WARP 9

Release Notes

Version 3.70
With Extend-O-Save

By Charles F. Johnson

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First and most important — if you are upgrading from an earlier version of Warp 9, MAKE SURE to install both the new AUTO folder program (WARP9_ST.PRG or WARP9_TT.PRG) and the new Control Panel accessory (WARP9_CP.ACC) at the same time. If you mix old and new versions of the AUTO program and accessory, weird and unsettling things may happen. If you're using the WARP9CNF program, make sure to replace that with the new version too.

If you've purchased this version of Warp 9 for the first time, this warning doesn't apply to you.

EXTEND-O-SAVE, the Modular Screensaver

Warp 9 now includes an extensible screensaver, similar to After Dark (tm) for the Mac and PC. Extend-O-Save has hooks and documentation that will allow any programmer to create screensaver modules with very little work.

When you first boot up with the new version of Warp 9, the default screensaver will be in effect; this is a very simple module that sets all colors to black (on a color monitor) or inverts the screen (on a monochrome monitor).

Your preferences for Extend-O-Save can be set in the Warp 9 Control Panel; flip to the CP's 'Screen' page and at the top, you'll see a new on/off switch for the screen saver and a button labeled 'Preferences.' When you click this button the Extend-O-Save dialog box appears. This dialog box is where you can load, remove, and configure screensaver modules. This is also where you choose the types of events that will prevent the screen saver from kicking in, and where you set the FADE NOW and DON'T FADE corners and the timeout value.

The check boxes represent:

GEM Graphics/Text	any VDI text or graphic output will stop the screensaver from kicking in.
GEMDOS/BIOS Text	any TOS-based text output (through the functions Cconws and Bconout) will stop the screensaver from kicking in.
RS-232 Input	any incoming data from the RS-232 (modem) port will stop the screensaver from kicking in.
MIDI Input	any incoming data from the MIDI port will stop the screensaver from kicking in.

The FADE NOW and DON'T FADE boxes each have four selectable buttons, representing a corner of the screen. When you move the mouse into the screen corner selected in the FADE NOW box, the screen saver will kick in immediately (actually, after one second). When you move the mouse into the screen corner selected in the DON'T FADE box, the screen saver will be deactivated until you move it out of that corner.

The timeout value is the number of minutes that Extend-O-Save will wait (when no activity is taking place) before starting up the current screensaver module.

When you load a screensaver module, its name and author will be displayed at the top of the Preferences dialog box. If the module allows you to configure it in some way, the CONFIGURE button will be enabled; otherwise it will be grayed out.

There are several modules included with Warp 9 3.70; they are in a folder called EXTENDO on your master disk. Extend-O-Save modules have an extension of EXT. Not all of the included modules will work in all screen resolutions; if a module won't run in the current resolution, the Control Panel will refuse to load it and show an error message. NOTE: Do not load screensaver modules while from within a program or you may have memory fragmentation or other undesirable effects.

Inside the EXTENDO folder is another folder called HOW__TO. This folder contains documentation on how to write screensaver modules, and also includes the full assembly language source code for the PICFADE module.

Disabling Extend-O-Save Automatically

If you need to turn off the screensaver when you run a certain program, you can do this automatically through the WARP9.DAT file. (See the section in your manual titled "Automatic Control of Warp 9" for full details on the DAT file.) The letter used for this option is 'S'; here's an example entry in the .DAT file:

```
USCRIPT.PRG s0          turns off the screensaver when UltraScript is run
```

If you wish to turn off the screen saver entirely at bootup, put the entry:

```
SCRNSAVE.OFF
```

on a line all by itself in the DAT file. (This lets you disable the screensaver without having to load the Control Panel accessory.)

Changes in the Control Panel's SAVE Feature

When you use the Warp 9 Control Panel's SAVE button to save your setup, Warp 9 3.70 now writes a CNF file whose filename contains the number of the current resolution. This lets the CP automatically load a different CNF file for different screen resolutions.

Also, when version 3.70 saves a CNF file, the full paths and names of the currently installed font, picture, and screensaver module are saved in the file. This means that you no longer have to give your fonts and pictures special names (and move them to the default directory) in order to load them automatically at bootup. The font, picture, and screensaver files that are currently loaded when you save will be loaded the next time you boot up. Note that if you are within a program when you save your configuration, you may be saving the picture and/or font that was loaded specially for that program, rather than the desired picture/font.

These changes mean that you won't be able to use your previous CNF file with the new version of Warp 9.

Built-in Automatic Fastload Feature

If you're using PinHead (the program fastloader from Little Green Footballs Software), you can now remove it from your AUTO folder –– because the PinHead code is now built into Warp 9. There is support for turning off fastload for certain programs, and setting "default memory clearing" amounts, through the WARP9.DAT file. (See "Automatic Control of Warp 9" in your manual for more details on the WARP9.DAT file.)

To set the fastload options for specific programs in WARP9.DAT, use the letter 'F' –– for example:

USCRIPT.PRG   f0   turns off fastload when USCRIPT.PRG is run

GFABASIC.PRG F128   clears an extra 128K of memory for GFABASIC.PRG

If the 'F' is followed by 0, that means to turn fastload off when this program is run. Otherwise, the number means the amount of extra memory to clear (in kilobytes) when this program is run. (Sometimes, if a program has trouble with the fastload option, you can make it work by specifying a little extra memory to be cleared when it runs.)

The only program we're currently aware of that needs fastload turned off is UltraScript. That's why it is used in the example above.

The 'F' option can be combined with any of the other options of the WARP9.DAT file, as described in the manual. It's not necessary to have the Warp 9 Control Panel installed in order to use the fastload option in this way.

If you don't want to use the fastload feature of Warp 9, put the following entry in your WARP9.DAT file, on a line by itself:

FASTLOAD.OFF

This will disable fastload completely. There is also a new switch in the Warp 9 Control Panel accessory, to let you turn fastload on and off manually.

If you use Warp 9's fastload feature, we recommend that you turn off the fastload bit on all the applications you use. (You can do this with a program like Atari's PRGFLAGS, or with CodeHead's MaxiFile III.) Warp 9's special default memory clear feature will be unable to work with any programs that have their fastload bits set; there is no harm otherwise.

We also recommend that you position WARP9__ST.PRG (or WARP9__TT.PRG) in your AUTO folder so that it runs as early as possible during bootup. This will provide the greatest benefit from both the fastload feature and the accelerated screen output.

Automatic Fonts and Pictures

You can now load specific pictures and specific fonts based on the programs you run. Again, these options are controlled through entries in the WARP9.DAT file; the letter 'T' means 'Typeface' (font) and the letter 'P' means (of course) picture. Here are some examples:

USCRIPT.PRG   f0 pLOSTNSPC.PC3   turns off fastload and loads the picture
                                                                        LOSTNSPC.PC3 when USCRIPT is run

ALADDIN.PRG   pCH_TECH.PC3 tEUROSTYL.FNT   loads the picture CH__TECH.PC3 and the font
                                                                        EUROSTYL.FNT when ALADDIN.PRG is run

The font and picture filenames must consist of the name only, with no path information. When Warp 9 detects one of your special programs is being run, it will look for the font or picture file in the default path that you have defined in the Control Panel. Therefore, it is necessary to copy (or move) any pictures or fonts you wish to use into the Warp 9 Control Panel's default directory.

To load fonts or pictures automatically, the Warp 9 Control Panel must be installed. Rather than waste memory duplicating the routines for loading fonts and three different picture formats, the Warp 9 AUTO program now communicates with the Control Panel and calls the CP's routines for these functions. This is why the CP must be resident in memory for these options to work.

The font and picture options may be combined with any of the other documented WARP9.DAT options.

Load DAT Files from the Warp 9 Control Panel

The Control Panel now has a button labeled 'Load Program DAT File'. This feature lets you reload a WARP9.DAT file after editing it — for example, after changing a picture or font assignment for a certain program.

Also, the Control Panel now searches its default directory for a DAT file to install, based on the current screen resolution. The file names supported are:

STLOW.DAT
STMEDIUM.DAT
STHIGH.DAT
TTLOW.DAT
TTMEDIUM.DAT
TTHIGH.DAT

This lets you load a different set of program assignments automatically for each resolution you use.

WARP 9

(formerly Quick ST)

The Software Accelerator!

