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We may call you to ask for more details, since some problems can be rather difficult to pin down. Normally, the error, if any, can be found and remedied, whether it is a program bug or a procedural problem. However, in some cases, the Desktop Enhancer may be basically incompatible with certain programs which were not written using standard GS/OS or ProDOS operating system interfaces. We will make every reasonable effort to make the Desktop Enhancer work with such programs, but it may not always be possible to resolve design conflicts with programs which do not use the system tools provided by Apple.

Please remember that the Desktop Enhancer's screen saver function was not designed to coexist with other screen savers. If the screen savers cause display problems, TURN ONE OFF. Only one of the screen savers is really saving your working display; any more than one will only save the other screen saver's display.

When we have resolved the problem, we will send you a new copy of the program at no charge, or, if no program error was found, we will send you a description of how to avoid the problem in the future, provided that you are a registered owner of the Desktop Enhancer.

PLEASE NOTE: Unregistered owners of the Desktop Enhancer will be billed for the current purchase price of the Desktop Enhancer and will automatically be registered, but will otherwise receive the same service as registered owners. Please register your program as soon as you get it home!

Desktop EnhancerTM

Options for the Apple IIGS FinderTM Environment

- from -

Simplexity Software
13045 Chapman Avenue, Suite 302
Orange, California 92668

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Trouble-Shooting

If you encounter a problem which you believe to be caused by the Desktop Enhancer, please confirm the problem by taking the following steps:

- 1a - If the error causes your system to hang, reset your system, re-boot and retry the program.
- 1b - If your system does not hang, exit and restart the program which you were running.
- 2 - After taking one of the above steps, if the computer operates normally, the problem is intermittent and was probably caused by a temporary hardware glitch. If you wish to report it, you may, but we cannot promise that changes to the Desktop Enhancer will eliminate the possibility of such a glitch occurring again. The first rule of debugging programs is: If we can't reproduce the problem, we can't fix it.

Use the remaining steps to confirm that a software problem exists, and report it.

- 3 - If the error occurs consistently (at least twice in a row using the same program in the same way) open the System folder on your boot disk. Open the Desk.Accs folder and select the Enhancer.NDA icon. On the SPECIAL menu of the Finder, select the ICON INFO item, and when the information window opens, click on the INACTIVE check box. This deactivates the Enhancer desk accessory. In the System folder, open the System.Setup folder and repeat the above process to deactivate the Simplicity.INIT program. Close all folders.
- 4 - Reset your system, re-boot and retry the program where you encountered the problem. If the error does not occur, the Desktop Enhancer may have contributed to the failure.
- 5 - Here is the important part: Write down the name of the program which you were running when the error occurred. Describe what you were doing, if anything, and as clearly as possible, describe how your system failed.
- 6 - Write the serial number from your original program disk, your name, address and phone number (including area code) on the same sheet of paper, and send it to

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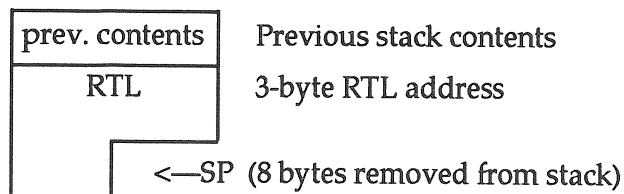
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This program is provided for use on a single computer at a single location. Contact the publisher for information regarding licensing for use in multiple-computer installations.

Stack on exit from MAIN:



Note: Before exiting, restore the Bank and Direct page registers to their original values. Exit in 16-bit native mode with processor speed Fast and interrupts enabled.

Contents

Introduction	4
System Requirements	4
Materials	5
Compatibility	5
For Starters	6
Installing The Desktop Enhancer	6
Using The Desktop Enhancer	7
The Main Window	8
Buttons	8-10
Function Windows	11
Saver	11-13
Sounds	13-15
Palette	15-17
Clock	17-19
Alarms	19-21
Do-It-Yourself	22
Sounds	22
Desktop Pictures	22
Screen Savers	23-30
Trouble-Shooting	30-32

Introduction

The Desktop Enhancer™ program is designed to give you a whole new degree of control over your GS/OS™ desktop environment. Features once reserved to Macintosh users are now yours, thanks to the Desktop Enhancer's simple Desk Accessory interface. To make the Desktop Enhancer even more convenient, it remembers how it was set up even after you power down, so when you come back and re-boot your system, you don't have to reset anything! (Unless, of course, you want to.)

System Requirements

- System Disk V5.0.4 or later.
- Hard disk drive.
- Plenty of RAM (1.5 megabytes or more recommended.)

To take full advantage of the Desktop Enhancer, you really need a hard disk to be used as your boot disk. If you do not have a hard disk drive, you must be sure to keep your boot disk in a disk drive at all times. This is necessary because the Desktop Enhancer uses information kept in the system folder, and the custom sound features require that the sound library be kept on your boot disk.

The Desktop Enhancer will work quite well on even a 1 megabyte system, but a minimum of 1.5 megabytes of RAM is recommended (more in System 6.0) to accommodate any custom sounds you may use, and to ensure that large applications have plenty of room to run. As far as RAM is concerned, the more the merrier! Finally, and most importantly, GS/OS System Disk V5.0.4 or later is **absolutely required**. Earlier versions of GS/OS do not include some of the internal system calls used by the Desktop Enhancer.

time required to make a pass through the segment and how often the Scheduler calls the Screen Saver.

Do not install interrupt handlers or other fancy schemes to beautify your animations. This is only a screen saver, after all, and its job is simply to do something interesting while preventing screen burn. VBL- or scanline-synchronization, stack based update techniques, and shadow switching work very well for animation applications, but in this case will simply guarantee a system crash or other strange behavior. The Desktop Enhancer will call the MAIN segment as often as it safely can; just update the screen once and return. Remember that current application may have other, much more important things to do (like printing or copying files) while the Screen Saver is active, so don't do anything to interfere with them.

Stack on entry to MAIN:

prev. contents	Previous stack contents
not first	Boolean word - Zero on first call, otherwise not zero
userid	Word - Userid assigned to MAIN segment
Parameter	
Pointer	Long - Address of 16-byte saver parameters
RTL	3-byte RTL address
←SP	

Environment on entry to MAIN:

- Processor speed - Fast
- 16-bit, native mode
- Interrupts enabled
- A, X, Y registers undefined

memory blocks allocated with the userid given in the stack.

