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Introduction & Overview

Welcome to Wings! We're glad you've chosen our product as your Disk Management/Program Launcher system. You will find that Wings offers tremendous functionality and capabilities, yet still retains an easy-to-use launching interface.

Wings acts as a central control for IIgs computer operations. Unlike the Finder, Wings allows you to launch applications with only one click of the mouse. There are no windows to open or close and no delays in getting to programs. Up to 128 buttons can be programmed individually to launch ProDOS-8, GS/OS, Binary, AppleSoft, or Executive type programs very quickly. When you launch an application, Wings remains in memory so that no time is wasted loading it back from disk when you quit the application. If an application needs more memory, Wings will free itself and subsequently reload itself from disk. This process is completely automatic and transparent to all applications.

Wings utilities provide for file/folder/volume management to allow copying, moving, renaming, deleting, identifying, formatting, and virtually all other disk maintenance functions. Wings fully supports the new extended file format (also referred to as Forked Files) introduced with GS/OS 5.0.

In addition to launching programs and providing file utilities, Wings offers many other features that allow you to control your system more efficiently. For example, you can 'cold' or 'warm' boot from any slot, change the way file modification dates are handled, or temporarily designate a new system boot-up program.

As a bonus, there are two auxilliary launcher programs (on the Wings. B disk) that give you even more flexibility in using your IIgs: MiniWings and MicroWings. MiniWings is an easily customized program launcher that lets you define clickable buttons for only the launch choices you wish to show. MicroWings is an extraordinarily short GS/OS program launcher (fewer than 1000bytes, compared to the Finder's 107,000+ bytes) that you can use to make even very full GS/OS disks bootable.

If you are somewhat of a novice with your IIgs, all of this may sound complicated at first, but Wings is designed so that you do not have to understand or use all of its features immediately. Wings defaults to commonly used configurations so you can explore the more advanced features at a later time and at your own pace.

This User's Guide is in seven main sections. Section 1 describes Wings system requirements and how to install it on a hard disk (recommended) or on another floppy disk. Section 2 gives information about programming the 128 user-definable launch buttons.

Section 3 summarizes most of Wings' features and gives enough information to get you started. Experienced users will probably find that reading through this sectionÑcoupled with Wings' inherently intuitive natureÑis sufficient. Less-experienced users should use Section 3 as a guide until they are fairly comfortable with the way Wings worksÑthen go on to Section 4 to learn about Wings in depth.

☞ **Special Note:** While you may be tempted to just boot the Wings disk and explore, please take the time to read Sections 1, 2, and 3 before you do. It will save you some headaches later on.

Section 4 goes through Wings in considerable detail; example screens are shown for virtually every feature and operation. Less-experienced users should read through this section at least once, and more-experienced users should treat it as a 'reference section'.

Sections 5 and 6 describe the use of Wings' auxilliary program launcher programs, MiniWings and MicroWings.

Section 7 provides information about Technical Support.

The appendices summarize Wings' keystroke equivalents, common GS/OS eror messages, and the MiniWings Not-For-Profit license agreement.

By the way, as soon as you have installed Wings, be sure to run the Read.Me program on your Wings.B disk to get any last-minute updates. Thanks.

Section 1

System Requirements & Installation

System Requirements: Wings requires an Apple IIgs with ROM 01 or ROM 03 installed and at least 1 megabyte of memory. Wings operates under GS/OS 5.02 or greater. Wings should not be installed on and will not work with GS/OS System Disks prior to version 5.02.

Maximum benefits from Wings are achieved when it is installed and used on a hard disk drive, though installation may be performed on another 3-1/2" floppy disk providing there is approximately 250K of free space available. Wings (as well as GS/OS) will not run from 5-1/4" floppy disk drives.

Installation: Boot your IIgs from the ***original*** Wings.A disk To do this, set the Control Panel Startup slot to Slot 5 and either reboot using Open Apple+Control+Reset or power-off and power-on your computer. Before inserting the Wings.A disk in your 3-1/2" floppy disk drive, make sure it is not write-protected (the write-protect slide tab should be blocking the small window).

The first thing you will notice during the boot process is that the IIgs Finder does not appear. This is normal, because Wings replaces the Finder as the Startup program--the Finder is still accessible and functional in all respects, as you will see later. Instead, Wings presents the screen shown in Fig. 1-1.

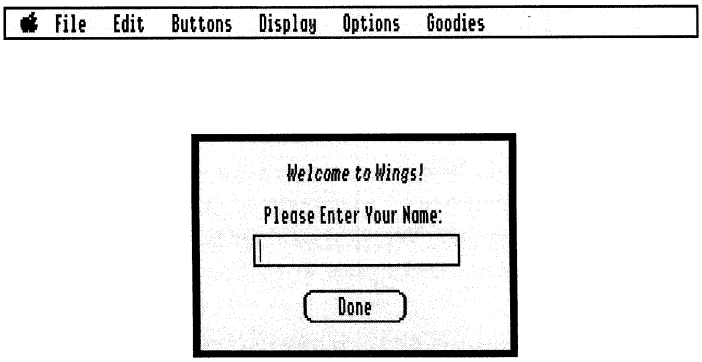


Figure 1-1

At the prompt, enter your name. This step is important, because we won't be able to provide you with updates to improved versions of Wings unless you accomplish it. Press Return when you've finished.

After the boot process is complete, Wings' Main Menu will appear. (Fig. 1-2.)

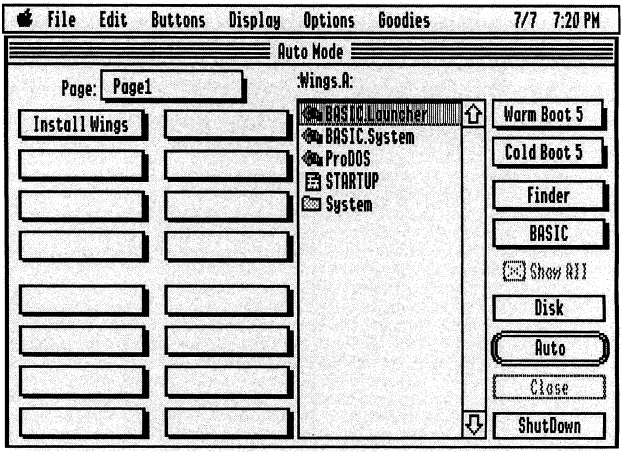


Figure 1-2

Note that only 1 of the 16 launch buttons is defined: Install Wings. Insert the Wings.B disk into an available drive and click on this button to run the Installer program. If you have only a single 3-1/2" drive, you'll be advised whenever it's necessary to swap between the Wings.A and Wings.B disks.

☞ **Please Note:** If you are familiar with the use of the GS/OS Installer program, you only need to scan through the following Wings installation procedure. On the other hand, if you're unsure of how to use the Installer, just follow the step-by-step procedure, and you'll have no difficulty.

Wings uses the standard IIgs Installer program. When the Installer menu comes into view, select the destination disk for Wings installation on the right side. Press the Disk button until the destination drive name appears at the top of the right-hand window.

Within the left-hand window are three install options:

Wings: This option is the normal way to install Wings on a bootable hard disk; it installs the Wings application as the System/Start program and renames the original Start program as Finder. If you are trying to install Wings on a 3-1/2" floppy disk, you must use the option described below.

Wings (No Finder): This option also installs Wings, but it deletes the Finder (if present) from the destination disk in order to make room for Wings. If you use this option, you will no longer be able to use the Finder. If you are trying to install Wings on a 3-1/2" floppy disk, this is the option to use. If you are installing Wings on a hard disk, there is no reason to use this option.

Re-Install Finder: This option removes Wings and re-installs the Finder as the System/Start program on the selected disk.

Select one of the options above by clicking on the name with the mouse, then clicking the Install button. Installation will take up to two minutes. If you are installing Wings on another floppy disk, you may be asked to swap disks from time to time during the installation process.

Now quit the Installer to return to Wings' Main Menu. Click and hold the mouse button down on the Cold Boot button located on the upper right-handcorner of the Main Menu. You will see a pop-up menu listing all of the bootable slots in your IIgs--these are the same slots you see if you enter the IIgs' control Panel and select the Slots option. (See Fig. 1-3.)

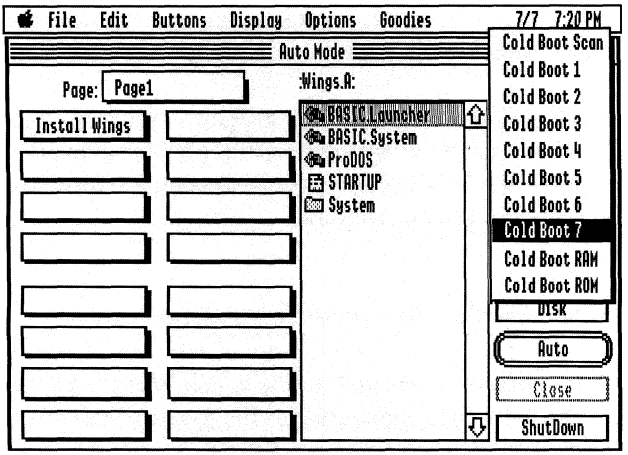


Figure 1-3

Move the mouse to select the slot number of the disk you've just installed and release the mouse button; your IIgs will now boot up from the slot you've selected. Put your master copy of the Wings.A and Wings.B disks in a safe place. You will no longer need to use either of these disks, since Wings is now installed on your normal startup device.

When Wings' Main Menu reappears (this time from your freshly installed disk), all of the launch buttons displayed on the left side of the screen will be blank with the exception of the Install Wings button. The procedure for deleting this one is described in the next section.

Section 2

Programming Launch Buttons

One of the most useful features of Wings is its programmable launch buttons. These buttons allow you to run virtually any program with just one click of the mouse. Once programmed, button information is saved permanently to disk. To program a launch button for particular application, you provide two pieces of information: the name to be displayed for the button and the pathname of the application.

Assigning Button Names and Programs

To program launch buttons, choose the Buttons menu item and select Program. The window shown in ***2-1*** will appear, with two editing boxes at the top for entry of the Name and Path. Next to it are several other buttons that help in programming. The bottom half of the window contains 16 'radio' buttons used to select 1 of 16 buttons to program.

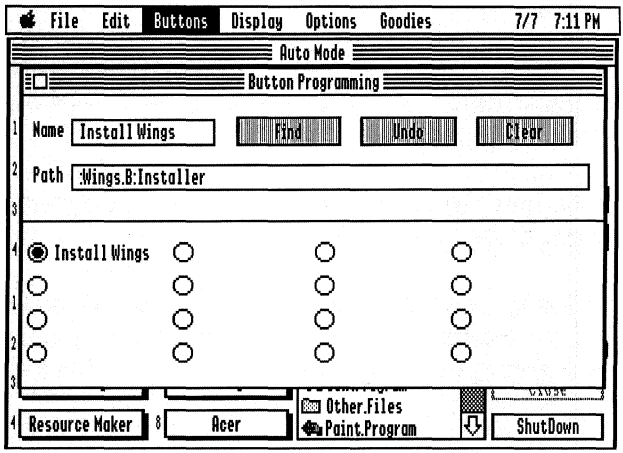


Figure 2-1

The first radio button in the bottom half of the window will be highlighted; click any of the 16 small buttons to program each. Note that the Name edit box always shows the name of the currently selected button, and if the button has not been programmed, the pathname field is blank. When entering text, all of the standard Apple edit functions are active including the delete key, double-click word select, triple-click line select, etc.

☞ **Special Note:** Please refer to the Apple IIgs User's Guide if you are unfamiliar with standard Apple editing keys.

This is as good a time as any to reprogram the Install Wings button, so make sure that the first small radio button is highlighted. We'll assign this button to run the program BASIC.SYSTEM. Backspace over the name 'Install Wings', type in'BASIC', and then press the Tab key to move the cursor to the Path edit box.

Click the Find button to bring up a dialogue asking you to select the file to be launched when this particular button is clicked. As necessary, click the Drive and Open buttons to display the BASIC.SYSTEM file on your boot drive, then click Open. When the Find window disappears, the full pathname for BASIC.SYSTEM will automatically be entered into the Path editing box.

☞ **Special Note:** Please refer to the Apple IIgs User's Guide if you are unfamiliar with changing volumes and opening files.

Wings does not allow partial pathnames (i.e., '*/' or '1/') within the Path edit box. All pathnames must be full pathnames and must start with either a colon or a slash character.

Close the button programming window by clicking in the window's close box or selecting Close from the File menu.

To program buttons on other pages, click on the Page button in the Main Menu or use the left/right arrow keys to select a new page, select the Buttons menu item again, and follow the procedure outlined above.

☞ **By the way,** you can move the Main Menu as well as the Button Program window in a side by side fashion. This will allow you to see the position of each button in the Main Menu as you program.

If you want to move a button's name or path, use the Cut, Copy, and Paste selections in the Edit menu. However, the Clear button in the window clears both Name and Path fields, while the Clear selection in the Edit menu clears only the currently selected edit box. You cannot Undo a Clear.

As described earlier, to launch an application you simply click on its button. As a shortcut, the top 8 buttons may be launched by using the Open Apple key in conjunction with the number keys 1 through 8. Buttons are numbered from top to bottom, with 1 through 4 on the left, 5 through 8 on the right. Similarly, the lower 8 buttons may be launched by Shift plus a number key; the numbering for the lower buttons follows the same convention as does the numbering for the upper buttons: 1 through 4 are on the left, 5 through 8 on the right. You can show the buttons' numbers with the Display/Button Numbers menu entry; see Section 4.

Naming Button Pages

A descriptive name may be assigned to each page of launch buttons. Selecting Page Names from the Buttons menu brings up the window shown in Fig.2-2.

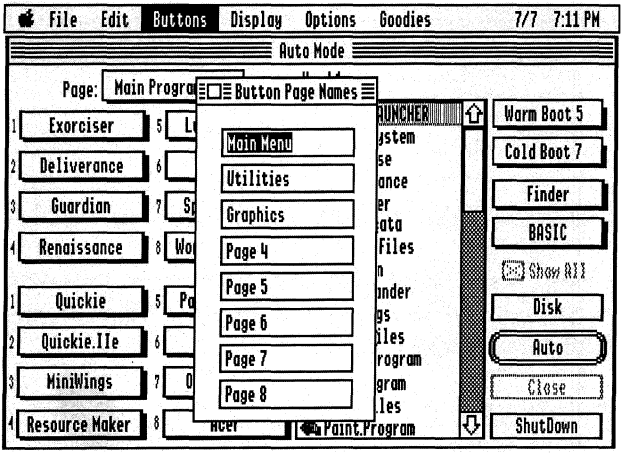


Figure 2-2

Click on any page name field and type in the name that best describes the buttons on that page. You can revisit this function at any time, so if you're not sure what to name the pages now, you can decide later. Click the close block in the upper left corner of the Page Name window to return to the Main Menu.

Selecting Page Colors

Each page of buttons can have its own color to help you further identify page changes. Open the Buttons menu and choose the Page Colors selection; a window will appear showing all 8 pages and a standard 16-color palette for each. (Fig. 2-3.)

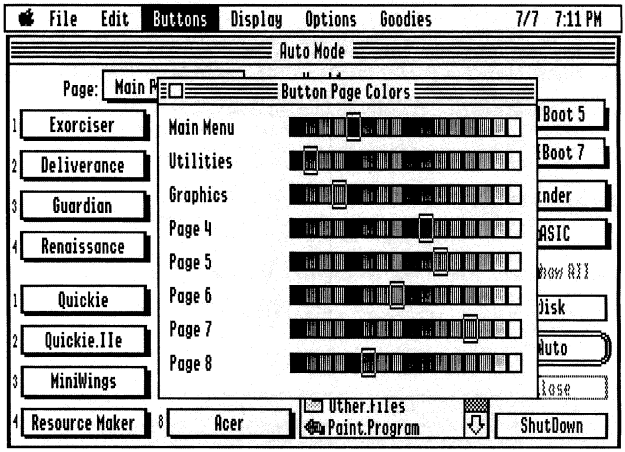


Figure 2-3

To assign a color to a page's buttons, just click on the desired color.

☞ **Please Note:** If you select white as a color, the button color will blend with the white background of the Main Menu--as though the buttons have disappeared.

Swapping Button Pages

After you've used Wings for a while, you'll probably find that you use some launch button pages more often than others. If a page that you use frequently isn't at the front of the line, say Page 1 or Page 2, you can easily swap it for a less often-used page. Or, you can just copy an entire page to another page position. Select Swap Pages from the Button menu entry to bring up the window shown in Fig. 2-4.