WARP 9
by Darek Mihocka & Charles F. Johnson
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Screen Acceleration: On | Off

Zoon Boxes | FKey Alerts

MOUSE EFFECTS

Block | Jump | H Wrap | V Wrap

Mouse Acceleration: 1 2 3 4

HOR	01	02	04	06	09	12	16	20	25	30
VER	01	02	04	06	09	12	16	20	25	30
	1	2	3	4	5	6	7	8	9	10

Info | Save | Screen | EXIT

WARP 9
by Darek Mihocka & Charles F. Johnson
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Current Font: FONT8X16.FNT

On | Off | Load Font

Desktop: Normal | Fill | Picture

Current Pic: None

LOAD: Degas | TNY | PNT | Fills

Allocate Picture Memory

Default Path | Options | EXIT

Warp 9 makes the screen output of your ST, STe, or TT030 go many times faster—windows snap open, graphics appear instantly, and text literally flies onto the screen. Once you experience it, you'll never want to boot up without it again—and you won't have to, because Warp 9 is compatible with everything you run.

Warp 9 has other features too, designed to make your computing life easier and more fun! You can install a desktop background picture, and replace the system's fill patterns and screen fonts (dozens of fonts are included). Unique mouse effects include block, jump, and wrap, and a customizable mouse accelerator.

CodeHead
TECHNOLOGIES

P.O. Box 74090
Los Angeles, CA 90004
Tel 213-386-5735
Fax 213-386-5789

WARP 9

CodeHead
TECHNOLOGIES

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Reference
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WARP 9

CREDITS

Warp 9 written by Darek Mihocka and Charles F. Johnson.
Warp 9 Control Panel written by Charles F. Johnson.
Warp 9 Customizer written by Robert M. Birmingham.
Manual written by Maurice Molyneaux and Charles F. Johnson.
Manual layout and graphics by Charles F. Johnson.
Cover background graphics by ArtBeats.

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Introduction

If there's one thing that can be safely stated about Atari's TOS-based computers it is that, up to now, their screen output has not been what one would call "speedy." TOS's own routines (notably the VDI) are not optimized, often making screen redraws and text scrolling take a lot more time than they could. In fact, many operations are so slow that some programmers have taken to writing custom graphic routines into their software simply to bypass the TOS routines and speed up the graphics output.

Warp 9 ends all of that. With Warp 9 you'll notice a significant increase – more than 400% in some cases – in the speed of the screen output of your ST or TT computer. Text scrolls faster, windows appear and disappear more quickly, and, in general, all GEM video output is turbocharged. This means that your productivity can increase dramatically, since you'll spend much less time waiting for the screen to redraw.

But, before you expect *too* much, remember that Warp 9 *only* acts to speed up GEM graphics routines, so programs that output to screen memory without calling GEM graphics routines will not be affected. Warp 9 does not (and *cannot*) speed up your ST or TT's raw computational power. Therefore, the speedup is specifically in the realm of screen output, nowhere else.

Still, even with these small limitations, we think that once you've tried Warp 9 you'll never want to use your ST or TT without it again!

Before You Do Anything Else

• Registering Warp 9

Please take a minute to fill out and mail back the registration card included with this package. This will enable us to properly enter you in our registered user database. If you don't send in your warranty card, you won't be eligible for full customer support from CodeHead Technologies.

• Making a Back-up Copy

Be sure to make a back-up copy of the Warp 9 master disk before going any further. This can be accomplished either by copying the entire disk or by copying the files individually to another disk (if you do not know how to do this, consult your ST/TT manual).

NOTE: We've provided Warp 9 on a disk that is not copy-protected because we believe that you have the right to make back-up and working copies to safeguard against disk failure or accidents. Please don't prove this expression of trust to be a mistake on our part. It is illegal and immoral (and probably fattening) to give away or sell any copies of Warp 9, or of any other copyrighted material, without the consent of the copyright holder. It's often called "piracy" – which gives such activity a romantic air it does not merit – but in more direct terms it is pure theft. Even though you may have bought a copy of our software, you are *stealing* another copy from us if you make a copy and give it to one or more friends (yes, really). We're just normal folks trying to make a living in the software business. Please don't drive us away.

System Requirements

CodeHead's Warp 9 will run on any Atari ST, STe, or TT computer with TOS in ROM. When in use Warp 9 occupies about 68K of memory. The optional Warp 9 Accessory will, if loaded, take about 17K. The total memory used by both the program and accessory is approximately 85K.

If you find that Warp 9 won't load on your system, make sure that you don't have a lot of other memory-resident programs or desk accessories loaded. See the GETTING STARTED section for information on installing Warp 9 on your system.

NOTE: CodeHead Technologies software products support all ROM releases of the TOS operating system, but we make no guarantees of the compatibility of our products with RAM loaded versions of TOS. Furthermore, while every effort has been made to make Warp 9 compatible with as many products as possible, there may be a tiny minority of ill-behaved programs that conflict with Warp 9 and its operation.

Included Files

If you list the root directory of the Warp 9 master disk you will find the following files and folders:

WARP9__ST.PRG The ST (or STE) version of the Warp 9 program file.

WARP9__TT.PRG The TT030 version of the Warp 9 program file.

WARP9__CP.ACC The Warp 9 control panel accessory.

README!!.XXX If this text file is present on your Warp 9 disk, you should double-click on it (from the Desktop) and "Show" or "Print" it before continuing. README may contain important information that could not be included in this manual due to publishing deadlines. The filename extension (in place of the XXX shown here) of this file reflects the version number of Warp 9 included on your disk.

WARP9CST.PRG This is the Warp 9 Customizer program, which allows you to load, save and edit the system's graphic fill patterns, the desktop's fill pattern, and the font used by the system. Directions for this utility can be found in the section titled "The Warp 9 Customizer."

WARP9CST.RSC The resource file for WARP9CST.PRG. It must be located in the same directory as the WARP9CST.PRG file.

WARP9CNF.PRG A program that sets up your Warp 9 configuration without installing the Control Panel accessory. See Appendix D for more details.

* FONTS This folder contains a number of font files you can use with the Warp 9 Accessory and Customizer. "Unscaleable" fonts cannot be used in ST low or medium resolution.

* FILLS This folder contains a number of fill files you can use with the Warp 9 Accessory and Customizer.

* SHARWARE This folder contains several shareware programs from Little Green Footballs. Documentation for these programs is included on the disk. Please note that the price of Warp 9 does not include the shareware fees for these programs; refer to their documentation for more details.

Your Warp 9 master disk may also contain other files and folders which aren't listed on this page. If so, any necessary documentation will be included in the README!! text file.

Terminology

The majority of ST/TT users are probably familiar with the terminology used in this manual. However, to avoid confusing newcomers and novices, and in the interest of completeness, here's a quick explanation of some common terms and phrases you'll find in this manual:

Click
Press and release the *left* button on your mouse.

Double-click
Press and release the left button on your mouse *twice* in rapid succession.

Right click
Press and release the *right* button on your mouse.

Double-right click
Press and release the right button on your mouse *twice* in rapid succession.

Drag
Press and hold down the left button on your mouse.

Right drag
Press and hold down the right button on your mouse.

Buttons and icons that show up on screen are identified by boldface text in the manual. For example:

> Click on the **Trash** icon. In the alert box that appears next, click on the **Yes** button if you wish to proceed.

Keyboard commands are likewise listed in boldface text. Occasionally, so are important mouse actions. For example:

> Press the **0** (zero) key on the numeric keypad to save the current menu.

Press **Return** to exit HotWire.

Hold down the **right mouse button** and press **F1**.

Application
Usually used as another way of referring to a program.

Boot
To turn on/start your computer.

Reboot
To reset/restart your computer.

Cold boot
To start the computer "cold" from an off state. Also to restart/reset the computer in a fashion that makes the system behave as if it were just turned on. Either way, anything and everything in memory is wiped out.

Warm boot
To reset the computer without forcing the system to start over as if it was turned off and then on. Although 99% of everything loaded into RAM will not survive a warm boot, some utilities, like the CodeHead Ramdisk, are "reset proof," which means they will not be cleared from memory by a warm boot.

Boot disk
The disk from which your ST/TT will boot. Any desk accessories, AUTO folder programs, and the DESKTOP.INF (or NEWDESK.INF) files are loaded from this disk. On floppy based systems it is always drive A. On systems with a hard disk it is usually drive C. (You can force any ST or TT with a hard disk to boot from the A floppy drive by simultaneously holding down the **Alternate**, **Shift** and **Control** keys while booting up).

Terminate
To stop/exit a program… *does not* refer to erasing.

Document/data file

Refers to data files — non-programs and non-accessories.

TOS

TOS is the Atari acronym for "The Operating System" and refers to the primary low-level system software built into your ST/TT.