The segment may not open its own GrafPort, but must draw ONLY to the current port which is preset by the Desktop Enhancer. Quickdraw will not like it if you open a GrafPort which cannot be closed, especially after it has been purged from memory.

If resources are used, the Resource Manager must be opened and closed during the first call. Issue the `_ResourceStartUp` call, load all your resources, copy them to memory allocated with the userid provided, and issue the `_ResourceShutDown` call, all during the first time the MAIN segment is called. The resources will then be available via handles or pointers instead of resource ID's, and the program will not run the risk of leaving open files lying around in memory.

Under no circumstances may the MAIN segment start up a toolset which is not already active. There will be no opportunity to issue the corresponding shutdown call, and this can cause problems ranging from being unable to launch certain applications to a system crash. If a toolset is not started up when the MAIN segment is called, it may not be used. Generally, the following toolsets are available and may be used without restriction:

Tool Locator

Memory Manager

MiscTools

QuickDraw

QuickDraw Auxiliary - (Usually active, but test for it before using.)

Other toolsets may or may not be available, depending on the application running at the time that the Screen Saver activates. Issue the appropriate status call to determine if a toolset not in the above list is available. Finally, certain toolsets may present compatibility problems. The Sound tools may present a special problem, since even though the toolset will normally be started up, using it may interfere with applications like SoundSmith or MidiSynth. If sounds are used, use them sparingly.

The MAIN segment may be called up to 60 times per second, or as often as possible without calling it again while it is still executing. Usually this means that the segment is called only 15-30 times per second, but the actual frequency will depend on the

Materials

The Desktop Enhancer package includes the following items:

- This manual.
- A program disk which contains a System folder (holding the Desktop Enhancer programs), and an installer program named Enhance.Me.
- An Owner Registration Card which you should fill out and send immediately to the address on the card. Purchasers of Simplicity Software programs are eligible for discounts on future releases of the Desktop Enhancer, as well as specials on other Simplicity products.

Compatibility

The Desktop Enhancer was designed specifically for use with the Finder. Any other program launchers can be used with the Desktop Enhancer at the user's risk, and Simplicity Software makes no guarantee of compatibility with program launchers and file management programs other than the Finder. In addition, the design of the Desktop Enhancer assumes that no other INIT- or CDEV-based clocks or screen savers are in operation at the same time. If you use any such programs while the Desktop Enhancer is active, you do so at your own risk, and Simplicity Software makes no guarantees that your system will continue to function correctly. Screen savers and clocks installed as NDA's (New Desk Accessories) will probably work with the Desktop Enhancer, but some of them will cause some strange visual effects while doing so.

Assuming that the Desktop Enhancer has been correctly installed on a hard disk boot volume, it will function normally with the Finder. You may also expect it to continue functioning normally with most programs launched from the Finder. Due to the large number of applications available for any computer, we obviously cannot test our product with every possible software configuration, so if you encounter a problem which you suspect is caused by the Desktop Enhancer, you may report it as described in Appendix A. Extensive user testing has been performed with a wide variety of products, and the results may be found in Appendix B.

Simplicity Software is not aware of any conflicts between the Desktop Enhancer and any hardware products for the Apple IIGS at release time.

For Starters

The first thing you should do (for any software) is copy your program disk to a 3.5 inch floppy disk or to a folder on your hard disk. The second thing you should do is remove the program disk from your system and safely store it in a cool, dry place to be sure it is always there if you need it.

Now that your program disk is safe, you can install the Desktop Enhancer in your system. Follow the instructions in the next section carefully. If you don't, you could get some interesting but undesirable effects when you try to use the Desktop Enhancer.

Installing The Desktop Enhancer

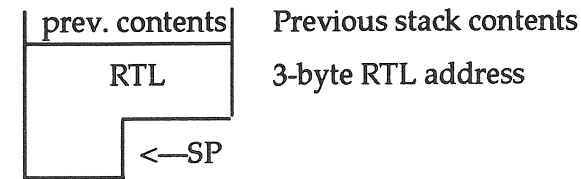
The Desktop Enhancer is installed using the Enhance.Me program from the program disk. Just double-click on the Enhance.Me icon, and the program will present you with a set of options. Use the radio buttons to select which part of the Desktop Enhancer package you want to install, and use the **DISK** button to choose the disk where you want to install it. If you are only installing one component, such as adding new Screen Savers, you can select exactly which files you want by selecting them from the list.

Most users should select the **INSTALL COMPLETE SYSTEM** radio button, which will engage the intelligent update function of the installation program. This will replace any older version of the Desktop Enhancer, create any required files, and move all components of the Desktop Enhancer to their proper places on the chosen boot disk.

After the installation is complete, you may exit the Enhance.Me program by clicking the **QUIT** item from the File menu, which simply returns to your program launcher (usually the Finder.) Your system will continue to function as before, with the Desktop Enhancer inactive.

Finally, with the Desktop Enhancer snugly resting on your boot disk, shut down and restart your computer. When the process is complete, you may select the **ENHANCER** item from the Apple menu and set the Desktop Enhancer options of your choice as you want them to be.

Stack on exit from INITIAL:



- Note: before exiting, restore the Bank and Direct page registers to their original values. Exit in 16-bit native mode with processor speed Fast and interrupts enabled.

MAIN Segment

The MAIN segment does all the drawing while the Desktop Enhancer's Screen Saver function is active. It is treated as an external subroutine by the Desktop Enhancer, and is called whenever the Screen Saver function is dispatched by the Scheduler. It is called with three parameters on the stack: a pointer to the 16-byte parameter area, its own userid, and a flag which indicates if it is being called for the first time after being loaded. Since the MAIN segment is called in 16-bit native mode with interrupts enabled, it can do almost anything. However, there are a few restrictions which *must* be religiously observed.