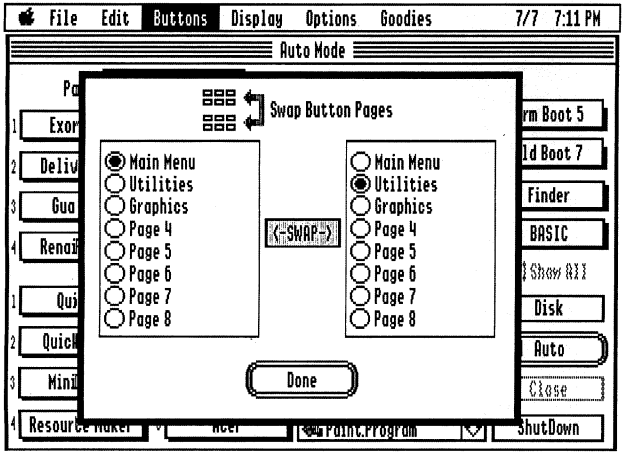
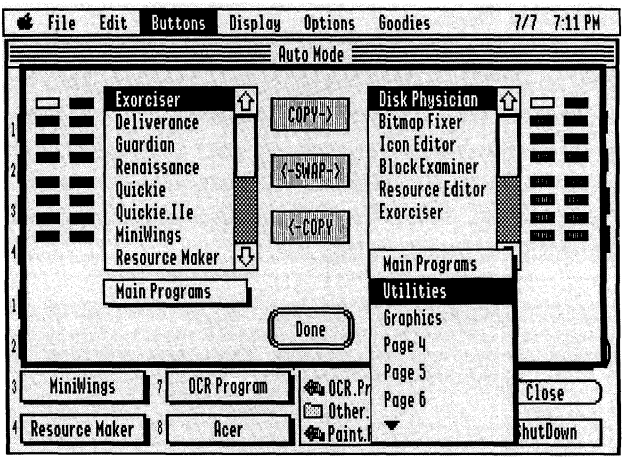


Figure 2-4

To swap pages, just click the small buttons that correspond to the two to be exchanged and click the dual-headed Swap button. Click the Done button to return to the Main Menu.

Swapping Buttons

It's also quite common for a Wings user to want to relocate one or more launch buttons from time to time--sometimes to another position on the same page, and sometimes to a completely different page. This is easily done by selecting the Swap Buttons entry from the Buttons menu, which pops up the window shown in Fig. 2-5.



This window shows any two button pages at a time; initially, it shows Page 1 on both sides of the screen. The scroll box for each page shows the names that have been assigned to each of the page's 16 buttons, and the 16 buttons assigned to each page are shown to the side. You can show any of the 8 button pages on either side of the screen just by clicking on the page name block below one of the scroll boxes; in Fig.2-5, we're showing Page 1 (which we've named 'Main Programs') on the left, and we've selected Page 2 ('Utilities') to be shown on the right.

As you highlight either a button name or click on a button, its 'opposite number' is automatically selected. This makes it easy to select what you want to copy or swap by choosing either a name or a button position. If a button has not been assigned, it will appear 'blank'.

To swap buttons or to copy a button from one position to another, be sure the pages you want are showing in the two scroll boxes, select the items you want to swap or the item you want to copy, and click either the dual-headed Swap button or one of the two Copy buttons. When you've got the buttons the way you want them, click the Done button to return to Wings' Main Menu.

Auto Program

While it's quite possible to program a launch button for each launchable program, there's a very convenient shortcut. We've included in Wings a rather lengthy list of program names and their associated launchable files, which you can tell Wings to cross-check with the programs on your hard drive...and assign buttons for them automatically. To do this, select Auto Program from the Buttons menu entry, which will pop up the window shown in Fig.2-6.

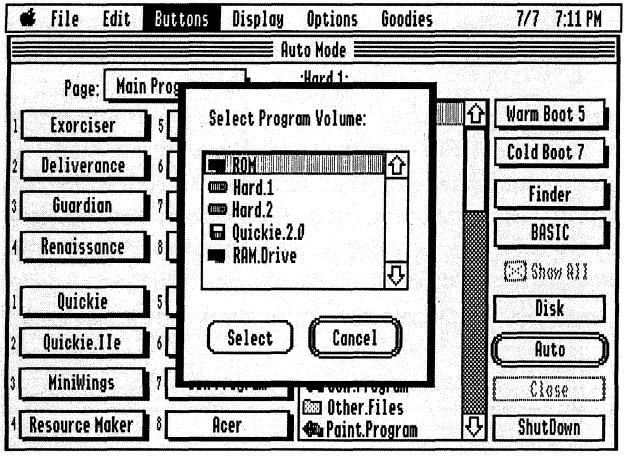


Figure 2-6

All you need to do now is to select the volume you want Wings to cross-check, either by double clicking it in the scroll box or by clicking it once to select it and then clicking the Select button. (Click the Cancel button if you'd rather not have Wings auto program at this time.)

During the Auto Program sequence, Wings scans the entire volume you've selected, looking for matches between the programs in its Auto Program file and your hard drive volume. As it finds matches, Wings automatically selects unused buttons, names them, and fills in the correct pathname for each--just as you would do if you were programming them manually.

Wings begins assigning buttons with the first position it finds empty and skips any buttons that are used, indicated by at least one charactger in the button name field, whether a program has actually been assigned to the button or not. If not enough empty buttons are available, Wings will inform you of that fact and terminate Auto Program.

It's quite likely that you will want to rename or rearrange buttons after Auto Programming; just use the various button programming routines described previously to do it.

Auto Boot

While it's not exactly a 'button', Wings' Auto Boot option is programmable--so it's appropriate to discuss it briefly in this section. Auto Boot lets you select another program (other than Wings) to be the Startup program into which your IIgs will boot. Auto Boot is very handy when you plan to use your computer to work on a long project, during which you'll probably be booting many times. To assign an Auto Boot program, select that option from the Buttons menu to show the window shown in Fig. 2-7.

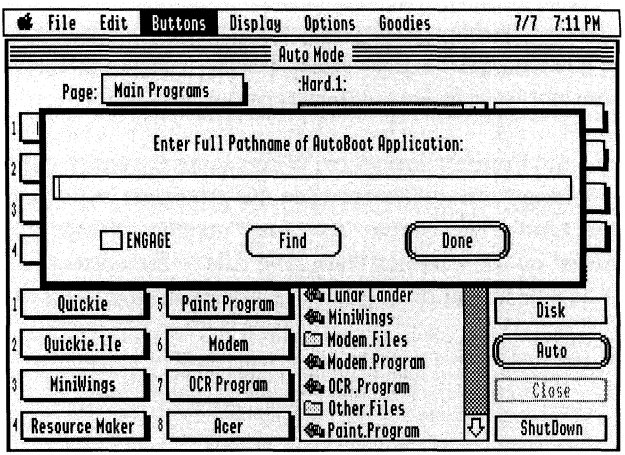


Figure 2-7

Selecting and assigning an Auto Boot program is similar to programming a launch button, but there are a few differences. First, the full pathname of the program you wish for Auto Boot must be entered in the program field, and it must start with either a slash (/) or a colon (:). You can do this manually, but it's much simpler just to click the Find button and move through your volumes and folders until you find the program you want.

☞ **Please Note:** The full pathname of the Auto Boot program is limited to 64 characters. Also, remember that the Auto Boot program must be a launchable ProDOS 8 or GS/OS application; binary and Applesoft BASIC programs will not work. The 'Find' option will let you select only launchable files; if you type in a file, though, don't select a binary or BASIC file.

To activate Auto Boot, click the Engage button; the next time you cold boot your IIgs, instead of Wings launching, your Auto Boot program will. By the way, you can override Auto Boot just by holding down the Open Apple key (the Command key) during boot-up; this will cause Wings itself to launch instead of the Auto Boot program.

Section 3

WINGS OVERVIEW

This section introduces Wings at top level: how it looks, how it operates, and its most commonly-used features--that is, those Wings features that are accessible by clicking the mouse on a button on Wings' Main Menu or by using a key combination.

> **Special Note:** Throughout this section and the rest of the User's Guide, we will use this convention : OA+<another key or keys> to denote key combinations made by holding down the Open Apple key (the Command key) and pressing another key.

Wings' Main Menu: When you first boot up into Wings or return to it from another application, you are always presented with the Main Menu (Fig. 3-1). On the left, 16 buttons from one of the button pages are shown. Pages are selected via the pop-up menu located above the buttons or by pressing the left or right arrow key; there are 8 pages of 16 buttons each. Programs are launched by clicking once on a button or using the Open Apple (OA) key and a number key (1-8) for the upper 8 buttons, or using the Shift key and a number key (1-8) for the lower 8 buttons.

In the center of the display is the Scroll List where other functions can be performed, including program launching. To the right of the Scroll List, more buttons allow warm booting, cold booting, and manipulation of the Scroll List.

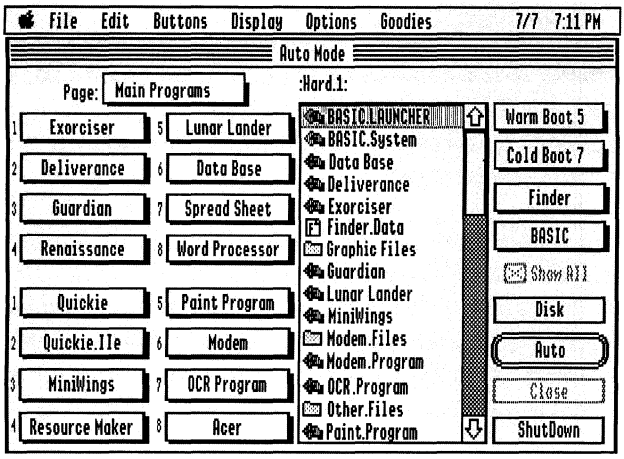


Figure 3-1

Here's a brief look at the items in and available directly from the Main Menu:

Launch Buttons: These 16 launch buttons are activated with a single click to launch a pre-programmable application. There are 8 separate pages of 16 launch buttons each; pages may be accessed by pressing the left and right arrow keys or by clicking the Page button (described next).

Page: This scrollable pop-up menu is activated by clicking (and holding) the mouse on the Page button. This selects one of 8 pages of launch buttons; each page contains 16 buttons, for a total of 128 programmable launch buttons. The current page becomes the target for all launching and button programming.

Scroll List: This shows the files in the current pathname. Click directly on the file name to select it, then press the Return key to execute a function relating to the file. You can also double-click on the file as a short cut. This action executes the current function. Functions are selected from the File menu (the current function name appears in the Menu bar at the top of the Main Menu and in the Main Menu's Function button). In most cases, the function will be Auto, which means that selecting a file will launch the file (if it's launchable), display it (if it's a graphic file or a text file), or give file information.

☞ **Please Note:** Whenever you power on, Wings will be in Auto Mode, and the Scroll List will show the root directory files of the boot volume. If you launch a program from the Scroll List, when you return, the Scroll List usually will show the path from which the program was launched -- otherwise the root directory of the boot volume will be shown.

The left edge of the Scroll List can be dragged to present more detailed information concerning each directory entry. This information comprises the filetype, total number of blocks, an optional fork icon, modification date/time, attributes, and auxtype fields. The user can use the OA+T key combination (the Display/Full Size menu selection) to bring the Scroll List to its full size; OA+T 'toggles' between full size and normal Scroll List widths.

The OA+H key combination (the Display/Home menu selection) resizes the Scroll List back to normal width, centers the entire main window, and brings it to the front if other windows happen to be blocking it.

☞ **Please Note:** The speed with which Wings can perform scrolling is directly proportional to the current sizing of the Scroll List window. Full size is slowest, while normal size is fastest. Scroll List speed in Wings (this includes any scroll list in any window) is independent of the number of entries or files in the directory being displayed.

When the Scroll List overlaps launch buttons, those buttons are disabled and cannot be activated. Also, the 'Locked' status icon (if enabled) will be shown next to the file name only if the Scroll List is at normal size.

While the Main Screen is active, one can also use the OA+P (the File/Print menu selection) to print a catalog of the currently-displayed directory. The printed directory information contains more information than is displayed on the screen.

The prefix of the Scroll List is saved when a program is launched. When you return to Wings, that prefix will be restored, and the scroll list will display the same directory as before. Similarly, launch button prefixes and the current Scroll List prefix are completely independent; one does not affect the other.

Pathname Display: Located above the Scroll List, the Pathname Display shows the current volume and folder (s) for the files currently displayed in the Scroll List. Clicking on the pathname text will back up one folder level; this performs the same action as clicking on the Close button.

Warm Boot: This pop-up submenu allows you to 'warm boot' your IIgs from the selected slot. Warm booting will perform a boot from the selected slot without changing the Startup slot setting in the Control Panel. This is most useful if you normally boot from a hard disk and occasionally want to boot from a floppy disk drive. As expected, the next time you Open Apple+Control+Reset or power up the computer, the original Startup slot setting will still be in force.

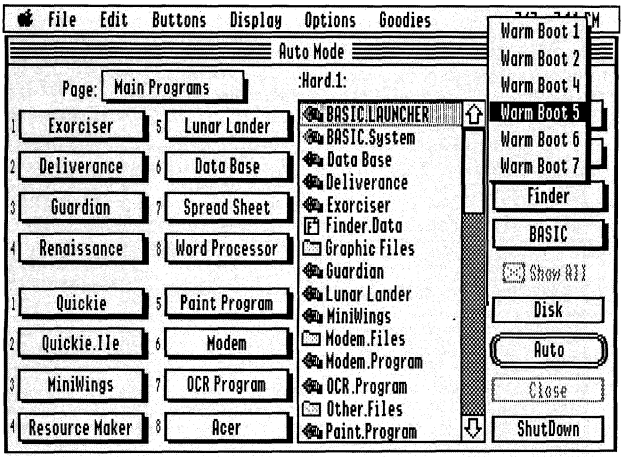


Figure 3-2

Rather than selecting and clicking the Warm Boot menu, you can press the Control key and a number key to perform the same action. For example, Control+5 will warm boot the computer from Slot 5.

☞ **Please Note:** Not all disks can be warm-booted. For technical reasons, warm booting cannot clear all aspects of the machine as a power-up or a cold boot can. You may find that some copy-protected commercial software will refuse to warm boot. You won't damage anything if you try, but those disks that refuse to boot will have to be cold-booted.

Cold Boot: This pop-up submenu allows you to "cold-boot' the computer from the selected slot. Cold-booting is the same as powering down and then powering up your computer. The cold boot slot selected will become the new Startup slot in the Control Panel. This means the next time you boot your computer, startup will occur at that slot. Use the Control Panel to change it back, if necessary.

As a short cut, you can press the Open Apple and Control keys with a number key to perform a cold boot. For example, OA+Control+7 will cold boot your IIgs from Slot 7. Use 0 for Scan, 8 for ROM disk, and 9 for RAM Disk. (To help remember these keys, just think of how you normally cold boot with OA+Control+Reset...and just substitute the slot number key for the Reset key.)

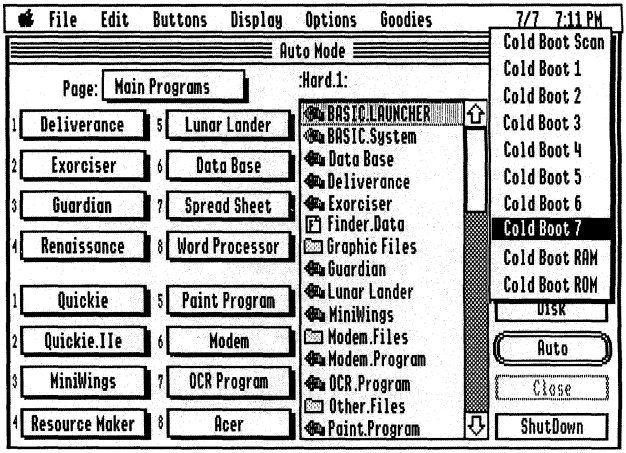


Figure 3-3

Finder: Clicking on this button launches the Finder. To return to Wings, select Quit from the Finder's menu and then select 'Return to Launching Application' in the Finder's Quit option box.

☞ **Please Note:** If you have installed Wings using the 'Wings (No Finder) option, the Finder button will not be functional.

BASIC: Clicking on this button launches Applesoft BASIC. You can also use the OA+B key combination. To return to Wings, type BYE and press Return at the Applesoft prompt.

Show All: This check box affects whether certain files are displayed in the Scroll List. When checked, every file within a folder is displayed in the Scroll List. However, depending upon which function is selected, some files will appear as dimmed text and cannot be selected. For example, if you are in Launch mode, files that cannot be launched will appear dimmed. If the Show All box is unchecked, those dimmed files won't appear at all.

You may wish to use this option if you have many files in folders and don't want to clutter up the Scroll List. On the other hand, you may prefer to see all files in folders at all times.

Disk: Clicking this button (or pressing the Tab key) causes the Scroll List to display files and folders on the next active disk drive. After the last drive is selected, all the drives will be shown again, in order.

Function (double-outlined button): This button changes names depending upon which function is selected in the File menu. Clicking the button (or pressing the Return key) executes the function on the file selected in the Scroll List. If no file is selected, the button will appear dimmed.