GEM

GEM is an acronym for "Graphics Environment Manager," and refers to the graphic interface system software built into your ST/TT. The GEM Desktop is the most obvious feature of GEM.

Folder

A subdirectory within a disk.

Getting Started

There are two major components to the Warp 9 package. The most important is the Warp 9 program, which actually handles all of the graphics acceleration. The second component is the Warp 9 Accessory, a control panel desk accessory which allows you to make adjustments to Warp 9 operations and your system's screen output.

● Installing Warp 9

First, make sure to remove any existing screen accelerator programs (such as Turbo ST, NVDI, or earlier versions of Quick ST).

Warp 9 must be installed at bootup time. To do this, place a copy of the WARP9__ST.PRG file (or WARP9__TT.PRG if you own a TT030 computer) in a folder called AUTO on your boot disk (floppy or hard disk). If you already have an AUTO folder on your boot disk, simply copy the Warp 9 program file into it. If you don't have an AUTO folder on your boot disk you will have to create one first, then copy the Warp 9 program file into it. (You can create folders from the GEM Desktop or CodeHead's **MaxiFile**. Consult your ST/TT or MaxiFile user's manual if you're unsure how to do this.)

NOTE: Make sure that you install the correct program file for your computer type. If you're using any ST or STe computer, install WARP9__ST.PRG. If you're using any model of the TT030 computer, install WARP9__TT.PRG.

After copying the program to your AUTO folder, reset/reboot your computer. Warp 9 will run automatically from the AUTO folder and install itself as a memory resident program. As it loads, Warp 9 displays its logo, version number, and copyright message.

Once Warp 9 is resident in memory it cannot be removed without rebooting, but you can adjust or enable/disable some of its functions if you have the Warp 9 Accessory (WARP9__CP.ACC) loaded.

• Installing the Warp 9 Accessory

To load the Warp 9 Accessory, copy the WARP9__CP.ACC file to the root directory of your boot disk. ("CP" stands for "Control Panel.") When you boot or reboot your computer, the first six desk accessories in the root directory of your boot disk are loaded under the Desk menu heading. If the Warp 9 Accessory doesn't appear, then you may have all six accessory slots filled up. In such a case you will have to deselect one or more of the current accessories in order to load WARP9__CP.ACC.

If you have CodeHead's **MultiDesk** or **MultiDesk Deluxe**, you can load the Warp 9 Accessory into it either at bootup or whenever you need it. If you use the Warp 9 Accessory with MultiDesk Deluxe, please note that it should be loaded as a resident accessory.

NOTE: Although Warp 9 will work fine even if you don't install the accessory, if you use a lot of other AUTO programs and desk accessories it's a very good idea to use the Warp 9 Accessory. When the Warp 9 Accessory loads into memory it sends a "message" to the Warp 9 AUTO program, telling it to install special code that can avoid the extra overhead introduced by having lots of resident programs. When this code takes effect Warp 9 is the first to see all screen output calls, which means that it can operate at peak efficiency. If you use a lot of resident utilities, the resulting speedup is immediately noticeable, and quite dramatic.

Using Warp 9

This is the easiest part. You don't have to do *anything* to use Warp 9. Once it runs from the AUTO folder, Warp 9 sits quietly in the background, turbocharging your system's screen output.

'Nuff said!

• Compatibility

Although you are unlikely to run into a program that doesn't work properly with Warp 9, it is still a remote possibility. If by any chance you do have a problem, you can try disabling the screen acceleration from the Warp 9 Accessory (see next section).

The Warp 9 Accessory

While Warp 9 is designed to work alone and totally independent of user activity, it does not have to be that way. Warp 9 itself does not have a user interface, so interfacing is handled by the Warp 9 Accessory. The accessory can either be installed as a regular desk accessory or loaded into MultiDesk Deluxe (if you have it) as a resident accessory.

The accessory will be listed as "Warp 9 CP" in the accessory list (under the 'Desk' menu or in MultiDesk). When you click on its name, the accessory opens and presents you with the following dialog box:
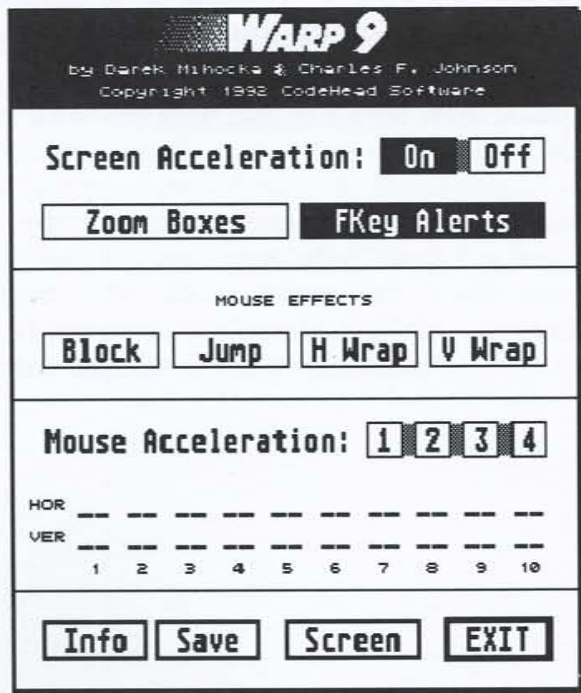
At the top of the accessory is the Warp 9 logo, credits and copyright. The bulk of the accessory is divided into four smaller regions.

● General Options

The uppermost section controls the major Warp 9 functions regarding overall graphics speedup in addition to some window and alert box options.

Screen Acceleration

The two buttons here control whether or not Warp 9's graphic acceleration routines are switched on or off. The two options are **On** and **Off**. Obviously, only one of these buttons can be selected at a time.

Zoom Boxes

When GEM opens or closes a window or launches an application, it draws a set of animated "frames" which represent the item growing or shrinking. Although a nice visual cue, most of us fail to take notice of it after we've used the system for a while. If the **Zoom Boxes** button is selected, the zoom boxes appear as always. If you turn the button off Warp 9 will suppress any attempt by the system to draw zoom boxes, resulting in one less thing the system has to draw and speeding operations up that much more.

NOTE: Disabling the zoom boxes has *no effect* on the GEM Desktop, which does not call the system graphic routines in a fashion which Warp 9 can affect.

FKey Alerts

If this button is selected it will make the ST treat the first three function keys on your keyboard as the equivalents of the buttons in a GEM alert box. This lets you deal with alert boxes without having

to use the mouse (particularly handy in those cases where the mouse pointer "disappears").

Alert boxes — those containing the "sign" icons, like STOP — can contain between one and three buttons. If an alert has only one button, pressing the **F1** key would be like clicking that button. If two buttons are present, **F1** represents the leftmost button and **F2** represents the rightmost button. If three buttons are present, the buttons are represented by **F1**, **F2**, and **F3** in order from left to right.

NOTE: The "error" alerts put up by TOS (such as the one that appears when you try to access a drive with no disk in it) cannot be controlled with this feature.
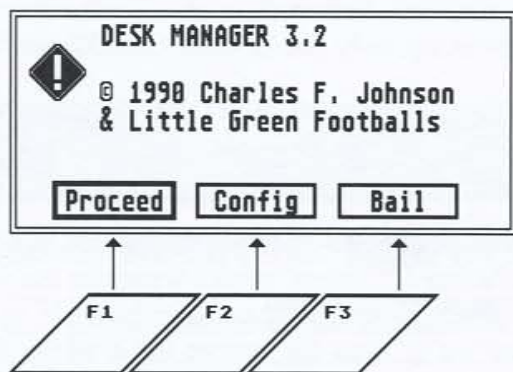
● Mouse Effects

The second section of the accessory controls "Mouse Effects." Any combination of the buttons in this region is possible (one, none, some, or all).

Block

If this button is highlighted you will find that the mouse pointer will *not be able to cross into the Menu Bar* area at the top of the screen

unless you click the right mouse button just prior to moving the pointer to the menus. This prevents you from pulling down menus accidentally.

Jump

If this button is highlighted, right-clicking "jumps" the mouse pointer immediately to the menu bar, no matter where it was previously on the screen. If **Block** is also highlighted then "jumping" to the menu bar will be the only way to access it (unless you also have **V Wrap** on as well — see below).

H Wrap

If this button is highlighted the mouse pointer will no longer stop when it runs into the left or right side of the screen. Instead, it will "wrap" around from one side and reappear on the other. For instance, if you move the mouse pointer to the left edge of the screen and then move it further to the left, it will disappear from screen left and reappear at screen right, continuing its leftward motion.