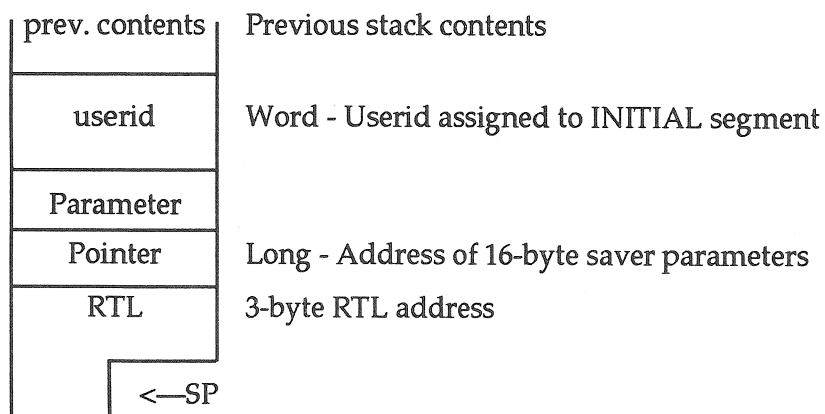
First, remember that the MAIN segment must return to the Desktop Enhancer *immediately* after updating the screen. Its job is to draw something and exit as quickly as possible. Failure to observe this rule will prevent the application from running correctly while the Screen Saver is active, and will prevent the Desktop Enhancer from restoring the screen to its normal state when the user moves the mouse or presses a key.

The Desktop Enhancer sets a parameter in the stack to indicate if the MAIN segment is being called for the first time or not. This word is FALSE (0) if the segment is being called for the first time, and TRUE (not 0) for all other calls. There is NO last-time-called indicator, since the Desktop Enhancer simply unloads the segment and disposes of all its memory when normal operation is resumed.

All memory allocated must be assigned the userid given in the stack to ensure that it will be cleaned up properly. When the Screen Saver is stopped, the Desktop Enhancer disposes of all

Since the Desktop Enhancer itself does not use resources, the INITIAL segment must also avoid resources, or it must start the Resource Manager and shut it down itself. All tools normally available to New Desk Accessories will be present and started up. Any others should be tested using the appropriate status call and started up as necessary, remembering to shut them down again before exiting. If the INITIAL segment makes calls requiring a userid, it must find its own userid provided by the Desktop Enhancer on the stack. Otherwise, the INITIAL segment is responsible for freeing all memory which it allocates.

Stack on entry to INITIAL:



Environment on entry to INITIAL:

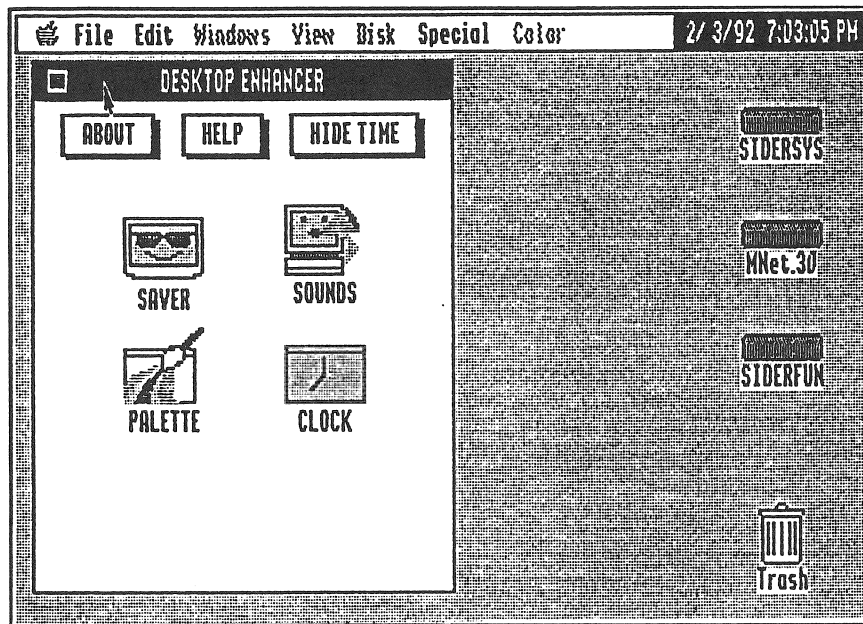
- Processor speed - Fast
- 16-bit, native mode
- Interrupts enabled
- A, X, Y registers undefined

Using the Desktop Enhancer

When you first re-boot your system with the Desktop Enhancer installed, you will not notice any difference in your system. This is because the default action for all Desktop Enhancer functions is to *do nothing!* The Desktop Enhancer allows you to make the changes you want in the appearance and behavior of your GS/OS™ system, but does not require you to change anything if you like the system as originally provided by Apple®.

The Desktop Enhancer is designed to be as easy to use as possible. Its graphic interface is intended to actually help you to use itself, and a **HELP** button appears somewhere in the window at all times, in case something is not obvious to you. By all means, if you are not sure what a control does, try it anyway! You will learn what the control does, and if you don't like the results, just return the control to its previous setting.

To change any option in the Desktop Enhancer, you must first select the Enhancer option from the Desk Accessories (Apple) menu. The Desktop Enhancer main selection window will appear. All buttons are clearly marked to describe what they will do. Some button titles, such as the **SHOW TIME** (or **HIDE TIME**) button, change their titles to indicate the action that will be performed the next time you click on it. Clicking on each button will have an immediate effect, and each icon will give you a new set of controls which will allow you to change the function referred to by the selected icon. Assuming you have installed the Desktop Enhancer, you may now proceed to experiment with its functions, read the rest of this manual, or do both to discover how to make your GS/OS™ system truly your own.



The Main Window

After selecting the Enhancer item from your Apple menu, the main window will be displayed on your desktop. As mentioned above, it contains three square buttons of its own, and the icons which can be selected to manipulate the various functions of the Desktop Enhancer.

Buttons

About

The **ABOUT** button is present in some form on nearly every software product written for the Apple II GS. This one will open a dialog which simply gives the name of the product, its author, and the copyright message which reminds you that this is a commercial product and is not to be duplicated in any form except by written permission from the author. The Author hereby grants the purchaser of the Desktop Enhancer permission to make such copies as he or she sees fit, for backup purposes only. The dialog may be closed by clicking on the **THANK YOU** button or by pressing the **RETURN** key. The **THANK YOU** button can be construed as a

Instead, they take over, make a change to the screen, and return the processor to the system. This means that if the screen is blanked during a long print or copy process, the process will continue, and valuable time will not be lost. Not only that, but the screen saver modules *never* run with interrupts disabled. They are always interruptable, which means they can keep running without interfering with modems or SCSI devices.

