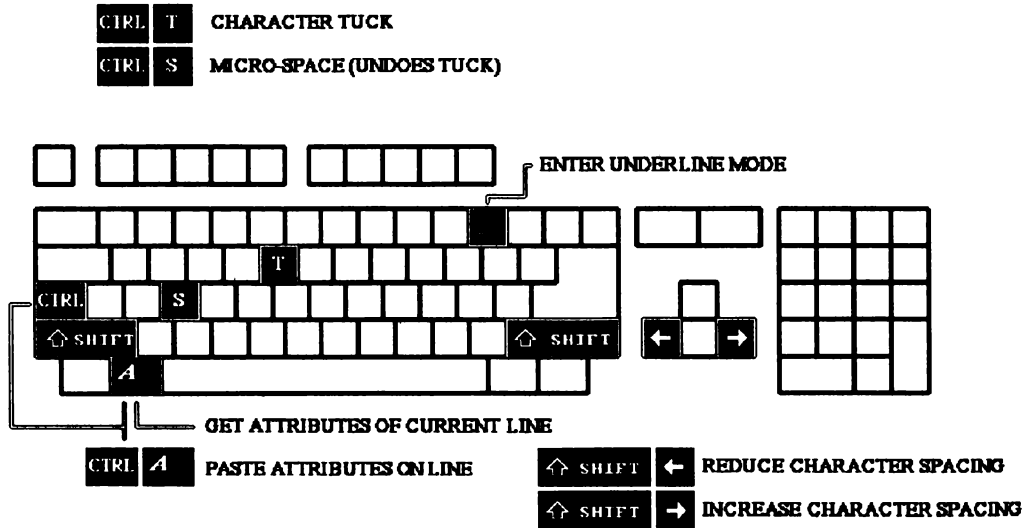# □ KEYBOARD COMMAND LAYOUT □

TEXT EDITING KEYS

CTRL ↑	MOVE CURSOR TO FIRST LINE ON PAGE	↑ MOVE CURSOR UP ONE LINE
CTRL ↓	MOVE CURSOR TO LAST LINE ON PAGE	↓ MOVE CURSOR DOWN ONE LINE
CTRL ←	MOVE CURSOR TO LAST CHARACTER ON LINE	SHIFT ↑ FINE TUNE CURSOR UP
CTRL →	MOVE CURSOR TO FIRST CHARACTER ON LINE	SHIFT ↓ FINE TUNE CURSOR DOWN
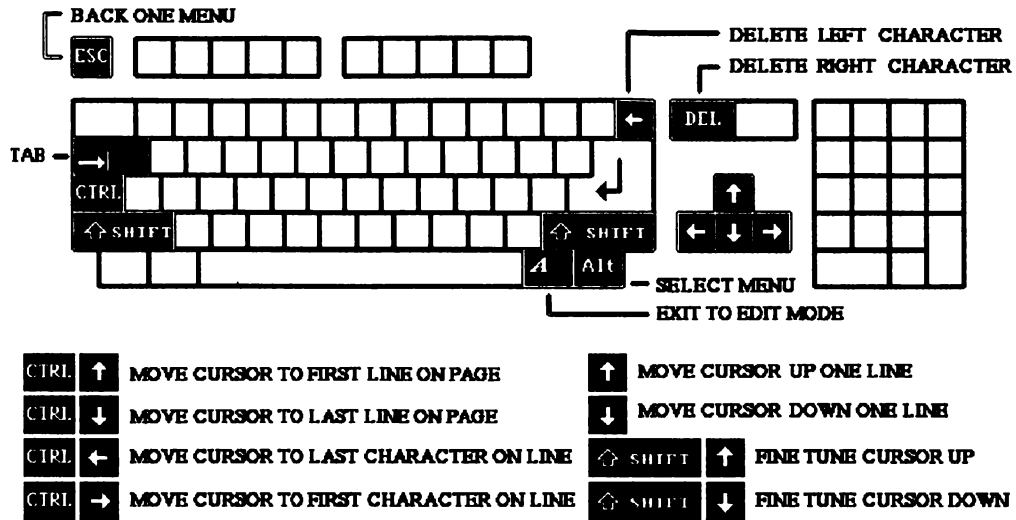
PAGE JUMP KEYS
(Active During Text Edit Mode)

SHIFT 3 APPEND A NEW PAGE

110

LINE EDITING FUNCTIONS

| CTRL | K | COPY CURRENT LINE OF TEXT |
| CTRL | P | PASTE CURRENT LINE OF TEXT |

MOVE CURRENT LINE UP   ⇧ SHIFT   8
MOVE CURRENT LINE DOWN   ⇧ SHIFT   2
MOVE CURRENT LINE RIGHT   ⇧ SHIFT   6
MOVE CURRENT LINE LEFT   ⇧ SHIFT   4

