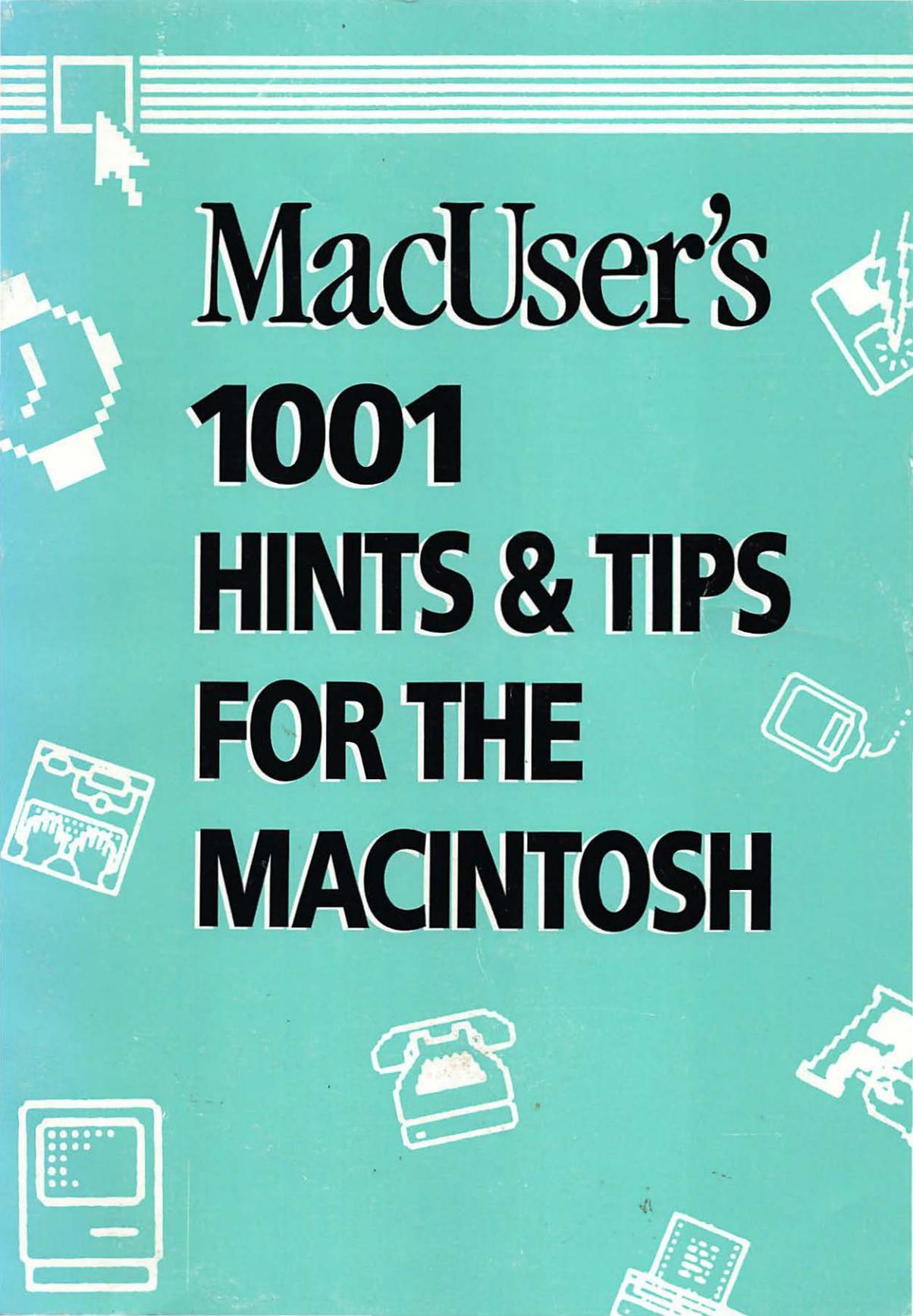


**MacUser's**  
**1001**  
**HINTS & TIPS**  
**FOR THE**  
**MACINTOSH**



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**1001**  
**HINTS & TIPS**  
**FOR THE**  
**MACINTOSH**

# MacUser's 1001 HINTS & TIPS FOR THE MACINTOSH

**Compiled by the  
editors of MacUser  
The Macintosh Power Resource**

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**THE MACINTOSH**

**Care and Maintenance** ..... 1

**General Information** ..... 2

**The Mac Plus/HFS** ..... 3

**The Mac SE** ..... 7

**The Mac XL** ..... 7

**The Mouse** ..... 8

**AppleTalk** ..... 9

**The ImageWriter** ..... 11

**The ImageWriter II** ..... 13

**The LaserWriter/  
LaserWriter Plus** ..... 15

**Digitizers** ..... 19

**Disks** ..... 19

**Hard Disks** ..... 22

**RAMdisks** ..... 24

**Modems** ..... 24

**On the Desktop: The Finder** ..... 25

**General Information** ..... 31

**SOFTWARE**

**Airborne!**..... 34

**Ancient Art of War** ..... 34

**Alarm Clock (Desk Accessory)** ..... 35

**Chart** ..... 35

**CheapPaint (Desk Accessory)** ..... 37

**Chooser** ..... 37

**ConcertWare** ..... 38

**Control Panel  
(Desk Accessory)** ..... 38

**Copy II Hard Disk** ..... 39

**Copy II Mac** ..... 39

**Cricket Draw** ..... 39

**Crunch**..... 40

**Cyborg**..... 40

**Dark Castle** ..... 40

**Deluxe Music Construction Set** ..... 41

**Desk Accessories** ..... 41

**Dinner At Eight** ..... 43

## CONTENTS

Disk Express .....	43	Jazz .....	63
Disktop (Desk Accessory) .....	43	Key Caps (Desk Accessory) .....	65
Dollars & \$ense .....	44	MacDraft .....	65
Excel .....	44	MacDraw .....	66
Fedit .....	49	MacGolf .....	70
File .....	50	MacInTax.....	70
Filemaker Plus .....	53	MacLightning 2.0 .....	70
Filevision .....	53	MacMoney .....	71
Find File (Desk Accessory) .....	54	MacPaint .....	71
Flight Simulator .....	54	MacPascal .....	76
1st Base .....	55	MacProject .....	77
Font/DA Mover .....	55	MacPublisher III .....	77
Fonts .....	56	MacServe .....	77
FullPaint .....	59	MacSpell+ .....	80
GraphicWorks 1.1 .....	61	Mac•Spell•Right .....	80
GrayPaint .....	62	MacTerminal.....	80
Helix .....	62	MacTerminal 1.1 .....	81
Installer .....	63	MacTerminal 2.0 .....	82

## CONTENTS

<b>Mac3D .....</b>	<b>82</b>	<b>PageMaker 2.0 .....</b>	<b>104</b>
<b>Mac3D 2.0 .....</b>	<b>82</b>	<b>Parameter Manager .....</b>	<b>105</b>
<b>MacType .....</b>	<b>83</b>	<b>PowerCache .....</b>	<b>105</b>
<b>MacWrite .....</b>	<b>83</b>	<b>Professional Composer .....</b>	<b>105</b>
<b>Make Millions .....</b>	<b>93</b>	<b>Quick &amp; Dirty Utilities, Volume 2 .....</b>	<b>106</b>
<b>MegaForm .....</b>	<b>93</b>	<b>Radius FPD .....</b>	<b>106</b>
<b>Microsoft BASIC Compiler .....</b>	<b>93</b>	<b>Rags to Riches .....</b>	<b>106</b>
<b>Microsoft FORTRAN .....</b>	<b>94</b>	<b>RAMdisks .....</b>	<b>107</b>
<b>MindWrite .....</b>	<b>94</b>	<b>RamStart .....</b>	<b>108</b>
<b>miniWriter .....</b>	<b>95</b>	<b>Ready, Set, Go! 2.1 .....</b>	<b>108</b>
<b>MORE .....</b>	<b>96</b>	<b>Ready, Set, Go! 3.0 .....</b>	<b>108</b>
<b>MORE 1.1 .....</b>	<b>97</b>	<b>Red Ryder .....</b>	<b>109</b>
<b>Multiplan .....</b>	<b>98</b>	<b>Resource Editor (ResEdit) .....</b>	<b>110</b>
<b>Multiplan 1.1 .....</b>	<b>100</b>	<b>Rogue .....</b>	<b>114</b>
<b>OverVUE .....</b>	<b>101</b>	<b>Sargon III .....</b>	<b>114</b>
<b>OverVUE 2.1 .....</b>	<b>101</b>	<b>Scrapbook (Desk Accessory) .....</b>	<b>114</b>
<b>PackIt III .....</b>	<b>102</b>	<b>Shadowgate .....</b>	<b>114</b>
<b>PageMaker .....</b>	<b>102</b>		

**CONTENTS**

<b>Sleep (Desk Accessory) .....</b>	<b>115</b>	<b>ThinkTank.....</b>	<b>123</b>
<b>Smartcom II .....</b>	<b>115</b>	<b>Through the Looking Glass .....</b>	<b>124</b>
<b>Smash Hit Racquetball .....</b>	<b>115</b>	<b>VideoWorks .....</b>	<b>124</b>
<b>Software Sampler .....</b>	<b>116</b>	<b>Wizardry .....</b>	<b>124</b>
<b>Studio Session .....</b>	<b>116</b>	<b>Word .....</b>	<b>125</b>
<b>SuperPaint .....</b>	<b>116</b>	<b>Word 3.0 .....</b>	<b>128</b>
<b>Switcher .....</b>	<b>118</b>	<b>Works .....</b>	<b>132</b>
<b>Telecommunications .....</b>	<b>121</b>	<b>WriteNow .....</b>	<b>134</b>
<b>Tempo .....</b>	<b>122</b>	<b>ZBasic .....</b>	<b>136</b>
		<b>Index .....</b>	<b>137</b>

# THE MACINTOSH



## Care and Maintenance

Turn the screen intensity down when you're not using the machine. This prevents images from burning in to the video tube. Using a program like Screen Saver accomplishes the same thing.

Don't block the vents on the top or sides of the Mac, since it interferes with the circulation of cool air to the inside. Without adequate ventilation, the Mac might crash.

Never touch the peripheral connector plugs, since the static electricity in your body can sometimes generate a short-out when the equipment is hooked up.

### Cleaning Your Disk Drive

A strange, but effective, way to clean a disk drive is to use a Black & Decker DustBuster to vacuum out lint and dust. The nozzle fits perfectly, and the drive can be cleaned with two to four seconds of vacuum power. Just be sure the nozzle is clean when you insert it into the drive.

### Possible Problems: Screen Wavering

If the Mac screen shimmers or seems

to look unsteady, one of the ground wires on the CRT could be loose. Don't try to tighten it yourself, because CRT voltages are highly dangerous, even after the computer has been unplugged. Still, this is a pretty easy problem for an Apple dealer to fix, so the Mac shouldn't spend too much time out of commission.

If you have installed a fan to cool the Mac and then experience screen wavering problems, remove the fan and then check to see if the screen looks any more stable. Some owners of the Fanny Mac cooling fan have reported some screen instability problems. If this is the case, don't reconnect your Fanny Mac.

### Frozen Cursor

After an electrical shock to your Mac (possibly caused by dragging your feet on the carpet, or even petting the cat), the cursor may freeze on the screen. Try disconnecting the mouse, then reconnecting it after a few seconds. Sometimes this will restore your cursor's functionality. If it doesn't, use keyboard equivalents to save your work in progress, then reboot the Mac, even if it seems to restore itself to normalcy.

### Keyboard Repair

Even careful users can have accidents with keyboards. If a cup of coffee accidentally spills across your keyboard, chances are the keyboard won't work at all. Replacing it costs about \$250. But there's another way:

Take off the cover and the key caps and give your ruined keyboard a warm bath. After drying it thoroughly (a hair-dryer works well and doesn't leave any cotton residue), spray the board with the kind of contact spray used for curing automobile engines of moisture. When you reassemble it, there's a good chance the keyboard will function properly.

### **Silencing the Mac**

If you're annoyed by the way the Mac beeps when it wants your attention, there's an easy way to get some peace and quiet. Pick up a Walkman-style mini jack (we recommend Radio Shack's mono-to-stereo mini jack, part number 274-368, about \$1.98) and plug it into the music socket on the back of the Mac. From then on, the menu bar will flash to get your attention—in silence.

### **Changing the Screen Color**

Another "standard" Mac feature, the blue screen, can be easily changed to soft green by adding a sheet of yellow acetate. You can find them sold as see-through book report covers in many office supply stores. Just cut the acetate to fit and tape it over the screen, or make it removable by attaching some string to the top corners and sliding it over the top of the Mac.

### **The Programmers' Switch**

You'll find the Programmers' Switch in your Mac box. To install it, snap it

in between the air vent bars on the left side of the Mac so that the two spines on the switch touch two buttons on the Mac's circuit board. One of these buttons resets the computer, and one interrupts it. Press the front part of the switch and the Mac resets itself, much like it would if you turned the machine off and then back on. Press the rear part of the switch to interrupt, which stops the program currently running and puts up a bomb message. This can help programmers interrupt their programs as soon as a bug appears, and it also comes in handy if you run into a bug on a commercial program.

The Programmers' Switch resets the System, but it doesn't automatically clear all memory or invoke the Mac ROM's self-diagnostics. To start with a completely clear memory, turn the power off for a few seconds and then restart.

If your Programmers' Switch gets jammed when you press it, remove it and check the mold marks for excess plastic that wasn't removed during the molding process. Use a razor blade or X-acto knife to remove thin plastic slivers, then reinstall the Programmers' Switch and you should have no further problems.

## **General Information**

### **Freeze the Screen While a Document is Open**

Many Mac users leave documents up on screen while attending to other

business. But when something bumps the keyboard (or worse, the backspace key), documents can be changed accidentally. You can freeze the screen just where you want it, and make sure it can't be altered, by calling up the Alarm Clock desk accessory. As long as the Alarm Clock window is active, you can't make changes to any other window on the screen.

### **Close Without Saving to Restore to Last Saved Position**

In situations where you've lost important data (through mistakenly cutting, backspacing, etc.), close the file without saving and then reopen it. Your document will be exactly as it was the last time you saved it to disk.

### **Why Your Menu Bar or Apple is Flashing**

If your menu bar (or the Apple icon at the top left of the screen) is flashing and you don't know why, chances are it's because someone set your alarm clock. Choose Alarm Clock from under the Apple menu and click on the tiny flag at the far right side of the window. From there, choose the alarm clock icon (in the far right corner). Look into the middle section of the window—see that small switch image on the left? Set it to the Up position by clicking on it, and your alarm should stop flashing.

### **When Your Calendar And Clock Aren't Working**

The alarm clock and calendar functions are regulated by the Mac's internal battery. Its compartment is located in the upper right side on the back of the machine. After about two years, the battery will give out. Replace it with an Eveready 523BP, Ray-O-Vac RPX21, Duracell PX21 or Panasonic PX21, all of which are 4.5 volt batteries. You can find them at an electronics specialty store and through some Mac mail order houses. Don't pay more than \$5 for a replacement battery.

### **The Keyboard Remembers What You Type**

The Macintosh has a very effective keyboard memory buffer. So, when you launch an application, you only have to wait about four seconds before starting to type, even if the application isn't fully set up on the screen yet.



## **The Mac Plus/HFS**

### **Incompatibility With Older Software**

Older software may have problems running on the Plus. One solution is to boot the software using the older Finder 4.1 with the old System file. This will disable the new HFS (hierarchical filing system) until the Plus is booted off the newer System and Finder.

Some programs are completely incompatible with HFS. Among them: Neon 1.5; Quick & Dirty Filer; and SkipFinder 5.3.

At first glance, Microsoft Fortran appears incompatible with the Mac Plus. It will run, though, if your disk is formatted with the flat filing system. You can format a double-sided disk as flat by erasing it with an old, MFS system file, which results in an 800K MFS disk. You can also use this technique with the first version of TML Pascal.

### **Recovering From a System Crash**

You might be able to recover from a system crash. When a System error occurs, press the Interrupt button (it's behind the reset button on the Programmers' Switch). Sometimes, a dialog box appears with a ">" prompt appears. Try typing in the following debugger routine:

G 40F6D8

Then hit Return. You'll probably be returned to the Finder.

### **RAM Caching**

When you activate RAM caching with the control in the new Control Panel DA, remember to reboot the machine. Only then will the RAM cache activate. The same applies to turning the RAM cache off.

The disk cache on the Mac Plus is controlled from the Control Panel DA. Some older games will not operate

properly when the cache is set. Games are a major problem, as are HFS Backup and TML Pascal. Make sure the disk cache is off if you have problems running older programs.

If you use the disk cache, choose Shut Down from the Special menu before powering off the Mac. The disk cache doesn't write changes back to the disk immediately after they're made, and if you power down without using Shut Down to tell the cache to save recent changes, you may lose some of the changes made from the Finder.

### **The New Control Panel: How to Set the Alarm Clock**

The new Control Panel doesn't have a provision for setting the system clock. To set the clock now requires the use of the Alarm Clock DA installed in the System on your startup disk. Click the flag icon on the right side of the clock display to bring up a sub-window that shows you the icons that reset the clock.

### **Desk Accessories Under HFS**

Desk accessories may not work when they're first installed. If this is the case, make sure all the DAs support files or data is placed inside the System folder.

### **Selecting Files In the Minifinder**

While selecting files from the Select File dialog, press tilde (~) to scroll to

the bottom of the file list and select the last file.

## Moving Through the HFS Hierarchy

After entering a folder through the standard OPEN and SAVE dialog boxes, you can step back through the tree by clicking on the disk or volume icon in the upper right side of the dialog box. Each click steps back one level in the tree.

If you're using a hard drive and want to make a floppy or another volume your startup, hold down the OPTION key while launching an application. The disk the application resides on will become your startup disk.

If at least two volumes are mounted, to get to the top level of any mounted disk, use the tab key. For example, if you have one hard disk mounted and one floppy volume and you're deep into the folders and want to get back to the top, hit the tab key twice. The rule for reaching the top level of the currently-active disk is to quickly tab  $X+1$  times.  $X$ =the number of disks mounted, including floppies. So, if you have two hard disks chained and have mounted three floppies, tab six times to reach the top of the current disk.

## The New SCSI Ports

That SCSI port might look like a standard RS-232 port, but unfortunately it isn't. If you put in a cable that isn't configured for a SCSI

device, you can cause serious internal damage to the Mac.

Some Mac Pluses with early ROMs can have problems powering up when an SCSI device is attached. If this looks like a problem, turn the device on before powering up the Mac.

## Plus and Minus Keys Reversed on Some Plus Keyboards

If you're the proud owner of a very early Mac Plus, you undoubtedly know by now that the plus and minus keys can be reversed on the keyboard. If you don't want to go to the trouble of arguing with your dealer about it, just use the plus key to subtract and the minus key to add.

## Replacement Parts

If you seem to be having trouble finding the right ImageWriter, connector cables for the Mac Plus, ask your dealer for an Apple//e modem cable (A2C0311).

A good substitute Mac Plus/Hayes-compatible modem cable is //e printer cable A9C0313.

## Spacing Problems With New Apple Fonts

The fonts Times, Helvetica and Courier have been slightly altered to improve spacing when printed on the LaserWriter from a Mac Plus. This might cause some text spacing problems in existing older documents.

Unfortunately, there's no fix except to recreate the document with the new fonts or to edit the documents to include them.

## Using the Keyboard to Move

The Mac Plus keyboard's arrow keys can be used to move around the disk menu. Hit the down arrow once to select the first available folder in the menu. Hit it again to scroll down to the next available folder.

Hit the up arrow to quickly highlight the last available folder. Press it again to move up to the next folder.

**COMMAND-UP ARROW** moves you one level up in the disk hierarchy.

**COMMAND-DOWN ARROW** moves you one level down in the hierarchy.

When you're looking at the disk menu within an application, use the up and down arrows to scroll through the menu of files, either in a folder or on the root level of the disk.

## Numeric Keyboard Problems

When you use the original external numeric keypad with the new ROMs in the Plus, you'll find that the first character typed on the regular alphanumeric keyboard won't register in the computer. Also, if you type the first character on the numeric keypad it will repeat that character continuously until another key is pressed.