Close: This button 'backs up' one level of folder or subdirectory, redisplaying the contents of the parent folder in the Scroll List. You can also press the Escape key or click on the Pathname text to do the same thing. If the Close button is dimmed, you are already at the root directory of the displayed volume.

Shutdown: This button ejects 3-1/2" floppy disks, parks the heads on the hard drive, and shuts down the system in preparation for a power-off. You can also use OA+Period or OA+Q to perform Shutdown.

Important Note: Never power down your computer unless you select Shutdown first. At Shutdown, Wings saves settings or options you may have changed during the last session. Also, you could damage 3-1/2" floppy disks when powering off without ejecting them first. **Under no circumstances** should you power-down while Wings is performing disk activity.

Scroll List Functions

Besides those afforded by Auto Mode, eight other functions can be performed in the Scroll List, each invoked by an OA+key combination: Launch, File Info, Rename, Delete, Undelete, View graphics, Play Sounds, and Text Processor. When you select a function, the title bar of the Main Menu changes to the new name, as does the default Return button. You can always determine the current function by looking at the title bar. (Each of these functions also may be invoked by selecting it from the File menu.)

After you select the function, you then select the file or files to be affected. Either double-click on the file name or click once to highlight it and press the Return key.

Please Note: Normally, folders are open, and the contents of the new path are shown in the Scroll List. To perform any function on the folder itself, hold down the Open Apple or Option key and then either double-click on the folder or select (highlight) the folder with a single click and press the Return key.

No matter which mode is currently active, only the Scroll List is affected. If you click a launch button or any other non-Scroll List-related button, that function is executed no matter which mode is currently set. In addition, whenever you boot initially or return to Wings from an application, the mode is always set back to Auto. In other words, its okay to launch a program from one of the launch buttons while in Delete mode.

Each of the modes supported in the Scroll List performs the following functions. Only a general description is given; please consult the corresponding area in Section 4 for details.

Auto (OA+A): This is the default mode; it has been explained previously.

Launch (OA+L): Any file selected in the Scroll List will be launched. If the Show All checkbox is set, all files within a given folder are shown, but those that cannot be launched (or selected) are displayed in dimmed text.

File Info (OA+I): This mode brings up a dialogue box showing various characteristics of a file. You can check and modify virtually all file characteristics via this mode.

Rename (OA+R): This mode allows renaming of files. After a file (or files) is selected in the Scroll List, the cursor changes to the text edit 'I-beam', and you can enter the new file name directly in the Scroll List. Filenames may comprise letters, numbers, or the period character, with the first character being a letter. You can use both upper and lower case. Spaces or any other characters in file names are not allowed.

Delete (OA+D): This mode allows you to delete one or more files in the Scroll List; to avoid deleting files by mistake, the text color of the file names is changed to red. Delete mode allows selection of more than one file at a time via arbitrary and range selections.

Undelete (OA+N): This mode lists all files that have been deleted from the displayed folder/directory; one or more files may be selected. If all or part of the disk space used by the deleted file has already been allocated to another file, Wings will display a dialogue indicating so.

☞ **Please Note:** The only way to achieve 100% reliability is to undelete a file immediately after a delete, with no intervening disk activity (i.e., writing to or deleting other files). If the volume has been optimized recently, this becomes more critical. If a file was deleted under ProDOS-8 version 1.4 or earlier, there is no way to undelete the file, under any circumstance.

Also, undeleting a folder does not undelete all the deleted files that may be located in that folder. To do so, you must undelete the folder itself (as though it is a file), then open it and undelete its file contents.

View Graphics (OA+G): This selection allows the viewing of High-Res, Double High-Res, and Super High-Res graphic images on the screen. Click the mouse or hit any key to return to Wings after viewing a graphics file. When graphics files are selected that are wider or longer than the screen size, only the screen-size portion of the image is displayed.

Play Sounds (OA+S): This mode will play standard sound files, including those compressed in the Acer format. Those sound files that define playback rate in the file subtype are played at correct speed; others are played at the rate set in Auto mode (the default rate is 200). If a sound file's auxtype is zero or greater than 999, the default 200 rate is used. This mode will attempt to play any binary file selected by the user, whether it is actually a sound file or not.

Text Processor (OA+E): This selection allows viewing and editing of any ASCII text, source, or AppleWorks(tm)/Appleworks GS(tm)/ WordPerfect(tm) word processor file. A new ASCII text file may be created by holding down the Option key while pressing the OA+E key combination. The contents of the Text Processor screen may be printed via the Print option.

File Utilities (OA+F): Wings' File Utilities are selected either by selection from the File menu or by the OA+F key combination. File Utilities presents a dialogue with two scroll lists that allow you to copy, move, compare, delete, rename and verify files, as well as create new folders.

Volume Utilities (OA+U): When the Volume Utilities option is selected from the File menu or by the OA+U key combination, Wings presents a dialogue that shows all available block devices, their capacities, and usage in either megabytes or blocks. The dialogue also allows you to format, erase, rename, copy, or verify a disk volume.

Print (OA+P): The contents of the Text Processor screen or the Clipboard may be printed via any GS/OS-recognized printer by selecting the Print menu entry or using the OA+P key combination. It's best to check the Printer Setup menu (available from the File menu bar entry) before selecting Print.

This completes the Wings overview. There are many more Wings features not yet described, including options for screen blanking, system error beep, find file, batch catalog, and others. These are all described in detail in Section 4, and additional detail is given for the features that have been discussed here in Section 3.

Section 4

Wings Details

APPLE MENU

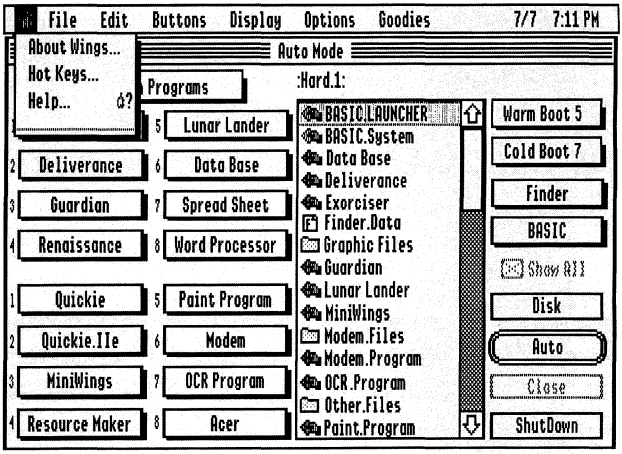


Figure 4-1

About: Shows authorship, copyright, and version information.

Key Equivalents: Displays an SHR graphic screen depicting shortcut keys than can be used instead of the mouse.

Help: Displays Help and/or additional user information. Like most windows in Wings, the Help window can be printed and/or used with the Edit menu. However, it is a read-only window (you cannot paste or cut information to it, nor can you clear it).

FILE MENU

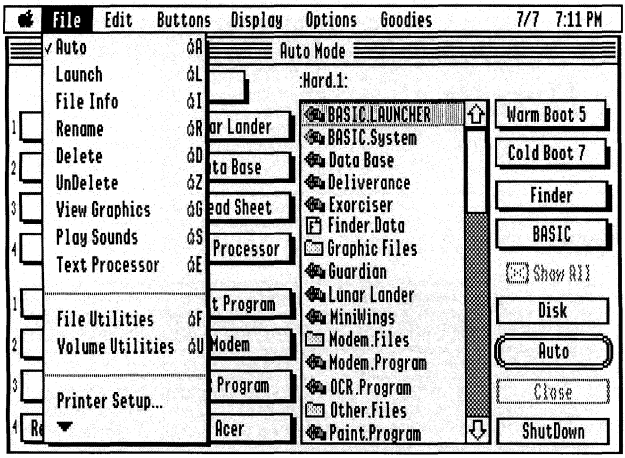


Figure 4-2

Auto: The Auto function automatically determines which Wings function to perform on the selected file. Auto is the default function when returning from a launched program or re-booting. The filetypes supported and their functions are:

Filetype	**Function**
S16, SYS, BAS, EXE, BIN	Launch
PNT, PIC, BIN	View Graphics
BIN, ACE, AIF	Play Sounds
TXT, SRC, AWP, WPF, AWG	Text Processor
All Others	Info Mode

How to handle Binary files is determined by the Auto Mode selection in the Options menu.

Launch: Files selected in the Scroll List are launched.

☞ **Important Note:** In Launch mode, Wings attempts to launch all Binary files. Be careful not to launch a Binary file that was not designed for that purpose; if you do, a system crash is almost guaranteed. To preclude the problem, set the Binary Launch check box to OFF.

File Info: File Info allows examining and changing of all file attributes. When a file is selected, a dialogue appears showing the file's major attributes, as well as additional directory structure information. (Fig. 4-3.)

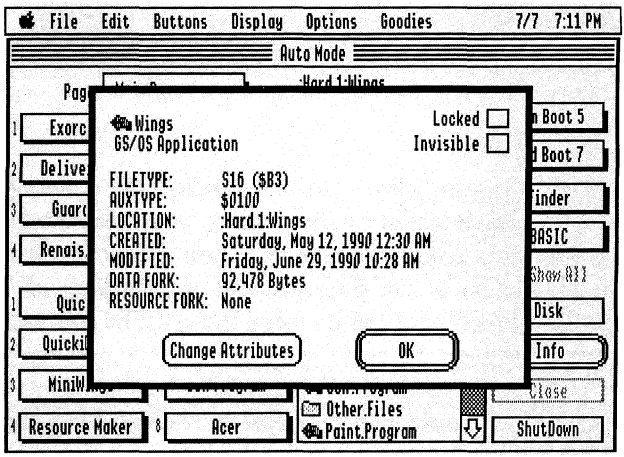


Figure 4-3

The file's accessibility and appearance in catalog lists can be changed by clicking the Locked and Invisible check boxes.

Click OK or press Return to revert to Wings' Main Menu.

Clicking the Change Attributes button brings up an expanded dialogue that allows in-depth examination and changing of a file's attributes. (Fig. 4-4.)

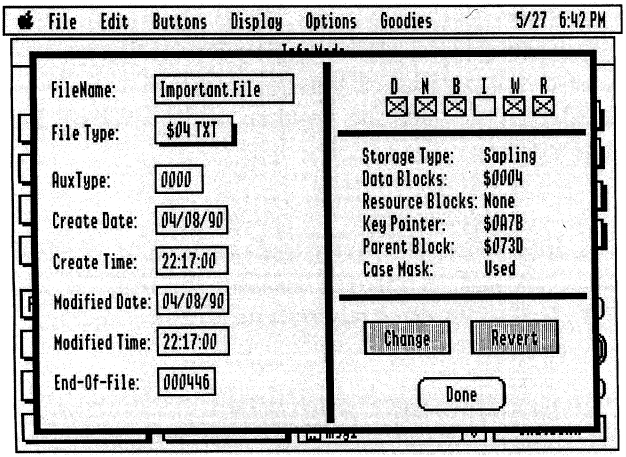


Figure 4-4

☞ **Special Note:** Changing a file's attributes must not be undertaken casually; it is possible to make a file virtually unusable merely by changing a single, crucial parameter. You should consult a reference that explains the meaning and significance of file parameters and think twice before using Wings' File Info utility to make any changes.

Non-expert users should use this option exclusively to gain information, not to change it.

To change a file's name, auxtype, creation date/time, modification date/time, or end-of-file marker location, click on the appropriate box to select it and edit or type in the desired information.

The current version of GS/OS does not support 'seconds' saving in directory entries; any numbers typed in the Creation/Modification seconds time field will be ignored. However, any 'seconds' values entered must be valid.

To change a file's type, click and hold the mouse to pop up a scrollable submenu that displays all legal filetypes. (Fig. 4-5.)

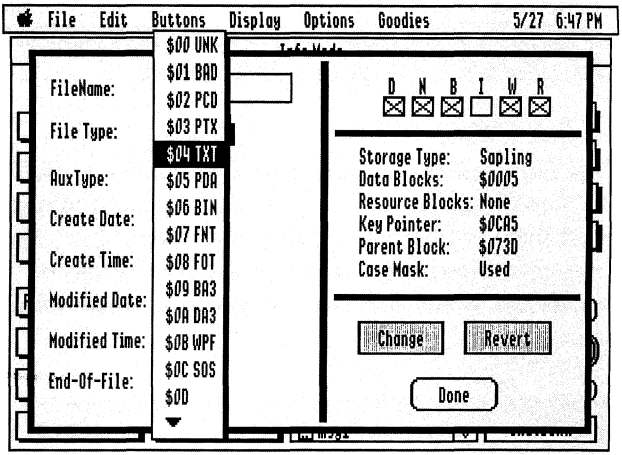


Figure 4-5

The submenu scrolls at slow speed if the cursor is held to the side of the arrowheads at the top and bottom of the submenu; it scrolls at high speed if the cursor is held directly on the arrowheads. Highlight the desired filetype and release the mouse button to log in the new filetype.

The meanings of the DNBIWR bits are as follows (When the box is checked, the bit is enabled):

D Destroy Enable	N Rename Enable	B Backup Required
I Invisible	W Write Enable	R Read Enable

The ProDOS-8 convention of a 'locked' file is one that has its D, N, and W bits unchecked.

☞ **Important Note:** If the Read Enable checkbox is unchecked, the file will be inaccessible to Wings and most other S16 programs. **Never uncheck Read Enable on any file in the System folder.** file inaccessible to GS/OS itself, causing a GS/OS Fatal Error $4E.

Clicking Revert restores the original parameters to all fields, providing you have **not** clicked the Change button. Clicking Change writes all changes permanently to disk; you must click Change to make an alteration. Clicking Done closes the attributes window; Done does no writing to the disk.

☞ **VERY IMPORTANT:** If you're not absolutely sure you know what you're doing, do not make any changes to files with the File Info utility. Use it solely to provide information.

Rename: This mode allows renaming of files. After a file has been selected in the Scroll List, the cursor will change to the text editing I-Beam so you can enter the new file name directly in the Scroll List. Selecting a directory will open it to the next lower level. A directory may be 'held' for renaming by holding down the Open Apple key while selecting the directory.

To accept the change, press the Return key. Press the Escape key to revert to the original file name.

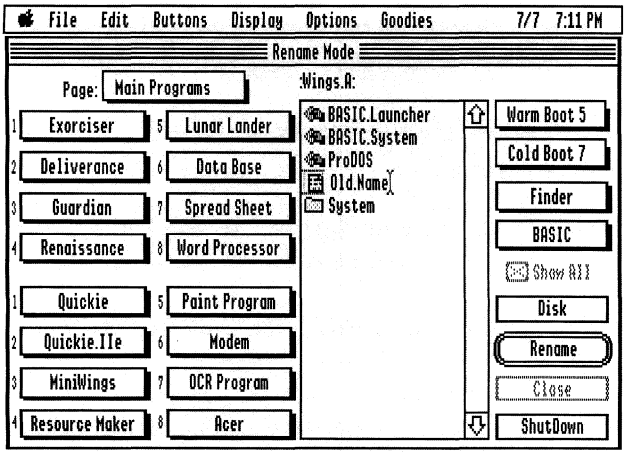


Figure 4-6

Delete: This mode allows deleting of one or more files in the Scroll List. As an indication of this mode, the text color of file names displayed in the Scroll List is changed to red. In Delete mode, multiple, arbitrary, or range selection of files is allowed. Directories (and their contents) may be deleted by 'holding' them via the Open Apple key while selecting them.

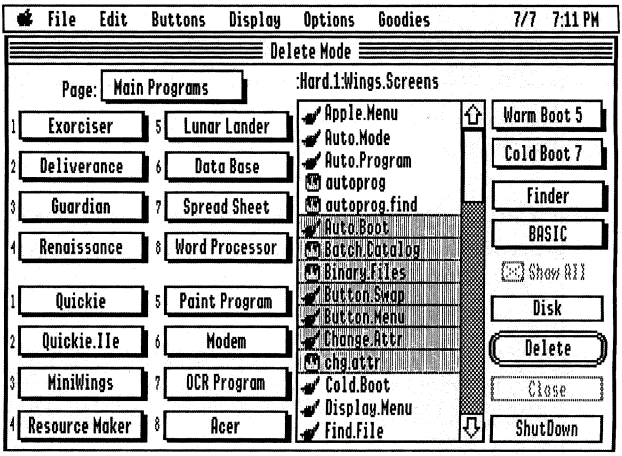


Figure 4-7

Undelete: Selecting Undelete from the File menu will list all files that have been deleted from the displayed directory, and a file may be selected to be undeleted. If all or part of the disk space used by the deleted file has already been allocated to another file, Wings will display a dialogue indicating so. When a file has been successfully undeleted, it is removed from the Undelete file display.

Please Note: Undeleting a folder does not undelete all the deleted files that may be located in that folder. Similarly, you cannot open a folder while in Undelete mode. After the folder istself is undeleted it must be opened in Auto Mode (for instance), then the files within it undeleted.