HIDE CURSORS

INSERT NEW LINE

DELETE TEXT ON LINE

CTRL	L	LEFT JUSTIFY TEXT
CTRL	R	RIGHT JUSTIFY TEXT
CTRL	C	CENTER TEXT

⇧ SHIFT · REMOVE CURRENT LINE

LINE EDITING FUNCTIONS

| CTRL | T | CHARACTER TUCK |
| CTRL | S | MICRO-SPACE (UNDOES TUCK) |

ENTER UNDERLINE MODE

GET ATTRIBUTES OF CURRENT LINE

| CTRL | A | PASTE ATTRIBUTES ON LINE |

⇧ SHIFT   ←   REDUCE CHARACTER SPACING
⇧ SHIFT   →   INCREASE CHARACTER SPACING

PLAYBACK MODE SELECTION KEYS
(Active in Play Menu and Main Menu)

PLAY CURRENT PAGE
PLAY FROM CURRENT PAGE
PLAY RANDOM PAGES
PLAY KEYWAIT
LOOP MODE OFF
GPI START

F1 F2 F3 F4 F5 F6
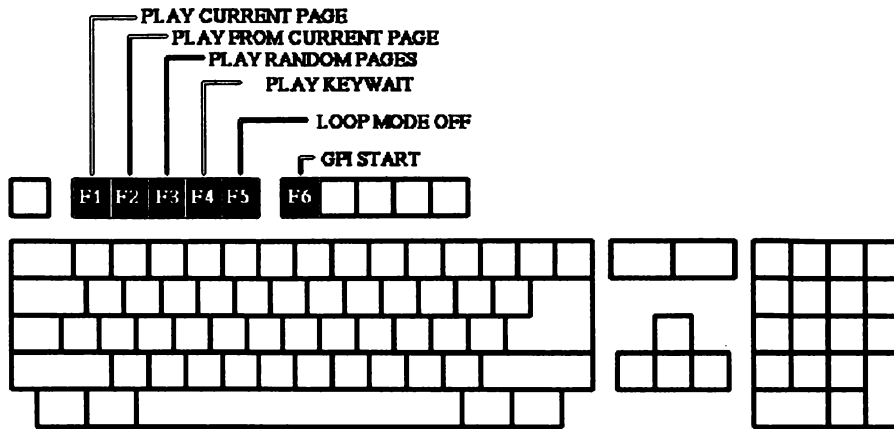
PLAYBACK CONTROL KEYS
(Active During Playback)

STOP SEQUENCE   DRAW SPECIFIED PAGE
PLAY PRESET PAGES   PAUSE PLAY
                                           PLAY FIRST PAGE
ACTIVATE PAGE
ESC   F1 F2 F3 F4 F5   F6 F7 F8 F9 F10

1 2 3 4 5 6 7 8 9 0   HELP

7   9

1   3

PLAY LAST PAGE
PLAY NEXT PAGE
PLAY PREVIOUS PAGE

■ INDEX ■

BROADCAST TITLER 2

BROADCAST QUALITY VIDEO CHARACTER GENERATOR
FOR THE AMIGA™

BREAKS THE AMIGA RESOLUTION BARRIER

Four-Level Anti-aliasing Eliminates "Jaggies"
Includes 16 Anti-aliased Fonts - 15 to 100 Scanlines High
Mix Multiple Styles, Sizes and Colors on a Line
Adjustable Border, Cast and Shadow in 8 Directions

DAZZLING COLORS

4,096 Color Palette, up to 320 Colors Per Page
RGB and HSV Color Sliders for Easy Selection
Displays IFF or Built-in Background Patterns
Automatic Patterned Text Fill with IFF Brushes
Color Effects include Flash, Fade and Color Cycling

SUPER SMOOTH EFFECTS

Page Effects include Roll, Crawl, Corner, Push, Pull, Ease, Wipes,
Flip, Tumble, Date/Clock and many more
Or Create Your Own Effects using Line-by-Line Transitions
Playback Modes include Presentation, Loop, Random Access and GPI control
Built-in SuperGen Genlock Dissolve Effects

SIMPLY AMAZING!

Convenient Mouse or Keyboard Operation
Easy Editing lets you Reposition Text, Pick-Up and Drop Attributes
Random Access for up to 600 Pages of Text and Graphics
Loads Hundreds of Available Amiga and Color Fonts
Stores up to 50 Resident Fonts On-line
Supports Special Symbols and International Keymaps
NTSC Overscan Display 736x480 - Eliminates Video Borders
Not Copy Protected, Installs Easily on a Hard Disk

INNOVISION
TECHNOLOGY

NTSC OVERSCAN VERSION
Requires 512K CHIP RAM and 1 Megabyte FAST RAM
Compatible with Workbench 2.0 and 1.3

1933 Davis Street, Suite 238, San Leandro, CA 94577, USA   415.638.8432