## The New ROMs

INIT resources are procedures that automatically execute when you start up your computer. INITs usually reside in the System file—if they don't they have to be put there with an installer or else pasted in using ResEdit. But with the new ROM chips resident in the Mac Plus and higher machines, there's a way to get them to work without permanently installing them. Take the INIT file you want to run, then use Fedit or ResEdit to place the file into the System folder. Now it will execute without actually being installed into the System file, meaning that it's easy to remove. An example of an INIT is the clock that installs itself upon startup.

## Screen Dumps From the New ROMs

Screen dumps behave differently with the new ROMs than they did on the original Mac. They are queued instead of executed immediately. That means, pending actions (like releasing the mouse button) take place before the FKEY action (like creating a screen dump). Unfortunately, that means you can no longer take a screen dump that shows menus pulled down. The only possible solution as of this writing is to use the public domain DA Camera, which waits a specified time interval before taking a screen shot. Queuing applies to all FKEYs, 0 to 9.

## Save Time By Avoiding Self-Diagnostics

The Mac Plus conducts a self-diagnostic procedure every time it's started up. You can save a little time by holding down the mouse button until just after the beep, which skips the procedure. Don't hold the button down too long, though, or all disks will be ejected. Don't use this technique every time, since memory problems should be caught before they cause too much damage.

## About Folders

Your HFS Mac will perform at its best if you use a lot of folders, each containing a few files, instead of a few folders containing a lot of files.



## The Mac SE

### Access the Hidden Slide Show

There's a hidden four-frame slide show built into the SE's ROM which shows members of the SE development team. To see it, boot the Mac and press the interrupt button on the programmers' switch. (Make sure any connected modems are turned off.) Then type G41D89A into the debugger window and hit Return. The slide show will continue until you reboot the machine.

### Ejecting Disks on the SE

Since the SE can have two built-in

disk drives and one external drive, the COMMAND-SHIFT keyboard commands for ejecting disks are a little different than usual:

COMMAND-SHIFT-1 ejects the bottom internal drive.

COMMAND-SHIFT-2 ejects the top internal drive.

COMMAND-SHIFT-0 ejects the external disk drive.



## The Macintosh XL

### Easy Booting

Reboot the XL easily by holding down COMMAND and pushing the power button.

When you hold down OPTION while pushing the power button, it reboots the XL and prompts it to ask for a floppy disk.

If you hold down OPTION after the memory test, you can boot from a floppy.

To restart the XL from the hard disk and return to the desktop, hold down the Apple key while pushing the XL power switch. This helps you avoid having to reload MacWorks into memory.

### Exporting Excel Documents to Standard Macs

When you move an Excel document

from a Mac XL to a "normal" Mac, the window will be larger than the new screen display. Click twice on the window title and the screen reduces to more manageable proportions.

## Incompatibility

ExperLisp and ExperOPS5 have compatibility problems when running on an XL under MacWorks. Don't use them with this configuration unless you have a lot of patience for system crashes and power shutdowns!



## The Mouse

### How To Tell If Your Mouse Needs a Bath; Cleaning the Mouse

If you've been using your Mac for months in an environment prone to dust and lint, cleaning the mouse according to Mac manual instructions may not be thorough enough to keep the mouse performing like new. If you've been having problems moving the mouse in a fluid, smooth motion, it probably needs a heavy duty cleaning. Take the mouse apart according to the directions in the Mac manual. Then, remove the two Phillips-head screws (on the base of the mouse) near the cord. With the base down, gently remove the top half of the mouse case, pushing the cord gently out of its socket in the upper case. Inside, you'll see three rollers that transmit the instructions from the mouse to the Mac. **DO NOT REMOVE THEM!** But you can use the tip of a toothpick to remove hair

or lint that's become tangled around the rollers (don't use metal tools to work inside the mouse). Then, clean the rollers with a cotton swab dipped in denatured alcohol. Finally, clean the rubber ball with a soft, dry cloth and reassemble, making sure the button and spring are properly seated. Then, carefully reinsert the cord into the upper half of the case and replace the two screws.

Another good cleaning solution is stylus cleaning fluid, like the kind used to remove dirt from diamond needles of record players. Use the brush that comes with the fluid (it's about the right size for cleaning mouse innards) and let dry before reassembling the mouse.

### Getting Rid of a Squeak

If your mouse develops a squeak not unlike that of the live mouse, you can correct the problem by removing the ball roller and spraying the inside casters with a small amount of WD-40 lubricant. Let the lubricant dry and replace the roller. Not only will the squeak subside, but your mouse will glide as smoothly as it did when new.

### Mouse Foot Protectors/Replacements

Peel and stick felt pads (buy them in a hardware store) prevent mouse foot wear and make mousing smoother. When they wear out, you can always replace them with new felt pads.

Another good mouse foot protector is

the fuzzy side of peel and stick velcro, cut into small circles.

Yet another good mouse foot protector is a thin sheet of soft leather. Glue on small circles, and you'll find the mouse will glide well. Don't use suede, since the tiny grains can get inside the mouse and clog it.

If your mouse feet are already worn out, use BBs (as in air gun ammunition) to replace the feet. Just put a tiny drop of Crazy Glue on the slanted edge of the mouse directly above the original mouse foot and glue a BB in place there. They'll work better than the original mouse feet because they're round, and they won't wear off, even with heavy usage.

### **The Poor Man's Mouse Pad**

Mouse pads work well because they keep you confined to a given area instead of mousing all over your work surface. If you haven't got one, try a hardcover book instead. Time-Life books work particularly well because they're smooth, have more room to move around than standard mouse pads, and can be bought cheap at used book stores.



### **AppleTalk**

#### **Use the Same Printer Drivers on a Network**

When using AppleTalk on a network, make sure all drivers have the same version of the print driver (this includes the LaserWriter and

AppleTalk ImageWriter Drivers and Laser Prep). If your System finds several different versions active on the network, it will often stop to ask for all printers on the network to be reinitialized.

### **Update Mac 128K and 512K Systems For the Network**

If you have a Mac Plus on the network with a 512K or 128K Mac, you'll have to update the system disks on the older Macs with the Installer utility found on the Mac Plus' System Tools disk. The older Macs won't be able to save to folders from within applications, but other than that, they'll work just fine.

### **Choosing a Printer**

Always use the Chooser DA—not the old Choose Printer desk accessory -- when printing on AppleTalk. If you run the Choose Printer DA while in an application on AppleTalk, your system could freeze. Use the HFS-compatible Chooser, or else remember to run the Choose Printer DA from the Finder.

### **When You Disconnect AppleTalk...**

After you have physically disconnected your Mac from AppleTalk, always turn off AppleTalk on the Control Panel. If you try to print on a non-AppleTalk ImageWriter connected to your Mac, the printer will get confused unless you change the setting on the Control

Panel. Reset the system by turning off the Mac's power.

### **Making a Quick Break From the Network**

The reset button on the Programmers' Switch does not break the AppleTalk connection. If you need to disconnect fast, turn off the Mac's power.

### **Don't LaserPrint MacWrite and MacDraw Documents Simultaneously**

If you try to laser print a MacWrite document from one Mac and a MacDraw document from another while on AppleTalk, the MacWrite document will print fine, but the MacDraw document won't be completed. To be on the safe side, print only one type of document at a time.

### **RAMdisks Can Cause AppleTalk Printing Problems**

RAMdisk programs can cause printing problems on AppleTalk. Try not to use them when printing on the network.

### **Causes of a System Crash**

Many programs, especially games, initialize the printer port when they start up, causing crashes. Either disconnect AppleTalk before booting the disk, or don't use it on the AppleTalk-connected Mac. If you do crash, eject the disk and shut down

all nodes in the system for at least 30 seconds. When you power back up, you should have no further problems.

### **If the Network Isn't Working**

If your network doesn't work, the first thing to do is shut down all nodes connected to AppleTalk and check to make sure all connections are correct. Then restart the system.

If that doesn't work, turn off each unit and disconnect them all, reconnecting them one at a time, starting with the machine closest to the LaserWriter on the network. You could have a loose wire, a bad wire, a faulty port on a Mac, or a piece of hardware or software that's incompatible with the system. As you reconnect machines to test them, you'll have to tell the disks that the LaserWriter is connected again.

### **Printing Problems**

Sometimes your disks can forget that the LaserWriter is connected to the network. Try going to Choose Printer, and select the printer port, choose APPLETALK CONNECTED, and wait to see if the LaserWriter icon appears in the scroll box. If not, select APPLETALK DISCONNECTED and hit OK. Then, go back to Choose Printer again, and go through the whole process until you see the LaserWriter appear (it will eventually, if your machine is properly hooked up to the network).



## The ImageWriter

### Storing ImageWriter Ribbons

Keep ImageWriter ribbons fresh by storing extras in plastic zip-lock storage bags.

### Replacement Ribbons

If your store doesn't carry ImageWriter ribbons, try NEC 8023, C. Itoh 8510 or DEC LA50 ribbon cartridges.

### ImageWriter Maintenance

It's a good idea to lubricate the carriage-bar once a year or so. Although the manual clearly says, "Do not use electric motor oil or any lubrication that contains rust inhibitors," you can use sewing machine oil, even though it contains rust inhibitors, or just about any other type of oil. Apple says that the metal used to make the carriage-bar is not the same one that was specified when the manual was written.

### Don't Leave Disks On the ImageWriter

Never leave disks sitting on top of your ImageWriter. The printer has a magnet embedded in the left side of its cover that can blank a loaded disk in the blink of an eye.

### Quick Printing

You can cut down on the time the ImageWriter pauses before it prints the last line in a document by pressing SELECT once. This makes the printer immediately print the line. Press SELECT again to advance the paper forward enough to tear off the page.

### Smoothing Lines In Gray Areas

Large areas of black or gray can often be marred by horizontal lines. Try using higher grade fanfold paper or high quality single sheets.

Another way to smooth out gray areas is to use an older ribbon while printing these sheets.

### Creating Smaller Top Margins

The ImageWriter II automatically assumes you have the paper positioned in the printer for a one-inch top margin. If you want a smaller top margin than that, leave the previous sheet of tractor feed paper in the printer, set the top margin to one inch, and roll the paper through the printer to the exact starting location for the print.

### Solutions For Squished Printouts

You might find that the first line of a page is slightly squished or distorted, especially when printing in high

resolution. There's nothing wrong with your ImageWriter...chances are, the paper was slightly wrinkled. In standard printing, the ImageWriter's print head makes two passes to create a line of text, and in high quality mode it makes four. It prints the top portion on the first line of text first, filling in the other parts with each successive pass. If the paper isn't fixed firmly in position, it can shift so that the print head passes over the first line again—causing squished letters. A good solution is to leave an extra blank line at the top of documents, or to buy thin paper that clings to the platen.

Another solution when using tractor feed paper is to feed through a blank sheet first. This acts as an anchor for the rest of the paper, minimizing squished first lines.

### **Avoiding Paper Jams**

If you use tractor feed paper, the top sheet of paper might curl back into the top of the platen, especially if the paper was left in the printer overnight. Get around this by putting a piece of masking tape over the slot, fixing the tape only at the front so that the back cover can still be removed.

### **Don't Overheat the Print Head By Printing Too Much Black Space at Once**

If you do a lot of printouts with large amounts of black space at one time, the printhead might overheat and

need to be replaced. Graphic images with dark backgrounds are more likely to cause problems. If you're doing multiple printouts with a lot of black space, avoid using more than 25%-30% solid black on a page, or print your documents a few at a time to give the print head a chance to cool off between printouts.

### **When A Blank Page Prints At the End of a Document**

Sometimes you'll find an extra sheet scrolled through at the end of your printouts. Try selecting the To and From boxes in the Print dialog box. If your document is five pages long, fill in From 1 To 5. If it's a single page, fill in From 1 To 1.

### **Printing More Than One File at a Time**

Several files in a row can be printed with a single command. Just select them on the desktop with the selection rectangle, then choose Print from the File menu.

When printing multiple files, no matter how many copies you select in the Print dialog box, only one copy of each file printed after the first will be made.

When printing multiple documents, you can select the order in which they'll be printed. On the desktop, press SHIFT-CLICK while selecting documents. When you choose Print, they'll be printed in the order in which you selected them.

## Stop Printing Quickly

A few commercial programs don't work properly when you press COMMAND-period to stop printing. If the program doesn't seem to be responding to your click on the CANCEL button, or if you need to stop printing immediately (if, say, the printout starts winding around the roller), just flip the ImageWriter's power switch off. The Mac will still think it's printing and continue until it's finished, but your printout time will be shorter than usual.

## What You See Isn't Always What You Print

When you print, the ImageWriter (and ImageWriter II) uses a font twice the selected size (if it's available in the System) and then scales it down to produce high quality output. Fonts usually don't change from one size to the next. But Geneva is the exception that proves the rule: its lower case "y" in 12-point has a distinctly different descender than the 9-point "y" and both have different forms than the 24-point character. That means, when you print High quality in Geneva, you'll often get some characters that print quite differently than they display on-screen.

## An ImageWriter Extension Cable

If you need a longer ImageWriter connector cable, try using a Radio Shack joystick cord (part number 276-1978; about \$3.99). It often does the trick.



## The ImageWriter II

### What To Do When Your Printouts Are Smudged

If you've been having problems with smudging while you print, try adjusting the paper thickness lever (see your ImageWriter II manual for details). Your print head and ribbon could be too close to the platen.

The next thing to try is cleaning the print head, since ink buildup is bad for paper and printer. Remove the print head by pulling upwards on it while moving the white print head holder to the right. You may have to shift the print head from side to side to loosen it. Now, clean it using a Q-tip soaked in alcohol. When you're done, carefully reinsert the print head, making sure it's placed straight into the slot.

If neither of these quick fixes helps, there's a possibility that the Paper Guide is dirty or broken. The Paper Guide is that plastic piece that wraps partially around the platen to surround the print head. Remove this by first removing the print head and then using a small Phillips head screwdriver to unscrew the two screws holding the Paper Guide in place. Once it's out, check to be sure that the metal attachment isn't ripped or cracked. If it is, you'll need a new Paper Guide (available at Apple retailers for \$10 or so). But cleaning the Paper Guide might just work. Use a Q-tip soaked in alcohol. Remember, though, to re-lubricate the pins with a

small amount of oil on the felt pad or pins just behind the tip. Then set the pins on a paper towel to let the old ink run out. When they're dry, carefully put the Paper Guide back in place and feed three sheets of paper into the printer. When that's done, screw in the Paper Guide so that it presses against the paper. If this last resort doesn't work, your printer needs a trip to the printer doctor.

Another reason for smeared printouts is a tear in the foil on the print head. Remove the foil if it's torn (you don't have to replace it) to correct the problem.

### **A Solution For Scrunched Top Lines**

Does the top line of your printout often look "scrunched"? This is caused by slackness in the paper feed. When you're using tractor-feed paper, one solution is to feed through an extra sheet of paper, which acts as a leader sheet and anchors subsequent pages in place.

### **Avoiding Paper Jams**

Paper jams can result from the reverse-forward motion of the ImageWriter II just before it begins printing a page. This usually doesn't happen on the first page after the printer has been turned on because, when printing the first inch of the first page, the print head moves to the center before the paper advances. So, before printing a new document, turn off the printer and then turn it back

on again, and you should have no problems.

### **Printing Letter-Quality Fonts**

It's easy to get good, letter-quality fonts printed. Use the LaserWriter's Courier font and print your text in high quality. (Make sure you have installed a font twice the size of the one you'll be printing in your System file. For example, install 24-point Courier to print in 12-point.) Unfortunately, this won't work with all word processors—including MacWrite.

### **ImageWriter Driver 2.0 Problems**

ImageWriter Driver 2.0 prints occasional misformed letters. If you're using this driver, get the 2.2 upgrade.

### **Bidirectional Printing Decreases Printing Time**

When using the ImageWriter Driver 2.1 or 2.2 with the ImageWriter II, you can get bidirectional printing and therefore decrease your printing time by nearly 25%. Just go to the Print dialog box and hold down SHIFT-OPTION-CAPS LOCK while clicking OK.

### **Faster Quality Can Result in Darker Picture**

When using ImageWriter Driver 2.2, picture quality is darker for Faster quality than for Best quality.

## Has AppleTalk Lost Your ImageWriter?

Sometimes, driver 2.2 forgets how to recognize an ImageWriter II, and assumes it has different paper handling routines than it does. Get a newer driver if this causes you problems.

## Don't Use Print Spoolers With ImageWriter II

The ImageWriter II shouldn't be used with a print spooler. It confuses the spooler by sending a message back to the Mac telling the machine that it's an ImageWriter II. The spoolers most likely to be affected usually simulate printing to a hard disk, which in turn sends the data stream to the printer.

## Printing Medium Quality Is Slower With New Driver

If you're printing from Microsoft applications, you'll find that printing is slower in the medium-quality mode than it was on the ImageWriter I. Speed up the printing process by using an old version of the ImageWriter driver, although this means giving up some ImageWriter II benefits for the time being.

## Use Two Sheets While Printing, If Possible

For best results, adjust the clear plastic paper thickness guide so that it allows two sheets of paper to pass through. The paper thickness lever is located under the ImageWriter II

cover to the right of the platen.

## How To Access the Self-Test Mode

The ImageWriter II can run self-test samples of all three printing modes. To do this, turn the printer off and hold down the Form Feed button while turning it back on. This starts the draft mode self-test. While it's printing, deselect the printer by pushing the Line Feed button and then push the Print Quality button to select a new mode. Then reselect the printer by pushing Line Feed. When the print head begins a new line, it will print in standard quality. Repeat Step Two to enter high quality mode.

## The LaserWriter/ LaserWriter Plus

### Solve Uneven Toning By Shaking Printer Cartridge

When working with a brand-new toner cartridge, you might experience some toning difficulties. If your printouts seem to be unevenly toned, remove the cartridge and gently shake it from side to side. (Be careful not to spill the ink.) Then reinsert the cartridge and print about 30 sheets to break it in.

### Should You Refill Empty Cartridges?

Empty LaserWriter cartridges can be refilled, but they don't always produce great quality printouts. That's

because the cartridge contains parts that get a lot of wear, such as the drum coating. If you need the best quality printouts, don't use a refilled cartridge.

### **You Must Have LaserWriter Printer Driver and Laser Prep to Print**

When you print on a LaserWriter, it's crucial that both the LaserWriter printer driver and the Laser Prep files are resident on your printing disk. If the ImageWriter driver is on disk instead, you'll find that your document will not print the way it looks on-screen.

### **Turn Off Smoothing To Print Textures**

When printing textured graphics on a LaserWriter (dots, for example, instead of lines), use the Page Setup... menu to turn off the smoothing effect. This tells the LaserWriter not to play connect-the-dots with your textured graphics.

### **Use LaserWriter Fonts For LaserWriter Printing**

For the best results on printouts, make sure your font is written in a LaserWriter font. If it isn't, it's a good idea to manually change the fonts instead of using the Font Substitution option in the Page Setup menu. When you change fonts by hand, remember to turn off the Font Substitution and Smoothing options. When you use Font Substitution, the LaserWriter

changes all characters from ImageWriter to LaserWriter fonts. But the original spacing between the characters remains the same as it was in the ImageWriter fonts, resulting in sloppy printouts.

### **Resource ImageWriter Fonts to Laser-Print**

If you use ImageWriter fonts with the LaserWriter, they have to be properly resourced to print in the right size as bit-mapped characters. If you create a font in 36 points, you have to give it the proper resource number, 36, when you create it, since a resource number error won't show up on an ImageWriter, but the LaserWriter prints it out in the point size specified by the resource number. You can correct this problem if it occurs by changing the resource number in FONTastic.

### **Use Largest ImageWriter Font for Substitution**

If you print ImageWriter fonts on the LaserWriter, always keep the largest available font size of each in the System file, since the LaserWriter uses the largest size and then scales it down. Using the largest font size to scale from, you'll get much smoother printouts.

### **Font Substitution Better With Later LaserWriter Drivers**

LaserWriter Driver versions 3.0 and higher do a better job of font

substitution (in the Page Setup menu) than previous drivers. The spacing still won't come out quite as well as it does if you convert your document to LaserWriter fonts, but it does improve spacing considerably.