V Wrap

If this button is highlighted the mouse pointer will no longer stop when it runs into the top or bottom of the screen. Instead, it will "wrap" around from one end and reappear on the other. This is identical in function to **H Wrap** except that it affects vertical mouse movement rather than horizontal.

NOTE: If the **Block** button is selected, the **V Wrap** option will not act normally. In such cases, the pointer will stop when it hits the menu bar. However, if you move the pointer to the *bottom* of the screen, it will reappear at the *top,* on the menu bar, despite the block function being on.

• Mouse Acceleration

The third section controls mouse acceleration. At the top of this region, immediately to the right of the "Mouse Acceleration:" label, are four small radio buttons: **1**, **2**, **3**, and **4**. The buttons determine which mouse acceleration rate is to be used. Only one of the buttons can be switched "on" at a given time. If none of the buttons are highlighted, then no Warp 9 mouse acceleration will occur. Each of the four buttons corresponds to a particular mouse acceleration rate, and all four preset rates can be customized to your tastes.

To switch on mouse acceleration, or to change to a different one, click on one of the numbered buttons. To turn all acceleration *off*, click on the highlighted button so that it becomes deselected and thus none of the buttons are highlighted.

Mouse Acceleration Table

At the bottom of the Mouse Acceleration region are two rows of ten values each. When one of the four mouse acceleration buttons is selected, these fields contain the corresponding mouse movement values. If no mouse acceleration button is highlighted, these values will be blank.

```
┌──────────────────────────────────────────────┐
│  Mouse Acceleration: [1][2][3][4]     ─── acceleration table
│                                            selection buttons
│  HOR 02 04 06 08 10 12 14 16 18 20    ─┐ substitute
│  VER 01 02 03 04 05 06 07 08 09 10    ─┘ movement values
│       1  2  3  4  5  6  7  8  9  10
│                                       ─── actual movement value
└──────────────────────────────────────────────┘
```

Now, this gets a little complicated, so bear with us. Each mouse movement generates vertical and horizontal movement values of between 1 and 10 pixels, which are then interpreted by GEM and used to position the pointer on screen. If you move the mouse too fast, the values get messed up and the mouse may move at the wrong speed or in the wrong way. What mouse acceleration does is substitute a different value for each mouse movement value.

For example, the value for a given horizontal or vertical movement could be set to be twice the actual movement, so that if you moved the mouse the equivalent of six pixels on the screen, the accelerator would make it move *twelve* pixels, effectively doubling the movement rate. The amount "substituted" is set by the values in the Mouse Acceleration Table.

As you can see, the small numbers at the bottom, which we'll call the "Actual Movement Value," or AMV, are the number of pixels, one to ten, that a given mouse movement corresponds to. Above each AMV are two substitution movement values, one for horizontal (HOR) and one for vertical movement (VER). These values are what the Warp 9 Accessory will use in place of a given AMV, such as moving the pointer 40 pixels when the AMV was 10.

Each of the four buttons is associated with a different set of acceleration values. You can select any of them you wish, and, if none are quite to your liking, you can edit any one of the values or the entire set to suit your needs.

To edit any substitution value, click the mouse on the number you want to edit. A small text editing cursor will appear at the right end of the value. You can use the **Backspace** or **Esc** keys to clear the current value and then type in your own — numbers only, and single-digit values must be preceded by a zero (0), as in 04. The cursor can be moved left and right within the number by using the **left-arrow** and **right-arrow** keys. To move the cursor to another number, click on that number or use the **up-arrow** key to go back to the previous number and the **down-arrow** to go to the next one. When you reach the last number on the HOR line, pressing the **down-arrow** key will wrap the cursor down to the beginning of the next line.

NOTE: No substitute values are available for editing if none of the mouse acceleration buttons is highlighted.

CUSTOMIZING NOTE: For more information on customizing the Mouse Acceleration values, see Appendix A.

• Miscellaneous Options

The bottom-most region contains some miscellaneous function buttons. They are as follows:

Info

Clicking on this displays the Warp 9 credits, version number, and copyright notice, and CodeHead Technologies' customer support information.

Save

This saves the current configuration, including the settings of all of the toggle buttons you have set, in addition to the mouse acceleration settings (which you may have edited). It also saves the settings from the Screen Controls mode (accessed via the next button). The configuration is written to the same directory where the Warp 9 Accessory resides, to a file called WARP9.CNF.

Screen

Clicking on this button switches the accessory to a special mode — covered below — which allows you to customize some of GEM's graphic components, including the system and desktop fill patterns. The Screen mode also lets you load a picture as the "background" for the GEM Desktop.

EXIT

Exits the Warp 9 control panel accessory. This is the "default" button, which means that you can select it either by clicking with the mouse or by typing the **Return** or **Enter** key.

• Screen Controls

If you click on the Screen button on the accessory (above), the controls switch from the Warp 9 Options mode to the Screen Controls mode.
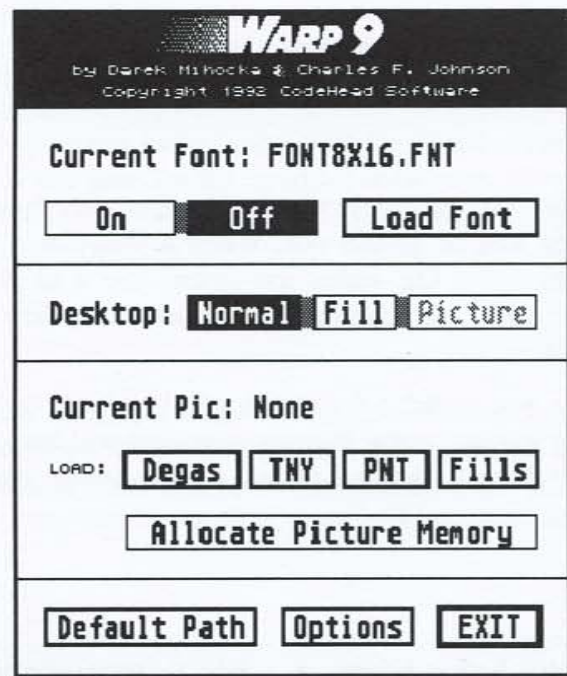
Like the Options mode, in Screen mode the accessory is divided into four parts.

• Font Options

The first section relates to the font used by GEM when displaying text on the screen.

NOTE: For the uninitiated, a "font" is a complete assortment of type in a particular size and style. An ST font consists of 256 characters, including letters, numbers, and symbols.

At the top of this region is a "Current Font:" flag. If a font file is loaded, its name will appear immediately to the right of the flag. If not, the word "None" will show the status.

Please note that the font you load is a "screen" font, not a "printer" font. The font you see on the screen will not be used for printing unless you are doing a screen dump or unless the program you are using can download the current font to your printer.

On & Off

These buttons are only selectable if a font has been loaded; otherwise they will be grayed out. When a font file is present in memory, highlighting **On** makes the system use it in place of the default system font. Highlighting **Off** forces the system to use its own font again.

NOTE: When you switch a font on or off the effects on the screen are not always instantaneous. In many cases you will have to wait for some event to force a complete screen redraw before you'll see the full effect.

Load Font

Clicking on this button brings up a File Selector allowing you to load a .FNT file in either DEGAS font format or the format saved with the Customizer utility (which saves a complete character set) for use in the system.

WARNING: If you are in ST low or medium resolution some font files may not be able to be loaded. In those resolutions, only fonts that can be displayed in half-height mode can be used. For more information see 'Edit Font' in the CUSTOMIZER section of this manual.

● Desktop

The second region allows you to select between three possible Desktop backgrounds. There are three radio buttons to the right of the "Desktop:" label, only one of which can be selected at any given time. They are:

Normal

This retains/restores the default GEM Desktop background pattern. However, if you have loaded or edited the system fill patterns (using the Customizer program, described later), those edited fills will be reflected on the Desktop.

Fill

This fills the Desktop background with whatever fill pattern was set under "Desktop" in the Customizer. The "default" when you first purchase this product is a sort of tile/block effect. You can edit this pattern by using the Customizer program (described later).

Picture

This button will be grayed out/unusable if the **Allocate Picture Memory** button, in the next region of the accessory, is not selected. If this button is usable, turning it on will replace the GEM Desktop background with the picture of your choice — if one has been loaded. If no picture in the current resolution has been loaded (see below), the Desktop will come up "blank." The third region allows you to select a picture file to use as the Desktop background. If a picture has already been loaded, its name will appear immediately to the right of the "Current Pic:" label. If no picture is loaded, no name will appear here.