It also means that there are a few rigid rules which *must* be followed by anyone who writes their own Desktop Enhancer screen saver module. Not only do these rules promote certain standards, but they will also help ensure that each screen saver module has the best possible chance for compatibility with almost all applications.

In each screen saver module, the Desktop Enhancer recognizes two static code segments. The first is optional, but if present, it must be named 'INITIAL'. Its job is to set values in a 16-byte area which will be passed as a parameter to the second segment each time it is called. The INITIAL segment is loaded and called by the Desktop Enhancer NDA when your screen saver module is selected by the user. The second is required, and must be named 'MAIN'. This is the segment which performs the actual activities at screen-blanking time.

INITIAL Segment

The Desktop Enhancer provides a 16-byte area in which to store parameters and options for use by the screen saver module. At the time when the INITIAL segment is called, this area's contents are undefined. The address of the area is passed as a parameter on the stack, and must be removed by the segment before returning to the Desktop Enhancer via RTL. If no INITIAL segment is present, the contents of the option area remain undefined, but the area will still be passed to the MAIN segment.

The INITIAL segment must save the current GrafPort, open its own window or dialog, and accept all data from the user, storing the results in the 16-byte area provided. This segment will only be called once, so it should handle all events using `_GetNextEvent` and `_TaskMasterDA` or `_ModalDialog`, then close its window or dialog and any file it opened, as well as shut down any tools it started, before returning to the Desktop Enhancer.

sequence, like a set of "running" marquee lights. For example, color 1 would be brightened to a bright cyan, then dimmed. As color 1 dims, color 2 will be brightened, until when color 1 is once again black, color 2 is that same bright cyan. Color 2 will then be dimmed while color 3 brightens, and so on until color 15 begins dimming and the cycle is started all over again with color 1.

By cleverly drawing a series of pictures, each in a different single color, one over another, you can create animation effects similar to those seen on animated neon signs. Be sure to make your background black by filling the paint area before you start. Simply importing a 16-color \$C1 file can sometimes give interesting results as well, as the picture is displayed as 15 color separations in sequence. Try anything! To add a screen saver picture, copy your filetype \$C1 (screen format) picture file to the SAVERS folder in the SYSTEM folder on your boot disk volume.

Programming a Desktop Screen Saver

A Desktop Screen Saver is a program which can be written in almost any language, but I have my doubts about BASIC. Assembler programs will run somewhat faster (speed is everything here), but you should be able to produce a perfectly acceptable program using a popular C or Pascal compiler. (Sorry, no interpreters allowed.)

These programs are kept in type \$B4 (RTL) files in the SAVERS folder, and are loaded and called by the Desktop Enhancer when the screen is blanked in a 16-bit desktop application. They act as subroutines to the Desktop Enhancer to draw any animations or special effects to keep the screen from getting stale while the user is not using the keyboard or mouse. The Scheduler is used to call the Desktop Enhancer, which sets up the saver environment (including the proper current GrafPort) and calls the saver module to update the screen. The saver module makes any desired changes and returns to the Desktop Enhancer via an RTL instruction, which then returns control to the system until next time. When the user activates the mouse or keyboard, the Desktop Enhancer unloads the saver module and purges all memory allocated by it, and restores the screen to its normal state.

The most wonderful thing about the Desktop Enhancer's screen savers is that they *do not* grab the processor and hang on, which stops all other activity such as printing or copying files.

politeness to your computer, but we saw it as an opportunity to express our appreciation to you for using our product.

Help

Help is always available in the Desktop Enhancer. On each window display, a button marked **HELP** can always be clicked to produce a dialog containing a scrollable text field which describes the main window or function window in which you clicked the **HELP** button. You may then read the help text, and press the **RETURN** button or the Return key to exit from the Help dialog.

Show/Hide Time

When you originally install the Desktop Enhancer, this button will contain the words **SHOW TIME**. This means that the computer is *not* currently displaying the time anywhere on the desktop, but if you click on this button, the system will *begin* displaying the time in the designated area of the desktop. After you click on this button, its title will change to **HIDE TIME** and clicking on it again will cause the system to *stop* displaying the current time. This button enables you to turn the digital clock display on or off quickly and easily, at need.

Icons

The icons displayed in the main window are buttons which give you access to more complex operations within the Desktop Enhancer. Clicking once on the icon of your choice invokes a Desktop Enhancer control function. The window will be erased, and after a short pause while the Desktop Enhancer loads the proper program segment, a new set of controls will appear. The window and its new controls is called a function window, even though the window was never actually closed. "Function window" and "main window" are just convenient ways of referring to where we are in the Desktop Enhancer. We will describe in some detail the features to which each icon gives access in this section, and describe their function windows later.

Saver

The Saver function allows you to control the Desktop Enhancer's screen saver. If, within a certain period of time which you determine, you do not press another key or use the mouse, the screen saver assumes that you are no longer present and takes control of your monitor, displaying the animated sequence of your choice until you return and press a key or perform a mouse action.

Using the Saver function of the desk accessory allows you to control the delay time, choose the animation sequence to be displayed, and to turn the saver on or off.

Sounds

The Sounds option lets you customize the sounds produced by your Apple IIGS during normal operation. You can use this feature to change the system beep to a Sound Shop™ sound or rSound. You may also assign sounds to a number of events which may occur while operating your Apple IIGS under the GS/OS™ operating system. These sounds can be enabled, disabled, or changed at will.

Palette

The Desktop Palette allows you to change your desktop background. We call it "Palette" because if your desktop is a canvas, the palette is the source of the colors and patterns placed on the canvas by you, the artist. This change will take effect the next time you load a desktop application. You may replace the desktop with a solid color, a custom pattern, or a picture.