The only way to achieve 100% reliability is to undelete a file immediately after a delete, with no intervening disk activity (i.e., writing to or deleting other files). If the volume has been optimized recently, this becomes more critical, since there are very few unused blocks between files and any files added/ deleted will likely use the same blocks over and over.

If a file was deleted under ProDOS-8 version 1.4 or earlier, there is no way to undelete the file, under any circumstance

View Graphics: This selection allows the viewing of standard Apple II graphic images on the screen. Formats supported are Apple Preferred (Eagle), Paint-320, Paint-640, PackBytes, and SHR/DHR/HR uncompressed screen images. In the case of Eagle format, only the first 200 lines of the image are shown.

Play Sounds: This mode will play standard sound files, including those compressed in the Acer format. This mode will attempt to play any binary file selected by the user, whether it is actually a sound file or not.

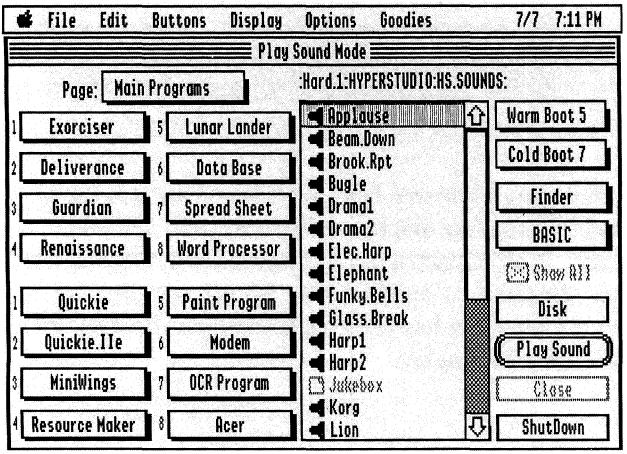


Figure 4-8

Those sound files that define playback rate in the file subtype are played at correct speed. If the auxtype is 0 or greater the 999, the sound file is played at Wings default rate of 200.

If you are certain a file is a sound file and it sounds like a 'chirp' try changing the default playback speed (via the Options/Auto Mode Menu entry).

☞ **Special Note:** You may elect to change the playback rate of a sound file by using Wings' File Info Utility to change the files auxtype. Exorcise extreme caution when doing this; it is possible to render a file virtually unusuable via indiscriminate changes. Also, AIF and Hyper Studio sound file playback speeds can't be changed; the speeds are imbedded in the files themselves.

Text Processor: The Text Processor allows reading, duplicating, converting, and editing of a variety of files. The Text Processor recognizes ASCII text files, source files, and word processor files generated by 'classic' AppleWorks™, AppleWorks GS™, and WordPerfect™.

To use the Text Processor, select any file of one of the above named filetypes from the Scroll List to display its contents.

☞ **Please Note:** This utility is a text processor, not a full-fledged word processor. It has a very capable complement of controls, but its primary intended function is to work on text files. If you import any type file other than an ASCII text file (filetype $04), the Text Processor will change the file's type permanently to ASCII text ($04) if/when you save it. unless you hold down the Option key. On the other hand, of you 'strip ' a file of important characters and then save it in its original filetype, the file may no longer be usable.

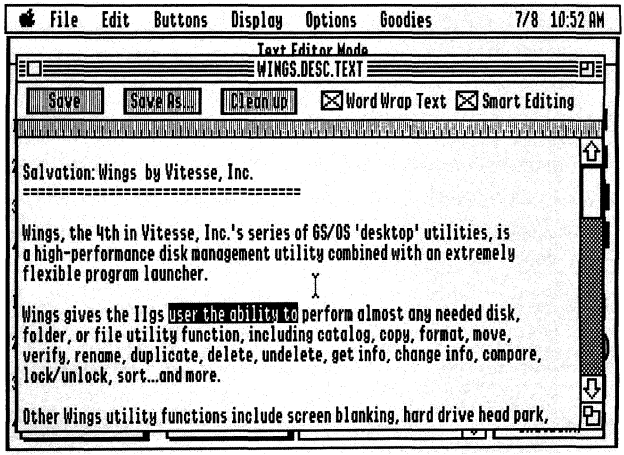


Figure 4-9

The Text Processor's controls perform the following:

Save: Saves the file back to disk, replacing the existing contents. If the file was not a TXT or SRC file, you will be warned of this fact, since Save always saves files as TXT types even if they are imported as another file type. Hold down the Option key to retain a file ' s original filetype.

Save As: Allows you to save the text under a different file name.

Clean Up: Removes all non-ASCII, non-displayable characters from the display window. Clean Up also strips all embedded style records typically found in word processor-generated files. Clean Up does not remove Tabs or carriage return characters.

☞ **Please Note:** Under System 5.0.3, and prior the GS/OS tools do not fully support Control and/or non-ASCII characters in a edit document. When editing a file containing these characters (which appear as inverse question marks), some characters will appear to be 'cut in half', and most edit functions will behave strangely. This is a display problem only, and simply re-scrolling will clean up the display. In such a document, you should always click the Clean Up button before performing any edit functions. This will remove all the illegal (non-ASCII) characters.

Word Wrap: This selection automatically breaks up long lines (on word boundaries) into several lines, so that the entire document is in view. This setting is saved in Wings.Data and will be the same the next time you boot Wings.

Smart Editing: This selection automatically compensates for spaces when using any of the edit functions. When a word (double-click) or line (triple-click) is selected, Smart Editing insures that double-spaces or no spaces occur between words. This setting is saved in Wings.Data and will be the same the next time you boot Wings.

The following keys are active while in the Text Processor:

Delete/Ctrl+D: Clear the current selection. If nothing selected, remove the character preceding the cursor.

Crtl+F: Clear the current selection if nothing selected, remove thecharacter following the cursor.

Ctrl+Y: Clear all characters from the current cursor position to the end of line. (Note: Any highlighted selection is ignored).

Clear: Remove the current selection.

Ctrl+X/OA+X: Cut the current selection to the Clipboard.

Ctrl+C/OA+C: Copy the current selection to the Clipboard.

Ctrl+V/OA+V: Paste the current selection from the Clipboard to the current cursor position.

Arrow Keys: Move around any direction, one character or line at a time.

OA+Arrow: Move by words (left/right) or pages (up/down).

Option+Arrow: Move to beginning/end of line or top/bottom of document.

Shift+Click: Select text from the old cursor position to the current cursor position.

Double-Click: Select word.

Triple-Click: Select Line.

Tab: Move 50 pixels to the right.

The file in the Text Processor's display area can be printed by selecting the File/Print menu entry. The Cut, Copy, Paste, Clear and Show Clipboard options in the Edit menu entry can also be used.

> **Please Note:** This version of Wings does not support Undo in the text processor. It's advisable to select the File/Printer Setup entry and change it as necessary before printing.

Only one Text Processor document may appear on the desktop at any one time. If you go back to Wings' Main Menu and select another file to edit, it replaces the existing text in the existing text processor window, and no changes made to the first document are saved.

File Utilities: Selecting File Utilities from the File menu entry or via the OA+F key combination pops up the movable window shown in Fig. 4-10. The contents of any on-line volume may be displayed in either (or both) of the two scroll lists. Volumes are changed/accessed by clicking the Drive button below the desired scroll list. Folders are opened by double-clicking them and closed by clicking on the pathname text appearing above the Scroll List.

☞ **Please Note:** If duplicate volumes on line a dialogue is displayed that allows you to rename one or to quit File Utilities.

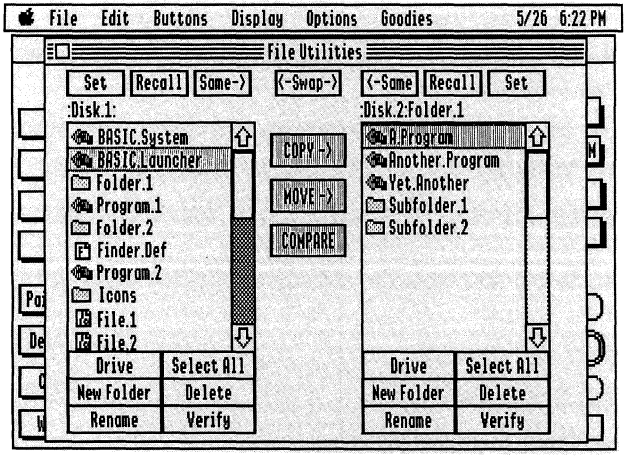


Figure 4-10

Drive: Click this button to access the next on-line volume.

New Folder: New folders may be created and named in either scroll list by clicking the New Folder button.

Rename: Click to enable renaming of the highlighted file or folder.

Select All: Selects all the files in the scroll list.

Delete: Deletes highlighted files in the scroll list; this button operates just as the Delete mode in the Main Menu.

Verify: Files and folders can be read into memory to ensure their contents can be successfully accessed. GS/OS errors will be displayed for offending files, and in the case of I/O errors, the offending file names.

Copy: Copies highlighted files/folders from the left-hand scroll list to the volume/folder open in the right-hand scroll list.

☞ **Important Note:** A file must not be copied 'over' itself.

Move: Moves highlighted files/folders from the left-hand scroll list to the volume/folder open in the right-hand scroll list.

☞ **Please Note:** Copy and move operations always occur from left to right. Highlighting a folder in the destination does not set the folder as the destination—you must open it first. The pathname texts above each scroll list always reflect the true source and destination of the operation.

The difference between copy and move is that copy actually reads the file into memory and writes a new copy to the destination. Move never reads the file and, in a sense, it really doesn't move it either— it simply transfers the file's entry from one folder to another. Obviously, this is much faster than actually copying a file's data and you should use it wherever possible. However, you can only move files between folders on the same disk. Wings will dim the Move button if a move operation is not possible with the current scroll list settings.

Arbitrary and range selection is allowed in either scroll list for copying, moving, and deleting files. To select arbitrary, click on each file while holding down the Open Apple key. To select a range, click on the first file, hold down the Shift key, and click on the last file in the range. You can also combine both modes, making it possible to select any combination of files for action.

Pressing the Escape key or OA+period will cancel any function in progress to terminate. Wings may take several seconds to respond to a cancel, depending upon the function being performed at the time.

Compare: This compares file contents and attributes of one or more files selected in both scroll lists. If any differences are detected, a dialogue is displayed showing content and attribute differences. Only the first five content differences are shown for the data fork and the resource fork. At this point, the user can continue with any other files selected or Quit the Compare function.

On multiple file selects, files are compared from top to bottom as they appear in each scroll list. That is, the first file in the left-hand scroll list is compared to the first file in the right-hand scroll list, and so on. Actual file names are ignored.

☞ **Please Note:** Unlike other buttons in the File Utilities window, Compare is not recursive. That is, a folder will not be opened if selected for Compare. Folders are compared just as are any other file types.

Set: This button saves the current prefix.

Recall: This changes the current scroll list prefix to the prefix previously saved with the Set button.

Same: This transfers the left-hand scroll box prefix to the right-hand prefix, or vice versa.

Swap: This button swaps source and destination scroll list prefixes.

Volume Utilities: Selecting Volume Utilities from the File menu entry or via the OA+U key combination pops up the movable window shown in Fig. 4-11. All on-line ProDOS and GS/OS volumes are displayed by device type and volume name (where applicable), along with the size and current usage of each. Available devices without a current volume name (for instance, empty floppy disk drives) are designated by a '???' entry for size, used, and free values.

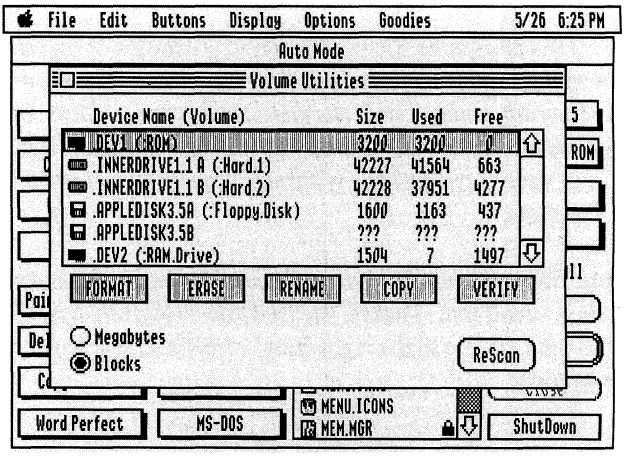


Figure 4-11

Click on the volume that you wish to work on (Be sure you select the correct one if you plan to Format or Erase!), then click one of the Volume Utilities function buttons.

Format: Performs low-level format on the selected device.

☞ **CAUTION:** Formatting destroys all data on the chosen disk!! Click the Cancel key if you've selected the wrong volume.

If you choose Format, Wings will display another dialogue asking you for the volume name to use and will then ask for the operating system to use and additional format options. Choose the desired parameters, then click the Format button. The new disk will be formatted per your instructions.

☞ **Please Note:** Some disk devices (especially hard disks) have certain format requirements and restrict formatting through the operating system. These restrictions are set in their driver files or controller card ROMs and are passed to GS/OS to prevent a format operation. For these devices, a click on the Format button will actually perform the Erase function. In some cases, Wings may report "Initialization Failed" when a particular device is format-restricted. Manufacturers of these devices typically supply a separate format program when restrictions are present. You should use that program to perform formatting.

Erase: Erases the selected volume. Erase frees the bit map and all files in the root directory.

Erase has much the same effect as formatting, except it is much faster. Erase merely erases all of the file entries in the disk' s main (root)directory. If you want to delete all files on a disk quickly, you can use the Erase function instead of the Delete mode in the Main Menu.

Rename: Allows renaming of the selected volume.

Copy: Allows duplicating one volume to another; only blocks marked 'used' in the bit map are duplicated. Copy uses a fast, Wings-proprietory algorithm. This should result in faster performance when compared to most other disk copy programs.

Select a source volume in the list, then click Copy. Another list appears to allow selection of the destination volume. Copying starts immediately unless both source and destination volumes are the same drive. In this case, prompts are generated for the appropriate disks.

If the destination volume requires formatting, the formatting display appears. Volume copy only works with volumes of the same size.

Verify: Performs a block-by-block verify on the selected volume. If any bad blocks are found, a window is displayed listing all of the bad blocks detected. (Of course, you can cut, copy, or paste the contents of the bad block window to the Text Processor's edit window or print the contents). There can only be one bad block list present at any one time. That is, if you try to verify another volume, any existing bad block window is automatically closed and its contents are lost.

Megabytes/Blocks: Displays volume size information in either megabytes or ProDOS blocks (1 block = 512 bytes); the megabytes display is significant to 1/10th of a megabyte. Very small volumes sizes or small numbers (such as Free or Used blocks in relation to total volume size) may not be totally accurate due to round-off.

ReScan: Scans all on-line devices. Allows you to insert/remove a floppy disk while the volume window is open. Click Rescan to see the new volume.

Printer Setup: Allows selection and parameters of a printer for all print operations.

Print: Prints the contents of the active window.

Close: Standard GS/OS Close selection that performs the same function as a click in a window's Close box.

ShutDown: Ejects all devices with removable media, parks the heads of hard disk drives, shuts down the system, and shows the standard 'Restart/ Cancel' screen.

EDIT MENU

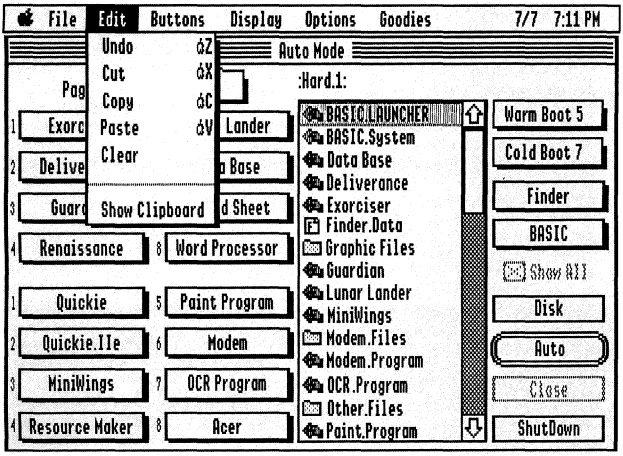


Figure 4-12

Undo: Reverts back to the most recent changes in the selected edit box.

Cut: Deletes the current selection and transfers it to the Clipboard.

Copy: Puts a copy of the current selection on the Clipboard.

Paste: Pastes a copy of the Clipboard contents into the currently-selected edit box at the current cursor location.

Clear: Clears the currently-selected edit box.

Show Clipboard: Displays the contents of the Clipboard. If the Clipboard contains both text and graphics (saved by some other program), a dialogue will appear asking which one to show. You can print the Clipboard by selecting File/Print or OA+P (either text or graphics). Any editing performed in another window is automatically displayed on the Clipboard window when it is opened.