To display a picture as the Desktop "blotter" you must first allocate some system RAM for the task using the **Allocate Picture Memory**

button, then click on the button of the picture type you want to load (see below), load it, and *then* switch on the **Picture** button in the region above this one (see above).

NOTE: If the **Allocate Picture Memory** button is *not* enabled and you try to click on any of the three picture-loading buttons, an error message will appear telling you, "Before loading a picture, you must first allocate memory for it." There are four buttons immediately above the **Allocate Picture Memory** button. They are:

Degas

Clicking on this button brings up a file selector allowing you to load a DEGAS format picture file (PI1, PI2, PI3, PC1, PC2, or PC3) for the background. It is important to note that you cannot load a picture for the incorrect resolution. For example, if you try to load a low res .PI1 or .PC1 file while in high res, an alert will appear warning you "Wrong Resolution!"

TNY

Brings up a file selector, allowing you to load a "Tiny" format picture file (TNY, TN1, TN2, or TN3) as the background. It is important to note that you cannot load a picture for the incorrect resolution. For example, if you try to load a high res .TN3 file while in low res, an alert box will appear with the message "Wrong Resolution!" **NOTE:** Many Tiny format pictures have the file extension of .TNY rather than .TN1 (low), .TN2 (medium), or .TN3 (high). You may want to rename any .TNY extender Tiny pictures so that they have the resolution-specific extensions.

PNT

Brings up a file selector, allowing you to load a Prism Paint format picture file (PNT) as the background. You cannot load a picture for the incorrect resolution. For example, if you try to load a TT low

res file while in TT medium res, an alert will appear warning you "Wrong Resolution!" **NOTE:** All Prism Paint pictures use the .PNT filename extension, regardless of resolution, so picking the correct filetype can involve some trial and error.

Fills

Clicking on this button brings up a file selector, allowing you to load a set of fill patterns created with the WARP9CST program (see the CUSTOMIZER section of this manual for details). The fill files loaded have .QSF extenders (QSF = Warp 9 Fill). The fill pattern selected for the "Desktop" in the Customizer, and saved to the .QSF file, is the one that will be installed by the Warp 9 Accessory. To make this pattern appear, you must turn on the **Fill** button next to the "Desktop:" label (see above).

Allocate Picture Memory

When you select this button, Warp 9 reserves a block of memory of sufficient size to hold a full-screen graphic for the current resolution (32K in ST modes, 150K in TT modes). If this button is not selected no pictures can be loaded, and the **Picture** button (above) will not be selectable. If you toggle this button from on to off, any picture previously loaded will be lost from memory.

● Miscellaneous Controls

The final region contains only three buttons:

Default Path

When you select this button a File Selector appears, allowing you to specify a drive and folder in which the Warp 9 Accessory will automatically look for fills, picture files and fonts (see 'Auto Loading' below). When the selector appears, switch to the drive

path of your choice and click on **OK**. No files will be listed, just folders, and specifying a file is not required.

Options

Clicking on this button switches back to the Warp 9 Options mode (see above).

EXIT

Exits the Warp 9 Accessory. This is the "default" button, and pressing the **Return** or **Enter** keys will trigger it.

● Auto Loading Fonts, Fills and Pictures

The Warp 9 Accessory can, if you wish, automatically load a font, fill, and picture file at bootup. Remember, it is the *accessory* that loads these files, *not* the Warp 9 program that runs from the AUTO folder. If the accessory is not installed then no font, fills, or picture will be loaded.

The process of setting up for an auto-load is simple. First, use the **Default Path** button on the accessory (above) to select the drive path where you will store the default items. Following this, you need to do the following in the Screen mode of the accessory:

If you want a picture or fill to auto-load, you *don't* have to select any of the picture or fill buttons. Those buttons are only for *manual* loading, and have no effect on the auto-loading process.

If you want to have a *picture* on the Desktop, you'll have to switch on the **Allocate Picture Memory** button.

If you want to use a *fill* for the Desktop instead of the default background or a picture, highlight the **Fill** button. If this is the case, and you don't want a picture loaded, make sure to turn *off* the **Allocate Picture Memory** button (no use wasting RAM on a picture you're not going to show).

When you're done making these adjustments, make sure to use the **Save** button to save the default path and selections into the WARP9.CNF file.

Now, the only thing you have to do to have a fill, font or picture automatically loaded at bootup is to copy those files to the selected default path and then name them properly. The following directions tell how.

Fonts

To make a font load automatically, copy a .FNT file (created with either the DEGAS Font Editor or the Warp 9 Customizer) to the default path. If the font is to be used in ST low and medium resolutions, rename it FONT8X8.FNT. If the font is to be used in ST high or any TT resolutions, rename it FONT8X16.FNT. If you're going to use the same font for all resolutions, you'll need to make two copies of it, one named FONT8X8.FNT and the other named FONT8X16.FNT.

NOTE: Not all fonts can be loaded in ST low and medium resolutions. The fonts must be saved so that they can be displayed as "half-height" characters, because the ST modes display characters that are only 8 x 8 pixels, but the actual characters are drawn 8 x 16. (For more information see 'Edit Font' in the Customizer section of this manual.)

Fills

To make a set of fill patterns load automatically, copy a .QSF file (created with the Warp 9 Customizer) to the default path, then rename it DEFAULT.QSF. If the **Normal** button on the accessory is selected, one of the fill patterns will be used by GEM as its default fill pattern (if you didn't edit all of the fill patterns, you may not see any difference despite loading a custom fill). However, if the accessory's **Fill** button is selected, the fill pattern defined for the "Desktop" in the Customizer program will be used.

Pictures

To make a picture load automatically as the Desktop background, copy a picture file to the default path. A different picture is required for each resolution you will be running. Filetypes that are compatible are as follows:

.PI1 & .PC1	ST low resolution
.PI2 & .PC2	ST medium resolution
.PI3 & .PC3	ST high resolution
.TNY & .TN1	ST low resolution
.TNY & .TN2	ST medium resolution
.TNY & .TN3	ST high resolution
.PNT	PNT files can be created and saved in any ST or TT resolution, but the file you select *must* be saved in that resolution.

Once you've copied the picture files of your choice to the Warp 9 Accessory's default directory, to make them autoload all you have to do is name them correctly. The following filenames are correct for each resolution. Since several different filetypes can be used in some resolutions, and the extension for different graphics formats files varies, the extension .xxx is used for the examples. For instance, a picture to be used in ST high res could have any one of the following names: STHIGH.PI3, STHIGH.PC3, STHIGH.TN3, or STHIGH.PNT.

STLOW.xxx	The picture to be loaded for ST low resolution (320x200x16)
STMEDIUM.xxx	The picture to be loaded for ST medium resolution (640x200x4)
STHIGH.xxx	The picture to be loaded for ST high resolution (640x480x2)
TTLOW.PNT	The picture to be loaded for TT low resolution (320x480x256)
TTMEDIUM.PNT	The picture to be loaded for TT medium resolution (640x280x16)
TTHIGH.PNT	The picture to be loaded for TT high resolution (1280x960x2)

In the event that you have two picture files of different formats for the same resolution, i.e. STLOW.PC1 and STLOW.TN1, Warp 9 will load whichever picture file appears *first* in the disk's directory. If you're not getting the right picture, check to see if another picture with the name for that resolution appears in the default path. If so, delete it.

The Warp 9 Customizer

Robert M. Birmingham's Customizer program is included with Warp 9 to allow you to create and edit fills and fonts for use with the Warp 9 Accessory. It can also be used to load fonts and fills in the event that the Warp 9 Accessory is not in memory.

If you enter the Customizer without having first loaded font or fill files using the Warp 9 Accessory, you will be editing copies of the system font and fills. You can edit these and save them out as files (you can't actually change the font and fills in ROM, so don't worry about making irreversible alterations). If a font and/or fills was loaded by the Warp 9 Accessory, you will be acting on those.