Clock

The Clock function controls the digital clock display. In addition to the ten built-in date/time formats, this function will give you control over where on your desktop the digital clock display will appear. It also gives you access to the function which lets you set alarms. Each of the three alarms is completely independent, allowing you to have three custom time reminders active at once. Of course, you can enable, disable, or change any time or alarm option whenever you so desire.

sets (palettes) will look strange on the desktop. This is because, to keep the Finder's icons looking right, the Desktop Enhancer ignores palette information stored with the picture, and just lets the colors default to the standard system palette. When creating pictures for use on the desktop, use only the standard colors.

Screen Savers

OK, so maybe this one is not so easy. Desktop Enhancer screen savers come in two flavors: Text/P8 and Desktop. Anyone with a paint program can create a Text/P8 screen saver. Only a programmer can make a Desktop model. Since there are far more paint programs out there than programmers, let's talk about Text/P8 savers first.

Making a Text/P8 Screen Saver

The ProDOS 8 and Text modes of Apple IIGS operation pose a special problem for screen savers, since the only way to reliably execute the screen saver to check elapsed time and perform the blanking and other activities related to the saver's operation is to use an interrupt. This is fine, until you realize that to use an interrupt in this way means that you must do *all* of the screen saver's processing with the interrupts *disabled*! That means that you either run the risk of losing other interrupts (such as those used by a SCSI card, printer or modem) and thus cause your computer to hang, or you spend as little time as possible in your screen saver's code. Simplicity Software has chosen to spend the least possible time doing Screen Saver functions.

We do it like this: In 320-mode Super High Resolution, each pixel of a picture is assigned a number from 0 to 15. Each of these numbers represent a color in the palette. All pixels assigned a 0 will be the first color in the palette, all pixels set to 1 will be the second color, and so on until the pixels set to 15 represent the last color in the palette. Normally, every color in the palette is different, and you can get a picture with up to 16 real colors without any special effort. In a Desktop Enhancer Screen Saver picture, however, all the colors are set to BLACK, and only one color at a time is set differently. The color represented by 0 will *always* be black to allow for a constantly black background, but the colors from 1 to 15 will be brightened and dimmed to the same color in

Do-It-Yourself

As Steve Martin often put it, "Many people come to me, and they say...." How do you expand the Desktop Enhancer? And I tell them, "Very easily, indeed!" The Desktop Enhancer has an open-ended design. It can take sounds and desktop pictures from anywhere, it provides an editor for creating desktop patterns, and screen savers can be added for both Desktop and Text/P8 saver types by simply placing the appropriate files in the Savers folder. All Desktop Enhancer data folders are kept in the System folder on your boot disk.

On the following pages are the rules for creating your own Desktop Enhancer additions.

Sounds

Easy. Find a Hypercard® rSound resource file, and copy it to the Sounds folder, found in the System folder on your boot disk volume. Or find a HyperStudio™ sound data file, and copy that to the same Sounds folder. You can also use Sound Shop™, Audiozap, or your favorite sound recording program to create your own sound file.

All sounds must be saved as HyperStudio™ sound files or as rSound resources. There is no limit on sound file size, but you should try to keep them small. Sounds use up a lot of storage, both in memory and on disk. It doesn't take very many 100K sounds to use up the available memory in a 2-Megabyte computer!

Desktop Pictures

Grab a picture, any picture! If it is not already in screen format (filetype \$C1) then load it to your favorite paint program and save it as a screen format picture. Now go to the Desktop Enhancer's Palette function window, ask for a New Picture, and Install the picture. Of course, while you're in that favorite paint program, you may want to try your hand at creating your own desktop picture. Just remember to make it screen sized, and save it as a \$C1 screen format picture.

A special note, here. Pictures which use non-standard color

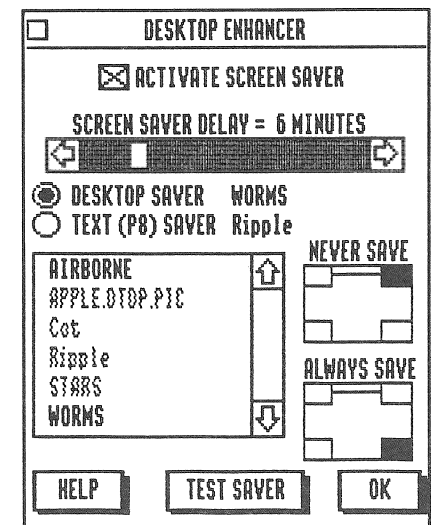
Function Windows

Clicking on an icon in the main window will present you with a function window. Each function window controls a different part of the Desktop Enhancer. When you have established the options for the function you selected, you may exit from the desk accessory by clicking on the close box in the left side of the title bar, or you may return to the main window by clicking on the OK button.

A button labeled OK is present in every function window display. It allows you to return to the main window without leaving the desk accessory, so you can easily set options for more than one Desktop Enhancer function. Once you have returned to the main window, you can once again select any option by clicking on its icon or button. You may also exit from the desk accessory at any time by clicking on the close box, and the Desktop Enhancer options will be saved as they appeared at the time that you closed the desk accessory.

Saver

Clicking on the Saver icon transfers you to the screen saver function window. You may change any option on the window, as desired, using the controls displayed here. A screen saver is a process that does something interesting with your computer's video display when you leave it inactive for too long. Its purpose is to prevent the image left on your screen from burning a pattern into the phosphor layer on the inside of your monitor's picture tube.



The check box marked **ACTIVATE SCREEN SAVER** can be checked to turn on the screen saver, or cleared to prevent the saver from operating. Clicking on the check box toggles the state of this control from ON (checked) to OFF (cleared) and back again. This control takes effect immediately, without waiting for you to exit from the saver function window.

A scroll bar is provided to allow you to set the delay time during which the system will wait before engaging the screen saver. By moving the thumb control tab to the left and right, you can vary the delay time in minutes, from a minimum of 1 minute to a maximum of 30 minutes. This control sets the amount of time which must elapse, during which the user does not press a key or move the mouse, before the Saver is engaged. If the computer is performing a task such as printing or copying, which does not require user input, the screen saver may engage, even though the computer was busy. This is because the specified number of minutes passed while the computer received no input from the keyboard or mouse. The task in progress, however, will continue.