☞ **Please Note:** Wings saves the Clipboard contents to disk before launching a program.

BUTTONS MENU

Additional information for the Buttons menu entries is given in Section 2.

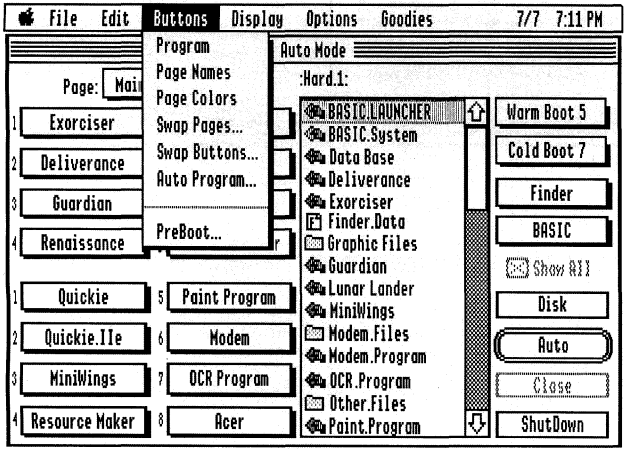


Figure 4-13

Program: Allows programming the custom launch buttons of the currently selected page. The Name edit box is used to specify the button name display; the Path edit box holds the full pathname of the file. Use the Find function to select and fill in the Path field. The Undo button reverts the selection to its previous condition; the Clear button clears both Name and Path fields.

Page Names: Allows change of one or more of the button page names. Any page name changes take effect when this window is closed.

Page Colors: Allows selection of one of sixteen colors for each of the button pages. Click on the color for a particular page to select it.

Swap Pages: Allows the swapping of pages (16 buttons) from one location to another.

Swap Buttons: Allows copying and swapping of buttons within the same page or between different pages. Click on a name in the list or a location icon to select a button.

Auto Program: Automatically programs buttons from a preset list of recognizable applications contained within Wings. After volume selection, Wings scans the entire volume looking for applications. Buttons are filled starting at Button 1. If any button is occupied (indicated by at least one character in the pathname field), the button is skipped. If not enough empty buttons are available, a dialogue advises of that fact and Auto Program terminates.

Auto Boot: Auto Boot provides the capability to designate another program temporarily as the startup application. This means that when you power-on your computer, any application can be run automatically instead of Wings. When you quit that application, Wings will be executed as normal.

The edit box is used to enter a pathname of the Auto Boot application. The Engage check box enables or disables the Auto Boot function, whether a pathname exists in the edit box or not. The Auto Boot program must be specified by full pathname, starting with a colon or slash character, followed by the volume name, any folder names, and the file name –entries are limited to 64 characters.

Please Note: Auto Boot supports only ProDOS and GS/OS system applications; binary and AppleSoft BASIC programs are not allowed.

Caution: The ProDOS or GS/OS Auto Boot application you specify must be 'returnable.' Some applications do not have a Quit command, and even if they, do there is the possibility that the program may not follow standard return procedures. To find out if a program is returnable, launch if from the Scroll List in the Main Menu. If after quitting the application control returns to Wings, the program can safely be used for Auto Boot.

If a program is not returnable, you will have to hold down the Open Apple key when booting to run WingsÑthen select Auto Boot and either uncheck 'Engage' or define a new Auto Boot program. If a program is not launchable Wings will show a text message advising of that. Press Return to get to Wings' Main Menu; Auto Boot is automatically disengaged.

DISPLAY MENU

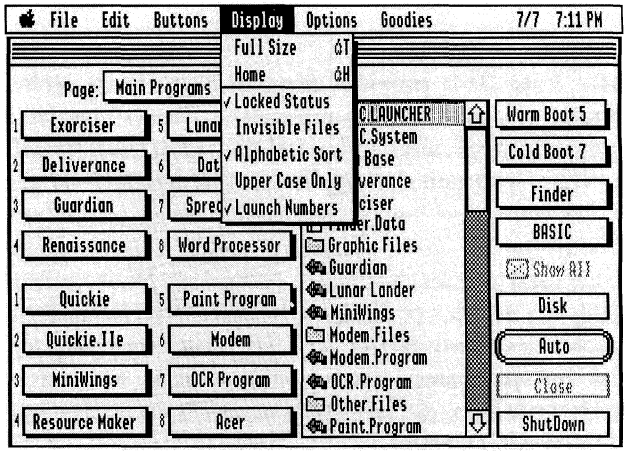


Figure 4-14

Full Size: Expands the Scroll List to maximum size, displaying file type, total number of blocks, an optional resource fork icon, modification date/ time, attributes, and auxtype fields.

Normal Size: Reduces the Scroll List, exposing all 16 launch buttons.

Please Note: The left edge of the Scroll List can be dragged to an intermediate size. Any launch buttons covered by the scroll list are inaccessible.

Home: Brings the Main Menu window to the foreground (other open windows are moved to the background, but remain open), centers it on the monitor screen, and collapses the Scroll List window to 'normal' configuration.

Locked Status: When selected, this option displays a red colored lock next to files in the Scroll List that have any of their write protect attributes set.

Invisible Files: When selected, this option displays files in the Scroll List that have their invisibility attribute set. (i.e., FINDER.DATA files). If the Delete mode is currently selected, all files are displayed regardless of this setting.

Alphabetic Sort: If the Alphabetic Sort option is OFF, files are shown in the order they occur physically on the disk. Because of that, the ability to highlight or select a file in the Scroll List by typing a letter is disabled.

Upper Case Only: Shows entries in the Scroll List in upper case.

Launch Numbers: Displays small 'button numbers' to the left of each launch button.

OPTIONS MENU

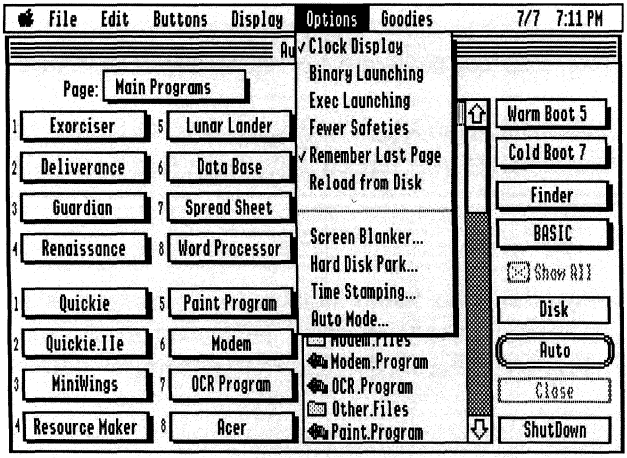


Figure 4-15

The Options menu is divided into two halves. The top half affects the Scroll List display and its functions. When an option is enabled, it is shown with a check mark preceding the option name. The bottom half of the menu controls overall Wings and system operations. Here, an enabled option is shown by a small diamond-shaped character to the left of the option name.

Clock Display: If selected, this option displays the time and date in the Menu bar. The format of the clock display is controlled by the Clock Format setting in the Control Panel.

Binary Launching: When this option is selected and Wings is in Auto or Launch mode, binary programs can be launched from the Scroll List. Binary launching is always performed by first switching to ProDOS-8.

Virtually no BIN-type programs use the Quit convention, and as a result, you will probably not return to Wings after launching a BIN program. In this case, you will have to re-boot the system to regain control.

CAUTION!!
BE VERY CAREFUL IF YOU ENABLE THIS FEATURE

The Binary filetype has been used (and misused) since the early days of Apple computers. Binary files include graphics, data, and other information that aren't really programs at all—just data. Wings does some limited testing before allowing you to launch a binary program, but there is no surefire way of knowing if a file is a program or data. YOUR SYSTEM MAY CRASH, POSSIBLY DESTROYING DATA ON A DISK if you try to launch a non-program binary file. Leave this option off (unchecked) if you don't understand all of this or don't have any binary programs to launch.

Exec Launching: When this option is selected and in Wings is in Auto or Launch mode, EXEC (filetype $B5) files may be launched from the Scroll List.

Exec filetypes are usually associated with a shell program or a development system used by programmers. Unless you are a programmer or have a need to execute shell programs, you should keep this option off (unchecked).

NOTE: Launch buttons can be programmed for both binary and Exec filetypes regardless of the settings of the Binary or Exec Auto options. The setting affects only the Scroll List. Also, if the Show All checkbox is unchecked, Binary and/or Exec programs will not be shown in the Scroll List when their respective options are also unchecked.

Fewer Safeties: When this option is checked, some of the warning messages associated with deleting files, renaming locked or protected files, and similar types of warnings are suppressed. As you become more familiar with Wings, you may prefer to set this option to speed the use of the File Utilities and functions.

If Fewer Safeties is not selected, prominent warnings and/or dialogues appear in the following circumstances:

- In the Main Menu, attempting to delete one or more files.

- In the Main Menu, attempting to delete a folder that is locked, read-protected, or contains files and/or other folders.

- In the Main Menu, attempting to undelete a file on the boot volume.

- In Volume Utilities, attempting to format or erase a valid ProDOS volume.

- In File Info/Change Attributes, attempting to change a file's EOF marker.

- In File Utilities, attempting to delete a folder that contains files.

- In Goodies/Sort Directory, attempting to sort the boot volume or a folder on the boot volume.

Remember Last Page: Setting this option causes Wings to remember the most recent page selection and display that page instead of defaulting to Page 1 when you power-up or return from a launched application.

Reload from Disk: Selecting this option forces Wings to be reloaded from disk each time you quit a launched application.

This option is primarily used for launching programs that do not behave properly in allocating and dealing with system memory. Under normal conditions, this selection is neither necessary nor desirable, since the reloading takes a fairly long time.

Please Note: Even though Wings remains in memory while other applications are running, it does not lessen the total memory available for use by other programs. Wings is automatically removed from memory if the running application requests more free space than is currently available. In those circumstances, Wings is automatically reloaded from disk when the application quits, even though the Reload from Disk option may not be selected.

Screen Blanker: Allows you to program the amount of time to pass before blanking the screen. You can set the blank time to 1, 5, 15, or 30 minutes, or disable it completely.

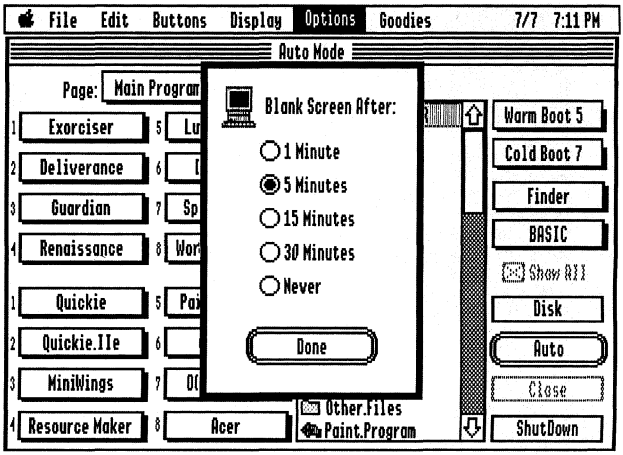


Figure 4-16

When static, unchanging text or graphics are displayed on a monitor for extended periods of time, there is the possiblility that the monitor can be 'burned' by the image. The result is that the image is permanently burned into the monitor's shadow mask so that evewn when power is off, you can still see parts of the image. Although this doesn't affect the operation of the monitor, it is quite annoying.

Once the screen is blanked, any keyboard or mouse activity from the user will bring it back to normal. The internal timer is then reset and the full blank time must be passed again before another screen blank occurs. Screen blanking will not occur within an application.

Hard Disk Park: This selection brings up a dialogue box that allows several options in Hard disk head parking. Head parking is performed when the ShutDown button is selected.

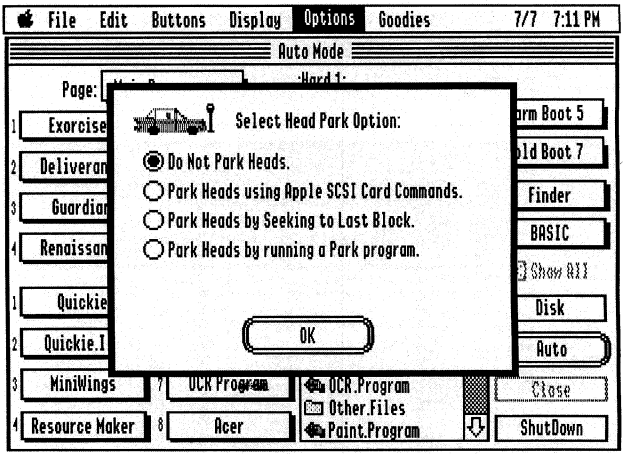


Figure 4-17

Hard disk head parking is an insurance measure against damage that can occur to a hard disk drive when it is powered off. Under normal operation, the read/write heads of a hard disk drive do not actually touch the surface of the disk; they ride slightly above it on a cushion of air. When you power down, the heads land or park on the disk's surface.

If you move or bump a hard disk drive with the power off, though, the heads can bounce against the disk surface and cause dropouts in the data. Most hard disks have a special 'landing zone' that allows the heads to park safely on an area that does not contain any data. The idea is to move the heads to this area before power-down occurs. Wings provides several methods to achieve this.

Do Not Attempt Head Parking: This option does not perform any type of head parking. This should be used for hard disks that automatically park the heads at power-down. Similarly, some hard drive manufacturers may supply their own driver files that perform the head park function through GS/OS shutdown (Finder Shutdown). You should also use this option in this case. Check with the manufacturer of your hard for additional information.

☞ **Please Note:** Choose this option if you do not have a hard disk connected to your system.

Park Using Apple SCSI Card Commands: This option parks the heads by issuing a SCSI Stop command to the Apple SCSI card. Most SCSI hard drives support this command as a means of parking the heads. If Wings cannot find an Apple SCSI card in any of the slots, this selection does nothing, but an error message is generated when you attempt to shut Wings down. Use this option only if you have an Apple SCSI card and a SCSI hard disk drive installed in the system.

Park Heads by Seeking to Last Block: This is not the preferred method of head parking, but in lieu of any other mechanism, it does provide some level of protection. With this method, the heads are positioned over the track containing the highest-numbered ProDOS block. This is normally an innermost track, away from active data areas. Use this option if you are not using an Apple SCSI card, the hard drive manufacturer did not provide a park program, and the hard drive does not automatically park its heads.

Please Note: This selection is only effective on single-partitioned hard disks, since the physical head position at the end of any one partition is likely to be over active data areas. In other words, this selection will not be effective if you've got more than one partition.

Park Heads By Running a Park Program: This option provides a method of actually running a hard disk park program (supplied by the hard disk manufacturer) when ShutDown is selected. When this option is selected, the normal "You may now power-down" window is defeated and control of the system is passed to the park program. The park program must be either a ProDOS-8 or GS/OS application. Use this option if the hard disk manufacturer supplied a park program with the product, and the hard disk heads do not park automatically either by a GS/OS shutdown or a power-down.

No matter which option you choose, actual head parking takes place when you click the ShutDown button in the Main Menu. If Wings runs into trouble fulfilling your park selection, an error message will be displayed. In this case, you must go to the Head Park Menu selection and correct the problem. Wings will not let you shut down until you do.

Time Stamping: This selection allows you to speed up the way GS/OS modifies files.

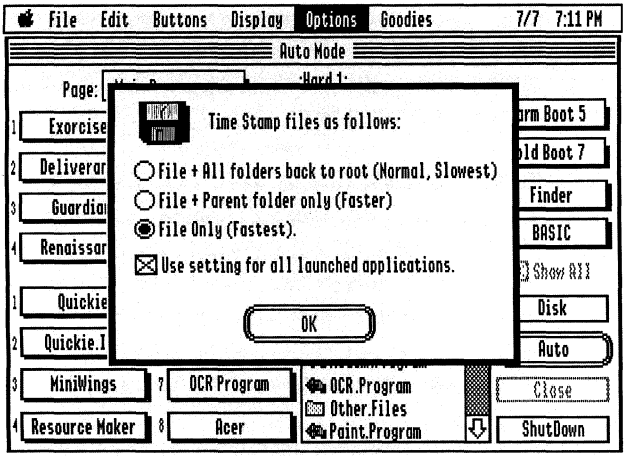


Figure 4-18

Normally, when you modify a file, all of the folders associated with the file get a new modification date. This means that writing to one file actually results in writing to many other files as well, slowing down the system. Wings allows you to modify the hierarchy of this 'time-stamping' structure, resulting in faster file access.

File + All Folders Back to Root: This is the normal GS/OS default setting. When this option is selected, changing a file that is located in a folder will force modification date changes to every folder all the way back to the root directory. This consumes the greatest time.

File + Parent Folder Only: This setting will change the modification date of only the immediate or parent folder containing the file.

File Only: This selection will change only the modification date of the file and will not write to any folders. This is the preferred setting for fastest system operation, .