### **LaserWriter Driver 3.0 Can Crash When It Deinstalls Chicago 12**

When you're working on a Mac Plus, the LaserWriter Driver version 3.0 can sometimes uninstall 12-point Chicago. The next time your Plus tries to access this font, it crashes because it can't find it. Use the Font/DA Mover to put a new 12-point Chicago font into the System.

### **Style Changes Can Make LaserWriter Driver 3.0 Reset While Printing**

When LaserWriter Driver 3.0 encounters a style change and then a change back in a document printing in a downloaded font (or a bit-mapped font), it re-downloads the original style, filling up the printer's memory very quickly. When this happens, the LaserWriter resets in the middle of the print job.

### **Having Trouble Collating?**

When you use the new driver with some software, the LaserWriter doesn't always collate pages automatically. If this happens to you, try moving the printer to the edge of the table and remove the paper output tray. Attach a little basket

with an edge slanted away from the printer to create a V-shaped device. Each page that rolls out of the printer should fall upside down, face down, allowing the next page to fall behind it. Just pull out the stack and you'll find collated pages.

### **Why Optional Characters Might Print Incorrectly**

Sometimes the LaserWriter Plus loses track of the Apple to Adobe character mapping on the new fonts, meaning that some optional characters will print incorrectly—and some won't print at all. To correct this, stop printing and turn the LaserWriter off and then back on.

### **Use PAGE SETUP If You Switch Printers**

If you will be using more than one printer, always select PAGE SETUP during printing if you have changed printers since the last printing. Your application remembers the imaging rectangle it can print to, and the printer determines the size of this rectangle. That's why letters are sometimes cut off at the edges of a rectangle.

### **Print Multiple Copies of Multiple Documents One at a Time**

If you want to print multiple copies of multiple documents, select them one at a time. Otherwise, if you choose to print, say, 3 copies of five documents, the first document printed will be

made three times. Each successive document will be printed only once.

## **You Have 90 Seconds To Feed Paper Manually**

When using the Manual Feed printing option, you have about 90 seconds in which to put your paper in the feed slot. If the paper hasn't been inserted by the time 90 seconds has elapsed, the LaserWriter will cancel your job.

## **Avoiding Envelope Jam**

To print envelopes without having them jam in the LaserWriter during manual feeds, place a little down curve on to the envelope. Do it by drawing the envelope over the edge of a desk or table. Also, run your fingernail along the upper edge, which makes the envelope a little smoother.

## **Creating Envelope Templates**

If you print envelopes with return addresses and/or standard addresses, try preparing a text block in your word processor, finding the right position on the page. To do this, trace the outline of an envelope on the right-hand side (lengthwise down the page) of some blank sheets and then run them through in the landscape Page Setup mode (manual feed) until the text appears correctly placed on the "envelope". Leave a good-sized margin for the printer, too. When you've gotten a good layout, save the document as a template to use in

envelope creation, or else run off a batch of envelopes with return addresses in advance.

## **Tighten Up Bit-Mapped Graphics For Laser Printing**

Bit-mapped graphics can be tightened up before printing on the LaserWriter by drawing the graphics as large as possible, then copying the design to the Clipboard and importing them into MacDraw. Once the image is pasted in, GROUP the graphic and shrink it by selecting any corner handle. It may look muddy on the screen, but it will print scaled down with most of the original detail.

## **LaserPrinting Acetates and Color Seps**

The LaserWriter can be used to produce acetates for overhead projectors and to prepare color separations. Some acetate can't withstand the LaserWriter's internal heat, though, and can melt instead of print. Use Clear Acetate for Plain Paper Copiers (try 3M's # 503) to do the job.

## **Protect Your Printout and Seal Its Surface**

Artists who apply "fixers" to laser printed pages are usually disappointed with the results. That's because many fixes are made with a solvent-based solution which dissolves toner, bleeds it into the paper, or causes the paper to become

transparent. But try spraying Krylon Matte Finish # 1311 to permanently protect your printouts while enhancing their blacks. Unlike normal fixes, this seals the surface. Use it in a ventilated area.



## Digitizers

### Scan Vertical Lines Sideways

If you're scanning an image that contains a lot of vertical lines, you'll get better results by putting the image on its side in the ImageWriter. Then rotate the image back to a vertical position. If you scan this sort of image normally, the resulting vertical lines will be choppy.

### Frayed Tape Strip Causes Horizontal Distortion Line

When using ThunderScan, sometimes a thin horizontal line of distortion appears across your scanned image. This has been attributed to the white tape strip that's supposed to be wrapped around the left end of the ImageWriter's platen. After extended use, the end of the strip can curl or fray, confusing the scanner. Try gluing the strip back into place, or replace it altogether, to correct the problem.

### Using ThunderScan On a Mac Plus or SE

ThunderScan was designed to derive its power from the serial ports on the

Mac. But when Apple changed the port configuration for newer machines like the Mac Plus, they removed the power supply pins from the serial ports, so ThunderScan needs a special adapter to run on the Plus. Order this adapter from Thunderware, Inc., 21 Orinda Way, Orinda, CA 94563, or call (415) 254-6581.



## Disks

### If You Can't Erase a Disk

You might occasionally have trouble erasing disks. If you continuously get a "Will not erase" or "Cannot initialize disk" message, try using a bit-copier like Copy II Mac to copy a blank disk on to your trouble disk. This should write over the problem area, making it possible to erase the disk.

### Always Work On Backups of Application Disks

Never do work with an original application disk. Make a backup copy, and only insert the original as the key disk when the application's copy protection asks for it. Keep all original disks stored in a safe, dust-free environment.

### Cheap, Safe Disk Storage

A good, and inexpensive, place to store disks is in a Sterling plastic check file. It's about 9 inches wide, 8 inches deep, and 4 1/2 inches high when closed. It holds up to 100 disks, and you can keep your original 10-

pack disk box to use as a divider to keep things neat. The check box holds up to eight 10-pack boxes in two rows of four each, and it has a lid that closes tightly and a handle for easy transportation. It costs about \$5...much less than you'd pay for a similar disk storage box.

### **Eject Disks Before Turning Off Power**

Always eject all disks before turning the power off on the Mac. This protects them from damage in the case of a power surge.

Never leave a disk in the drive while the power is off on the Mac. You risk possible data damage or loss.

### **How to Lock/Unlock a Disk**

When the small plastic square is set to the Up position (so that you can see through the hole if you try) your disk cannot accept any new data or modifications...In other words, it's locked. To unlock it, slide the plastic square to the Down position.

This write-protect tab isn't totally foolproof. The square tab isn't a mechanical lock, but rather a slot in which a sensing finger can be inserted to flip a switch. Before writing to a disk, the Mac checks to see if the switch is on or off. But if you have a bug-prone program that crashes, occasionally the Mac will bypass the tab setting and write bad information to the disk. There's no cure except: work on a backup of your application!

### **HP Disks Can Snag In Your Disk Drive**

If you use Hewlett-Packard diskettes, you'll notice they have a little plastic hook on the case's surface to hold the metal shutter back. This hook can become lodged in a Mac disk drive and prevent you from removing the disk. If you'll be using HP disks, use an X-acto knife to remove the hook.

### **Magnets Are Lethal to Disks**

Never expose your disks to any magnetic force, since it can wipe your data clean off the disk. If possible, store disks away from metals such as file cabinets.

### **Protect Your Disks From Airline Security Scanners**

Airline security scanners have long been held responsible for data loss on disks that have been passed through the X-ray. One way to stay safe is to carry the disks in your hand and pass them around the scanner, telling the security guard that they're magnetic media. While you may be the recipient of a strange look, it's better than finding your disks have been bulked accidentally.

Another way of bringing disks through airline security scanners is to put them in a lead laminated pouch designed to hold photographic film. You can find these pouches at camera supply stores.

## **Don't Touch the Actual Disk**

Don't touch the brown magnetic media that shows when you slide the metal sleeve aside on a disk. A single fingerprint is enough to render the disk unusable.

## **Disks Aren't Infallible—Back Them Up!**

Make sure to back up your disks periodically. While this might sound like a waste of time and money, losing a crucial file or disk due to damage or magnetic interference will cost you a lot more in the long run—especially in terms of aggravation.

## **Noisy Disks Signal Trouble**

If your disk makes more noise than usual upon being inserted into the disk drive, it might not have been aligned properly by the Mac. Eject it and try to boot it again. If a certain disk consistently makes unusual noise, back it up as soon as possible and don't save new data to it—the data could get lost or scrambled by the misalignment problem.

## **If A Crucial Disk Bombs...**

If your disk bombs (sad Mac, black screen) when you try to boot it up, try rebooting it while holding down the **COMMAND** and **OPTION** keys. You'll lose folder titles and window sizes, but your data remains intact.

## **Overwrite Sensitive Data**

Erasing sensitive data off a disk does not necessarily remove the information from the disk. To keep your erased information permanently erased, write another file on top of where the data used to be.

## **Many Games Can Only Boot From the Internal Drive**

Some disks, especially commercially-produced games, can only boot from the internal disk drive. Sometimes the machine will tell you that a heavily copy-protected disk is unreadable if you run it off the external drive.

## **Disk Labeling Tips**

Always label your disks with clear, individual names, and if they contain important files, mark these on the labels as well. There's nothing more time-consuming than thumbing through a hundred or so disks looking for the one that contains your most recent work.

If you change the labels on your disks fairly often, you might find that sticky glue residue builds up on the label end. The easiest way to remove it is to dab a little rubber cement thinner on a Q-tip to clean the plastic without damaging it.

Another trick for people who often re-label their disks is to place Scotch Magic Transparent Tape over the disk labels. Then, mark all disks using a

Number 2 pencil. When you want to change the label, just erase the tape. Remember to brush upwards, so no eraser residue slides toward the disk's sliding cover.

Yet another trick for people who change disk labels frequently is to try Scotch Post-It Cover-Up tape. It can be written on easily, and it adheres and comes off disks easily.

The ink from pens on labels often smears while disks are handled. To prevent this, apply a coat of clear nail polish over inked labels.

You can use the Mac's printer dump feature to make disk labels right from your desktop. First, open the window for the disk you want to label. Then, choose BY NAME from the View menu to display the file names. Now, use the size box to shrink the window to the size of a disk label and type COMMAND-SHIFT-CAPS LOCK-4 to dump the active window's image to your printer. Use tape to attach the labels, or else print out on a page-sized disk label and trim the edges.

### **Don't Use Caps Lock When Formatting 400K HFS Disk**

When formatting a 400K disk to have HFS (hierarchical filing system, used by the Mac Plus and newer machines), make sure your Caps Lock key is not depressed, or the disk won't format properly.

### **Having Trouble Formatting 800K Disk?**

Sometimes you might have trouble formatting a double-sided disk on the first try. If you do, one solution is to insert the disk, then format it as a single-sided disk. When the icon appears on the desktop, select it and choose ERASE DISK from the Special menu. Now, choose double-sided formatting, and you should be able to initialize the disk without any further problems.

### **Save Room By Defragmenting Disks**

Sometimes you can clear some extra disk space by using the Finder to copy the disk to a different one. It could free up fragmentation of the files on disk, and sometimes results in a few extra K of disk memory.

## **Hard Disks**

### **Unplugging A Hard Disk Erases All Its Data**

Never unplug a hard disk without backing it up, unless you really enjoy completely recreating all your files!

### **Shut Down Before Powering Down**

Always use the Shut Down command before powering off. This decreases the time it will take to reboot, and virtually eliminates the possibility of data loss.

## Easy To Find Hard Disk Extension Cord

Hard disks that use non-SCSI serial ports can be placed reasonably far from the computer by using a Radio Shack joystick connector cable as an extension cord.

## Solution For Slowed-Down Hard Disk Operations

If your hard drive seems to have slowed down in its operations, it's probably because your System file is spread throughout the disk, requiring more time to access specific files. This happens when you modify the System file often. If the file is too spread out, you dramatically increase your chances of crashing. To restore the hard disk to optimum running order, back up the entire hard disk to floppies and then reinitialize it, creating a new System file.

To avoid having your System file spread all over your hard disk as you add and delete fonts and DAs, create a few small dummy files, or a dummy volume, right after creating the System file. Give these dummies names that show the order in which they were created. Then, when you want to modify the System, delete some of these files to make room for the modifications. Hard disks run better if the System file is contiguous on the disk.

## To Use a Floppy As the Startup Disk

If you run on Apple's Hard Disk 20 and want to use a floppy as your startup disk, hold down the mouse button while starting the machine, and the system will default to the floppy as startup disk.

## Paradise Hard Disks

If you own a Paradise Hard Disk and are having radio and television interference problems, minimize it by placing the Paradise drive close to the Mac, coiling the cable that connects the units.

Don't use disk caching when working with the Paradise Manager program. If you must use it, contact Paradise for software that allows it.

Although Paradise hard disks include a replacement serial port for the one they use, this port won't support a modem. Instead of getting frustrated, connect the modem to the Mac's modem port and connect the hard disk to the printer port. The ImageWriter can be hooked up through the port on the Paradise hard disk.

If you set the Paradise print spooler to zero, you'll find that you can't print at all. If you don't want to use the spooler, set it to the smallest size possible, greater than zero.

You'll get faster Best quality ImageWriter printing by not using

the spooler function.

Closing a volume with the volume mounting desk accessory does not update the volume's desktop, which can result in loss of position information for your icons. Drag the volume's icon to the trashcan to Close it and update its desktop file, and your icons will be updated.

### HyperDrive

When you use a slash (/) in a drawer name, you can load that drawer on to the desktop by pressing the Command key and the character that immediately follows the slash. For example, to load the "Paint/Draft" drawer, press COMMAND-D.



### RAMdisks

#### DASCH RAMdisks

Excessive heat can blow your RAMdisk. If you're using a DASCH external RAMdisk, be sure to keep it resting on its right edge, so that the power cord comes out of the top of its back. Also, put the four rubber feet shipped with the DASCH on the right edge to give it enough clearance for air to get into the cooling slot.

If your DASCH external RAMdisk is connected to a 512K Mac with the old ROMS, you can keep the RAMdisk organized under the MFS file system without giving up the capability to use HFS:

A Mac with the old ROMS and no

hard disk can only be booted from an MFS floppy, but if the Hard Disk 20 file is on the boot floppy, it will try to initialize any disk 800K or larger—including an external RAMdisk—as HFS. When it does this, you'll lose the folder information, since files are copied from MFS floppies to the HFS DASCH during the bootup procedure. But there is a solution.

Keep the Hard Disk 20 file off the boot floppy, so the Mac doesn't know HFS is there and initializes the external RAMdisk as MFS (keeping track of all folder information) on bootup. After you've filled the RAMdisk with everything you want from MFS disks, push the Programmers' Switch and reboot with a different floppy containing all the files you need for the Mac and external RAMdisk plus the Hard Disk 20. Since the RAMdisk is already loaded, it won't copy any more files, but the HFS file system automatically gets loaded into memory, not on to the RAMdisk. It will now be available until you Shut Down, reset, or crash. Now, create HFS floppies to your heart's content.

### Modems

#### Quiet Dialing

If you're using a Hayes-compatible modem and don't want to hear all those beeps and clicks during dialing, turn off the speaker using the ATM0 command. To turn it back on, type in ATM1.

## If You Can't Connect, Tell Your Modem to Wait Longer

If you have trouble connecting to an on-line service, adjust the length of time the modem waits for a carrier signal before it hangs up and redials. The command `ATS7=x` sets the number of seconds the modem waits for a carrier. The default value for `x` is 20 seconds, but you can substitute a new number of seconds for `x`.

## Don't Put Your Phone On Top of Courier 2400

The Courier 2400 may look like it was designed to have a phone on top of it, but looks can be deceiving. If placed on top of a Courier 2400, your phone blocks the cooling vents and may result in overheating problems.

## If Your Courier 2400 Has ROM 241 or 242, Get a Free Replacement

A few early Courier 2400 models were shipped with slightly defective ROMs. Check your version by issuing the `ATI0` command. If your ROM version is 241 or 242, call USRobotics at 1-800-DIAL-USR for a free replacement.



## On the Desktop: The Finder

### Label Your Application With Its Version Number

To know at a glance exactly which

version of a program you're working with, get in the habit of including the version number in the application's name, for example, `MacWrite 4.5`. The only files you can't do this to are system files like `Finder`, `System`, and `Laser Prep`. If you rename a system file, it won't work properly.

## Rename File, Folder or Disk

You can rename a file, folder or disk by clicking once to highlight it, then typing in the new name.

## How Large Is Your Folder?

The size of a folder isn't displayed in the directory window under any View mode. The way to find out how large a folder is is either to open it or to select it and choose `GET INFO` from the File menu.

## Put Minifinder Icon Into System Folder

If you work with a `MiniFinder`, make sure its icon is put into the `System Folder` or it might have problems displaying installed application icons in its window.

## Finding Windows In a Hurry

If you work on a cluttered desktop, sometimes the piles of folders and files make it hard to find a particular open window. Just double-click on the folder's dimmed icon to make the window active.

### **Express Route to Root Directory Level**

Close all open folders and return to the root directory level by holding down **OPTION** until the menu bar appears after you **Quit** an application.

### **Moving Window Without Making it Active**

There's a way to move a window without automatically making it the active window. Press **COMMAND** while dragging the window by its title bar.

### **Rebuild the Desktop**

After receiving a "This disk needs minor repairs" message, you might have to rebuild the desktop file. Hold down **OPTION-COMMAND** while booting the disk to do this.

### **Get Info Comments Lost When You Rebuild Desktop**

Any comments entered into the **Get Info** dialog box are stored in the desktop file. If you have to rebuild this file, your **Get Info** data will be lost permanently.

### **Don't Use Colons in a File Name**

Never use a colon in a filename. That's because colons are used to separate filenames from volume (disk names), and when you use one the Mac looks for the file on the volume in front of the colon. If there's no volume

by that name, you'll get an error message.

### **Ejecting Disks**

Need to eject a disk quickly? Drag its icon into the trash. This ejects the disk, eliminates any windows it was displaying, and ensures that the Mac won't ask for it again if you open another file.

Another way to eject is to press **COMMAND-SHIFT-1**. However, this leaves the ghost of your disk icon on the screen, and you might be asked to reinsert it when you launch another file.

The fastest way to eject a disk from the external drive is to press **COMMAND-SHIFT-2**.

Eject both disks simultaneously by pressing **COMMAND-E**, without selecting any icon on the desktop.

If you really get stuck and have to eject your disk, turn the power off on the Mac. Then, holding down the mouse button, turn the power back on. Don't release the mouse button until the disk has popped out. This only works with the internal disk drive.

When all else fails—and only when all else fails—you can free a trapped disk by unbending a large paper clip and inserting the straight end into the tiny hole to the right of the disk drive. Wiggle it (carefully!) until you feel it push the inner mechanism to eject the disk. This method doesn't work as

well on 800K disk drives as it does on older 400K drives.

### **With One Disk Drive, Opening Files On Non-System Disk Is A Drag**

If you're using a single-disk system, try not to open a file on one disk with an application on another, since it can mean interminable disk-swapping ...and eventually, a sore wrist! Instead, bring the file over on to the application disk before opening it.

### **Games Access Disks Frequently**

Many games access the disk frequently during play, creating a lot of wear and tear on your disk drive. You can save a lot of disk access by placing the games and their System files on a RAMdisk, using the original disk as the key disk to allow the program to verify its copy protection.

When the Macintosh spits a disk out at you, the disk needs a System and Finder on it in order to be read by the machine. Access the machine through a different disk, then, on the desktop, drag the System and Finder icons to the other disk to copy them on.

### **When You Get the Dreaded "Sad Mac"...**

When the Macintosh adds insult to injury by making a "sad Mac" face (complete with funeral-black screen) at the same time, take note of the number code displayed underneath the Mac. If

you call Apple Technical Support to find out what's wrong, that number can help staffers pinpoint the problem. Again, you can probably still access the disk by booting another one first.

When the "sad Mac" face is accompanied by the code 0F000D, chances are that your Programmers' Switch (the plastic tab on the left side of the Mac) is jammed or improperly installed. Turn the power off, then reinstall the switch using your Macintosh owner's manual instructions.