Since the Desktop Enhancer uses a different screen blanker mechanism for 8-bit and text based programs than for desktop applications, the two radio buttons are provided to allow you to decide which type of screen saver you are going to set. When the **DESKTOP SCREEN SAVER** button is highlighted, you may choose a screen saver module which will only work with desktop applications. When the **TEXT (P8) SCREEN SAVER** button is highlighted, you may choose screen saver pictures which will be used only in non-desktop applications and 8-bit programs. Select the desired screen saver from the list directly below the radio buttons by double-clicking on an enabled saver name. The name of the saver which is currently active in each mode will always appear to the right of its radio button.

When you select the screen saver, you may be presented with a dialog listing the options available for that screen saver. Since each desktop screen saver is different, and may have its own collection of options, We can only state here that you should set the options as you want them. You may double-click on the saver name in the list as often as you like. This will simply cause the option dialog (if the Saver allows you to set options) to reappear so you can change the options for the saver without necessarily changing savers.

A button labeled **TEST SAVER** lets you see how the display will appear using the graphic sequence which you selected in the popup menu. This lets you view your selection immediately. If the **DESKTOP SAVER** radio button currently highlighted, the Test Saver button will display the currently active Desktop saver. If the **TEXT (P8) SAVER** button is highlighted, then that is the saver type which will be displayed. Note that the **TEST SAVER** button automatically turns the Screen saver function on, filling the **ACTIVATE SCREEN SAVER** control.

alarm for no day of the week, so this gives you two ways to ask for the alarm every day: check all of the **DAY** boxes, or check none of the **DAY** boxes.

Returning again to the left center of the Alarm function window, we see a box containing a pair of radio buttons and a square button. These buttons let you decide what sound you want played as the audible signal for the alarm. By clicking on the top radio button, you tell the alarm to play whatever sound is established as the system beep at the time that the alarm is triggered. Otherwise, the lower radio button causes the sound named just below it to be played, regardless of what other sounds may be in the system at the time. The square button, marked **REPLACE CUSTOM SOUND**, allows you to choose a sound to be used as the alarm's custom sound in the same way that you chose the custom sounds in the Sounds function window. The same rules apply: The sound must be stored in the Sound Shop™ format or as a rSound resource, only the first rSound in a file is available, and there must be room to store it in the Sounds folder on your boot disk. Use the radio buttons to activate and deactivate the custom sound at any time. Unlike the sounds used in the Sounds function window, the Alarm custom sound is not kept in main memory. It is loaded from the Sounds folder when the alarm is triggered, and is purged again as soon as it is no longer needed.

The text entry box marked **MSG** is another very special feature. It allows you to enter a message of up to 40 characters to yourself. When the alarm is triggered, if this box is not empty, the alarm will open an alert window containing the text string which you entered in the **MSG** field. You can use this feature to remind yourself of important events which may occur during the day while you are busy working or playing on your Apple IIGS. If you do not want the alert window to appear, you can simply leave this field empty, and only the audible signal will alert you to the fact that your alarm has gone off.

Since none of the Alarm options becomes final until you exit from the function window by clicking on the **OK** button or the close box, a **REVERT** button is provided to let you restore all of the alarm options to the state they were in when you entered the alarm function window. Clicking on the **REVERT** button causes all changes which you have made since entering the Alarm function window to be removed, and returns the alarm to its setting prior to when you entered the function window.

of the main window.

The alarm can be turned on or off, and the number of repetitions of its audible signal (rings) can be controlled using the Alarm Rings popup menu. You may choose **OFF**, **1 RING**, **2 RINGS**, **3 RINGS**, or **CONTINUOUS** ringing. The **OFF** item prevents the alarm from becoming active. The **CONTINUOUS** item will cause the alarm to await its appointed time, and then repeat the sound assigned as its audible signal until you deactivate the alarm by pressing the **CLEAR** key on your keyboard. For the other three selections, you are requesting that the audible signal be repeated the specified number of times when the alarm is triggered.

The alarm time can be set using the text boxes marked **ALARM TIME**. The hour is entered in the box to the left of the colon (:) and minutes can be entered in the box to the right of the colon. Click the mouse on the **AM** or **PM** box to toggle it from **AM** to **PM** and back, as needed. The hour may be any numeric value of one or two digits between 1 and 23. If a value of 12 or less is entered, the **AM/PM** box must be correctly set by clicking on it, where midnight is 12:00 **AM**. This is because the computer assumes that you are entering a 12-hour clock time if the hour contains a value of 12 or less, and it refers to the **AM/PM** value to determine if you mean before or after noon. If you enter a value greater than 12 for the hour, the computer assumes that you mean **PM** in the 24-hour military clock, and automatically forces the **AM/PM** box to **PM**. No such confusion exists for the minutes, where you may enter any value from 0 to 59.

The **DAYS** column is a unique feature which allows you to set your alarm not only for a particular time of day, but for a certain day of the week as well. You may check any combination of boxes, corresponding to Sunday, Monday, Tuesday, etc. through Saturday. The alarm will only activate on the days where the check box is filled. The exception to this rule is that when you have no **DAY** boxes checked, the system will automatically check *all* of the **DAY** boxes. The computer thinks it is pointless to set an

When you are satisfied with your saver options, click on the **OK** button to return to the main window, or you may click in the close box to exit from the desk accessory and resume normal processing.

The **NEVER SAVE** and **ALWAYS SAVE** controls work together. They allow you to choose where you can place the mouse pointer on your desktop to temporarily turn the screen saver off or to force it to engage immediately. Each control is a miniature picture of your desktop display, with indicator boxes on the corners. Click on the indicator boxes to change active screen corners. If you choose the same corner for both controls, both the **NEVER SAVE** and **ALWAYS SAVE** options will be disabled.

Sounds

Entering the Sounds function window allows you to make your **GS/OS** system play sounds when certain events occur. This function window contains only a list of system events and three buttons, in addition to the ever-present **HELP** and **OK** buttons. By selecting from the list of system events and clicking on the buttons, you may assign a sound to the selected event and enable or disable it at will.