Use Time Stamp Setting for All Applications: If this check box is selected, the time stamp selection will remain in effect for all applications launched by Wings (including Auto Boot). This will speed up every application that manipulates or uses file, not just Wings.

Please Note: Just about every commercially-available backup utility will function properly with any of the above settings. Most backup programs use the backup bit associated with every file to determine the need for back-up. Those programs that allow incremental backup by modification date normally look at individual files rather than folder modification dates and, therefore, will also work properly. If in doubt, check with the publisher of the backup program for additional information.

Also, remember that the ProDOS-8 operating system does not allow for variable time stamping. This means that any ProDOS-8 program launched will always modify all folders back to the root, regardless of which Time Stamping option you choose.

Auto Mode: This option allows you to instruct Wings how to handle Binary files when it is in Auto mode.

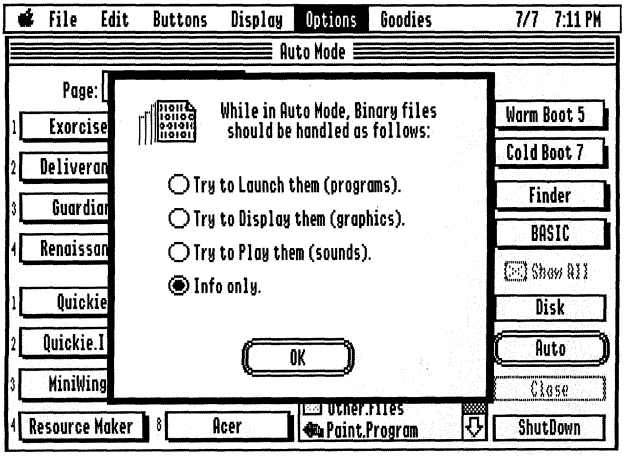


Figure 4-19

GOODIES MENU

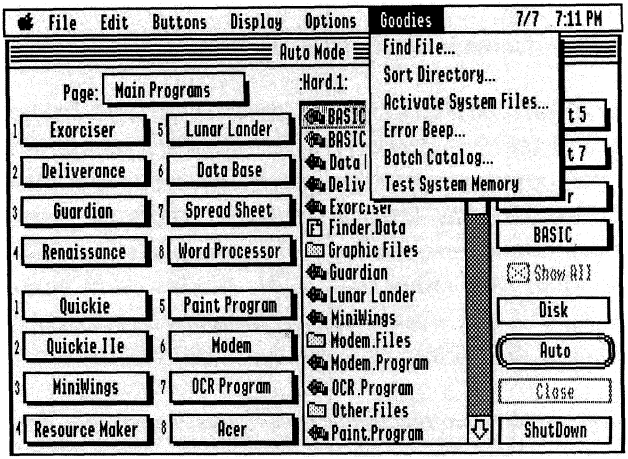


Figure 4-20

Find File: Selecting this option causes Wings to pop up the dialogue shown in Fig. 4-21.

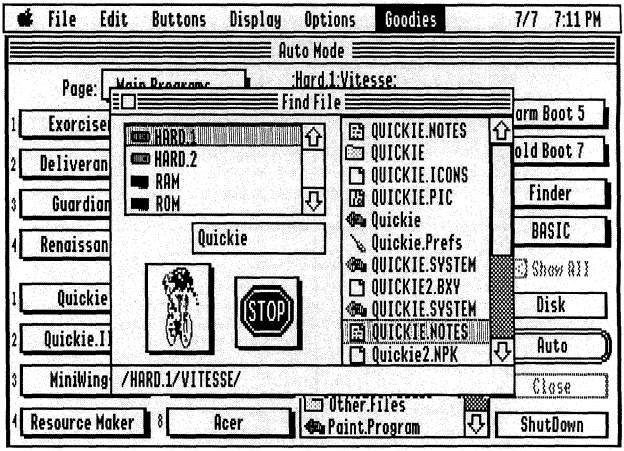


Figure 4-21

Wings can search for files whose names contain specified characters in any selected volume at a very high speed. The volume to be searched is selected in the left-hand scroll list, and the desired 'search string' is entered in the field box below that scroll list (upper and lower case don' t matter). Wildcard characters and strings are not necessary; any continuous sequence of characters is used in the search, whether they are preceded or followed by other characters.

The search process is begun by clicking the 'Vitesse biker' icon; it may be stopped at any point by clicking the 'stop sign' icon. As files whose names contain the search string are found, they appear in the right-hand scroll list.

The parent folder of any located file is shown in the field box at the bottom of the dialogue when any file in the right-hand scroll list is highlighted. Double-clicking a file in the right-hand scroll list sets the Scroll List of Wings' Main Menu to the file's parent folder.

Sort Directory: This selection pops up a dialogue asking whether to sort a volume or a folder. When the choice is made, Wings pops up a second dialogue that affords selection of the volume or folder of choice. After that selection, a dialogue similar to the one shown in Fig. 4-22 appears.

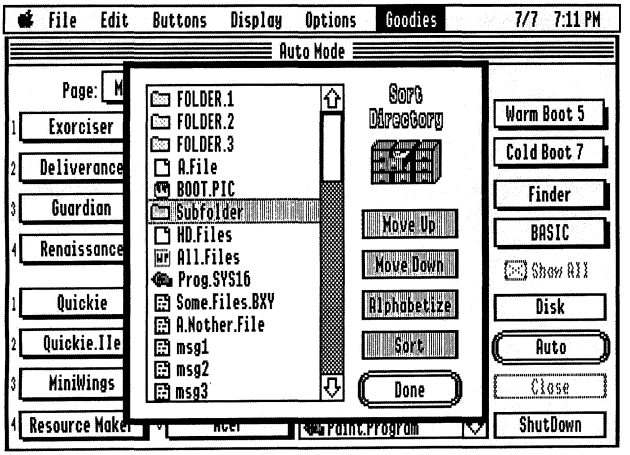


Figure 4-22

All entries in the scroll list may be sorted alphbetically by clicking the Alphabetize button. Entries may be relocated individually by highlighting each and clicking the Move Up and Move Down buttons, as appropriate. The resulting 'manual sort'is accomplished by clicking the Sort button. Clicking the Done button returns to the Main Menu without changing the sort.

Activate System Files: Selecting this option pops up the dialogue shown in Fig. 4-23.

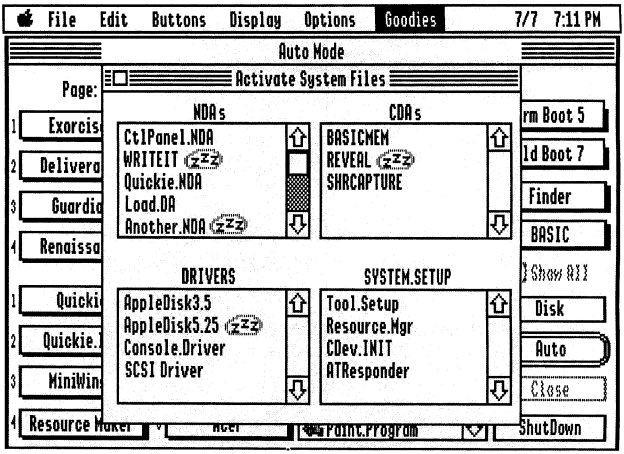


Figure 4-23

The active/inactive status of a System file is 'toggled' by double-clicking the file's name in its Category scroll list. Changes are effected upon next system boot.

Error Beep: This selection allows the user to choose among five different System Error indicators.

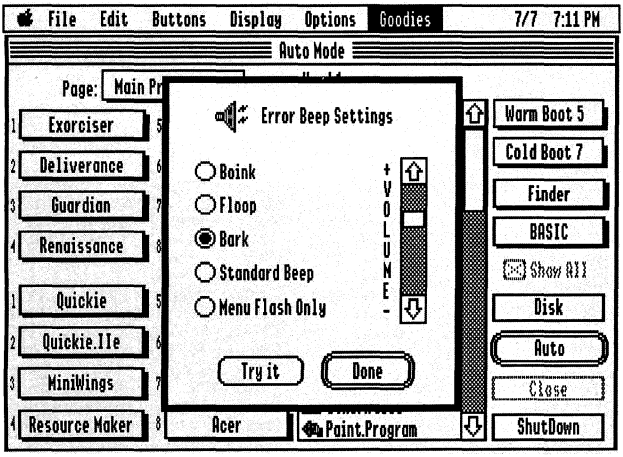


Figure 4-24

An indicator is selected by clicking the small button to its left; the chosen 'beep' may be tried by clicking the Try It button.

☞ **Please Note:** Because of the way the IIgs controls the volume of the System Error beep, setting the volume slider controls the percentage of the 'available'system volume–that, in turn, is controlled by whatever setting you have made in your IIgs Control Panel.

That is, if you set the volume slider to, say, the 50% point, your new System Error beep will be 50% of the volume you set in the Control Panel. If the amount set in the Contol Panel is high, then the slider is quite effective. Conversely, if the volume set in the Control Panel is low, then the volume slider's effect is minimal.

The System Error beep set via this option is effective only within Wings; the setting is saved, so it is available every time Wings is booted. It is not possible to change or add to Wings ' complement of System Error Beep sounds.

Batch Catalog: This option allows cataloging the contents of a volume or folder by user-selected parameters. When the option is selected, Wings prompts for choice of a volume or a folder. After that choice is made, Wings pops up a window similar to that shown in Fig. 4-25.

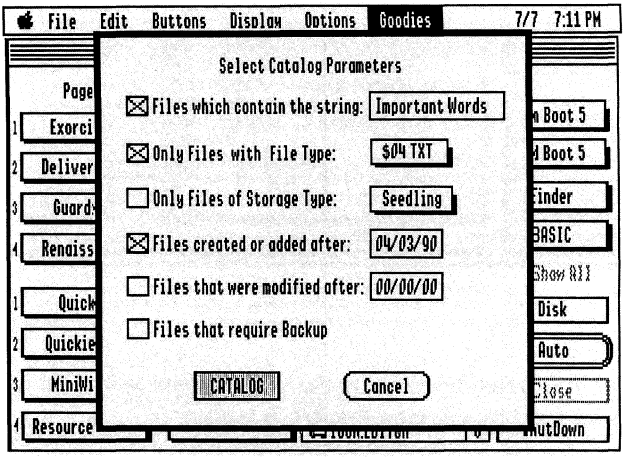


Figure 4-25

Clicking the box to the left of any of the first four parameters opens up a 'field box' to the right in which the user can enter specific catalog parameters. The File Type field is a pop-up submenu; click and hold to enter the desired file type. The protocol for entering dates is MM/DD/YY; that is, the month (01-12), then the day (01-31), then the year (00-99).

The cataloging procedure begins when the Catalog button is clicked. The results are displayed automatically in the Text Processor's edit screen; the file names, types, size (in blocks), modification dates, and creation dates are show, along with other pertinent information. (Fig. 4-26.)

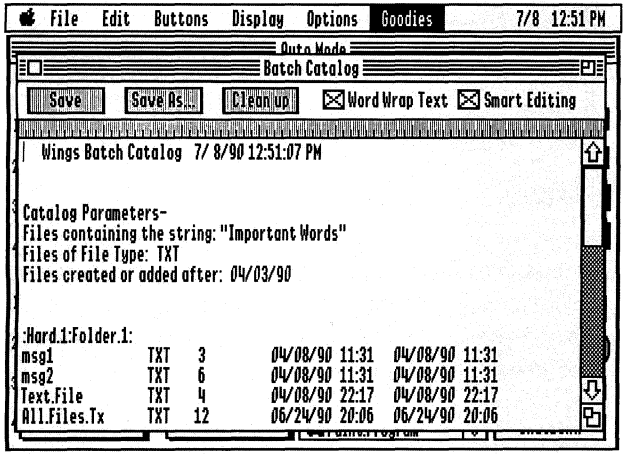


Figure 4-26

The results of the catalog may be edited and/or printed via the Text Processor's various controls.

Section 5

MiniWings

MiniWings is a stand-alone, 'customizeable' program launcher specifically designed for turnkey or predefined launching applications. MiniWings operates independently from Wings; you do not need Wings or any of its associated files to use MiniWings.

Applications

Unlike Wings or MicroWings (described in Section 6), MiniWings is designed to turn your system temporarily into a 'turnkey' operator. This means that you can guide a user through a specific set of applications and nothing else. The user is prevented from 'getting lost' in the system...and from doing destructive things. All the user has to do is point and click to run the applications you have pre-programmed into MiniWings. MiniWings contains its own set of powerful commands that let you customize its Super Hi-Res graphics display, including use of any standard 640-mode **screen** graphic (filetype $C1).

MiniWings is most effective in applications where you want to isolate system functions and operation from the user. For instance, you can create a MiniWings disk that can boot up the system and present a specific list of programs to be run. The user will not have to be concerned with (or confused by) any other files or folders present on the diskette and will not have to open Finder windows or perform other unfamiliar tasks.

A simple click on a button (or 'hot key' press) launches a predefined program. You can even exclude a Quit function, which forces the user to return to the MiniWings screen under all circumstances. This is ideal for systems set up as 'Demos' in retail stores, trade show displays, educational or classroom instruction, or used by personnel who are trained in specific applications but not general system use.

As an example, a home-based IIgs can be set up to boot directly into MiniWings and present only a set of several game or entertainment applications. Even youngsters can then run their programs on the system without the danger of accessing and using any utilities that can modify or delete system information.

As another example, a secretary's system can be set up to boot directly into MiniWings, which only presents two choices: run the Word Processor software or the Order Entry database. Keeping all the many other possible applications conveniently 'hidden' can avoid confusion over which file should be run for which function.

An additional dimension of convenience comes from setting up a system's hard drive with both Wings and MiniWings and setting MiniWings as the Auto Boot program. This way the 'less-experienced' user always boots into MiniWings, whereas the 'experienced' user can override MiniWings (the Auto Boot program) easily by holding down the option key during system startup. Please refer to the discussion of Wings' Auto Boot feature in Sections 2 and 3.

Programming MiniWings

MiniWings is programmed via its own special instruction set. These instructions are placed in a text file located in the same folder as MiniWings. The text file essentially becomes a 'Script' that MiniWings follows. When you first launch MiniWings, the script is interpreted and the MiniWings display is created based upon your specific instructions. These instructions specify items such as application pathnames, button names, button colors, button styles, and other features and options.

Once interpreted, these instructions are stored in a compact form in memory and stay there until you turn the IIgs' power off. This allows fast return and processing of MiniWings' launched files. If the particular application 'hogs' memory or otherwise destroys the memory-resident script interpretation, MiniWings automatically re-interprets the file. In other words, you will always return to the MiniWings screen when you Quit a launched application, regardless of what the application has or has not done to system memory.

The easiest way to write a MiniWings script file is to use Wings' Text Processor, which is discussed in Sections 2 and 3. Of course, you can also use any other word processor or text editor program you desire, providing these programs can output data in standard ASCII text file format.

TECHNICAL NOTE: MiniWings can interpret most foreign-generated text files, including those with embedded or missing linefeeds, trailing nulls, and Tab and/or control characters. MiniWings is insensitive to file auxtypes, but the filetype must be TXT ($04). MiniWings cannot interpret AppleWorksGS, AppleWorks classic, or WordPerfect word processor files directly. However, all three applications can save data in ASCII Text format, which MiniWings can interpret. Also, Wings' Text Processor provides a very convenient way to turn a word processor file into a TXT file.

MiniWings Script File Format

All MiniWings commands begin with the pound (#) character. The pound character **must** appear as the first character on any given line. The only restriction in a MiniWings script file is that this character is reserved. The pound character must not be used anywhere else in the file (such as in a comment line).

Any line that does not start with a pound character is considered a comment line. All text will be ignored until the next carriage return or pound character is encountered. You may include as many comment lines as you like in any given script file.

All MiniWings commands are made up of two characters: the pound character and a single letter command. After the pound character, there must be a single 'command' letter: B, C, D, H, K, M, P, Q, R, S, T, X, or Z, and there must be no spaces between the pound character and the command letter. Depending upon the command, there may be additional parameters that follow. These parameters may appear one or more spaces after the command.

The meanings and use of all the MiniWings instructions are explained in the next section. Example script entries are explained, and the complete script that accompanies the MiniWings program on the Wings.B disk is explained line by line. The instructions are given roughly in the order that they may be used in a script; the instructions are summarized in alphabetical order at the end of the section.

MiniWings Instructions Set

COMMAND: #X

NAME: MiniWings Script File Identifier

FUNCTION: Every MiniWings script file must begin with "#X" as the first two characters in the file. This identifies the file as a true MiniWings script file and allows you to have other text files in the same folder as MiniWings without them accidentally being interpreted as a script. If you have more than one MiniWings script file in the folder, only the first script file will be used. (You can use Wings' Sort Directory function to rearrange script files within a folder.)