When the "sad Mac" is accompanied by the code 0F0064, the startup disk is missing its System file, or the System has been corrupted. Copy a System file onto the disk by booting to the desktop with a different disk.

If you get an immediate bomb with ID = 26 when you launch an application, chances are that your application is damaged. Use your master copy to create a new backup and try again.

### **Take a MacPaint "Photo" of Your Screen: Screen Dumping Made Easy**

Want to take a MacPaint "photograph" of what's on your screen? Press COMMAND-SHIFT-3 to make a "screen dump." When you go back to the desktop, you'll see a document entitled "Screen 0." You can open, modify or print it using MacPaint, or any other program that recognizes a PICT file. (Note: This

may not work if you're using game software, or other applications in which the System has been modified.) You can take up to 10 screen dumps per session with a single disk, if disk space permits.

You can delay a screen dump from taking place by holding down the mouse button until the exact screen action you want is taking place. Then, release the mouse button and the screen automatically dumps to a PICT file.

If the Macintosh beeps while you're trying to create a screen dump, it's because there isn't enough room left on the disk to create a PICT file. Empty some files from the disk and try it again.

If you want to send the image in the active window on your screen straight to the ImageWriter printer, press **COMMAND-SHIFT-4**.

The entire Mac screen contents can be printed by pressing **COMMAND-SHIFT-CAPS LOCK-4**.

### **Get the Time (and Date) of Day In Your Document**

To put the time and/or date on your document, choose **Alarm Clock** from the Apple menu and select **COPY** from the Edit menu. The current time and date will be placed on the Clipboard, from which you can paste them into the document.

### **Unlock Files and Folders For Disposal**

Press the Option key while dragging a locked folder or file to the trashcan to automatically unlock the file for disposal.

### **Duplicating Files With Finder 5.4**

If you're using Finder 5.4, try holding down **OPTION** while dragging a file into a folder. Instead of moving the file, the new Finder duplicates it and places the copy (with the same name) into the folder.

### **Launching Applications With Multiple Open Windows**

A number of applications allow several windows to be open simultaneously (although you can only work in the active window). Start those applications with windows already open by selecting multiple documents in the Finder and then clicking **Open** on the File menu.

### **How Long Do Files Stay in the Trash Can?**

Files thrown into the trash can remain there until you launch an application, choose **Empty Trash** from the Special menu, or take any other action that requires you to leave the desktop. A good rule of thumb is: if you aren't sure whether you want to throw a file away, don't put it in the trashcan unless you back it up on another disk.

## Superfast Cleanup on the Desktop

If you're using Finder 4.1 or higher (and if you aren't, get down to your Apple dealer and get one!), hold down the Option key while selecting Clean Up Window for a superfast cleanup that places icons near the top of the window.

## Organizing Files Under HFS

If you aren't using the new ROMs and have no desire to use the new HFS system, there's an easy way to organize related groups of files for easy access from within an application. Give a common prefix to each category (such as INV to denote invoices). In an Open dialog box, all the files with the same prefix will be listed together.

## Installing HFS on a 400K Disk

HFS can be installed on a 400K disk, although the instructions in the Mac Plus manual's original printing were wrong. Put the disk in the internal or external drive and choose ERASE DISK from the Special menu. Hold down the OPTION key during the entire initialization process. Remember that an HFS directory takes up more room than an MFS equivalent, so you'll have less work space on your 400K disk than you would under MFS.

## Use View By Date to Know Which Files Should Be Backed Up

When you're backing up floppy disk data, use the View by Date mode on the desktop to figure out which files have been changed and therefore have to be backed up.

## Different Desktop View Modes Behave Alike

If you choose to view your desktop by another mode than large icons, you'll find you can work with these the same way you can with larger icons. You can move them, rename them, copy them, and double-click to open them.

## Alphabetizing Your Desktop Icons

There's a relatively easy way to arrange all the icons on your desktop alphabetically. Start by bringing the window you want to sort to the front, and choose BY NAME from the View menu. Then choose SELECT ALL from the Edit menu and drag all the files to the desktop. Once this is done, select BY ICON front the View menu. Now, close the window you want sorted and drag all the files back over to the icon that represents the closed disk or folder. The next time you open that disk or folder, you'll see that all the files have been alphabetically arranged.

## Viewing Folder Sizes in Different View Modes

When displaying the contents of a disk using any View option other than the icon or small icon, folder sizes aren't shown. Only a pair of dashes are displayed. Opening any folder within that window reveals the size of the folder where the dashes appear. By organizing these windows efficiently, you can easily see the sizes of any of your folders without having to constantly choose Get Info.

## Has Someone Changed Your Default Font?

If you're not the only one using your Mac, you might boot up the machine one day to find that your desktop font looks strange. The default font might have been changed with an application such as the Change Application Font desk accessory or application, or PRAM2. The best solution is to remove the Mac's battery for at least 30 seconds to clear its memory.

If that doesn't work, your System might have been modified to remove an "unremovable" font. Try starting up with another disk that contains a complete System file (you can use any commercial disk for this purpose). Finally, if you're still having problems, replace the Mac's battery. It could have worn out.

## The Fast Way to Switch Startup Disks

You can switch startup disks to make a newly-inserted disk the startup by opening the new disk while on the desktop. Then enter the System file and, holding down COMMAND-OPTION, double-click on the Finder icon. After the disk drive stops whirring, the new disk will occupy the startup position on the desktop.

## Tips on Copying Files

Avoid having files called "copy of (X)" by copying files to a different disk. Just drag the file icon to the destination disk icon. When the destination disk is highlighted black, release the mouse button. The file will copy to the new disk, and you'll still keep it on your old disk.

If you want to copy everything on a disk except a few files, put the unwanted files on the desktop, out of the window, before dragging your source disk's icon to the destination disk.

## Remove the Finder to Save Disk Space

If you find yourself running out of disk space on a constantly used application, removing the Finder from the disk saves about 47K. Do this by starting up with another disk, then putting in the disk you want to doctor and dragging its Finder icon to the trashcan. Then click once on the application you want to run and select Set Startup from the File menu. When you Quit the application, you'll be greeted with an ominous Bomb dialog box,

but don't worry—the only thing you'll lose is the contents of your Clipboard. The way to stop Bombing when you leave the application is, simply, copy a new Finder on to your disk and choose the Set Startup routine again.

### **Bypass the Minifinder and Return to the Desktop**

If you have a Minifinder installed on your disk, you know that when you Quit an application, you'll default back to the Minifinder, not the desktop. But hold down **OPTION** when you quit an application, and you'll bypass Minifinder and go directly back to the desktop. Just be careful not to hold the **COMMAND** key as well, since if you do the Finder will rebuild your Desktop file and all your folders will be renamed "Unnamed #..."

### **Cut, Copy and Paste are Universal**

Cut, copy and paste functions are an integral part of the Mac. If the application you're running doesn't have these options in the Edit menu—or if it doesn't have an Edit menu at all—the cut, copy and paste functions should still be there. Use the command key equivalents (**COMMAND-C** to copy, **COMMAND-X** to cut and **COMMAND-V** to paste) to access these functions.



## **General Information**

### **Command Key Equivalents Work in Dialog Boxes**

Each button in the dialog boxes responds to a Command key. Among commands that work: **COMMAND-D** to switch disk drives; **COMMAND-E** ejects disks; **COMMAND-period** cancels commands.

### **Templates Save Time**

It's easy to create document templates that you can use again and again. Make your blank document in whichever application you choose (MacWrite, MacPaint, MacDraw, etc.). Then, each time you fill in the form, choose **Save As...** instead of **Save**. The original document remains pristine and ready to be filled out again, and you'll have an on-disk copy of the completed form for your records.

### **Keyboard Buffer Stores Typing**

When saving a new document or using **Save As...**, you can type the name of the document before the Save dialog appears, since the keyboard buffer stores the characters in memory. If you're a good typist, you can type the name and press **Return**, and you'll begin the Save almost immediately.

## **Caps Lock Doesn't Disable Numbers or Punctuation**

When typing something in all caps, you don't have to remove the caps lock to type numbers, commas, periods, apostrophes or slashes. The Mac automatically assumes you want these characters, not the symbols above them. If you want to use a symbol while in caps-lock mode, press SHIFT while typing the appropriate key.

## **Lock Your File To Prevent It From Being Altered**

You can protect a file from being mistakenly altered by selecting it on the desktop, choosing Get Info, and clicking in the box next to the word "Locked." The document will not be able to be changed again until the Lock box is clicked on again to deselect it. This does not affect any other files or applications on the disk.

## **Is This File Locked?**

There's an easy way to check whether a file is locked or not on the desktop. Just select the file and move the cursor over its filename. If the file isn't locked, the cursor changes shape to an I-beam. If it is locked, the cursor remains an arrow.

## **Be Careful About Naming Files**

Don't name files using words that the Mac could mistake as part of your operating system (such as

"Minifinder"). This can confuse the machine and result in lost or damaged files.

## **Superceding Alphabetized Minifinder Names**

Sometimes you might want to access a file or folder quickly, without having to scroll through the alphabetical Minifinder listings to find it. Add a bullet (OPTION-8) as a prefix to the filename, and that file or folder will always appear at the top of the list of files.

Numbers also take precedence over alphabetical titles.

## **Take the Express Route Through Minifinder Box**

There's a faster way to find files than scrolling through a minifinder box. Just press the first letter or two of the file name you want to find to take the express route to your selection.

## **Open Files The Easy Way**

Once your file name has been highlighted in black in the minifinder box, you can just press Return and the file will open.

Another way to open a file in the minifinder scroll box is to simply double-click on its name.

## **When You Launch an Application By Mistake**

At one time or another, just about everyone launches an application by double-clicking it by mistake. Instead

of waiting for the program to launch, then quitting, try pressing **COMMAND-period** to go right back to the desktop. This command also can stop multiple file transfers from within the Finder, once the file it's already working on has been completed.

### **Finder 4.1 Lets You Cancel Dialog Boxes With Command Keys**

You can use **COMMAND-period** to cancel all standard dialog boxes (those are the ones you get when you choose **Open** or **Save**) when using Finder 4.1. This works for all applications.

### **Close Desk Accessories Before Shutting Down**

When you issue a **Shut Down** command, Finders 5.1 and 5.2 both fail to close desk accessories, and they don't send a **GoodBye-Kiss**. This causes DAs with open files to glitch in more ways than we can mention. When using either of these Finders, make sure all DAs are closed when you shut down.

### **Don't Duplicate Files in Trash Can**

Finders 5.1 and 5.2 crash if you try to duplicate a file in the Trash can.

### **Re-File What You Rescue From the Trash**

In any of the Finder 5.x series, if you

drag a file out of the Trash and on to a different volume, the file will be permanently removed from the Trash and the destination volume. When you want to remove something from the Trash, be sure to put the file back in the folder you took it from.

### **Save Disk Space by Removing Fonts**

If you find that disk memory is a problem (as it often is for single drive users), slim down your System file as much as possible by removing all but the most necessary fonts.

### **Reduce Clipboard Size If Memory Is Short**

To preserve memory while working in an application, reduce the size of the Clipboard by copying a single letter into it.

### **Dialog Boxes Allow Flexible Responses**

You can answer standard questions like "Save changes before closing?" by: clicking on the button displaying the answer you want; or hitting return to select the box with the heavier border; or typing in **Y** for yes or **N** for no.

### **The Hidden Character in Most Fonts**

There's a secret key combination that's not shown in the **Key Caps** desk accessory. Press **OPTION-SHIFT-** (the key just to the left of the **1**) to access it. Depending on the point size

and font selected, you'll come up with interesting, and maybe useful, shapes: For example, in 12-point Geneva, the combination results in a silhouette of a rabbit.

### **Use Calculator to Paste In Equations**

If you do a lot of mathematical calculations, there's a faster way to do it than just working the problem out with the calculator DA and typing it in. If you're typing a mathematical formula into a document, just type it in up to the = sign, then choose the Copy option from the Edit menu. Summon the calculator desk accessory and choose Paste from the Edit menu. As soon as this is done, the calculator automatically presses the right keys and arrives at your answer. Then, just select Copy again, close the calculator, click the cursor right after the = sign, and choose Paste. Your equation result will appear where you want it, although it will always appear in Geneva font, so you may have to change this.

## **SOFTWARE**

### **Airborne!**

#### **A Christmas Present for Gamers**

There's a special Christmas gift embedded in the program. On

December 25, the cactus turns into a Christmas tree. To see this on any other day, just use the Alarm Clock DA to set the Mac's calendar to December 25.



### **Ancient Art of War**

#### **When Taking A Fort, Back Up Archers With Second Squad**

Using archers alone to overrun a fort can inflict a lot of casualties on your army. Try sending two or more groups (barbarians or knights) with a few men to occupy enemy archers. Then send in your regular units, so that they can sneak over the wall while the enemy is already engaged. This means the battle takes place in the courtyard and not at the base of the wall.

#### **The Coward's Way to Inflict Casualties**

If your squad of archers is fighting another squad of archers but you're outnumbered, fire a barrage of arrows and then retreat. The arrows still move when you're not on screen, and you can therefore whittle down enemy forces without any casualties of your own.

#### **Let Non-Archer Squads Attempt to Take Your Fort**

If an enemy squad containing no archers attacks your fort, don't zoom in to take a closer look at the battle. The attackers won't be able to retreat then, and they'll eventually all be killed.

## Screen Dumps Don't Work, But...

If you try to make a screen dump using the standard COMMAND-SHIFT-3, it won't work. But COMMAND-ENTER takes a PICT file screen snapshot, which you can edit in any graphic program.

## You Don't Need An Army To Capture a Flag

To capture a flag without moving a full squad to do it, detach and form a new squad with only one man. Then, just send him to the flag. It doesn't matter how many men are in a squad—to capture a flag, one is sufficient.



## Alarm Clock

(Desk Accessory)

## How To Keep Alarm Clock Active While You Work

You can keep the Alarm Clock in sight while you work in an application. Just open the DA and move it to the highest possible position on the screen, then move your active work window down. Even though the Alarm Clock window won't be active, it still continues to work.



## Chart

## Widen the Window Before Starting Work

Always widen the window, chart area,

and plot area to their maximum settings before you start working. To access the underlying series of windows, use COMMAND-L (List).

## Extra-Long Text in Headers and Footers

It's possible to create text in a header or footer entry box that's longer than the box itself. To edit the longer text, get at it by placing the cursor in the visible text near the right end of the entry box and then dragging off the end to scroll the text left and display the extra text.

## Embedding Formatting Commands in Headers and Footers

You can embed formatting commands and other instructions in the text of the header or footer. These commands can be inserted in the Page Setup dialog by typing the & and a letter simultaneously:

&L: Align the characters that follow at the left margin;

&C: Center the characters that follow;

&R: Align the characters that follow at the right margin;

&P: Print the page number;

&D: Print the current date;

&T: Print the current time;

&&: Print a single ampersand (&).

## Use White on Labels That Overlap

When using labels that overlap other parts of the chart, select a white background to avoid having pixels from the overlapped lines show through.

### **Add Legends Before Formatting**

If you'll need a legend on your Chart document, add it before you start formatting, since Chart rearranges everything to make room for the legend. This rearranging can make a mess of your best-laid plans.

### **When You Link Chart Files to Multiplan**

When linking Chart files to Multiplan, choose the type of data first or else each series will be out of step and categories and values will be transposed. Also, changing the typeface of a linked series can sometimes un-link the two programs without warning!

### **Margin Settings Determine Printed Size of Charts**

Chart uses the margin settings established in the Page Setup dialog box to determine the printed size of a chart. If you want to change the size of your printout, just change the margin settings.

### **Let Chart Do Your Math For You**

When you're creating a pie chart, let Chart do the math for you. Just enter the actual figures and let it calculate percentages. Otherwise, you won't be able to use percentage labels on your sectors, and you'll find that other

statistical functions will be disabled as well.

### **Modify Chart Files to Create Sequences of Pie Charts**

You can modify Chart files with MacPaint or MacDraw to create a sequence of pie charts on a page. Use the Plot Area grab handles from Chart to resize each chart before positioning and deselecting them.

### **Exporting Charts to MacPaint**

When copying charts to MacPaint, choose the option to copy "As it Appears on the Screen." Otherwise, it won't fit into your drawing window after it's pasted in.

### **When You Can, Modify Chart Files in MacDraw**

MacDraw works very well to enhance Chart files. Its main advantages over MacPaint are that it can accept a chart in its full printed size, and after Pasting, the elements of the chart remain individual elements that can be manipulated independently of each other.

### **Intersecting Gray Areas May Print Blurred**

Intersections of gray areas that are easily distinguishable on-screen might print a bit blurred, especially on the ImageWriter. Use dark outlines to emphasize each figure, or

else alternate light and dark colors for best results.

## Tips For More Effective Charting

Dark patterns are much easier to understand, so as a general rule of thumb, use the darker patterns to display the most important figures.

Horizontal column charts are best suited to comparisons of series with few numbers and wider, less ordered variations.

Line charts are best used for displaying trends in time, where the relationship between two date figures is more important than the relationship between the target and actual figures.

Pie charts can only be used when your data adds up to 100 per cent. Plus, each sector must exclude all members of the others.

In designing charts, as in any other graphic, remember that when in doubt, simple is best. A chart cluttered with too many labels and patterns will be too distracting to be effective.

## Create Templates to Save Time

Whenever you create a new kind of graph or chart, keep a copy in a library folder, since modifying an existing chart is a lot easier and faster than creating a new one from

scratch. In creating a template, avoid using non-automatic text areas, since these will remain even after you've entered new data. When you use the template, remember to Save As... and then name it, to keep your original template clean and clutter-free.

## Save As You Go to Prevent Confusion, Mistakes

As you work, save a number of versions along the way, since the formatting commands can be complex. This helps you avoid confusion, or worse, time-consuming mistakes.



## CheapPaint

(Desk Accessory)

## Opening Multi-Scrap Files From CheapPaint

This program can access multiple Scrapbook files, much like the shareware DA Multi-Scrap. Unfortunately, files created with Multi-Scrap can't be opened directly from CheapPaint. Fix this by using ResEdit or other editing program to change the TYPE from SCRP to ZSYS to access Multi-Scrap files in CheapPaint.



## Chooser (Desk Accessory)

### Embedded Message

You can find the Chooser author's name embedded in the program by clicking in the version number on all Chooser versions 3.0 or higher.

### **Only Use Chooser With Recent Printer Drivers**

Only use Chooser with ImageWriter Driver 2.1 or higher and LaserWriter Driver 1.1 or higher. If you are working with lower version numbers use the Choose Printer DA instead.

### **Making Semi-Permanent Printer Setting Changes**

Upon startup, the Mac loads the contents of the battery-supported Parameter RAM (PRAM) into a low memory portion of RAM. If you use Chooser to make changes to printer settings, the changes will be made only to the copy of PRAM residing in RAM. The Mac doesn't alter the PRAM settings when it's turned off. But you can trick the Mac into changing the PRAM settings to make the changes you want in Chooser, then closing its file. Then select Control Panel and make a change on any control, either leaving it changed or resetting it back to its original setting. Now, close Control Panel and the Mac alters PRAM settings for both Control Panel and Chooser, retaining them in battery-supported PRAM.

### **Auto Disk Cache Only Works With 128K ROMs**

The Control Panel shipped with Finder 5.0 and higher includes a panel which sets an automatic disk cache for your Mac. This only works with the new 128K ROMs.

### **Some Older ROMs Have Trouble With Key-Repeat Setting of Zero**

The startup ROM misinterprets a Key-Repeat setting of zero. Although this setting should turn off the key repeat function entirely, the Mac interprets it instead as a message to repeat as fast as it can. The problem has been fixed in the newer 128K ROMs.



### **ConcertWare**

#### **Keep Instruments In Same Folder as Player File**

If you run ConcertWare under HFS, keep all your instrument files in the same folder as the Player or the program might tell you it can't find an Instrument.



### **Control Panel**

(Desk Accessory)

#### **Accessing the "Secret Message"**

If you use Control Panel version 3.0, there's a "secret message" embedded in your program. When Chooser is active, click on the "3.0" to see it.