Any changes you made to the fills or fonts will automatically be reflected by the system. When you exit the program, all of these changes remain in effect until you:

    a. reboot
    b. load another font from the Warp 9 Accessory
    c. re-enter the Customizer and load another font and/or fill
    d. load a system font or fills using some other application

If you didn't save the changes you made before exiting, you can re-run the program and do so (unless you reset/reboot first). This works because the Customizer grabs the fonts and fills currently in memory, allowing you to edit and save those. However, since accidents can and do happen, we don't recommend exiting the program without first saving anything important to disk.
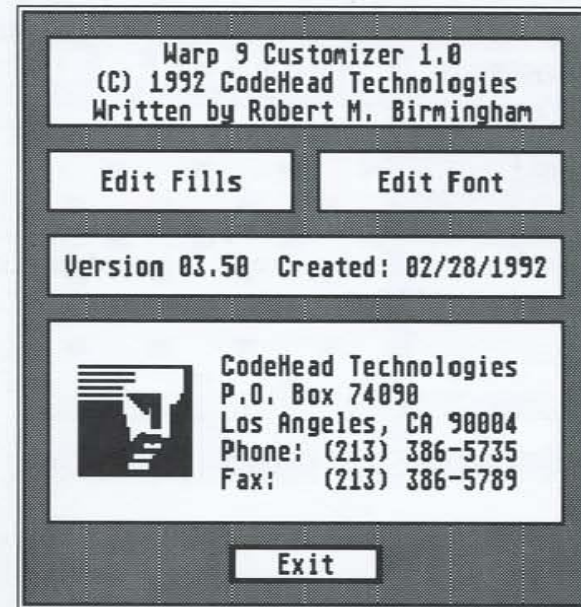
The fonts used by Warp 9 are stored on disk in a modified DEGAS font format. Fonts saved from the Customizer differ from DEGAS fonts in that they contain the full 256-character ASCII set; DEGAS fonts contain only the first 128 characters. Both the Customizer and the Warp 9 Control Panel accessory can also load 128-character DEGAS fonts created with the DEGAS font editor.

• Using the Customizer

To use the Customizer, simply run the WARP9CST.PRG program as you would any other program. It will work in all ST and TT resolutions.

The Customizer will run even if the Warp 9 Accessory is not loaded in memory, and, in its absence, can be used to load fills and fonts for system use. But, since it is the accessory that lets you switch between the normal system background fill and the custom "Desktop" fill, if the accessory is not present the "Desktop" fill will not be used.

The Customizer program *will not* run if the Warp 9 program wasn't run from the AUTO folder at bootup. If Warp 9 is not present an error message will appear and the program will abort.

```
         Warp 9 Customizer 1.0
      (C) 1992 CodeHead Technologies
      Written by Robert M. Birmingham

       Edit Fills        Edit Font

     Version 03.50  Created: 02/28/1992

                  CodeHead Technologies
                  P.O. Box 74098
                  Los Angeles, CA 90004
                  Phone: (213) 386-5735
                  Fax:   (213) 386-5789

                      Exit
```

● The Customizer Main Menu

There are three "menus" in the Customizer program. The first of these is the main menu, and presents the program name, copyright, and credits. There are four items on this menu of concern to users; they are the **Edit Fills** and **Edit Font** buttons, the Version Readout, and the **Exit** button.

Edit Fills

Clicking on this button switches from the main menu to the 'Edit Fill Pattern' menu, from which you can load, save, and edit any of the fills used by the system.

Edit Font

Clicking on this button switches from the main menu to the 'Edit Text Font' menu, from which you can load, save, and edit fonts to be used by the system.

Version Readout

This checks to see which version of Warp 9 is currently in memory. The version number and creation date is displayed immediately to the right of the "Version:" label.

Exit

Clicking on this button exits the Customizer.

● The Fill Pattern Editor

Clicking on the **Edit Fills** button on the main menu switches to the 'Edit Fill Pattern' menu. From here you can load and save fill files, as well as edit some or all of the fill patterns.

Each fill file consists of 34 "system fills" and one "desktop fill." The system fills are the fill patterns used by GEM when drawing the desktop, windows, etc. The Desktop Fill is used only by the Warp 9 Accessory, and will appear as the Desktop background if the accessory is properly configured.

The 'Edit Fill Pattern' menu is laid out as follows:
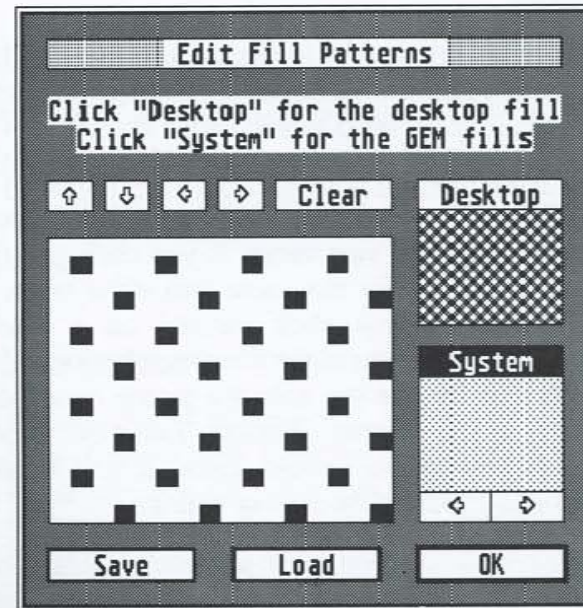
The operation and function of each element is as follows:

Scroll Buttons

These four arrow buttons are used to scroll the pattern in the indicated direction. Pixels which "disappear" off one side of the Editing Window "wrap" around and reappear on the opposite side. Clicking on one of the arrows scrolls the pattern one pixel in the desired direction, with results immediately evident in both the Editing Window and either the Desktop Window or System Window (depending on which fill is being edited).

Editing Window

This is a 32 x 32 pixel grid in which you can edit an enlarged version of the selected fill pattern. Results of all editing are immediately evident in both the Editing Window and either the Desktop Window or System Window (depending on which fill is being edited).

Drawing is simple. If you click on a pixel that is "off" (background color) it switches "on," and vice versa. If you click and drag, you will be drawing with the color that came into effect when you first clicked. For instance, if you click initially on a pixel of the background color, it will toggle to the foreground color and you will be drawing with it as long as you hold the mouse button down and keep the pointer in the Editing Window. Likewise, if you click initially on a pixel of the foreground color, it will toggle to the background color and you will be erasing with it.

Desktop button

Highlighting this button makes the Desktop pattern active and puts it into the Editing Window so you can work on it. Selecting **Desktop** toggles the **System** button (below) off.

Desktop Pattern Window

This displays the current Desktop pattern in "actual size." This pattern is the one used as the GEM background only if the Warp 9 Accessory is set properly (see **Fill** under the 'Screen Controls' in the Warp 9 Accessory section of this manual).

System button

Highlighting this button makes the System fill patterns active and puts the one currently selected in the Current System Fill Window (net item) into the Editing Window so you can work on it. Selecting **System** toggles the **Desktop** button (above) off.

Current System Fill Window

This displays the currently selected system fill in "actual size." There are 34 different fills that can be selected (see next paragraph), only one of which can be displayed at a time. When you first enter this menu the selected pattern is fill #1. You can edit any of the fill patterns you like.

Fill Selection Buttons

To scroll through the 34 editable fills, use the arrow buttons at the bottom of the Current Fill Window. Clicking on the **left-arrow** backs up to the previous fill, while the **right-arrow** advances to the next one. Holding down the mouse button while clicking on one of the arrow buttons results in a high-speed scroll through the patterns. Release the button to stop. There is no "beginning" or "end" to the patterns. If you scroll to the last pattern and try to go to the next one you are returned to the first pattern, and vice versa.

Copying Fills Between Windows

To copy a fill from one window to the other, hold down the **Alternate** key on your keyboard while clicking in the window to which you want to copy the fill. For example, if you wanted to copy a System Fill pattern into the Desktop Fill Window, scroll the pattern of choice into the System Fill Window and then **Alt-Click** on the Desktop Fill Window. The fill is instantly copied. Going the other way is just as easy. Scroll the patterns until the System Fill Window displays the fill you want to "erase" and then **Alt-Click** in the System Fill Window to copy the Desktop Fill pattern over it.

Save button

This brings up a File Selector allowing you to save the current set of fills into a .QSF (Warp 9 Fill) file.

Load button

This brings up a File Selector allowing you to load a .QSF (Warp 9 Fill) file. Loading a .QSF file will wipe out all of the fill patterns currently in memory.

Exit button

This returns to the Customizer main menu.

NOTE: *It is impossible for you to actually alter the fill patterns used by GEM,* as they are stored in the TOS ROMs. The fills you edit are "copies"made in system RAM. If you want to restore the "original" patterns simply load the GEM_FILL.QSF file (included in the FILLS folder on your Warp 9 master disk). Another way is to reboot the system *without* having the Warp 9 Accessory auto-loading any fills.