EXAMPLE: #X

COMMENT: This file has just become a MiniWings Script.

COMMAND: #C <Color number, 0 - 15>

NAME: Launch Button Colors

FUNCTION: This command defines the colors of the launch buttons in the MiniWings display. The color is specified as a number from 0 through 15. The colors that correspond to each number are as follows:

0 Black	8 Dark Green
1 Dark Blue	9 Medium Blue
2 Dark Yellow	10 Medium Green
3 Grey1	11 Light Green
4 Red	12 Grey2
5 Violet	13 Desktop Blue
6 Orange	14 Yellow
7 Pink	15 None (White)

If you do **not** include this command in your script, the launch buttons will be set to black.

EXAMPLE: #C 10

COMMENT: Make all the launch buttons medium green

COMMAND: #K

NAME: Enable Display of Key Equivalents

FUNCTION: This command displays key equivalents or 'Hot Keys' in the MiniWings window, letting you use MiniWings without a mouse. The default setting is no key equivalents. In other words, unless you include this command in your script file, no display of the key equivalent characters will appear.

Please Note: Key equivalents are always active, whether you choose to display them or not. MiniWings automatically assigns key equivalent characters to your launch buttons, starting with OA+1 and continuing through OA+8. The Quit or ShutDown button (if used), is assigned O-A+Q.

EXAMPLE: #K

COMMENT: Turn on Key Equivalents display.

COMMAND: #T <Type character>

NAME: Define Type of Launch Button

FUNCTION: This command allows you to specify the type or style of launch buttons to display. This command must be followed by a type character. Legal values are:

R Round-cornered buttons
S Square buttons
D Drop-shadowed, square buttons

If you do **not** include the #T command in your script, launch buttons will be square.

EXAMPLE: #T D

COMMENT: Draw launch buttons as drop-shadowed, square.

COMMAND: #B <Button Name>,<Pathname>

NAME: Define Launch Button

FUNCTION: This command allows you to define a launch button. The Button Name field defines the name of the button you want the user to see. The Pathname field defines the full pathname of the file to launch. During script interpretation, MiniWings checks the pathname for a valid file. The disk containing the volume pathname must be on-line when you actually launch MiniWings.

Button names can consist of any characters except the pound character, and are limited to 16 characters in length. All button names are automatically centered in the launch buttons. Though they are legal characters, any extra spaces before the comma will become part of the button name, and so may cause off-centering in the display.

The Pathname characters must consist of legal ProDOS characters, specifying the full pathname of the file. Either colons or slashes may be used to separate folder names, you must use all colons or all slashes. The Pathname must start with a slash, colon, asterisk, or the digit "1" character. Slashes and colons denote a full volume name, while the asterisk (*) is a substitute character denoting the boot volume name. The "1" character is a substitute that indicates that the file to be launched is in the same folder as the MiniWings file itself.

EXAMPLE: #B Applesoft,*:BASIC.SYSTEM

COMMENT: This button launches the Applesoft BASIC file that resides in the root directory of the boot volume.

EXAMPLE: #B Applesoft,/HARD1/BASIC.SYSTEM

COMMENT: This button launches the Applesoft BASIC file that resides in the root directory of the volume Hard.1. Please note that the volume specified here is **not** necessarily the boot volume.

EXAMPLE: #B Read Me,1/READ.ME

COMMENT: This button launches the Read.Me program that is on the same disk and in the same folder as MiniWings.

COMMAND: #Q <Type character>

NAME: Include QUIT Button

FUNCTION: This command adds a 'Quit' button to a MiniWings window, clicking on the Quit button returns control to the program that launched MiniWings. It's a good idea to include this command in every new script, so you can return quickly to Wings' Text Processor to correct any syntax errors reported. For turnkey operation–after the script is perfected–you would probably not include this command.

The Quit command must be followed by one of the following letters:

R Round-cornered QUIT button
S Square QUIT button
D Drop-shadowed, square QUIT button

Unless you include the #Q command in your script, **no** Quit button will appear, and you will have to reboot the computer in order to leave MiniWings. You can include either the Quit or a Shutdown button (explained next) in your script, but not both.

EXAMPLE: #Q R

COMMENT: Include a round-cornered QUIT button.

COMMAND: #S <Type character>

NAME: Include SHUTDOWN Button

FUNCTION: This command adds a 'Shutdown' button to a MiniWings window. Clicking on the Shutdown button displays a dialog that informs you that you may power-down the system. You should include the Shutdown function if you want to provide the user a way to shut down the system if no program launches are desired. Similarly, you should include Shutdown if MiniWings has been renamed to Start and placed on its own bootable disk.

The Shutdown command must be followed by one of the following letters:

R Round-cornered Shutdown button
S Square Shutdown button
D Drop-shadowed, square Shutdown button

Unless you include the #S command in your script, **no** Shutdown button will appear. You can include either the Shutdown or a Quit button (explained previously) in your script, but not both.

EXAMPLE: #S S

COMMENT: Include a square Shutdown button.

COMMAND: #H <Alpha key>

NAME: Hidden QUIT Key

FUNCTION: This command allows you to perform a QUIT function even though there may be no Quit button defined in the script. This prevents the user from exiting MiniWings via a Quit button, but retains the capability for you to do so.

The command must be followed by a single alphabetic letter, which becomes the keypress necessary to perform the QUIT. To invoke QUIT, you must hold down the Open Apple key then press the defined 'hidden Quit' key. Unless you include this command in your script, **no** 'hidden Quit' key is defined.

EXAMPLE: #H Y

COMMENT: Quit MiniWings by pressing OA+Y.

COMMAND: #D <Pattern Number, 0-9>

NAME: Set Desktop Pattern or Picture

FUNCTION: This command provides a means of changing the desktop or background color from the standard blue either to 1 of 10 pre-defined patterns or to a selected graphics image.

To define a new desktop pattern, a pattern number from 0 thru 9 must follow the #D command. The pattern definitions for each pattern number are:

0= Solid Blue	5= Blue Mesh
1= Solid Green	6= Green Bricks
2= Solid Red	7= Green Matrix
3= Pink Screen	8= Wallpaper
4= Basic Blue	9= Scallops

If a pattern number is **not** specified, the #D command assumes that a graphics file will replace the desktop. The folder containing MiniWings must contain a graphics file named ' DESKTOP.PIC' . DESKTOP.PIC should be an uncompressed SHR graphics file (sometimes called Screen Format) with a filetype of $C1.

Note that the desktop pattern or picture is global in nature. That is, the newly-defined desktop will appear in all S16 programs launched by MiniWings. (This may be disabled; see the #R command described below.) In addition, the MiniWings pattern will change color and appearance if the program that was launched uses the 320-mode screen.

Unless you include this command in your script, the default setting is the standard blue desktop color. If you include more than one #D command, only the last one in the script will be used.

EXAMPLE: #D 6

COMMENT: Set the desktop to a 'green brick' pattern.

EXAMPLE: #D
COMMENT: Use the graphics file DESKTOP.PIC for the background.

COMMAND: #R

NAME: Reset Desktop

FUNCTION: This command forces all MiniWings-launched files to use the standard blue-colored desktop, even though a #D command is in force.

If a previous #D command defined a graphics file, the response time for returning to MiniWings will slow down, since the DESKTOP.PIC graphic file must be reloaded each time you Quit a launched application.

Unless you include the #R command in your script, the desktop pattern for all applications will be that defined by a previous #D command. If there are no #D commands in the script, this command does nothing.

EXAMPLE: #R

COMMENT: Force all applications to standard 'desktop blue'.

COMMAND: #P <Horizontal coordinate>,<Vertical coordinate>

NAME: Position Window

FUNCTION: This command allows for custom positioning of the button window. This is useful if you're using a background picture and wish to assure that portions of the graphic are not obstructed by the button window.

The Position command requires two parameters, a vertical coordinate and a horizontal coordinate. Both coordinates are specified as a number from 0 thru 9. For horizontal coordinates, 0 is leftmost while 9 is rightmost. For vertical coordinates, 0 is at the top and 9 is at the bottom.

Note that depending upon how many buttons are defined, it is possible (and legal) to position the button window so part of it is off-screen. For scripts with many buttons, best results can be obtained by using a 'smaller number' as the vertical coordinate.

If you do **not** include the #P command in your script, the button window will be centered. If you have more than one #P command in the script, only the last one is used.

EXAMPLE: #P 5,2

COMMENT: Draw the button window about half-way from the left side of the screen and part-way down from the top of the screen.

COMMAND: #Z

NAME: Hide Menu Bar

FUNCTION: This command hides the MiniWings menu bar. The screen area occupied by the menu bar will be filled by either a pattern, a picture, or the standard desktop blue, depending upon previous commands.

If you do **not** include the #Z command in your script, the default is to show the menu bar.

EXAMPLE: #Z

COMMENT: Hide the menu bar.

COMMAND: #M <Horiz>,<Vert>,<Size>,<Justification>,<Message>

NAME: Message Window

FUNCTION: This command allows you to add custom messages to the MiniWings display. These messages appear in a window separate from the button window, and thay can be used to provide the user with instructions, promotional text, etc. The message window can be positioned anywhere on the screen. This is useful so that the button window does not obstruct or overlap the message window and/or background graphics.

The #M command must be followed by 5 parameters. The first two parameters specify horizontal and vertical coordinates (exactly like that of the #P command). Legal values are 0 thru 9, with 0 being left/top and 9 being right/bottom.

The third parameter is the Window Size. There are 10 predefined window sizes; their size numbers, window height and width (in lines and pixels, respectively), and the approximate maximum number of characters that will fit in the window follow:

SIZE	DIMENSIONS	MAX CHARACTERS (approx)
0	40 x 100	40
1	50 x 100	50
2	59 x 100	60
3	77 x 100	80
4	40 x 200	90
5	59 x 200	140
6	77 x 200	180
7	40 x 400	180
8	59 x 400	260
9	77 x 400	340

The fourth parameter is the justification. A single letter specifies the type of justification to apply to the text:

L = Left Justify
R = Right Justify
C = Center
F = Fill Justify (both left and right)

The Message text is automatically word-wrapped within the window with the justification specified. Messages are not limited to a single line of text, as imbedded carriage returns are supported; a carriage return within the text will force a new line. If the message text is too long to fit in the selected window, the message will be truncated to size.

☞ **Please Note:** Any "#" character appearing within the body of the text will not be interpreted as a MiniWings command, even if it appears as the first character on a line. MiniWings command interpretation is suspended until the closing delimiter of the text is detected.

The fifth and last parameter is the actual message text. The character immediately following the previous comma becomes the 'delimiter' character. Any displayable character can be used for the delimiter (a double-quote character is recommended), and the message must end with the same delimiter character.

If you do not include the #M command in your script, the default setting is no message window.

EXAMPLE: #M 5,0,2,C,"This is my message."

COMMENT: Display "This is my message." centered on line 1; the double quote is used as the delimiter character.

Script Example

The following is a line-by-line explanation of the sample MiniWings script file that creates the button and message windows you see when you run MniWings from the Wings.B disk.

This script defines two blue-colored, drop-shadowed buttons to launch two Read.Me programs. We've also included a round QUIT button for debug so we can return from this example. Notice that all lines without 'pound sign' characters are actually comments; that is, any line that doesn't begin with a pound sign is considered a comment.

Here's the script as it would appear when you write it in Wings' Text Processor:

```
#X
#B Program 1,/Wings.B/MiniWings/Read.Me.1
#B Program 2,1/Read.Me.2
#T D
#Q R
#K
#C 1
#H E
#D
#R
#Z
#P 8,5
#M 3,3,5,L,"This is a typical message that you can display in a MiniWings
window. Select a program to run or select Quit. To exit from Mini- Wings,
you must re-boot."
```

Here are the details, line-by-line:

#X

[*Explanation:* A MiniWings script must begin with #X.]

#B Program 1,/Wings.B/MiniWings/Read.Me.1

[*Explanation:* This button is named 'Program 1', and it launches the Read.Me.1 program in the MiniWings folder on the Wings.B disk.

#B Program 2,1/Read.Me.2

[*Explanation:* This button is named Program 2, and it launches the Read,Me.2 program. In this case, though, it uses the '1' character ahead of '/Read.Me.2' to specify that the Read.Me.2 program is on the same disk and in the same folder as is MiniWings itself.]

#T D

[*Explanation:* Make the launch buttons drop-shadowed, square.]

#Q R

[*Explanation:* Add a round QUIT button.]

#K

[*Explanation:* Show the Open Apple key equivalents.]

#C 1

[*Explanation:* Make the buttons color #1, dark blue.]

#H E

[*Explanation:* Add a 'hidden' Quit key combination, OA+E. This is really not needed, since we've already specified a viewable Quit button.]

#D

[*Explanation:* Display as the background the DESKTOP.PIC graphic file that's in the MiniWings folder on the Wings.B disk.]

#R

[*Explanation:* Reset the desktop to use the 'standard' blue color when a program is launched.]

#Z

[*Explanation:* Turn off the MiniWings menu bar.]

#P 8,5

[*Explanation:* Position the button window so that it's toward the right side of the screen and about half-way down from the top of the screen.]

#M 3,3,5,L,"This is a typical message that you can display in a MiniWings window. Select a program to run or select Quit. To exit from Mini- Wings, you must re-boot."

[*Explanation:* This defines a message window, positions it a higher on the screen than the launch button window and toward the left of the screen. It defines the message window as 59 lines high by 200 pixels wide, left-justifies the text in the window, and specifies the message.]

That's all there is to it! Study the example script and try a few of your own. You'll find that MiniWings is really quite simple to use, and it has almost unlimited possibilities.

MiniWings Command Reference

COMMAND	DESCRIPTION
#B <Button Name>,<Pathname>	Define Launch Button
#C <Color Number>	Set Button Colors
#D <Pattern>	Set Desktop Pattern/Picture
#H <Character>	Define Hidden Character
#K	Display Key Equivalents
#M <Vert,Horiz,Size,Just,Msg>	Display Message
#P <Vert,Horiz>	Position Button Window
#Q <Type character>	Include QUIT Button
#R	Reset Desktop
#S <Type character>	Include SHUTDOWN Button
#T <Type character>	Set Launch Button Style
#X	Begin Script File
#Z	Hide Menu Bar

Syntax Errors

When you launch MiniWings, it searches the current folder for a script file. When one is found, it is loaded into memory, and MiniWings begins interpreting the script's commands. A mispelling, missing characters, extra characters, etc. will cause 'syntax errors' things that violate MiniWings'script-writing rules. MiniWings displays the offending line number and the offending line if it cannot interpret a particular command in a script. The following is a list of the syntax errors reported by MiniWings:

Illegal Command or # Character

A command could not be interpreted. Check for pound (#) characters in a comment line, illegal command letter, or extra characters following a command on the same line.

Missing or Illegal Characters

The parameter requires by the command are either missing or defined using illegal characters.

Too Many Buttons Defined

MiniWings is limited to 8 buttons; a 9th #B command was encountered.

Missing Comma or Delimiter

The Pathname and/or Button name fields in a #B command are missing.

Button Name Exceeds 16 Characters

Button names are limited to 16 characters, and the displayed #B command exceeds this. This syntax error also may be caused by a missing comma between the Button name and Pathname fields.

Pathname Exceeds 64 Characters

Pathnames are limited to 64 characters, and the displayed #B command exceeds this. This syntax error also may be caused by a comment on the same line as the #B command (without a separating carriage return).

Illegal Type Parameter

The Type field of the current command was not an R, D, or S character, or comments and/or spaces follow the Type letter.

Illegal Color Number

The color number specified is beyond 15 or less than zero, or there are spaces and/or extra characters immediately following the color number on the same line.

Folder Specified Doesn't Exist

One or more of the folder(s) specified in the #B command Pathname field does not exist.

Bad File Name Specified

The filename specified in the #B command could not be found in the folder and/or volume specified.

Bad Volume Name Specified

The volume name specified in the #B command is not on-line. This syntax error also may be caused by a pathname not beginning with a slash or colon character after the comma separator.

Bad Pathname Specified

The pathname contains illegal ProDOS characters. Legal ProDOS characters are alpha-numeric, colons, and slashes. File and folder names must always start with a letter.

Read Errors on Pathname Specified

Disk read errors have occurred trying to verify the file specified in the #B command's specified pathname.

Illegal Hidden Character

A #H command specified an illegal key value. Legal values are the ASCII characters A - Z or the lower case characters a - z.

Illegal Pattern Number

The pattern number of a #P command is greater than 9 or less than zero, is a non-numeric character, or there are non-space characters between the #P command and pattern number.

Can't Find/Read DESKTOP.PIC File

The File DESKTOP.PIC is not located in the same folder as MiniWings, the file is read-protected, the file is not a type $C1 graphics file, or disk I/O errors have occured.

Bad Position Character Specified

A #M or #P command was encountered that specifies a horizontal and/or vertical position characater other than 0 - 9.