#### **You Don't Need Control Panel on All Your Disks**

Settings changed with the Control Panel are recorded in the Parameter

RAM maintained in the battery. That means, when you change from one disk to another, control panel settings carry over to the disks you put it after the change. Unless you have to change settings according to the disk you're using, remove the Control Panel from most of your startup disks once it's set to save about 8K. If the battery goes dead, you'll have to reset the Control Panel.

The one exception to the rule above is the desktop pattern on your startup disk. This is saved to the particular disk you're using. If you want to change the desktop pattern on a disk, make sure the Control Panel is installed.



## Copy II Hard Disk

### Installing Copy-Protected Programs to a Hard Disk

You can use Copy II Hard Disk to install copy-protected programs to a RAMdisk. This prevents you having to go through the key disk routine when running some applications, and also allows some applications to run on a RAMdisk if they normally wouldn't.

### Moving Copy-Protected Programs From 400K to 800K Disks

Copy II Hard disk should be used to move copy protected applications from 400K to 800K disks. First, format an 800K disk with a System folder that contains System files, Finder, printer

drivers, and the desk accessories you'll want. Then, treat the external drive like a hard disk and use Copy II Hard Disk 5.2 or higher to install your copy protected application on your disk.



## Copy II Mac

### Use Copy II Hard Disk to Transfer to Double-Sided Disks

Some versions won't transfer a protected program from a single-sided disk to a double-sided one. Use Copy II Hard Disk, included with Copy II Mac, and set the target double-sided disk as the hard disk volume to write the protected program to. The protected program should then run from the double-sided disk, but this doesn't always work.



## Cricket Draw

### Use Align Objects to Control Object Placement Completely

This program contains a little-known trick that allows users to gain total control of object placement using the Align Objects command. The ordering of objects drawn does not depend on their creation order or positioning, but rather in their layering. That means selecting an object and choosing Bring to Front from the Arrange menu will later make that object the point of reference for future Align commands. For example, when you have an object you would like to align other objects with, select the

item and choose Bring to Front from the Arrange menu. Then, SHIFT-CLICK the other objects you want aligned, and choose Align Objects from the Arrange menu. Regardless of the alignment done, the object on the top layer will remain in its original position.

### Ungroup Objects For Faster Printing

When you work in documents that contain a large number of grouped objects, you can save some printing time on the LaserWriter by ungrouping your objects just before printing.



### Crunch

#### Cells That Once Contained Values Always Occupy Memory

This program doesn't allot space to cells in memory until you enter a value. Once a cell has contained a value it occupies memory, even if you remove the value later. That means you should avoid opening cells unless you intend to use them. Also, organize and limit the shape of your work area before entering values for best results.



### Cyborg

#### Run Cyborg on a Mac Plus

While this game program isn't supposed to work on a Mac Plus, don't throw away the disk just because you've upgraded. First, make a copy of the master, then use any file utility like Fedit or HFS Locator Plus to

rename the Finder on the Cyborg disk to anything other than "Finder." Then, reboot the Mac Plus with the current System and Finder, and insert Cyborg in the external drive. Double click on the icon and you're off to the adventure. If you only have an internal drive, use a RAMdisk to load the current System and Finder.



### Dark Castle

#### Experts Can Track the Number of Times They Win in a Session

If you want, you can keep track of how many times you've toppled the throne. When typing your name into the Hall of Fame, type OPTION with any other key. This produces a Dark Castle symbol. Use the number of castle symbols to represent how many times you've finished the mission.

#### Unlimited Shields

The shield usually lasts for 3 seconds or so. But you can keep wearing it indefinitely. When you use the shield key, hold it down for about 2 1/2 seconds. At the last moment, release the key and then press it again quickly. Experiment with this to pick up the rhythm.

#### How to Walk on Air (In the Game, Folks, In the Game)

It's possible to "walk on air" in this game program. Press the duck key with either the up or down key as you go up or down a staircase or ladder,

and when you reach the top or bottom your character will walk on air. Once there, it's fun to experiment with different commands. You'll get unusual results!

### **Express Route to the Trouble Room**

To get to the Trouble Room quickly, push Door Number Three. You'll go to the Black Knight's first chamber. If you wait, the platform will slip out from under you, dropping your character down to Trouble #3—saving the trip through the first two rooms, and possibly saving a few game lives.

### **Deluxe Music Construction Set**

#### **Hook Up to Your Stereo**

There's a way to get really great sound from the 128K or 512K Mac when working with music creation programs. Hook it up to your stereo with a cable that has a mini phone plug on one end and a pair of phono plugs on the other. Put the phono plugs into the equivalent AUX jacks on your stereo, and then fit the mini phone plug into the back of the Mac, near the modem port. Then, use the Control Panel DA to turn the volume slider all the way down, since if you don't the music will distort. Then just turn the stereo on (set it to Mono) and compose to your heart's content.

When running the Mac through an audio system, select the External

Speaker option to remove the software "filter" that equalizes the sound especially for the Mac.

### **Incompatible With Hard Disk**

DMCS doesn't work with a hard disk. When the copy protection would normally prompt you to insert your key disk, it will bomb instead.

### **Don't Modify the System Fonts**

Never modify the system fonts in DMCS, since it uses special musical notation fonts.

### **Only Save When You Have Enough Room On-Disk**

Make sure you have plenty of room before saving a file. If you don't have enough memory on the disk, the program could destroy the file instead of prompting you to insert a new disk.

### **Desk Accessories**

(Also look under specific DA names)

### **Use Up to 15 Desk Accessories**

You can place up to 15 desk accessories under the Apple menu in each System file.

### **Always Leave One DA On Disk**

If you want to remove as many DAs

## DESK ACCESSORIES

as possible to save room, remember to leave at least one on the disk. If you remove the only desk accessory in a System, you'll inadvertently destroy the System file. The only remedy for this is to reinstall one DA to the corrupted System.

### How Much Room Does Your Desk Accessory Fill?

The following chart shows the disk space required for standard desk accessories:

Accessory	Bytes
Alarm Clock	4069
Calculator	2505
Choose Printer	5802
Chooser	8311
Control Panel	7457
Key Caps (old)	1645
Key Caps (new)	2641
Note Pad	2595
Puzzle	963
Scrapbook (empty)	3256

### Close DAs At End of Work Session

Close desk accessories that may be open before quitting an application or shutting down. Otherwise, you can damage files.

### Link DAs Directly to Applications

You can attach desk accessories directly to the applications you use them with, instead of to the System file. This lets you exceed the maximum of 15 DAs recommended by Apple. Just launch the Font/DA

Mover and you'll see the fonts and DAs from the System file in the left-hand window and a blank window with an Open button in the right-hand window. Hold down OPTION while clicking on the Open button and the disk window that appears allows you to Open any file on the disk to install fonts or DAs.

### Set the Alarm From the Keyboard

You can set any section of the Alarm Clock from the keyboard. Just select the element you want to change, and type in the setting you want. Move from one element to the next by hitting the Tab key. You can't change the A.M. or P.M. setting by typing, but you can type in the time in a 24-hour format instead. For example, use 13:00 to denote 1:00 P.M.

### Keeping Multiple Note Pads

If you use your Note Pad a lot, you may run out of room. Keep multiple Note Pads on disk by renaming the Note Pad data file in the System folder. Just rename the Note Pad from the Finder. When you ask for the Note Pad from the Apple menu, a new System file called Note Pad will be created. To substitute your old Note Pad for the new one, just change the new one's name to Note Pad A and change the old one's name back to Note Pad.

### Note Pads Remember Fonts and Styles

The Note Pad only displays text in 12-

point Geneva. But it does retain the font and formatting information from text pasted in, even though it isn't displayed. When you copy information from the Note Pad and Paste it into an application, the original font and formatting shows up in the document.

### **Keeping Multiple Scrapbooks On Disk**

As with the Note Pad desk accessory, you can work with several Scrapbook documents on one disk. After the first one has been filled, quit to the desktop and rename the Scrapbook file. Then, when you re-enter your application, you'll have an empty Scrapbook waiting to be filled. To access the first Scrapbook, rename the second one and change the original's name back to Scrapbook File. This method allows you to keep specialized Scrapbooks on a single disk.

### **Keep Scrapbook Open While You Work**

If you use the Scrapbook constantly, save accessing time by leaving it up as you work. Leave a small portion of it visible behind your document window, so you can call it up by clicking on its window.



### **Dinner at Eight**

#### **Dress Up Menu Printouts With Graphics Application**

This program is limited in its handling of menu printouts. If you

want to enhance your printout, use COMMAND-SHIFT-3 to take a MacPaint snapshot of the menu, and then modify the image in MacPaint.

### **Clear Before Selecting New Category in Silver Palette Edition**

The Silver Palette Edition has so many categories that it's impossible to cross-reference between them all. Remember to click on the Clear button before selecting a new category on a different Browse screen.

### **Disk Express**

#### **Run This Program From Original Disk**

To ensure that this program runs properly, boot and run it from its original disk. Also, make sure that any RAM cache is off, or you could experience some time-consuming problems.



### **Disktop (Desk Accessory)**

#### **Perform Commands On Multiple Files**

While viewing a list of files, you can make multiple selections to perform commands on many files at once. Just SHIFT-CLICK to select individual items, or SHIFT-DRAG to choose a continuous list of files.

When a number of files are selected, the Sizes button tells you the total of all files. Clicking on the Delete button

(when multiple files are selected) gives you the option of deleting each file in the sequence without having to confirm each one.



## **Dollars & Sense**

### **Older Versions Are Incompatible With New Macs**

If you used this program on an older Mac and are upgrading to a Mac Plus or other HFS system, beware: older versions of Dollars & Sense don't work under HFS. Make sure you print out all of your files before making the change.

### **Only One Screen Dump Can Be Saved At a Time**

To create screen dumps, use **COMMAND-SHIFT-CAPS LOCK-4**. This sends a screen dump to the ImageWriter and creates a MacPaint file at the same time. However, only one screen dump can be saved to the disk at a time.



## **Excel**

### **More Than a Megabyte's Wasted**

Excel accesses only the first megabyte of memory. If you have more than that installed in your Mac and use the program under Switcher, be sure to install in in the first memory slot to give it the lowest possible memory allocation.

### **Select Commands by Typing First Letter of Selection**

You can quickly select commands within most dialog boxes by typing the first letter of a radio button command. That often selects the command, without you having to actually click the mouse on the button.

### **COMMAND-A Selects Entire Worksheet**

You can select an entire worksheet without using the mouse by typing **COMMAND-A**. This is the equivalent of clicking in the upper left corner of the worksheet.

### **Show or Print All Worksheet Formulas**

To show or print all the formulas in a worksheet (rather than the data), open a new macro sheet, copy the required cells from the worksheet, and paste them into the macro sheet. If you don't include all related cells, the cell references within the macro sheet may be incorrect or misleading.

### **Quickly Reopening Linked Documents**

It can be annoying to reopen several linked documents and constantly be presented with the "Update Reference to Non-Resident Sheets" message. Clicking on either choice will update the worksheet or chart automatically, but it takes time. One solution is to use the Resume Excel document.

(These are created each time you Quit Excel. They contain information on which documents were open, and where they were placed right before you Quit.)

Before starting, you have to remember which documents reference others, including worksheets, macro sheets and charts. Enter Excel and open all the related documents. Activate (either by clicking or using the Windows menu) documents in the following order: all charts, then all worksheets, and finally all macro sheets. Now Quit. After you're returned to the Finder, in the same folder as Excel you'll see a Resume Excel document. Rename it, so the next time you Quit it won't be replaced. The next time you want to open your linked documents, double-click the renamed Resume document instead.

### **Insert New Row/Column Without Using File Menu**

You can select INSERT to insert a new row or column without going back to the file menu every time. Hold down OPTION while clicking on the row or column in which you want to add a new area.

### **Automatic Dates In Column Heads**

There's a way to make Excel automatically fill in the dates at the heads of columns. For example, to fill in months, select the cells you want to fill in with the months (12 in this

case). Then, choose NUMBER from the Format menu. Type "mmm" into the dialog box for abbreviated months, or "mmmm" to have the month names spelled out. Then, without deselecting the cells, enter 1 in the first cell and press ENTER. Go to the data window and choose Series. Then, in the dialog box, select Series in Row, Type Date, Month Date Unit, and increment of one without a stopping point. Finally, go back to the spreadsheet, type 2 in the second cell, and press ENTER. The dates should appear in the columns. You can experiment with this method to see how it works for other time increments as well.

You can also use the NOW() function to enter the current date or time into a cell. Define which part of the information should be displayed by selecting DAY(), HOUR(), MINUTE(), MONTH(), WEEKDAY() or YEAR(). The formula for entering the current month in a cell would be =MONTH(NOW()).

### **Displaying/Printing Columns Beginning With Zero**

Some zip codes have leading zeros (for example, Woodstock, Vermont's zip code is 05091). If you always want Excel to display and print these zeros, select the row/column in question and select Number... from the Format menu. Type in five zeros at the bottom of the dialog, then click OK. The selected area will now allow for zip codes with zeros as their first digits.

## Copying Spreadsheet As a Graphic Image

Excel has a feature that allows you to copy a portion of a spreadsheet as a movable graphic, instead of having to copy only the numbers. Select the area of the spreadsheet you want and choose Copy Picture from the Edit menu. (In order to get this option to appear, hold down SHIFT before clicking on the Edit menu.) The selection, along with the row/column headings, will now be in the Clipboard, where you can later place it in a word processor, page layout or graphics program. The item is copied to the Clipboard in PICT format, so you can manipulate it in MacDraw. This also allows you to resize and reshape it proportionately for LaserWriter output, if your graphics application allows for it.

## Highlighting Multiple Cells

Highlight a large number of cells by clicking on the top left cell of the range and choosing the GOTO... command from the Formula. Then specify the lower right cell of the desired range and press SHIFT while clicking OK or pressing Return.

## Cursor Key Movement With Mac Plus or SE

When a group of cells is highlighted, you can't move the cursor outside the selected area if you're using the keyboard to control it. But if you're using a Plus or SE, use the cursor keys to move around within the

selected cells. When the cursor hits the bottom or edges, it will wrap to the other side.

## The Easy Way to Name Cells in Columns

If you find yourself entering a column of labels only to have to manually name each cell in the column just to the right of the labels for use in formulas, here's an easier way: Select the first cell that you want to have the same name as the contents of the label cell to its left. The use COMMAND-L (or choose DEFINE NAME in the Formula menu) and hit return before the dialog box appears. Excel will automatically assign the contents of the label cell to the left as the selected cell's name.

## Command Key Combinations to Select Page Setup Options

This program provides command key combinations for almost all the choices in page setup and print dialogs. In both, COMMAND-C or COMMAND-period selects Cancel, while COMMAND-O or pressing Return/Enter selects OK.

For the ImageWriter Page Setup... dialog box:

COMMAND-U activates "US Letter"  
 COMMAND-A activates "A4 Letter"  
 COMMAND-I activates "International Fanfold"  
 COMMAND-T activates "Tall Adjusted"  
 COMMAND-5 selects "50% reduction"

COMMAND-N marks "No Gaps Between Pages"

COMMAND-P marks "Print Row and Column Headings"

For the ImageWriter Print... dialog:

COMMAND-B activates "Best"

COMMAND-F activates "Faster"

COMMAND-D activates "Draft"

COMMAND-A activates "All"

COMMAND-H activates "Hand Feed"

COMMAND-P marks "Preview"

For the LaserWriter Page Setup... dialog box:

COMMAND-U activates "US Letter"

COMMAND-A activates "A4 Letter"

COMMAND-B activates "B5 Letter"

COMMAND-F marks "Font Substitution"

COMMAND-S marks "Smoothing"

COMMAND-P marks "Print Row and Column Headings"

For the LaserWriter Print... dialog:

COMMAND-A activates "All"

COMMAND-F activates "From...To"

COMMAND-M activates "Manual Feed"

COMMAND-P activates "Paper Cassette"

COMMAND-N activates "No" (for No Cover Page)

COMMAND-L activates "Last Page" (for cover page)

COMMAND-H activates "Help"

## Formatting Commands in Headers and Footers

To embed formatting commands or other instructions in the header or footer of an Excel document, insert

the formatting commands in the Page Setup dialog box. The keyboard equivalents are:

&L: Align the characters that follow at the left margin;

&C: Center the characters that follow;

&R: Align the characters that follow at the right margin;

&P: Print the page number;

&D: Print current date;

&T: Print current time;

&F: Print the document name;

&B: Print the left, center, or right side of the header or footer in boldface;

&I: Print the left, center, or right part of the header or footer in italics;

&&: Print a single ampersand.

## Extra-Long Header or Footer Text

You can enter header or footer text that's longer than the box can display. If you need to edit this text later, view it by placing the cursor in the visible text near the rightmost end of the entry box and then dragging off the end. The text will scroll to the left and the extra text, already highlighted, will appear.

## Protect Sensitive Data By Hiding It From View

Using the Cell Protection command only hides formulas from being viewed. To really protect data, eliminate the column that the data is in from view. Select all of the columns you want to hide, choose Column Width from the Format menu, and set the width to zero. (Although hidden,

the values will still be used in computations.) Now, protect the document with a password. No one will be able to view the hidden data without knowing your password and unprotecting your document.

### **Protecting Sensitive Data While You Work**

To protect your document from prying eyes while you work on it, open a new document before opening the sensitive one. Then use the new document's size box to make it as small as possible, and move it to the bottom of the page, so low that only its title bar shows. Finally, open the classified document. If you're intruded upon, double-click the new document's title bar and it will instantly cover your private one.

### **Centering Tables With Borders**

To center a table with a border, increase or decrease the left margin. Check your centering by viewing the page with the Preview option (on the Print dialog). Both left and right margins will appear if the table is centered. Only the left margin appears in the reduced view if it is not.

### **Trim Document Space by Removing Formulas**

When entering a formula into a cell, hit Enter or Return to confirm the formula. The results will appear in the cell, but the formula is saved with

the sheet. Press COMMAND-= (equal) instead and the results of the formula will be entered into the spreadsheet, while the actual formula is lost. (If a new value is entered into a variable cell in the formula, the results cell won't change.) Use this method to trim a few K from your saved document.

### **Some Text Strings Should Be Entered As Formulas**

You might find that entering some text strings into a cell can sometimes produce odd results. For example, pasting 10A into a cell results in Excel displaying 10:00 AM. Work around this by entering the text as a formula. Instead of 10A, type = "10A", and the cell will show 10A.

### **With a Single 400K Drive, Make a RAMdisk**

If you're using Excel on a single 400K drive, 512K Mac, create a 215K RAMdisk that contains the System, Finder, and ImageWriter files. Excel works fine with the remaining memory, although you'll have to do a little disk shuffling when work files are saved to a data disk.

### **Copying Cell Groups For Page Layout Applications**

When copying a group of cells to be used in a page layout application, highlight the cells and then press COMMAND-SHIFT-3 to copy cells, divider lines and any other information. It will be converted into

QuickDraw, so when you paste it into a page layout or word processing program, it can be easily resized while retaining its full resolution.

## Recompute Macro Functions By Reopening Macro Sheet

You can only use macros from open macro sheets when building your spreadsheet. If you Close a macro sheet containing a macro that a cell in your open spreadsheet refers to, the value of the affected cell will change to "#REF!". The way to recompute your functions is to re-open the macro sheet.

## Use XMODEM to Import Lotus 1-2-3 From PC

If you import Lotus 1-2-3 worksheets from a PC by modem, use XMODEM. If the terminal program on your Mac has selectable MacBinary, turn it off. If you use XMODEM, only 7 of the 8 data bits per bite comes through, so the transfer is useless. If MacBinary is used, the first 128 bytes of data will be lost.



**Fedit**

## ONLY Work on a Backup

Never use Fedit to modify an original application disk. This is a programmer's tool, not a toy, and a mistake could cost you more than you think in time, money, and aggravation.

## Removing the Trash Can Dialog

When you throw an application into the Trash, the message, "Are you sure you want to remove the application X?" always appears. If you're always sure, and you find this annoying, you can disable the feature easily. If you're using Finder 4.1, use Fedit or another disk editor, search for the hex string "3F05 4EBA 266C 4A1F 660A" and modify it to "3F05 4E71 4E71 4A1F 600A." For Finder 5.2, see the tip under ResEdit.