You will notice that only the buttons representing actions which are possible with the selected system event are enabled. For example, if no sound is assigned for the System Beep event, and you select it from the list, only the **REPLACE** button will be enabled. Since a sound which has been assigned must be either enabled or disabled, the **ENABLE** and **DISABLE** buttons can never both be active at the same time. The **REPLACE** button is always enabled for all selected sound events.

All events in the list are always selectable, one at a time. Once a sound has been assigned to an event, the name of the sound will be displayed in the list to the right of the event name. If the sound is currently active (ready to play when the event occurs) then a check mark is displayed in the list to the left of the event name. If no check mark appears to the left of the event name, then the sound assigned

to that event is not only disabled, but is removed from storage. This makes it easy to restore sounds which must be removed to make room for large applications in your computer's memory.

Since the Desktop Enhancer starts out with no sounds assigned, no sound names will appear in the event list. Sounds may be assigned for the first time in several ways, depending on which feels most natural to you. You may select an event name by clicking on it, then click on the **REPLACE** button to request a new sound. The **REPLACE** button will be pressed for you if you double-click the event (triple-click if a sound has been assigned) or if you hold the Option key while clicking on the event name. After a sound has been assigned to an event, double-clicking the event name, or holding the Open-Apple key while selecting the event will toggle the sound to active or inactive. To replace a previously assigned sound, triple-click on the event name or hold the Option key while selecting the event. Of course, if you prefer, you may simply select the event name and click on the appropriate button.

When you Replace a sound, you will see a standard file dialog which will allow you to choose any Sound Shop™ sound file or rSound sound resource from anywhere on any disk attached to your system. When selecting a sound, two restrictions apply: First, only the first rSound resource in a resource file can be used. Second, there must be enough space on your boot disk for the desk accessory to copy the sound file to the Sounds folder.

The Choose Sound dialog works in the same way as any other file selection dialog. Use the **VOLUMES** button to move between disks, use the **ACCEPT** and **CLOSE** buttons to open and close folders selected from the file list, and finally, use the **ACCEPT** button to choose the sound file you wish to use. If you decide you don't want a sound after all, use the **CANCEL** button to return to the desk accessory. A special **PLAY** button lets you hear the sound file selected from the file list, but does not leave the selection dialog. This lets you try out any number of sounds without affecting the rest of the system, before making your final selection using the **ACCEPT** button.

Once you have Accepted a sound file, it will be copied into the Sounds folder on your boot disk. If a file with the same name is already present in the Sounds folder, then no copying will take place and the sound already in the Sounds folder will be used. To confirm that the desired sound has been installed, the sound is played when you exit from the Choose Sounds dialog. Addition-

where the digital clock will be displayed in 320 MODE. Repeat the process in the desktop image labeled 640 MODE. Since the clock display will only take up half the horizontal space in 640 MODE, you may choose to display the clock in the rightmost end of the menu bar at the top of the screen, as well as the three other locations available for 320 MODE.

Just below the desktop images, you see a check box labeled **DISPLAY TIME INVERTED**. By clicking on this box, you can have the clock display normally (black characters on a white box) or inverted (white characters on a black box.) When the check box is filled, the clock display will be inverted type. When it is empty, the time will be displayed normally.

At the bottom of the Clock function window are three buttons marked **SET ALARM 1**, **SET ALARM 2**, and **SET ALARM 3**. Selecting a **SET ALARM** button takes you to the alarm function window where you can set-up or change alarm settings. The alarm function window will be explained further in the following section.

To the right of each button is a check box followed by a time. Each of these buttons can be clicked to gain access to the Alarm function window for the corresponding alarm number. The time shown to the right of each button is the time for which that alarm was last set, and each check box indicates whether the corresponding alarm is currently active (able to ring.) If the alarm is active, the check box is filled, and an empty check box indicates that the alarm is turned off. You can turn each alarm on and off without changing any other options for that alarm by simply clicking on its check box in the Clock function window.

When the time display and the alarms are set up to your satisfaction, you may use the **OK** button to return to the main window, or you may close the desk accessory using the close box in the window's title bar.

Alarms

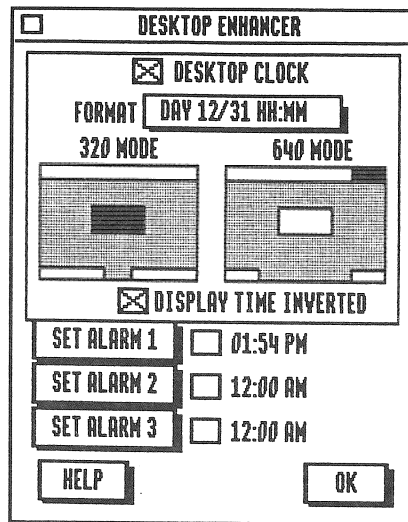
Pressing one of the **SET ALARM** buttons in the Clock function window takes you to the corresponding Alarm function window. Each of the three alarms is controlled independently from its own subfunction window. As of this writing, the Alarm function windows can only be entered from the Clock function window, and their **OK** buttons return to the Clock function window instead

the clock from being left lying around on your desktop. Don't worry, as soon as you leave the Clock function window, your desktop clock will be redisplayed in the new place and mode that you have selected.

The popup menu at the top of the window lets you choose from ten different display formats. Each of these formats is further modified by the time and date formats selected in the Time CDEV on the Control Panel. In the Format popup menu, when you see 12/31/99, it means the month, day and year will all be displayed in this relative position. If you see 12/31, only the month and day will appear. The word DAY means that the day of the week will be shown. The time will be displayed as HH:MM:SS, meaning hours, minutes, and seconds, or as HH:MM, meaning only hours and minutes will be displayed. The less information you ask for here, the less room the clock will take up on your desktop.

The most notable feature of the Clock function window is the box labeled **DESKTOP CLOCK POSITION**. This box contains two images of a desktop, one labeled 320 MODE, and the other labeled 640 MODE. Since two horizontal resolutions are supported by the Apple II GS Super High Resolution display, you are allowed to select a display position for each resolution mode. Notice that no box appears in the menu bar area of the 320 MODE desktop. This is because in 320 pixel resolution displays, the digital clock takes up so many pixels that there is a good chance that a lot of menu titles would be obscured by the clock. It is assumed that you will want your clock in a less obtrusive part of your desktop in this mode.