● Font Editor

Clicking on the **Edit Font** button in the main menu switches to this, the 'Edit Text Font' menu. From here you can load and save fonts, as well as edit some or all of the characters within the font.
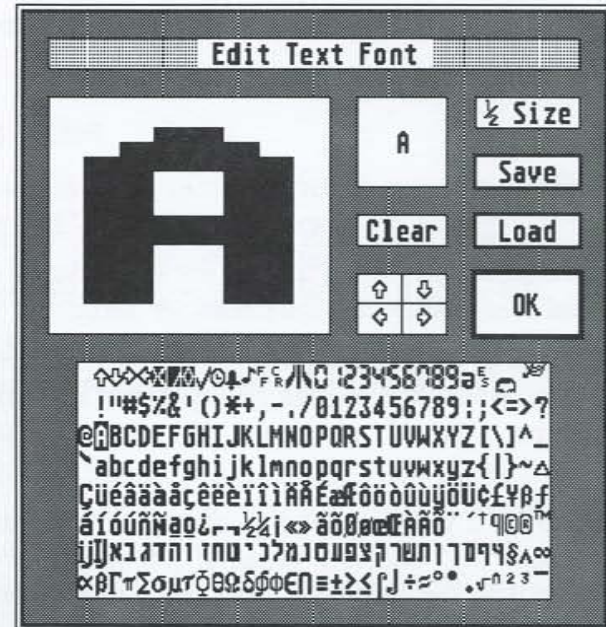
When you first enter the font editor, the font currently in use by the system will appear in the large Font Table at the bottom of the screen. You will notice that all 256 characters of the font are present, unlike other font editors which only allow you to work with the first 128 characters.

At the upper left of the menu is the Font Editing Window, which displays an enlarged version of the currently selected character. Initially, the program always displays the first character in the character set (ASCII 01). In the system font this is the up-arrow symbol.

NOTE: There is a blank character prior to (left of) character 01. It is character 00, a "null" character. You cannot select or edit this (blank) symbol.

Each font consists of 256 characters. The font is used by GEM for most standard text output operations. Many of the characters in the font may be unfamiliar as they are not commonly used, or accessible, from most English language ST/TT applications.

Operation and function of each element is as follows:

Editing Window

This is a grid in which you can edit an enlarged version of the selected character. Results of any editing are immediately evident in both the Actual Size Display and the Character Table.

The size of the grid varies depending on the current resolution. If you're in ST low or medium res, the grid will be 8 x 8 pixels. If you are in ST high res or *any* TT mode, the grid will be 8 x 16 (8 wide, 16 tall).

Drawing is simple. If you click on a pixel that is "off" (background color) it switches "on," and vice versa. If you click and drag, you will be drawing with the color that came into effect when you first clicked. For instance, if you click initially on a pixel of the background color, it will toggle to the foreground color and you will be drawing with it as long as you hold the mouse button down and keep the pointer in the Editing Window. Likewise, if you click initially on a pixel of the foreground color, it will toggle to the background color and you will be erasing with it.

Actual Size Display

This displays the currently selected character in "actual size," unsurrounded by the clutter of other characters. It is used to show you what the character looks like unmagnified.

Scroll Buttons

These four arrow buttons are used to scroll the character's pattern in the indicated direction. Pixels which "disappear" off one side of the Editing Window "wrap" around and reappear on the opposite side. Clicking on one of the arrows scrolls the pattern one pixel is the desired direction, with results immediately evident in the Editing Window, the Actual Size Display, and the Character Table.

Half Size button

This button sets a flag in the file which determines whether the font can be "scaled." All of the characters are actually 8 pixels wide and 16 pixels tall, although if you are editing them in ST low and medium resolution they will appear only 8 pixels tall.

The **Half Size** button really has no effect if you save a font from ST low or medium resolution, since the font is effectively "half-scaled" already.

If the **Half Size** button is highlighted when a font is saved from ST high res or a TT resolution, then the system is told that this font *can* be scaled down to 8 pixels in height. If not, the font is unsuitable for ST color modes and the Warp 9 Accessory will not load it in ST low or medium res. The Customizer will, though.

SCALING NOTE: The term "scale" is misleading, because there really is no smooth rescaling. Rather, every other row is ignored when the font is "scaled." So, in low and medium resolution, only the odd numbered lines of the character would be displayed. For detailed information on editing fonts, see Appendix B.

Save button

This brings up a File Selector allowing you to save the entire font into a .FNT file. If the **Half Size** button is switched *off* the Warp 9 Accessory will not allow you to load the font in ST low or medium resolution, although you *will* be able to reload it into the Customizer in those resolutions.

Load button

This brings up a File Selector allowing you to load a .FNT font file. Fonts created with Customizer or the DEGAS Font Editor program can be loaded. Loading a .FNT file will wipe out the font currently in memory.

NOTE: DEGAS fonts consist of only 128 characters, not the full 256 in the ST character set. When you load a DEGAS font it will replace only those characters. See Appendix B for more information on fonts.

Exit button

This returns to the Customizer main menu.

NOTE: *It is impossible for you to actually alter the system font used by GEM,* as it is stored in the TOS ROMs. The font you edit is a "copy" made in system RAM. If you want to restore the "original" patterns simply load the GEM_FONT.QSF file (included in the FONTS folder on your Warp 9 master disk). Another way is to reboot the system *without* having the Warp 9 Accessory auto-loading any fonts. Or, if you just want to be able to switch back and forth from the system font to an edited font, use the controls under "Current Font" in the Warp 9 Accessory.

Appendix A
Mouse Accelerator Tips

The customizable nature of the Mouse Acceleration table in the Warp 9 accessory makes some interesting effects possible.

For example, in ST medium resolution the pixels are more than twice as tall as they are wide, and moving the mouse a given distance vertically will move the on-screen pointer much farther than if you moved the same distance horizontally. To compensate, you could select one of the Mouse Acceleration buttons and edit the numbers to be more proportional — for example, making the mouse move twice as far horizontally than vertically. To do this, you would make the number for each horizontal value double that of the corresponding vertical movement value. The resulting table might look like the following:

```
HOR  01| 02 03 08 10 12 14 16 18 20
VER  01  02 03 04 05 06 07 08 09 10
      1   2   3   4   5   6   7   8   9  10
```

As you can see, most of the HOR values are double the corresponding VER values. However, notice that the values for 1, 2 and 3 pixel movements are unchanged. This is because most users require fine control for small movements. If the acceleration for *all* horizontal values were doubled making a horizontal movement of only one pixel would be impossible simply because all one pixel moves would be translated into two pixels! This is the reason for leaving the "small" movements alone.

● Sample Substitution Values

The following are examples of different sets of substitution values you might try for different resolutions and applications.

ST medium resolution

To make mouse movement more proportional to actual mouse travel, try the following substitution values:

```
HOR    01 02 03 08 10 12 14 16 18 20
VER    01 02 03 04 05 06 07 08 09 10
```

TT low resolution

To make mouse movement more proportional to actual mouse travel, try the following substitution values:

```
HOR    01 02 04 10 12 14 17 19 21 24
VER    01 02 03 04 05 06 07 08 09 10
```

Accelerating Pointer

Another option is to make the pointer move at varying rates depending on mouse speed. In such a system a mouse moving very slowly would result in a slow moving pointer, and the faster you moved the mouse the greater the speed increase. It would be an exponentially increasing rate. Slow moves would be very slow, fast moves *very* fast.

```
HOR    01 02 03 05 08 12 18 27 40 60
VER    01 02 03 05 08 12 18 27 40 60
```

Appendix B
Font Replacement Limitations

Although the fonts you edit and load using the Warp 9 Accessory and Customizer are automatically utilized by most programs, some programs will simply not see them. For example, while programs like Flash! or 1st Word will use your custom fonts on screen, others, like Word Perfect, will not (in its document windows, anyway). If a program bypasses the system text routines and draws text directly to the screen, Warp 9 cannot force it to use a custom font.

● Using Other Utilities to Load Fonts

You might think about using a utility other than the Warp 9 Accessory or Customizer to load fonts, so you can edit and save them in Warp 9 compatible .FNT format. For example, it might occur to you to use Font Tricks from the **CodeHead Utilities** disk to load Atari 8-bit fonts into memory and then use the Customizer to save them. *This will not work!* If you try it, the Customizer will probably display the font that was loaded with the other utility, but if you try to edit a character in that font you'll notice that it won't edit correctly because the Customizer is actually looking at either the system font or a font loaded by it or the Warp 9 Accessory. If you then save the font, you'll end up saving the wrong font.

● Editing Font Characters

When editing a font the most important things to remember are:

1. No character should be the full width or height of its grid because then there will be no blank space between them and you'll end up with a blotchy, unreadable mess.