## Fedit/MacDraw

Current versions of MacDraw can't address more than 11 fonts under the Font menu. If you're proficient with Fedit or MacTools you can remove the limitation. Open a copy of MacDraw and change the following:

Find:	Change to:	Occurrences:
41ED FAD6	41ED F360	9
0000 0C60	0000 0CA0	1
000B FACE	0016 FACE	2
0014 6F02 7C14	001F 6F02 7C1F	1
70E1	709B	3
0001 00E1	0001 009B	3
10E1	109B	1
0C47 0015	0C47 0020	1
4E56 FFBE	4E56 FF9E	1

Now you should be able to see all fonts in the System, with their size selections appearing at the bottom of the menu. If there are a lot of fonts, you may need to scroll down the menu to see sizes. Files created with this modified MacDraw might not be fully text compatible with future MacDraw editions, so be warned.

## Fedit/Multiplan

If you've accidentally forgotten an important spreadsheet password, use Fedit to open the spreadsheet document, and find block 3, part A, position 0079. If the spreadsheet is protected, this location will contain a 01. Change it to 00, save the changes, and now the spreadsheet will open with no password.



## File

### Generating Line Fields At Insertion Points Lets You Create Lists

Type OPTION-Return in a field to generate a line feed at the insertion point, which allows you to create lists. This embedded character acts like a normal Return when copied and pasted into a word processing or spreadsheet application.

### Quickly Select the Entire Field

SHIFT-CLICK selects the entire field, so you don't have to scroll to highlight it.

### Generating Exportable Tab Characters

Hitting the Tab key usually moves the cursor to the next field. But you can generate Tab characters by holding down OPTION when you press Tab. If data with embedded tabs is exported to a word processor, for example, the tabs will respond to the

tab settings in the word processor, making it easy to format tables. Be careful about using that same data in another database program, because the receiving database may confuse the Tab characters for field delineators, ruining the transfer's format.

### Display Box is Bigger Than It Looks

If the display box you've chosen for a field in your form design isn't large enough for the data you've entered, don't worry: while the box only displays the first part of the data, File saves the rest. You can see what's in the rest of the field by clicking a few characters before the end of the box and dragging off its end. This scrolls the text through the box for viewing. This only works horizontally in single line fields, and won't work vertically with multiple line fields.

### Changing Field Formats While Preserving Your Data

There's a way to preserve data and still change the Format of a field. First, open your form design and move the hide line so that all your fields are showing—remember to show even hidden fields, since if you don't you'll lose the data they contain. Now, return to the data entry window and SHIFT-Click to select all the records in your database and copy them to the Clipboard. Then, use Clear from the Edit menu to empty all your records and quit. When the dialog appears asking how to save the

Clipboard, choose "Unformatted." Then restart File by double-clicking on your data file's icon and choose Show Form from the Form menu. Now reformat the fields, clicking OK whenever File warns you that you'll lose data. After changing the field formats, save the changes and return to the data entry window. Select a New record and Paste in your data from the Clipboard. Then, choose "By Name" when the dialog box comes up. This only works if the database contains no pictures. Graphics are lost during reformatting in this way.

### **Enter Data Fastest in Smallest Database Window**

To enter data quickly, don't leave the database window open to the default screen size setting. Close it as far as it will allow, to display only two lines. Since File redraws the screen after completing an entry, keeping the window small requires the program to draw less. Hit the Enter key to go to the first field of the next entry.

### **If Your Select Bar Pushes Your Form Aside**

The width of the select bar on the far left side of the screen in the datafile display varies to accommodate the number of digits in the record numbers. If the bar becomes so wide that it pushes your form partly off the page, fix it by Opening the Form

window, picking up the line, and then moving it back to the left. This may obscure some of your record numbers, and you'll have to reset it every time you start a new work session.

### **Mac Plus Keyboard Cursor Movement**

If you're using a Mac Plus, File has provisions for using the arrow keys on the keyboard. The right arrow moves the cursor to the next field, replacing Tab or Return.

The left arrow moves the cursor to the previous field, replacing SHIFT-Tab or SHIFT-Return.

The down arrow moves the cursor to the same field in the next record, replacing COMMAND-ENTER.

The up arrow moves the cursor to the same field in the previous record, replacing COMMAND-SHIFT-ENTER.

### **Printing Solid Rules on the LaserWriter**

When you print reports on the LaserWriter, rules will print as dotted lines. To print them solid, select FONT SUBSTITUTION from the Page Setup dialog. FONT SUBSTITUTION also makes sure that any of your total and subtotal fields, and your headers and footers, are printed in Helvetica instead of Geneva.

## **Don't Use Embedded Tabs Within Fields When Exporting to Other Database**

If you work on a file you'll want to transfer to another database manager, don't use embedded (OPTION-) Tabs and carriage returns within fields. When you try to transfer the file later, the other database manager could interpret the embedded tabs and returns as regular ones. In most cases, this will render the transfer useless, since the importing database manager will interpret the tabs as field delineators, and the returns as record delineators. This will mess up the order of your fields and records, generating so much extra work that you might as well create a new database from scratch.

## **Creating File Records With a Word Processor**

You can create records in a word processor that will later be transferred into File. Don't type in the names of fields, since these will get Pasted in along with the data...just type in the contents of the fields in the same order as the fields on your File form. Follow each field with a Tab character, and mark the final field in each record by a carriage return.

If you have blank fields in your records, enter an extra Tab character for each blank. If a blank field is at the end of your record, you don't have to enter Tabs, because the carriage return will make the database

manager ignore any remaining fields in the current record and instead start with the first field of the next record.

Transfer the data into File by selecting all of the data. Put the cursor in front of the first character of the first record and press SHIFT-Click while placing the cursor immediately after the last carriage return. Copy the records to the Clipboard, quit the word processor, and enter File by double-clicking your file's icon. Go to the end of the database and select the whole New record by clicking on the selection bar to the left of the data window. Then Paste your records into position, choosing the "By Name" option. If anything doesn't look right, Undo the Paste and go back to the word processor file to fix the problem.

## **Saving Changes to Page Setup Parameters**

If you change the page setup parameters of a report that's already been saved, use Save As... instead of Save after you make the changes. Using the standard Save will save only the changes you've made in the report design, without saving changes to page setup. When the Save As... dialog asks you if you want to replace the existing report of that name, click Yes and the page setup is saved permanently.

## **Saving Files in a Sorted Order**

To save files in a sorted order, use

Save Records As... before closing the file, after data has been sorted. This saves them as a new, sorted data file. If you want to keep the unsorted file as a backup, close and save it in the usual way. If you don't need the old file, delete it, since it won't reflect changes made to the sorted file while it was open, and this keeps you from getting confused about which is which.



## Filemaker Plus

### Solution For Label Peels on ImageWriter II

When printing on the ImageWriter II, you might find it peels labels off pages and backs up. Just before printing label layouts, choose SET PAPER SIZE from the File menu and set the paper length extra long. Then, in Page Setup, turn "NO GAPS BETWEEN PAGES" on and specify Hand Feed printing. If you use, say, 1-inch, one across labels and set the paper length to 36, the printer makes 36 labels, skips the next two labels, and then prints the next batch of 36.

### Embedded Credits

A humorous credit screen is embedded in FileMaker Plus. To see it, hold down OPTION-SHIFT while choosing About FileMaker Plus from the Apple menu.

### Use OPTION-SPACE to Enter Multi-Word Phrases As Search Identifiers

Use OPTION-SPACE instead of the

space bar when you're entering multiple-word phrases that will be used as search identifiers. That indexes both words as one, allowing searches by combinations or portions of all the words. For example, if "Land of the Rising Sun" is entered as separate words, each will be indexed individually. Buy when you press OPTION-SPACE between the words, the phrase can then be searched by "Land of" or "Rising Sun" or other connected words.

### Entering Copies of a Record Using COMMAND-M

To enter a lot of copies of a record using the (new) COMMAND-M keys, it helps to execute a find on the first record entered. Thereafter, the number under Found: will increase by one on each press of COMMAND-M. That allows you to keep track of how many records have been entered.



## Filevision

### Establish HELP Files For Other Users of Your Database

If other people will be using your Filevision database, establishing HELP files in addition to your drawings will make things convenient for them. In the Types menu, add a type called HELP. Create one field in your data form and name it Instructions. Then, in the NAME field, type in a message such as "For HELP screens, double-click the mouse." Take a rounded rectangle tool

and place a small shape in an unobtrusive, but accessible, place on the screen. Then click on the rectangle and, with the SHIFT key depressed, select the text tool and type HELP into the rectangle. Finally, go back to the data form and type in your HELP text in the INSTRUCTIONS field.

### Controlling Object Sequence By Numbering Your Objects

Control the sequence of objects when using the NEXT or PREVIOUS buttons by numbering your objects in the NAME field. Numbers always take precedence over letters, which are alphabetized. So to move items to the top of the list, give them numbers as names.

Another way to control ordering is to use the same name, but put a number in front of the name. This also shows you at a glance which data is linked. It works well if you need to show a series of steps in your drawing file.

### Save Graphics For Use in Other Files

If you create a drawing file that contains object you want to use in other files, Cut and Paste the object between files. For groups, it's easier to duplicate the entire drawing file, then modify it and save it to a new name.

### Use Pre-Made Graphics, If You Need Them

You don't always have to create graphics from scratch. Don't be afraid to copy examples on the Filevision Ideas Disk, or public domain examples downloaded from a network. These pre-made graphics can be modified to your own needs, and you won't have to reinvent the wheel every time you create a graphic.

### Find File (Desk Accessory)

#### Use MOVE TO DESKTOP To Put Files On the Desktop

Version 1.1 of the Find File DA (it's part of the System 4.1/Finder 5.5 update) has an option on its menu called Move to Desktop.

After using Find File to locate a file, choose MOVE TO DESKTOP from the Find File menu, and the file will appear on the desktop next to the disk icons. Later, select the file and choose PUT AWAY from the File menu and you'll see the file shoot back to its original disk or folder. If you're using AppleShare, the Move To Desktop option doesn't work.



### Flight Simulator

#### Poster-Sized Screen Dumps

You can create a huge, almost poster-sized screen dump of a Flight Simulator screen by pressing COMMAND-SHIFT-5. The program

then prompts users to insert a formatted disk with at least 200K free. After inserting the disk, click on the close box, and twelve large PICT files will be saved. Print the series and tape them together to create a poster, if you want.

## Access Five Hidden Situations

To activate five prerecorded situations that don't normally appear, start by choosing LOAD RAM FROM DISK from the Situation menu. The Flight Simulator disk ejects, and you'll be prompted to insert a disk containing a situation file. Don't. Reinsert the program disk. This will totally confuse the program, which will eject the disk yet again, prompting you to reinsert it. Now, try to access those hidden situations.



## 1st Base

### Chaining Fields To Create Mergable Paragraphs

It's possible to chain several 50-character fields together to form mergable paragraphs for form letters by using 1st Base and 1st Merge. Just put the number of 50-character fields you'll need in sequence in the form design. Then fill in the fields, tabbing to the next field when the one you're working in is full. Use hard spaces (OPTION-Space) at the ends of fields to keep them from being stripped off when 1st Base merges the fields.

## Compatibility Problems With Phone Pad DA

1st Base has compatibility problems with Batteries Included's Phone Pad DA. If you try to Cut or Copy data from a 1st Base field to Paste into the Phone Pad, the data disappears from the 1st Base field completely—and it doesn't show up in the Phone Pad either! Don't use this feature with important data.

## Font/DA Mover

### Open Directly Into Desk Accessory Mode

This application always defaults to font mode when you launch it. If you want to open directly into the desk accessory mode, hold down the OPTION key while launching the program.

### Fast Access to Other Disks' Systems

You don't have to use the Open button to access the system of another disk. If you put a disk into the drive while Font/DA Mover is open, it will automatically open the system of any other disk placed in the drive.

### Lock Disks to Avoid Accidental Erasures

To avoid trashing a font file by accidentally hitting the Remove button instead of the Copy button, lock the disk on which the original font resides by sliding the plastic tab

to the "open" position. This dims the Remove button, which indicates that the command can't be done.

### **Install Font or DA Directly Into Application**

You can install a font or desk accessory directly into an application. This comes in handy if you need, say, a foreign language font only in the word processor. Accomplish this by holding down the Option key while clicking Open. You'll get a choice of all files on your disk, not just systems or desk accessories. By installing fonts into applications you use them with, you'll always be able to keep them together when you move applications on to other disks.

### **Display File Size and Resource Forks**

While in the main screen hold down OPTION while selecting a DA file to display the size of the file's data and resource forks in the lower left corner. This also will indicate whether or not the DA has PICT resources, which are bit-mapped graphics.

### **Quick Ejecting**

Hold down OPTION while closing a list of fonts or DAs and the disk they're on ejects itself.

Hold down OPTION while quitting to eject all disks from all disk drives.

### **Access Extra Information About Desk Accessories**

Hold down OPTION while clicking on a desk accessory and the display will show how many bytes it occupies by its code, pictures, and "other."

### **You Don't Always Have to Remove Old DAs**

If you're using Font/DA mover 3.2 or higher, if you are replacing a DA with another of the same name (possibly a newer version), you don't have to remove the old DA first. Just copy the new version over, and as long as the name is exactly the same, it will replace any existing version of the DA on the destination disk.

### **Store Small Custom Graphics As Fonts**

If you have frequent need of small custom graphics, save trips to the Scrapbook by creating your own font that contains all your small custom graphics. Then, just install them in the System of the application you need the characters in, such as your desktop publishing program. This comes in handy for making end bullets, graphics used to lead into regular columns or features, etc.



### **Fonts**

### **Designing Fonts the Easy Way**

Don't feel you have to reinvent the wheel every time you design a font.

Browse through presstype and other catalogs available at art stores to find a font close to what you like. Then use a scanner or trace the characters of the font with the mouse. Then modify them until you have exactly what you want.

### **Don't Edit LaserWriter Fonts With ImageWriter Editors**

Font editors designed for use with ImageWriter fonts shouldn't be used to edit LaserWriter fonts. Use only PostScript-compatible font editors when designing for the LaserWriter or you'll get choppy, odd-looking printouts.

### **Apple Symbol Is a Character**

To get the Apple symbol as a character in a font, just install any Apple font. To reach the symbol, type **OPTION-SHIFT-K**, then go back and change the square box that appear in most fonts to that of a recently installed laser font.

### **Accessing Accurate Quotation Marks**

Most Apple and LaserWriter fonts have very accurate quotation marks built into them. These fonts usually include marks for both beginning and ending a quote. These are usually accessible through **OPTION-SHIFT-[** (left bracket) and **OPTION-SHIFT-]** (right bracket).

### **New Font Changes May Affect Document Spacing Created With Old Fonts**

Apple changed the Times, Helvetica and Courier fonts slightly for use on the LaserWriter II. This may affect the spacing of your text in older documents. Make font adjustments if necessary to documents that don't seem to print correctly on the LaserWriter II.

### **Mac Attack A Source of Special Fonts**

The game Mac Attack uses four special fonts to create some of its graphics. These are called Tank, Missile, MaTitle and Landscape. If you like the fonts and want to use them elsewhere, use the Font/DA Mover to put them into other System files.

### **Accessing Diacritical Marks**

To use a diacritical mark, you have to type the command key combination for the mark first, then type in the letter you want to accent.

### **Accessing Ellipses**

Most fonts contain true ellipses, which are the series of three periods used to denote a run-on sentence. Access the ellipsis by typing **OPTION-SEMICOLON** in most fonts. This comes in handy when you justify text, because the ellipsis remains attached to the word in front of it, and the spacing between the periods isn't altered by justification.

### **Use Ellipses To Make Quick Dotted Lines**

Make a quick line composed of horizontal periods by typing OPTION-SEMICOLON to get ellipses as you go. Just don't choose to justify the line, since the spacing will come out very strangely.

### **If You Need A Heart...**

New York font (18-point) contains a heart character. Access it by typing OPTION-SHIFT-Tilde (the top left character on the keyboard).

The LaserWriter Symbol font contains a heart. Access it with OPTION-G.

### **With New York Fonts, What You See Doesn't Always Match What You Get**

The New York font contains some mismatches between the diacritical marks you see on-screen and those you get in printouts. For example, if you use an uppercase E with an acute accent in 9- or 18-point New York, you'll see the proper mark on screen—but will see an umlaut on printout.

### **Accessing "Secret" Font Characters**

OPTION-SHIFT-Tilde is the combination you should use to access any "secret" characters in your font. These vary from font to font.

### **Keep Proportions When Designing Double-Size Fonts**

When designing double-sizes of fonts, make sure you keep the same proportions as you have in the smaller version. Geneva is a glaring example of a font that uses different proportions: just look at the 12-point lowercase Y against the 24-point version. If you use the font in MacWrite and select the high quality option when you print, the ImageWriter will use the double-size version and reduce it to get the font you want. If the proportions or the baseline of the double-size font aren't the same as the one you're using, you'll get strange results from the printout.

### **Mac Point Sizes Aren't Always Accurate**

The Mac uses different "standard" point sizes than those used by typographers. For example, single-spaced Seattle 10 is about the same size as a standard 12-point typeface with 2 points of leading. Only the LaserWriter fonts—Times, Helvetica, etc.—are standard sizes, so if exact specs are called for, use only these.

Not all fonts in the same point size are the same actual size. Experiment with different fonts in the same point size to see the difference.

### **When You Assign A Font ID...**

The Mac has a total of 511 font ID numbers. Fonts 0-127 are reserved for

Apple fonts, while 128-383 are designated to outside developers approved by Apple. So, when assigning a font ID number, use 384-511. However, be careful and test things out on duplicate disks, since resource tools might not work with fonts numbered above 255.



## FullPaint

### Creating Dashed Boxes or Lines

You can easily create dashed boxes and dashed horizontal or vertical lines. Just create a checkerboard pattern of two diagonally opposed, 4 x 4 solid boxes. Select this pattern, then hold down **OPTION** while drawing a square, or **SHIFT-OPTION** while drawing a line.

### Expanding Graphics To Fit Entire Page

It's easy to get a drawn graphic to expand proportionally to fit the entire page. First, select the graphic (it works best with the lasso) and **Copy** it. Then, in a new document, triple-click the selection marquee and select **Paste**. The pasted graphic will expand to fill the entire page. You might want to touch up the new full-page graphic for cleaner display and printing.

### UNDO Remembers Last Mouse Drawing Action

FullPaint's Undo command

remembers the last mouse drawing action. As long as you don't use editing functions like **Cut**, **Copy** and **Paste**, or if you don't select anything from the tool palette, the last object you created with a drawing tool can be **Undone**, even if menus are opened, the preferences dialog is used, patterns and brushes are edited, etc.

### Creating a Custom Brush From On-Screen Pattern

When you use the custom brush feature, click the pointer on any part of the Mac screen and whatever is under the pointer will be turned into a brush and placed on the brush palette.

### Making Textures Match Specific Areas

Create a texture that matches a particular area in your painting by selecting **Edit Pattern** from the **Goodies** menu and clicking the pointer on the area you want to match. This comes in handy when you've moved a painted graphic to another part of the page and the texture you used before won't align with the image the way it did in its original position.

### Create Your Own Paint Brush

You can create your own paint brush by double-clicking the brush icon and selecting a brush while holding down the **COMMAND** key.

### **Randomizing Patterns to Look "Washed"**

Hold down **OPTION** while selecting any paint brush to cause the pattern to randomize and create a washed effect.

### **Forcing the Rectangle to Close As Tight As It Can**

Hold **COMMAND** before and while selecting an object with the selection rectangle to force the rectangle to close around an object as tightly as it can.

### **Toggle Menu Bar On and Off**

Press **COMMAND-A** to toggle between the full screen with menu bar and the full screen without menu bar.

### **Toggle Paint Palette On and Off**

To avoid having two palettes cluttering up the screen, press **COMMAND-OPTION-T** to toggle the paint palette on and off. This won't affect the tool palette.

### **Pasting to Upper Left Corner of the Active Window**

When you paste something it usually goes to the center of the active window, which is the default area. You can paste an element into the upper left corner of the active window

by holding down **OPTION** while Pasting.

### **Grabbing Palettes Anywhere Within Their Windows**

To move the tool and pattern palettes, you usually have to grab them on the upper part of the tool window. Press the **OPTION** key to grab these palettes anywhere within their windows.