Illegal Horizontal Coordinate

The horizontal coordinate specified is not a number from 0 thru 9, or illegal characters are located within the command string.

Illegal Vertical Coordinate

The vertical coordinate specified is not a number from 0 thru 9, or illegal characters are located within the command string.

Illegal Message Window Size

The window size specified is not a number from 0 thru 9, or illegal characters are located within the command string.

Illegal Justification Character

The justification specified is not a legal character (L, R, C, or F).

Message Too Long or No End Delimiter

The message was interpreted as being greater than 1000 characters in length or the message is missing its ending delimiter.

MiniWings Compiler

The MiniWings Compiler is an application that lets you take a previously-developed MiniWings Script file and turn it into a completely self-contained, stand-alone GS/OS application. Once your script is compiled, you no longer need the script file (or MiniWings) to run the script—you simply run the newly-created launcher application as you would any other commercially-written GS/OS application...except it's your program that you designed. The compiled script file may be placed on another disk or in the System folder of a startup disk, becoming the new startup program when the disk is booted.

The MiniWings Compiler is provided so that you may distribute your MiniWings launcher scripts on disks to other IIgs users. As a bona fide Wings purchaser, you may distribute your compiled script files with no licensing fees, as long as each copy distributed is done on a not-for-profit basis. Examples of not-for-profit distribution include: public domain user group libraries, distribution of public domain programs among family members or friends, and non-commercial distribution of disks to students in a class-room.

Important Notice: You may not, under any circumstances, distribute copies of MiniWings, MWings.Compiler, or any file on your Wings disk set to anyone. Only a compiled script file may be legally distributed under the provisions of the MiniWings Not-For-Profit license agreement in Appendix C.

If you will be selling the disk that contains your compiled script file, this is considered 'commercial use', and the Runtime portions of your compiled script must be licensed. Contact Vitesse, Inc. for a copy of the MiniWings Runtime Commercial Use Licensing Agreement if you intend to sell any disk containing a compiled script.

Developing a Compiler-Compatible Script

Before using the compiler, you should first develop and debug your script using MiniWings, as has been described in the earlier part of this section. Miniwings contains several syntax checking functions to help you debug your script, but none of them are available after compilation. If you try to compile a 'bad' script file—that is, one that contains syntax or other errors—the compiled program will not run. In this case, one or more MiniWings Fatal Runtime Errors will be reported. These aren't as 'fatal' as the title implies, but they are 'fatal' as far as keeping your script from being executed the way you intend. The Fatal Runtime Errors are listed under the Additional Notes heading, a little later on.

Once your MiniWings script is fully operational, consider the following points before attempting to compile it:

1. Button Paths: Make sure the pathnames specified (especially the volume name component of the path) used in button commands are correct. Since the compiled script will probably be put on a different disk, make sure the volume, folder(s), and file name(s) exist. Tip: Using the "*/" or "1/" options in button paths avoids the exact name of a volume, so your script will be usable on other volumes, as well.

2. If you are using the DeskTop Picture (#D) command, and you have chosen the graphic file option, the file DESKTOP.PIC must exist in the folder that you intend to use with the compiled script.

3. Menu Bar: The Hide Menu Bar (#Z) command does not function in a compiled script. The Menu Bar will always be shown, and the Hide Menu Bar command, if present, will be ignored.

Using the Compiler

Launch the program MWINGS.COMPILER. After a few moments, a dialogue will appear, and you will be prompted to select the script file to compile. Double-click the file name or select a file and click the Open button. You may also click Cancel to exit the compiler at any time.

Once the script is selected, the Compiler prompts for the name of the resulting application file. The default name is "Start", but it can be any name you like. If the soon-to-be created application will become the startup program of a disk, use the default name "Start" and select the System/ folder on the destination disk as the path. In any case, make sure the destination disk is write-enabled, and click the Save button to continue.

The compilation process now begins, and your new, custom S16-type ($B3) GS/OS application file will be created. Your script file is interpreted and merged with other program code during the process, a matter of about 5-25 seconds. Once the compilation is complete, the Compiler will exit back to Wings. You can now double-click the newly-created program to launch it, just like any other application.

Additional Notes

1. During the compilation process, no syntax checking is performed on the script file. Although the compiler only lets you choose ASCII Text ($04, TXT) files for the script, any text file (script or otherwise) can be selected. Unpredictable results will occur if you choose a non-script file to compile, so please be careful. Any script file chosen should be first verified with MiniWings as an error-free, fully-operational script.

2. Pathnames and filenames specified in button commands are not checked during compilation.

3. After your script is compiled, Fatal RunTime Errors can occur when you launch it. These errors are usually caused by syntax problems in the original script, but they can also be caused by Disk I/O and other GS/OS errors. A summary of the most common fatal errors that can occur follows:

ERROR	DESCRIPTION
$0000	Illegal Pound (#) Command
$0001	Missing or Illegal Characters
$0002	Too Many Buttons Defined
$0003	Missing Comma or Delimiter
$0004	Button Name Exceeds 16 Characters
$0005	Pathname Exceeds 64 Characters
$0006	Illegal Type Parameter
$0007	Illegal Color Number
$0008	Folder Specified Doesn't Exist
$0009	Bad File Name Specified
$0010	Bad Volume Name Specified
$0011	Bad Pathname Specified
$0012	Read Errors on Pathname Specified
$0013	Illegal Hidden Character Specified
$0014	Illegal Pattern Number Specified
$0015	Can't Find/Read DESKTOP.PIC File
$0016	Bad Position Character Specified
$0017	Illegal Horizontal Coordinate
$0018	Illegal Vertical Coordinate
$0019	Illegal Message Window Size
$0020	Illegal Justification Character
$0021	Message Too Long or No End Delimiter
$0022	No Buttons Defined
$xxxx	GS/OS and ProDOS Errors Returned Unchanged

Please Note: This last entry means that if GS/OS or ProDOS finds an error that is not MiniWings-specific, GS/OS or ProDOS will report that error in the 'customary' manner. (For instance, a $0027 (Input/Output) error means that there has been a problem reading data from or writing data to a particular disk.) See Appendix A for a listing of some of the more common errors.

Section 6

MicroWings

Salvation MicroWings is an stand-alone program launcher specifically designed for high speed and/or low memory applications. MicroWings operates independently from Wings; you do not need Wings or any of its associated files to use MicroWings.

High Speed Launching

If you are looking for the utmost speed in launching applications, MicroWings is the answer. MicroWings probably can launch programs faster than any other GS/OS-based program laucher, and it remains memory-resident, resulting in an extremely fast return. Under almost all circumstances, MicroWings remains in memory until you power-off your IIgs.

MicroWings is based on the ' Standard File Dialogue ' window and is very easy to use. Simply double-click on a file in the scroll window in order to launch it, or click once to highlight a file and then click Open. You can launch both GS/OS (S16) applications and ProDOS-8 (SYS) files with equal efficiency.

☞ **Please Note**: Unlike Wings, MicroWings cannot launch Applesoft BASIC programs directly. To launch BASIC programs from MicroWings, launch the file BASIC.SYSTEM, then run the desired Applesoft BASIC program using Applesoft's Run or "-" command. You can also run a BASIC program from MicroWings automatically by renaming the program to Startup. In this case, launching BASIC.SYSTEM causes the BASIC program to be loaded automatically and launched after BASIC.SYSTEM.

When you Quit a launched application, control always returns to MicroWings. To change drives, click the Drive button. To back up one level or folder, click the pathname string or the Close button. To shut down the system, click the Cancel button.

Minimum Memory Applications

MicroWings is ideally suited where low memory or low storage area is a problem (such as trying to fit large or multiple applications on a single floppy disk). In such a circumstance, MicroWings can replace the Finder (or even Wings) to produce a bootable disk with lots of room for other applications.

To create such a disk, follow these steps:

1. Start with a ' stock ' copy of the System Disk. Install any drivers (such as SCSI) or desk accessories that you need.

2. Insert the Wings.B disk in a drive and launch the Installer program. Select the ' Install MicroWings ' selection. This replaces the file Start (which is actually the Finder) with a copy of MicroWings and renames it to Start so that it becomes the new boot up application. This process frees up well over 100K of room on your disk for other applications.

You now have a MicroWings-bootable floppy disk and may proceed to copy any applications you wish to it. A power-on or system restart will bring up the MicroWings file dialogue (Figure 6-1). From this screen, you can launch the other applications on this disk or any applications on any other disks that are on-line.

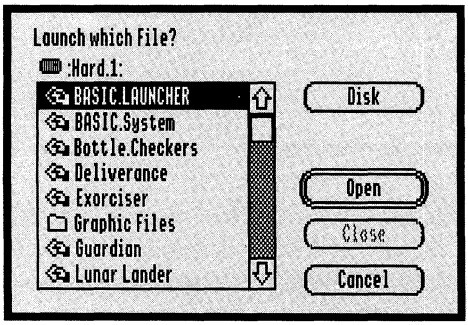


Figure 6-1

If you still can't fit the application(s) desired and need even more disk space, perform one or more of the following steps to remove other non-essential system files (System Disk 5.0 or 5.02 only). The following list is arranged in priority order; you should start by performing Step 1 and then continue down until you have arrived at the desired free space on the floppy disk. Also, note that some of the files listed may or may not be present on your copy of the GS/OS System Disk. If the file or files do not exist, just ignore that particular step and go on to the next one.

1. Delete the Tutorial folder and all files/folders within that folder. These files are not needed by for GS/OS or ProDOS applications.

2. Delete the Icons folder and all files within that folder. Icons are used only by the Finder, which has been replaced with MicroWings.

3. If your IIgs is not connected to an AppleShare network, you can delete the Appletalk folder and any files within that folder. In the System/Drivers folder, delete the files ATALK, ATP1.ATROM, ATP2.ATRAM, and SCC.MANAGER. In the System/CDEVS folder, delete the files ATLQIWRITER and ATLWRITER.

4. If you do not need access to the desktop-based Control Panel, you can delete the file CtlPanel.NDA in the System/Desk.Accs folder, as well as all files in the folder System/CDEVS and CDEV.INIT in System/Setup. Do **not** delete the CDEVS folder itself, even though it's now empty.

5. If you do not need to use a 5-1/4" drive from this disk, delete the file APPLEDISK5.25 in the System/Drivers folder. Similarly, if you do not own or use an Apple Unidisk drive, you can delete the file UNIDISK3.5.

6. If the applications you intend to install on the floppy disk do not need fonts (other than the standard Shaston.8 system font), you may delete all files in the System/Fonts folder. It's best **not** to delete the file called FASTFONT, though, unless you are absolutely strapped for more capacity. (This file speeds up all other applications and is relatively small). In any case, do **not** delete the Fonts folder itself.

7. If you do not need to use any application's print function (if it has one), delete any and all of the following files that may be present in the System/Drivers folder: IMAGEWRITER, IMAGEWRITER.LQ, MODEM, PRINT.MANAGER, PRINTER, IWEM, LASERWRITER, and LW.SETUP.

8. If you do not need to run any Applesoft BASIC programs, you may delete the files BASIC.SYSTEM and BASIC.LAUNCHER.

9. If you do not have any ProDOS-8 System (SYS) files to run, you may delete the file P8 in the System folder.

Carrying out all the steps described above will yield a floppy disk that is of absolute minimum size, yet can still be booted. If after all this you **still** need more room, you have no alternative but to have fewer or smaller applications on the disk.

Section 7

Technical Support

We want you to be completely satisfied with the Vitesse product(s) you've purchased. Our Technical Support staff is available to help when things have gotten beyond your control, and you may avail yourself of that support by writing to

Vitesse, Inc.
ATTN: Technical Support
13909 Amar Road, Suite 2
La Puente, CA 91746-1669

...or by calling

818-813-1274
9:00 AM - 4:00 PM (west coast time)
Monday-Friday

But please, before you write or call, read the User's Guide and any Read.Me and/or Help files provided with our product(s) to see if your problem is covered. It can save you and us time that we can use for other things.

Also, be sure you are familiar with how to use your Apple II and other, non-Vitesse software and hardware before you contact us. We can–and will–help you learn to use our stuff, but please don't expect us to be able to summarize what you can better learn by self-study and practice.

Thank you for buying a Vitesse, Inc. product.

Appendix A

ERROR MESSAGES

Wings generates several types of error messages when it detects problems in carrying out the current task. Some of the possible causes of these errors and their meanings are listed below. Next to the error is the GS/OS error code. Some of these errors may be reported with the error code only if generated during boot up or after a launch has taken place.

I/O Error ($0027): A read or write error has occurred on a disk that may be unformatted or damaged in some way.

Write-Protected ($002B): A disk needs to be written to that has its write-protect tab set, or a file operation has been requested on a file that is locked.

Disk Has Been Switched ($002E): A disk has been removed from a drive and substituted with another before Wings has completed an operation.

Device Off-Line/No Media ($002F): A request has been made to perform an operation on a floppy drive or removable hard drive that has no disk inserted.

Volume Not Found ($0045): An operation has been requested on a disk that has been removed from a drive.

File Not Found ($0046): An operation has been requested on a file that does not exist on the current disk or in the specified folder.

Invalid Pathname ($0040): The volume or pathname specified contains illegal or invalid characters, and the operation cannot be performed. Legal ProDOS volume/folder names must start with a letter and contain alpha-numeric characters and/or the period character only.

Duplicate Pathname ($0047): A copy operation has been requested where a source and destination path are identical.

Volume Full ($0048): There is no more free space on the target disk to complete the copy or move operation.

Volume Directory Full ($0049): The current operation will cause more than 51 file names to be placed in the root directory of the disk. Divide the files up and place them in folders to correct the problem.

Access Not Allowed ($004E): An operation was requested on a file that has its Deny Access attribute set, or a delete has been requested on a folder containing one or more files with their Deny Access attributes set.

File Is Open or Busy ($0050): You are trying to copy, move, delete, or rename System Files that are currently in use. System Files cannot be manipulated on the boot volume. You must boot from another disk in order to perform this operation.

Unknown Volume Type ($0052): You have inserted a disk that does not have an FST in the System:System.Setup folder. This error may also be caused by a disk with a damaged volume directory.

Not Enough Memory to Complete Operation: The current operation requires more system memory than is available. Try disabling desk accessories (via the System Files selection) to free up more memory.

Duplicate Volume Name ($0057): Two disks are on line at the same time that have identical volume names.

Cannot Load Resource ($xxxx/$xxxxxxxx)/ Can't Open Resource ($0063): The file Wings.Data, Start, or Sys.Resources has its Deny Access attribute set, does not exist, or has been copied without using the Installer.

Appendix B

KEYBOARD EQUIVALENTS

Virtually all of the function and commands recognized by Wings can also be performed through the keyboard. In some cases, this makes operations faster, since less mouse activity is required. After using Wings, you will probably find that some combination of keys and mouse fits your needs. These key equivalents are:

OPERATION	KEY EQUIVALENT
Open folder or execute function	Return
Back up one folder	Escape
Select next drive	Tab
Select next file in scroll list	Down Arrow
Select previous file in scroll list	Up Arrow
Select file alphabetically	A thru Z keys
Select next button page	Right Arrow
Select previous button page	Left Arrow
Launch AppleSoft BASIC	OA+B
Cold Boot from Slot x	OA+Control+x
Warm Boot from Slot x	Control+x
Launch upper button x (1 thru 8)	OA+x
Launch lower button x (1 thru 8)	Shift+x
Select Folder for function	OA+Return or Option-Return
ShutDown	OA+Q
List: Arbitrary selection	OA plus mouse click
List: Range selection	Shift plus mouse click
Edit box: Select next	Tab
Edit box: Extend Selection	Shift plus mouse click
Edit box: Erase line	Control+X
Edit box: Erase to end of line	Control+Y
Edit box: Move insertion point left	Left Arrow
Edit box: Move insertion point right	Right Arrow
Edit box: Delete character or range	Control+F
Edit box: Delete previous character	Delete

Appendix C

MINIWINGS NOT-FOR-PROFIT LICENSING AGREEMENT

The pourchaser of Wings has the right to make, authorize to make, and distribute copies of MiniWings script files that have been compiled with the program MWINGS.COMPILER. Major portions of the compiled file contain Runtime code that is the property of Vitesse, Inc. The purchaser is hereby granted a license free of charge to distribute compiled scripts containing this Runtime code, provided that each copy distributed is:

1. For non-profit purposes. The disk or medium containing the compiled script will not be sold to others or resold by others.

2. The disk is distributed solely for the purposes of program launching and/or other functions provided by the MWINGS.COMPILER program and the script.

3. The compiled program is not modified in any way, including but not limited to the removal of copyright notices and program indentification.

This licensing agreement is not the sole agreement between the purchaser and Vitesse, Inc. This agreement covers only the terms of the MiniWings Runtime code. Other licensing agreements pertaining to the Wings Disk Set must be in force to validate this license and its rights.

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Guido says, "Ciao."