2. Characters to be used in ST low or medium resolution should be designed so that when half-scaled they will still be readable.

• Tips on Programs that Rescale Fonts

In actuality, GEM has *three* different sized fonts in ROM. There is a tiny 6 x 6 font (like the one displayed under icons), the ST color 8 x 8 font, and the ST high res/TT 8 x 16 font. Programs that rescale fonts often use more than one of these system fonts.

SYSTEM 6x6

↑↓→←⊕⌐⌐⌐⌐∅♦↓↑↓↓
◻123456789↓⌐⌐⌐⌐↓
!"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLMNO
PQRSTUVWXYZ[\]^_
`abcdefghijklmno
pqrstuvwxyz{|}~△

SYSTEM 8x8

ΛΨΦΧ∰∇◊↑⌐⌐⌐◻ 123456789∂⌐ ◻ ☼
!"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_
`abcdefghijklmnopqrstuvwxyz{|}~△

SYSTEM 8x16

ΛΨΦΧ∰∇◊↑⌐⌐⌐◻ 123456789∂⌐ ◻ ☼
!"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_
`abcdefghijklmnopqrstuvwxyz{|}~△

For example, when DEGAS Elite scales the system font, it may use all three source fonts for this purpose. A 12 x 12 font is the 6 x 6 font doubled, the 8 x 8 font is the system 8 x 8 font, and other sizes are rescaled versions of the 8 x 16 font. Because of this, loading a font using the Warp 9 Accessory or the Customizer may only affect a few sizes of a font in multiple sizes. A good example of this *is* DEGAS Elite. For example, in ST high or TT resolutions, if you were to load a scaleable font it would replace all but the 6 x 6 and 12 x 12 fonts. If you were then to load a non-scaleable font (8 x 16), it would replace most of the remaining sizes. So, in this way, the result is having effectively *three* different system fonts at once.

Appendix C
Fill Replacement Limitations

Although the fill patterns you can edit and load using the Warp 9 Accessory and Customizer are automatically utilized by most programs that call GEM graphics routines, some programs will steadfastly refuse to put them to use. For example, while Easy Draw will display custom fill patterns on-screen, its Outprint program will *not* print them. Likewise, DEGAS Elite uses standard system fills, but won't use those you edit or load.

• Editing System Fills

One of the problems with editing System Fills is that you may not realize just how widely they are used. Suddenly you may 'find light/grayed text unreadable, or dialog boxes hard to look at because you've changed the fill patterns used for those functions.

Below is a diagram showing the 34 built-in system fills that you can edit. Each has been assigned a number so that those that are commonly used can be noted below.
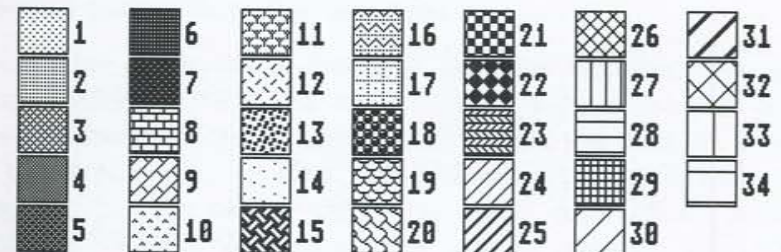
The following fills are worth noting:

1   This is commonly used as the "gray" part of a window slider bar. If you alter this pattern you're likely to alter the appearance of most of the windows drawn by your system.

2 This fill is used in the title bar of GEM windows.

3,5 These fills are commonly used in the dialog boxes of desk accessories, replacement File Selectors, etc.

4 This fill is used as a sort of all-purpose dithering pattern by GEM. It is normally used as the high resolution desktop background pattern. It is also used as the pattern for light/grayed text.

Appendix D
Configuring Warp 9 Without the Control Panel

If you don't want to use the Warp 9 Control Panel desk accessory (perhaps you're very short on memory), there is an alternative. Your Warp 9 disk contains a program called WARP9CNF.PRG, that will allow you to set up many of the configuration options of Warp 9. This program also sends a "message" to Warp 9 that can speed up its operation even further. (For more details, see the section titled "Installing the Warp 9 Accessory.")

To use the program you must first install the Warp 9 Accessory, set up the options the way you like them, and save your configuration. This writes a file called WARP9.CNF to the same directory where the accessory resides, containing the configuration information.

After you've done this, copy WARP9CNF.PRG to this same directory, deinstall the accessory, and reboot your computer. Now, to set up the configuration of Warp 9, all you have to do is run the WARP9CNF program. When started, WARP9CNF.PRG searches its directory for the WARP9.CNF file, reads it, and communicates with the resident portion of Warp 9, telling it to configure itself according to the information in the file.

If you have CodeHead's **HotWire** program launcher, you can install WARP9CNF.PRG as an "autorun" program, so that your configuration is always set automatically when you boot up. If you don't have HotWire, but have TOS 1.04 (or later) installed in your computer, you can use the desktop's "Install Application" feature to set up WARP9CNF.PRG as your autorun program. (See your ST/TT owners' manual for more information on "Install Application.")

NOTE: WARP9CNF.PRG will set up all your configuration options *except* the "Desktop Picture," custom font, and custom fill options. To use these features, you must install the Warp 9 Accessory.

Appendix E
Automatic Control of Warp 9

We've tested Warp 9 very extensively with a wide range of software, and it will be rare indeed for you to encounter a problem. However, it's impossible to test with every single one of thousands of programs and hardware devices available for the ST and TT, so it is possible (not likely, but possible) that you may come across something that won't work properly unless you disable Warp 9.

You may also find that because the "mouse effects" (such as block and jump) use the right mouse button, they can interfere with the normal operation of some programs. If a program also needs to use the right button for some function, the results can be unpredictable.

For these reasons we've provided a way to control many of Warp 9's options automatically, according to the programs you run. To use this feature, you must create a special configuration file which will be read when Warp 9 runs at bootup time. This file should be called WARP9.DAT, and should be kept in the root directory of your boot disk. WARP9.DAT is a standard ASCII text file which can be created and edited with just about any ST word processor or text editor (as long as your editor has an option to 'Save as ASCII'). The file contains the names of programs and the options you want to enable or disable for each one when it runs.

The WARP9.DAT file must follow some simple rules of organization to be properly used by Warp 9. All lines should be flush with the left screen margin; do not insert spaces from the left. The first line of the file should contain the letters W935 followed by Return. This is the special ID that tells Warp 9 this is a valid WARP9.DAT file.

PLEASE NOTE: The 'W935' identifier should be used even though you may not be running Warp 9 version 3.50. It has nothing to do with the current version number of Warp 9 itself; it simply signifies that this feature was added in version 3.50.

On the lines following the identifier, list each program name, followed by the options you wish to set; end each line with a Return. If you list the program name only, with no options following it, then screen acceleration will be turned off for that program. All filenames should be in upper case with no path information, only the name of the file itself. Warp 9 allows you to list up to 32 programs in the WARP9.DAT file.

Warp 9 watches for programs to run and checks their names against the list; when a match is found, Warp 9 saves all the current settings and sets the options as specified in WARP9.DAT. When you exit that program, the options are restored to their original settings.

Options are represented in the WARP9.DAT file by a single letter followed by a number. With options that can be turned either off or on, this number is either zero (off) or one (on). With options that have several choices, numbers beyond one are used to distinguish among the possibilities. Here's the list of options supported in the WARP9.DAT file:

A0, A1	Turn screen acceleration off or on.
B0, B1	Turn mouse block off or on.
J0, J1	Turn mouse jump off or on.
H0, H1	Turn horizontal wrapping off or on.
V0, V1	Turn vertical wrapping off or on.
M0, M1/2/3/4	Turn mouse acceleration off (0) or turn on one of the presets.
D1/2/3	Set Desktop fill options to Normal, Fill, or Picture.

There is a sample WARP9.DAT file on your master disk with only one entry, that looks like this:

```
W935
NOTATOR.PRG
```

This file tells Warp 9 to disable screen acceleration when NOTATOR.PRG is run. (Because there are no options following the filename.)

Here's a more complex example:

```
W935
WWRITER.PRG B1
DISKDOC.PRG B1 J1 H1 A0
ALADDIN.PRG D2
```

This tells Warp 9 to turn block on when WWRITER.PRG is run, to turn block, jump, and horizontal wrap on and screen acceleration off when DISKDOC.PRG is run, and to use the desktop "fill" option when ALADDIN.PRG is run.

Notes