### **Easy Access to Picture Fonts**

You don't have to install pictorial fonts like Cairo into your System to have easy access to them. Create a FullPaint document with the desired characters in the graphic fonts, and then, when you need them, open the file, copy the characters, and then paste them into your work.

### **Creating Transparent Text**

Transparent text can be created while pressing **COMMAND-OPTION** while selecting the text insertion point. Any pattern beneath what you type in will show through the text.

### **Putting White Text on a Black Background**

To create white text on a black background, press **OPTION** when clicking the text cursor on a black background.

## Fill Outside of a Shape Instead of Its Inside

Hold down **OPTION-SHIFT** while filling a shape with the Paint Bucket to fill the outside of the shape instead of the inside.

## Cut or Copy All White Or Empty Space Within Lasso

Press **OPTION** while lassoing an object to cut or copy all the white or empty space selected. It will then be cut or pasted along with the graphic image.

## Quickly Creating a Borderless Shape

Create a borderless shape, without changing the border width to a dotted line, by pressing **OPTION** while drawing the shape.

## Selecting Objects Tightly Packed Among Other Objects

Select an object that's stuck in a tight spot by double-clicking the loose end of the lasso directly on the object.

## Variable Eraser Size

To create variably sized erasers, use the selection marquee to define the size of the area, then press **COMMAND-OPTION** to use the selected area as an eraser.

## Game Within a Program

The old public domain mathematical/cellular game, Life, is built into FullPaint. You can create a Life form with either the paintbrush or the pencil tool, then select it with the selection marquee and press **COMMAND-OPTION-L**. Each time you press this combination, the life form will advance one generation.

## Recovering Corrupt or Damaged Files

Corrupt or damaged FullPaint documents can sometimes be recovered by changing the document's creator from **PANT** to **MPNT** using a file editor. When this has been done, you can often open the document with MacPaint. Save it as a MacPaint file, then open it with FullPaint. This can clean up corrupted files that cause System failures when opened directly from FullPaint.



## GraphicWorks 1.1

### Specify New Origins on Rulers

You can specify the new origins (zero points) on either the horizontal or vertical rulers by dragging the cursor from the ruler's corner box. If you don't like your changes, it's not easy to re-drag the zero point back to its original place. A quick way to do this is to triple-click in the ruler's corner box, which sets both rulers back to the original zero point.



## GrayPaint

### **GrayPaint/MacPaint Combo Lets You Work on Entire Page At Once**

GrayPaint can't work on an entire page at a time. But you can work around this, and get some interesting results, by copying a selection of the active GrayPaint window and saving it as a MacPaint document. The selection will expand to fill the MacPaint page, and GrayPaint's gray scale information will be transferred with the image to give it an unusually smooth look.

### **Turn Any Area Into a Fill Pattern**

A powerful feature not fully explained in the manual is the ability for any area to be turned into a fill pattern. To do this, select the desired area with the marquee, choose DEFINE FILL PATTERN from the Edit menu, and, holding down SHIFT, fill an area with the paint bucket tool.



## Helix

### **Plan Function Before Building It When Using Abacus Icons**

To use one of Helix's abacus icons to perform complicated calculations, remember you should plan your function before building it on the Mac. If possible, try to break the calculation into modules, then combine them in the final calculation.

This has the added benefit of letting you use the modules in other calculations without having to start from scratch again.

If you can't break a complex calculation into modules, plan it on paper before constructing it on the Mac. A quick flowchart now can save hours of confusion later.

### **Viewing Entire Complex Calculation**

Seeing the entirety of complex calculations can be difficult, since you have to view portions of it by scrolling the window. View the whole calculation by printing it out on the ImageWriter by selecting Print Scaled Page from the File menu. This doesn't work on the LaserWriter.

### **Avoiding Icon Confusion**

Complicated relations clutter your desktop with a lot of icons. To keep from getting confused, name your most important and frequently-used icons in all uppercase letters, which makes them stand out. Then, move less used icons off to the side of the window, and arrange your icons in logical groups for easier tracking.

### **Save Time—Copy Old Calculations, Then Modify Them**

To create a calculation with an abacus icon that only differs slightly from another one that's already created, duplicate the original calculation's

icon and then modify the copy to create the new calculation.

## Save Time While Setting Up New Relation

When setting up a Relation for the first time, several fields will probably have formats different from default settings. Save time by creating one field with each of the formats you plan to use, then replicate them as often as you'll need (one for each format) and name them appropriately.

## How To Move A Single Tile

To move only a tile, click and drag anywhere on the tile, except in an arrow or blank space.

## Move A Single Arrow Segment

To move an individual arrow segment, click on it and drag.

## Moving Groups of Segments or Tiles

To move a group of arrow segments and/or tiles, use **SHIFT-CLICK** to select the individual elements to be moved, or surround the group with the selection rectangle.



**Installer**

## Selecting More Than One Script

When you want to install more than

one script on to a disk, Installer doesn't allow you to immediately **SHIFT-Click** to select multiple items. When you want to choose more than one, click on the first script, wait for Installer to do its calculations, and then **SHIFT-Click**



## Power Off Before And After Work Sessions

Before and after you use Jazz, turn off the power switch on the Mac for a few seconds. That's because the program adds its own embellishes to memory that can't be erased by the reset button. Turning the power off eliminates any leftover bits of program from the memory.

## Link a Copied Graph to a New Worksheet

People who do a lot of graphics work will appreciate this shortcut, if they feel comfortable using a resource editing program: If copies are made of worksheets and graphics, Jazz keeps new graphs linked to old worksheets and duplicating the graph serves no purpose. But you can solve this by changing the reference board of the graph, linking it to a different worksheet. Use ResEdit or a similar program to edit #LFRF# and change the old file name to the new file name. Never use a resource editor on an original application—only modify copies!

## **Trouble-Free SYLK File Conversions**

If you're converting a SYLK file from another spreadsheet into Jazz, make sure that none of the cells in the file are formatted. Otherwise the Mac will try to convert a file with formats but accomplish nothing except a lot of noise. Converting an unformatted file only takes a few minutes.

## **How Much Memory Jazz Allocates To Each Application**

Jazz allocates specific memory sizes to each of its applications. If you close an application you aren't using, Jazz allows another application to use the extra memory to create larger documents. Jazz allocates:

237K to the operating program

70K to the spreadsheet (it requires only 3K if the database is already open)

97K to the database (it requires only 30K if the spreadsheet is already open)

45K to graphics

70K to the word processor

26K to communications

## **Printing Empty Cells**

When you create a database report, empty cells will print as zeros. Get around this by entering OPTION-Space in any cell that you want blank in the printout.

## **Cut And Paste In Communications Mode**

When using Jazz's communications option, cutting and pasting messages makes things work a little easier. First, store all the messages you have to transmit into a word processing file on one side of the screen. Then cut them, one at a time, and paste them into the communications window.

## **Loading Jazz Spreadsheet Data Into Excel**

Jazz can import data in a number of formats, but it can't export in anything other than text format. It's possible, though, to load Jazz spreadsheet data into Excel. First, save each column of data as a text file, then load each into Excel, pasting it into its own column. Formula information isn't transferred, though, so you'll have to re-enter it in Excel.

## **When The Program Tells You It Can't Print Your Document**

Sometimes the program will tell you "This file can't be printed." There seems to be no specific cause of this, but it happens more often on a Mac attached to an AppleTalk network. This happens because sometimes Jazz gets confused and scrambles its port configuration memory. The most convenient solution is to make sure Jazz is told which printer it should use, and how that printer is connected, by selecting Chooser or Choose Printer. Install this quick fix

in Jazz's System file, and use it at the start of each session.



## Key Caps (Desk Accessory)

### Making Screen Dumps of Key Caps Special Characters

If you use Finder 5.3 and System 3.2, there's a catch to taking screen dumps of the special characters that can be displayed in the Key Caps DA. The dumps should be done in the Finder with no windows open.

To get a dump of the characters shown when only OPTION is pressed, press the OPTION key than hold down the mouse button while the cursor is not over the active window. While still holding down the mouse button, press COMMAND-SHIFT-3 and then press the OPTION key again before releasing the mouse button.

To get a dump of the characters displayed while SHIFT-OPTION is pressed, use the same procedure described above, except instead of the two times you must press OPTION, press SHIFT-OPTION instead.



## MacDraft

### Use MacDraft To Produce Laser-Printable Diagonal Dotted Lines

You might find that diagonal dotted lines print poorly on a LaserWriter. But

you can use MacDraft to produce quality diagonal lines: Start by editing a pattern so that most of the pattern is black, with a one-or two-pixel column or row being white. Now confirm that you're drawing with a non-dotted line, and choose that special pattern you've drawn as the ink for the line by holding down OPTION while selecting the pattern.

Try drawing a few diagonal or dotted lines. Later, you can alter the special pattern for better control of the pattern.

### Don't Name Documents The Same As MacPaint Document Names

Be careful when naming your files. If you save with the same name as a MacPaint document in the same folder, the new MacDraft document will not be accessible from the application. To open the document, you'll have to use a file editing program like MacTools or Fedit. Open the file and change the creator to MDFT and type to DRWG. This will allow MacDraft to access the file.

### Create Original Patterns Easily

Want interesting, original patterns in MacPaint? Create a patterned object in MacPaint, then copy an area of the pattern and paste it into MacDraft. With the object selected, experiment with choosing different patterns from the Fill menu. The MacDraft pattern will overlap the MacPaint pattern, with almost limitless different results.



## MacDraw

### Use Smoothing to Make Complex Arcs

MacDraw's arc tool is limited in the complexity and variety of arcs it can generate. But you can make complex arcs by using MacDraw's smoothing functions. Use the polygon tool to draw a two-vector shape, then select SMOOTH from the Edit menu. After you've experimented with this for awhile, you'll be able to create very complex arcs.

### Creating Proportionally-Spaced Text Lines

Create lines of text with proportional spacing by creating each individual text object and then lining them up vertically. Now, select them all with the selection marquee and GROUP them. By stretching the grouped text with the corner and upper/lower resizing handles, the vertical spacing between the lines changes proportionally.

### Quickly Select the Last Tool Used

To automatically select the last tool you used, hold down the COMMAND key while pressing the mouse button.

### Centering Items Perfectly in the Middle of the Page

There's an easy way to center an item exactly in the middle of the page. Once the page is created, type the text

you want to center, approximately where you want to place it. Then choose REDUCE TO FIT to create a rectangle wide enough to cover the entire width of the page. Choose NONE from the Fill menu, so you can see the objects behind the rectangle. Then, just select the rectangle and SHIFT-CLICK the text item you want to center. Now, choose ALIGN OBJECTS from the Arrange menu and click on L-R CENTER, then click OK. Your text will be centered on the midpoint of the box. Use this technique to center objects horizontally by clicking TOP-BOTTOM instead.

### Grabbing Tiny Resizing Handles

If you're working with very small objects, it can be hard to grab their resizing handles, instead moving the object when you didn't mean to. To avoid this, create a second, larger object, and SHIFT-click on both, then group them and use the resizing handles on the larger element to shrink or stretch both. When you're done, ungroup them and delete the larger element.

### Proportional Enlarging and Reducing

To proportionately reduce or enlarge an object, draw a one-inch by one-inch square (with SHOW SIZE active). SHIFT-SELECT this square with the object to be reduced or enlarged. Place the arrow cursor on the corner of the square and drag it to the size desired,

pressing **SHIFT** to guarantee proportional enlargement or reduction.

### **Print Out a MacPaint FatBits Screen**

You can use MacDraw to print out a MacPaint FatBits screen. First, copy the MacPaint image into the clipboard and quit MacPaint, then, without resetting the Mac, launch MacDraw and paste the image down. Then press **COMMAND-G** to group all the pixels together (choose the **Wide** option from the **Page Setup** dialog box or use the **Drawing Size** option to make the document larger, then **Reduce To Fit**). Click once on the pixel group to give it handles and then drag one of the corners diagonally to stretch the image as large as you like. (Use the **Normal Size** option to see its real size.) When you're finished, print the file. If you stretched it large enough, your collection of FatBits pixels comes out much larger than MacPaint would print it.

### **Maintaining Fill Patterns When Transferring to Bit-Mapped Program**

When transferring an object graphic to a bit-mapped program like MacPaint or FullPaint, you can maintain the original fill patterns ratio. Select the area that the object graphic will be pasted into by using the selection marquee, and then paste the graphic. It will scale itself to the size specified by the marquee without

distorting. If you resize it after it's been deselected, though, you'll get a distorted stretch.

### **Selecting Multiple Objects At Once**

The **SHIFT** key allows you to select more than one object.

### **Duplicating Objects Easily**

Duplicate any single or group of objects by selecting them and choosing **Duplicate** from the **Edit** menu. If you move the first copy you made, and then duplicate the copy, your new duplicate will be placed in the same position that the first copy was, in relation to the original. To make a row of objects, put the first copy next to the original image, then duplicate copies until the row is completed.

### **Toggling to the Grid Option**

When the **Grid** option is turned off, you can temporarily call it up by holding down the **SHIFT** key while you move an object. Press **SHIFT** after you've pressed the mouse button to pick up the object you want to move.

### **Redrawing the Object Most Recently Created**

If you have to redraw the same type of object that was most recently created, you don't have to reselect the action from the icon panel. Just hold down the **Command** key and click at the

place in which the new object should be drawn. The previous action is automatically selected, so your image appears.

### **Automatic Selection of Objects**

All the objects drawn while COMMAND is pressed are automatically selected when the COMMAND key and mouse button are released.

### **Creating Unusual Sizes of Fonts**

To create an unusually sized font, type in text in MacDraw and copy it into Microsoft Word, which can stretch or shrink it to any size required. The new size font even prints out perfectly on the LaserWriter.

### **Selecting All Text Within a Block**

To select all the text within a text block, triple click on the text tool in the text block.

### **Always Use the Same System to Create, Display and Print**

A MacDraw document created with one System and called up on another might not show up, or might show up distorted. For example, if you create a MacDraw figure using a 14 point font and open the document with a System that only contains a 10 and 12 point

font, the character spacing will be incorrectly computed. The solution is to be sure that any MacDraw System you use contains the same fonts and points sizes installed on the System that created the original document.

### **Avoiding Default to Geneva Font**

If you'd like to use a specific font for all your MacDraw text, change the font before selecting the writing tool. If you don't change it, the font defaults to Geneva and you'll have to choose a new font every time you switch into text mode.

### **The Easy Way to Sign Your Name**

You can keep your own signature on file in MacDraw, ready to affix to any document. First, write your name as large as you can using the free-hand tool. Read that as Large. Use the Smooth, Unsmooth and Reshape commands until you're satisfied with it, then Group all the letters and grab the lower right handle to reduce it to the desired size. Finally, paste it into the Scrapbook. You can save a fortune on pens and ink!

### **Previewing Horizontal Layouts**

Preview how horizontal layouts will look when printed by selecting Wide from the Page Setup option in the Print menu. This will show you the horizontal orientation of your page.

## **When You Can't Complete the Print Command**

Sometimes when you print a multi-page document, you might get a message that says the print command cannot be completed. To work around this, print only a few pages at a time.

## **Laser Printing Small White Type**

If you have trouble laser printing small white type, try typing the text in Outline style, then fill in the background and stretch the object to double its size, horizontally and vertically. Then, specify 50% reduction in the Page Setup dialog box. Your white type should print much better.

## **Enlarging or Reducing Can Clip Document Text**

When you laser print a document containing text, you might experience clipped text printouts if you use more than a 150% enlargement or more than a 75% reduction.

## **See the Graphics, Not the Rectangle**

To see a graphic image instead of a rectangle while moving images around your page, press OPTION.

## **An Easy Way to Make Perfect Hollow Lines**

If you use MacDraw to produce road maps, or have another need for

hollow lines, this procedure can raise the quality of the work: First draw the map, making all lines with the third line thickness on the menu. When you've completed the lines, group them all, duplicate the group, and set the line thickness of the duplicate lines to the second line thickness on the menu. Then, under the Pen menu, set the pattern of the duplicate lines to white. Select both groups and align both centers. The white group will "carve" out the centers of the road, giving a high-quality, elegant look to the finished work.

## **Microsoft Chart Graph Cells Become Individual Elements**

When a graph created in Microsoft Chart is cut and pasted into MacDraw, each piece of the chart becomes an individual element. You can add a lot of spice by dressing up the chart lines to reflect whatever the chart is about...for example, a dollar-figure chart could show stacks of dollar bills instead of dull bar lines.

## **Wrapping Text Pasted From the Clipboard**

You can paste text from the Clipboard and have it wrap within an area. First, create the rectangle that you want to wrap the text within, and type any character (the space bar will do). Any text that you subsequently paste in will wrap to the size specified by the rectangle.

## Centering Primitive Objects

Center any of the primitive objects (circle, rectangle, etc.) on a page by drawing the object, Cutting or Copying it, and then clicking the pointer where the object's center of gravity should be. Then Paste.



## MacGolf

### Putt Like a Pro

Here's a tip for professional-level putting: Once you get on the green, make sure the wind is at zero, face away from the hole, and then place the swing indicator at zero. Click once on the up arrow and putt, recording how far the putt goes. Now, do the same thing again but click twice in the swing indicator's up arrow. Keep doing this, adding one click each time, until you reach a full-strength putt. This will help you figure out how many clicks you need to do to get the ball to move different distances. See you at the championships!



## MacInTax

### Less Disk Swapping

Using this program with an internal and external disk drives means it's often necessary to insert the State or Business Forms disks. If you leave the disk with the System inserted and swap one of the data disks, you won't have to do as much disk-swapping.



## MacLightning 2.0

### Set RAM Caching to 128K or Less

When using this program with a Mac Plus and RAM caching, set the caching control to 128K or less to enable the entire dictionary to be loaded into RAM. This gives you optimal functioning speed.

### Don't Capitalize Non-Proper Nouns In the Dictionary

MacLightning recognizes capital letters that begin words. That means you should only add non-capitalized words to the dictionary, unless they're proper nouns. If you add capitalized words to the dictionary, they'll show up as misspelled words when they're not capitalized.

### Check Spelling Before Making Dictionary Entries

As with any spelling checker, always double-check word spellings before entering them into the dictionary. Otherwise, you'll have a program that replaces misspelled words with misspelled words.

### Spell-Checkers Can Be Used as Word Counters, Too

MacLightning can be used as a poor man's spelling-checker. If your word count must be completely accurate, though, add about 20%-30% for single-letter words.



## MacMoney

### Making an 800K Disk That Accepts Data Files

The manual doesn't explain how to use this program with only one 800K disk drive. When creating a new "system," MacMoney won't allow the data files to be saved on the same disk as the program. Once the "system" has been created on a 400K disk, just copy it and the data files to an 800K disk.

### Fit More Transactions On-Disk With Minifinder Instead of Finder

If you use MacMoney with a single 800K disk, it won't allow for the usual maximum of 3000 transactions allowed on a 400K disk. You can fit more transactions on the 800K disk by creating a Minifinder and removing the Finder, fonts and desk accessories.



## MacPaint

### Leave Enough Disk Room to Work

MacPaint requires a lot of free space (about 100K) on the disk in order to work properly. If you're creating several documents, save them to a different disk for the time being. You can copy them back to the MacPaint disk for fine-tuning work later.

### Hints For Saving Disk Space

Another way to free up space is to remove the ImageWriter driver from your MacPaint system file. MacPaint doesn't use the driver to print documents.

MacPaint documents take up a minimum of 2K on the disk. When your disk is getting full, transfer lesser-used documents to a different disk.

If you can, store several small MacPaint illustrations in a single file to keep the disk from filling up.

### Straight Lines in a Snap

Drawing straight lines can be a drag. To make sure you don't wind up with a page full of jagged lines, hold down the Shift key while positioning and using the straight line tool. This constrains movement to vertical/horizontal only.

### Restraining Works Throughout the Program

The same restraint can be applied to the paint brush, pencil, spray can, or eraser tool. Just hold down the SHIFT key, then use the tool.

You can even restrain the active window or the graphics elements in the Show Page mode by holding down the SHIFT key. You'll only be able to drag them up, down, or to a 45-degree angle.