To use the position boxes, choose the location which you prefer for your clock display in the 320-pixel mode. You may select the lower left corner of the desktop, the lower right corner, or a moveable window which is opened in the center of the screen. Click on the box whose location corresponds to the display location you want. The selected box will turn black, and the other two will be filled with white. The black box represents the location



ally, the name of the sound you have just chosen is added to the list entry representing the action to which the sound has been assigned, and a check mark is placed to the left of the list entry to indicate that this sound is active.

By double-clicking on their entries in the list, you may enable and disable the custom sounds at will. If a check mark appears to the left of the event name, double-clicking on the event will cause the check mark to be erased and the sound to be removed from the system. It will no longer play when the corresponding system event occurs, and the sound is purged from memory, releasing valuable memory space. If the check mark is absent, double-clicking the event will cause it to appear. The sound named to its right will be loaded into memory from the Sounds folder, and the sound will be played once to confirm that it was installed. Active sounds are kept in main memory. They cannot be purged, but they are moveable, permitting memory compaction to allow the remaining RAM to be used as efficiently as possible.

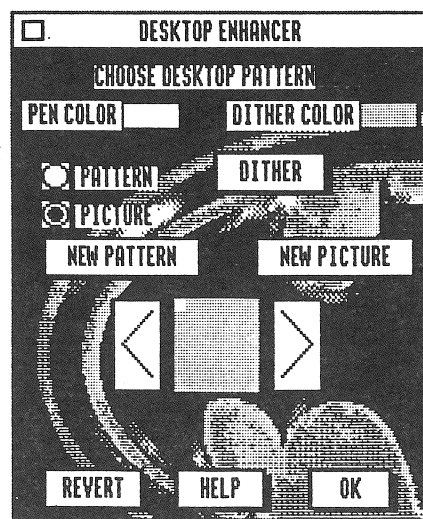
Disabling the System Beep custom sound causes the default system beep to be restored to your system. This means that you can change sounds played by the system beep routine, but you can never completely silence it. This is just as well, since the system beep normally signals an error in the system of which you need to take immediate notice. You may leave the Sounds function window by closing the desk accessory using the window's close box, or you may click on the OK button to return to the main window and select another function.

■ Palette

The Palette function window is the Desktop Enhancer's version of an artist's palette for your desktop. Here you can find colors, patterns and pictures, all ready to be painted on the background of your computer's desktop display. You may paint your desktop with solid or dithered colors, choose a pattern from the preset selection, or create your own pattern. You can even replace the whole desktop with a picture! The color popup menus make color selection a breeze, and the background of this function window is colored to look exactly the way the desktop will appear when your selection is put into effect.

With other desktop coloring programs, you may have noticed that colors chosen for 640-mode applications get, well, a bit strange

when you launch a 320-mode application, and vice versa. The Desktop Enhancer has a solution for that little nuisance. You see, if you are in 640-mode when you set up your desktop pattern or picture, you are affecting **ONLY** the 640-mode desktop! To set a pattern or picture (not necessarily the same one) for 320-mode, just enter the Enhancer Desk Accessory while in a 320-mode application, and set up a new desktop which appears **ONLY** when you are in 320-mode. Both desktops are completely independent, and together they ensure that your desktop will always look the way you like it!



The type of desktop display you desire is chosen using the radio buttons. If you choose a Pattern, then a repeated pattern of colored pixels will be used. If you choose a Picture, you can replace your desktop background with any screen format picture (file type \$C1). Desktop pictures, like sounds, can be loaded from any file on your system, but are kept on your boot volume for easy access. No matter which type of desktop you choose, you have plenty of options! Let's begin with pictures.

To load a picture for your desktop, just click the **NEW PICTURES** button. A Standard File dialog will appear, and you can select a picture from the list presented (it always starts in the Patterns folder) or you can look around your system for others. Only folders and \$C1 pictures will be shown, so any file you see can be used. The **CLOSE** button will close the current folder, the **DISK** button moves you to another disk volume, and the **INSTALL** button opens folders and installs your selected picture. There are probably a lot of pictures you would like to see before using, so the **DISPLAY** button shows what the picture looks like until you click the mouse. Then it returns to the dialog to see what you want to do with the picture. If you change your mind, the **CANCEL** button returns you to the Palette function window without doing anything.

You can go totally wild with patterns! The **DITHER** button is the easiest way to create very simple patterns. A solid color pattern can be easily created by choosing the same color from each of the

popup color menus, then clicking the **DITHER** button. You can create a dithered color pattern just as easily by choosing different colors on each popup menu and clicking the **DITHER** button. The edit box in the lower part of the window shows you exactly how the pattern was created. Notice that the **DITHER COLOR** popup menu is used **ONLY** to create patterns with the Dither button.

If you want a more complex pattern, you can choose from the predefined pattern library by clicking the arrow buttons on each side of the edit box. Each click will show you a new pattern until you have gone through all patterns in the library, and then will start the cycle over again. Since the patterns are saved in sequence, the arrow buttons scroll through the pattern list in opposite directions, to make it easier to find a particular pattern. You can edit supplied patterns or create new designs. Pick a color from the **PEN COLOR** pop-up menu and click in the edit box to change an existing pattern. Editing a current pattern will permanently change that pattern. To create a completely new pattern, select **NEW PATTERN**. These designs will be saved and added to the pattern library when you exit from the Palette function window.

Feel free to experiment with the options on this function window. If you absolutely detest all the combinations you have tried, but forget where you started, the **REVERT** button will restore your desktop selections to the state they were in before you made any changes. This will normally be the color of the desktop as it appears outside the desk accessory window.

Please note that the Desktop Enhancer sets the *default* desktop image. Some desktop applications (usually games) define their own desktops, and will not be affected by the pattern selected by the Desktop Enhancer.

Clock

By clicking on the **CLOCK** icon, you are given control of all the digital clock functions of the Desktop Enhancer. The Clock function window lets you determine where to display the digital clock, how to display the clock, and gives you access to the three independent alarms supported by the Desktop Enhancer. You will notice that while you are in the Clock function window, the digital clock display does not appear on your desktop. Since this function window allows you to make radical changes to the clock display, the clock is hidden to prevent unwanted ghost images of