The SHIFT key can also be used to

restrain movement to vertical/horizontal only while you're repositioning the page in the Show Page option.

## **The Fast Route to FatBits**

You can take the express route to FatBits—and work on the exact area you want to, at the same time! Just select the Marquee tool and use it to frame the part of the picture you need to work on. Then, double-click on the pencil tool, and voila! You see a close-up of the part you selected with the marquee. Just use the pencil to create or erase black pixels. And, while you're using the pencil in FatBits, pressing the Shift button changes the pencil into a hand...so you can move the page easily, without having to switch tools. (As soon as you release Shift, the hand turns back into a pencil.)

Another way to access FatBits quickly is to choose the Pencil tool, hold down the COMMAND key, then point to the spot you want to work on and click the button. Don't double-click, or you'll find yourself back in regular bits mode. Release the COMMAND key and the pencil behaves normally.

## **Erasing Large Portions of the Screen**

Want to erase large portions of the screen fast? Select one of the shape boxes (choose the colored one, not the see-through version). Now, pick white as the fill color and select the dotted-line (invisible) outline width. Finally,

draw the shape directly over the part of the screen you want to erase. You'll probably have to clean up the edges with the eraser.

Another way to eliminate large illustrations is to choose Show Page from under the Goodies menu. Move the page until the offending picture has disappeared from the screen, then hit the Okay button. When you reposition the page again, you'll find that the section you moved off the screen has disappeared for good.

The lasso can also be used to erase large or irregularly-shaped objects. Outline the shape, then backspace to erase it.

For large, uniformly-shaped areas, you can use the marquee to highlight, then backspace to erase.

## **Customizing Erasers**

The eraser doesn't have to be a 16 x 16 pixel square. You can make it as thin, thick or round as you like by selecting the paintbrush tool and choosing white as your color.

## **The Fast Way to Get to Brush Shapes**

Take the express route to the Brush Shapes window by double-clicking on the Paint Brush tool.

## **Edit Brush Shapes With a Font or Resource Editor**

The brush shapes can be edited

through the use of a font editor. Use one that has the ability to access fonts stored as resources with applications. The font stored in MacPaint is "12." It contains characters with ASCII values 120-151 that make up MacPaint's brush shapes. Just use the font editor's edit mode to alter these characters to the new brush shapes, then save the changes you've made. From now on, these brush shapes will be displayed in the Brush Shape dialog box.

### **Trim MacPaint By 13K With ResEdit**

Another ResEdit trick lets you trim MacPaint by 13K. Delete two PICT resources (2401 and 2400), which are the Short Cuts and Introduction screens.

### **Creating a Ruler to Keep On-Hand**

If you find yourself wishing you had a ruler whenever you need one, your wish can come true easier than you think. Open a word processor that contains a ruler, such as MacWrite. Take a screen dump of the ruler using COMMAND-SHIFT-3, then open the resulting PICT file, edit out all the other elements, and copy the ruler to your Scrapbook in MacPaint. You now have a ruler that's always accessible.

### **Making Multiple Copies of an Image**

Make multiple copies of a MacPaint illustration by highlighting the

graphic with the lasso or marquee tools, then pressing COMMAND-OPTION as you click and drag the picture around the page.

### **Controlling Space Between Copies**

You can control the space between copies made by choosing a line width that corresponds to the amount of space you want between each copy. Choose a narrow line width for copies spaced closely together, and a wider one for more distance between the two.

### **Creating Straight-Line Multiple Copies**

Multiple copies of an image can be created in a straight line by pressing SHIFT-COMMAND-OPTION while dragging the image being copied.

### **Avoiding Pattern Distortion in Multiple Copies**

Sometimes when you make multiple copies, the patterns can be distorted. Remedy this by choosing the Grid option before making copies, since it creates an automatic grid that's eight pixels apart.

### **Stretching Images**

To stretch an image, use the marquee tool to select the entire picture, then press COMMAND while dragging the edges of the highlighted image. Drag from the edges and you'll find that one dimension of the image is

stretched. Drag from the corners and both horizontal and vertical dimensions of the image will be altered.

### **Keeping Patterns Intact During Stretching**

You can keep patterns from distorting while stretching by holding the SHIFT key down while dragging edges.

### **Proportional Stretching/Shrinking of Rectangular Images**

When working with a rectangular image, you can control proportional stretching or shrinking by holding down SHIFT-COMMAND while stretching from the edges. If you drag from the corner while holding down these keys, the proportions of the picture will remain intact. Drag from the sides and the horizontal stretch or shrink is limited in proportion to the vertical position of the cursor.

### **Keeping Rectangle Patterns Intact While Resizing**

Keep the pattern of your stretching rectangle intact by holding down the SHIFT key while stretching.

### **Merging Patterns in Shapes**

It's possible to place one patterned shape over another without obscuring the original shape. Press COMMAND while selecting the paintbrush, spray can, paint bucket or shape drawing

tools. When you select this mode, both shapes' patterns will merge at points where they overlap each other.

### **Change Fonts Without Creating a New Entry Point**

Changing fonts can be a problem, especially if you don't want to create a new text entry insertion point. But it can be done without changing the font of text you've already entered, by pressing the ENTER key and choosing the new font or style. Once this is done, though, you can't backspace past the point where the ENTER key was pressed.

### **Changing Font Size of Entered Text**

You can change the font size of text entered by pressing COMMAND and both arrow keys (< and >).

### **Changing Font of Entered Text**

Change the font of text already entered by pressing COMMAND-SHIFT and the arrow keys.

COMMAND-period changes the text to the next larger size.

COMMAND-comma brings it down to the next smaller size.

COMMAND-SHIFT-period changes the entire entered block of text to the next font shown on the Font menu.

COMMAND-SHIFT-comma changes

entered text to the previous font shown on the Font menu.

## **Grid Option Assists Text Entry**

Use the Grid option while working on documents requiring a lot of text entry, since it makes it easier to align new text inserts.

## **Adding New Patterns to Patterns Palette**

If you create or find a pattern that you'd like to add to the patterns palette, choose a pattern you think you can live without. Then choose Edit Pattern from the Goodies menu and just click the mouse on the part of the screen that shows the pattern you want. The new pattern replaces the old one, and you didn't have to create it pixel by pixel.

## **Cataloguing MacPaint Documents On a Different Disk**

You can print a catalogue of MacPaint documents on a different disk than the MacPaint application is on. Just open any MacPaint document on the disk you want to catalogue, then choose Print Catalog from the File menu.

## **Creating Ultrabold Letters**

You can create ultrabold text letters by entering your text in Bold and Outline from the Style menu, then use FatBits or the paint bucket's Fill

option to fill in space inside each of the letters. The Fill selection gives letters a shaded look.

## **Creating Psychedelic Letters**

Letters can be given a psychedelic feel by selecting text portions with the marquee and pressing COMMAND-SHIFT-E a few times. Each time you press, the letters become outlined more interestingly.

## **Shadowing Images**

Shadows can be added to MacPaint images easily. Select the drawing with the marquee. Now, hold down SHIFT and select Trace Edges from the Edit menu.

## **Lasso Tool Doesn't Have to Be Closed Loop**

The lasso tool doesn't require you to completely encircle the object you're lassoing. When you release the button, the lasso automatically completes the loop in a straight line back to the point where it started.

## **Don't Reinvent the Wheel If You Don't Have To**

You don't have to be a great artist to produce beautiful graphics. Either use a clip-art program or take a MacPaint snapshot of interesting graphics by pressing COMMAND-SHIFT-3. You can then customize the graphics in FatBits to suit your illustration needs.

## Printing Multiple MacPaint Copies

You can't specify how many copies of a MacPaint document to print. To work around this, go to the Desktop and duplicate the document with the DUPLICATE command from the File menu, copying once for each print you'll need. Now, hold down SHIFT while selecting the documents (or else drag a group selection), then choose PRINT from the File menu. Each file will be printed out, so you'll end up with multiple copies.



## MacPascal

### Running Multiple Programs In a Row

It's possible to run multiple programs in a row by first selecting them on the desktop, then choosing Open from the File menu. If you have an ImageWriter attached and running, you'll get the added bonus of a log of the activities performed.

### Quick Debugging

A quick way of debugging a program is to select it on the desktop and then, with your ImageWriter turned on, choose Open from the File menu. Any errors will show up on both normal error messages and on the printout.

### Close Unnecessary Windows

When executing a large program, or just a memory hog, invoke the

command HIDEALL to hide all windows, and then SHOWTEXT to display the windows you'll actually be using while the program executes. Believe it or not, an open program window can consume over 20% of the memory in a 512K Macintosh before you even run the program!

### Hit Return Instead of Brace When Entering A Lot of Remarks

When doing a large number of remarks one after another, hit Return after the end of each line, instead of using the right brace. Pascal automatically types the brace for that line, as well as the left one for the next line.

### Text-Only Files Can Be Read As a Program

MacPascal can read text-only files created in word processing programs like MacWrite. That gives programmers an easy way to write and edit programs. When you save your document as text-only, choose the save option that puts returns after paragraphs, not lines.

### Warning on Possible Incompatibilities

If you've been given MacPascal version 2.0, it's time to look a gift horse in the mouth. 2.0 contains major bugs. For example, running it on a Mac with old 64K ROMs, System 3.1.3 and Finder 5.2 results in a pretty spectacular crash.



## MacProject

### Using MacProject to Estimate Hours

When you're estimating a project, it's often helpful to know the total hours needed, and when the most time will be required. You can figure this within MacProject by entering a resource cost of \$1.00 per hour for each resource in RESOURCE COST ENTRY under the Chart menu. The resulting CASH FLOW TABLE from the Chart menu will show both the monthly and the cumulative time requirements.

### Incompatibility With New Macs

The Guided Tour disk enclosed with MacProject isn't fully compatible with new Macs (Plus, SE, etc.). Although the demos run, they can't find the files they're supposed to work with. The result is a cursor on an "Untitled" document.



## MacPublisher III

### No Free Space on Master Disk

The graphics palette won't function properly when you use the application on the original disks, since there's no free space available on the master disk. The solution is to use MacPublisher III on a disk which has been cleared of the sample files.



## MacServe

### Incompatibilities

The archiver in version 2.0 is not HFS-compatible. To get around this, you'll have to use a backup utility provided by the manufacturer of your hard disk, back your hard disk up with a tape drive, or back your files up to diskettes. If your files are too large to back up on a single disk, copy them to MFS volumes and then use the Archiver.

MacServe 2.0 has trouble with the RAM-based HFS released with Apple's Hard Disk 20 prior to the introduction of 128K ROMs. Don't run MacServe 2.0 with RAM-based HFS.

The Font/DA Mover, version 3.0, shouldn't be used with MacServe, since it can cause some very unusual system crashes. Use a later version.

### Problems With Early SCSI Hard Disks

Some support software provided with early SCSI hard drives contains bugs that can cause problems with reading or writing to the disk. This will show up if you erase the disk and its name doesn't reappear in the Erase Disk dialog box. If this happens, contact the drive's manufacturer for a corrected support software version.

### Use Only Applications That Don't Have to Use Printer Port

Some applications, especially

terminal emulators, access the printer port directly. To ensure that you can use these programs with MacServe (especially its print spooler), use only the applications that can be configured to use the modem port instead.

### **Enter Dummy Printer Name When Disabling Spooler**

When you disable MacServe's print spooler, enter a dummy printer name that is not closely related to the word "ImageWriter" in the Manager dialog box.

### **When Using Two Printer Drivers, Rename One**

Having both an ImageWriter Driver and an AppleTalk ImageWriter driver in your System file confuses the print spooler. When you use both, rename the ImageWriter driver to a different name. If you won't be using the print spooler, remove the ImageWriter Driver, leaving only the AppleTalk ImageWriter Driver.

### **MacServe Can Choose Printers**

MacServe can take over all the functions of the Chooser or Choose Printer desk accessories. Just install it using the MacServe Installer utility. Then, to avoid confusion, turn off AppleTalk with Choose Printer or the Control Panel and use the Font/DA Mover to remove Chooser or Choose Printer from your disk. You won't need them, even to print

through AppleTalk.

### **Showing MacServe Where the ImageWriters Are**

When you first install MacServe, it may not be able to locate AppleTalk-connected ImageWriters on the network. If this happens, reinstall Chooser and use it to select the ImageWriter. Then, remove Chooser and let MacServe take over from there.

### **If the System Crashes...**

If one of the users on a MacServe network has a system crash, don't select the MacServe DA or the entire network could hang. While this is very rare, you can avoid potential headaches by waiting to choose MacServe until the crashed system is back up.

If your network crashes, try restarting your Server immediately. If no users have requested extensive disk operations, this will re-establish the links to your users' application and document files. You'll get best results if you ask your users to stop work immediately if the Server crashes.

### **Causes of System Crashes**

When users are logged on to the network, don't modify your Server System files, since this is likely to cause a crash at the Server node, causing problems for all the other users. Very standard modifications,

such as moving fonts, should work well, though.

Once you start initializing a disk, even MacServe can't interrupt the process. So, if your system is functioning as the Server on the MacServe network, you can't initialize a disk or the system will crash, freezing the network. Use another system to initialize that disk, or else wait until the network has been shut down. If you have a constant need for disks, pre-initialize them and then leave them by your Server Mac.

### **When You Update the System, Update MacServe Immediately**

When updating the System on your hard disk, MacServe files may be damaged. Avoid problems by immediately updating MacServe with its Installer utility after making major changes (such as updating version numbers) to your System software.

### **Keep XL/Serve Node Names Short**

If your network is connected to any XL/Serve nodes, keep the disk and print server names short, under 14 characters each.

### **Why Can't This Disk Be Erased?**

MacServe doesn't allow you to erase a disk containing open files. If you're having problems erasing a seemingly-

closed disk, check for a discarded Clipboard file, or other files that might remain open.

The MacServe Manager won't allow you to erase the disk on which it resides. To erase a hard disk hold down **OPTION-COMMAND** when starting the Manager from a floppy so that the Mac uses the floppy's System to start up.

### **Formatting Volumes in HFS**

Volumes created with the MacServe Manager utility are always created in MFS. If you want to format in HFS, you have to erase the volume after choosing HFS in the Erase Disk dialog box.

### **Plan Volume Sizes in Advance**

HFS requires that each volume on the hard disk be internally contiguous, that is, not fragmented into several sections on the disk. If you use MacServe under HFS, plan the number and size of volumes before allocating any to the disk. You probably won't be able to make additions or changes until you completely restore your disk first.

### **Leave Room For Volume Expansion**

In creating volumes with MacServe's Manager, the application starts at the outside of the hard disk and works its way in to the center. Your System files will be located on the outside

edge, followed by your volumes. If you enlarge your System files by modifying them, they won't have room in the volume to expand. The hard disk will spread them into other areas of the disk, slowing down hard disk and network performance considerably. To leave room for expansion, create an empty dummy volume containing enough space to grow, and designate this as your first MacServe volume. When all the volumes have been created, go back and delete the dummy volume, and you'll have room for System expansion.

### **Use Subdividing Software Included With Hard Drive**

When using MacServe on a hard disk, it's usually more efficient to use the subdividing software that comes with the drive to create one large subdivision. Then, superimpose MacServe volumes on top of the large subdivision.



### **Don't Use MacSpell+ With Boston II Font**

MacSpell+ doesn't work properly on text containing lines of Boston II, 14-point text. That's because the 14-point size is actually a special one-pixel underline font that fools MacWrite and Word into thinking it's text. But MacSpell+ won't be fooled. Instead it will crash or lock up the system. If you must use Boston II 14-point, insert it after spell-checking the document.



### **Mac•Spell•Right**

#### **Fastest Way to Check Spelling**

Accelerate the spell checker by placing the cursor on the first word of your document and opening Mac•Spell•Right. Then, place the arrow on Change and press Return to activate the spelling checker. If the word found in the Change To box is correct, press return to go on. If it's incorrect, click the mouse button to change it. When you've finished spell-checking your document, press Return, position the arrow anywhere in the document, and click the mouse. That's it!



### **MacTerminal**

#### **How to Use Cursor Keys Instead of Mouse**

If you prefer using cursor keys to mice while being connected to a remote computer, hold down OPTION. This transforms the cursor into a four-way VT100-type arrow cursor that can be moved where you want. Then click the mouse. The cursor key sequences will be transmitted to the remote computer.

#### **Command Key Combinations**

MacTerminal contains a number of hidden command key combinations, which don't always work when you're on-line. They always work off-line:

**COMMAND-H** moves the cursor back one space;

**COMMAND-I** moves the cursor to the right, stopping at the next tab marker;

**COMMAND-J** moves the cursor down one line;

**COMMAND-K** moves the cursor down two lines;

**COMMAND-M** moves the cursor to the start of the current line;

**COMMAND-G** tells the Mac to sound a tone.

### **Use Hard Backspace When Correcting Mainframe Data**

When you're communicating with mainframes, pressing Backspace will not correct data stored in the mainframe, though it may correct your screen display. To remove the character you backspace over on the mainframe as well, use **COMMAND-Backspace**.

### **Mac Plus Keyboard Substitution**

If using MacTerminal with a Mac Plus, hold down **OPTION-ENTER** instead of the **ENTER** you would have pressed on a Mac 512K.

### **Create Replacement Mac-to-Mac Document**

The program supplies a Mac-to-Mac

document with preconfigured terminal settings. But if you accidentally trash this document, you can make a replacement: Start by pulling down the Settings menu and change the dialog boxes in Terminal, Compatibility, and File Transfer, in that order. In the Terminal Settings dialog, click New Line, Local Echo, On Line, Auto Repeat, and Auto Wraparound to On; in the Compatibility Settings dialog box, choose 8 bits per character, No parity, No handshake, and the baud rate the host computer will use; in the File Transfer Settings dialog, choose XModem, Retain Line Breaks, Word Wrap Outgoing Text, and Remote System equals MacTerminal. Other than that, leave default settings. When you've configured these settings, use Save As... to save this document as "Mac to Mac."

### **Avoiding System Hang**

Once in a while, MacTerminal will hang up after the host computer has answered the call. If you're using a Hayes-compatible modem, solve the problem by inserting a few commas after the phone number. Each comma causes the modem to wait two seconds, allowing MacTerminal to register the fact that a connection has been made.



## **MacTerminal 1.1**

### **Why You Should Upgrade**

In this version, you don't have to tell MacTerminal to wait for a call you

want to answer, and if you use the Wait For Call option, MacTerminal won't answer the phone. Get the 2.0 upgrade!



## MacTerminal 2.0

### Use ResEdit to Correct Bundle Bit Problem in Transferring

This version prevents the Mac from setting the Bundle bit when you transfer files via the MacBinary protocol. This keeps you from getting the icons for the files you're transferring. To fix the problem, use a resource editor to CODE resource 15. Change 2F3C 0000 00E8 to 2F3C 0000 E800. Find both instances of this code and change it both times to solve the problem.



## Mac 3D

### Verify Selection by Rotating It

Sometimes it's difficult to select part of a complex model and know exactly which part has been selected. To verify, choose ROTATE, and the currently selected object will appear in the Show Selection window. Once you've confirmed exactly what you selected, click the Cancel button and you'll be back where you started—but with a better idea of what you're working with.



## Mac 3D 2.0

### Creating Endmarks on Arcs and Curves

Create endmarks on arcs and curves by attaching a small line to the end, then placing the endmark on that line.

### Importing QuickDraw Graphics

Although the program has a Save as PICT function, a graphic saved that way comes through as a bit-mapped image when opened in MacDraw, PageMaker, and other graphic programs. To get a QuickDraw object from the program, copy the graphic to the Clipboard before copying it into the graphics program.

### Adding Tiny Details to Drawings

Add small detail to a drawing easily by increasing the scale of the document. This enlarges the objects and makes it easy to draw in small details.

### Dimensioning Edges on Rotated Objects

Dimension an edge on a rotated object by ungluing it down to its edges, duplicating the edge to be dimensioned, and then moving the duplicate away from the object and choosing DIMENSION.

## Quickly Redrawing All Objects in a Window

Click in the empty area on the tool palette, right underneath the tool icons, to redraw all of the objects in the window.

## Splitting Vertexes

You can split a vertex into two vertices to get a new edge. Just enter the Bevel window, select the vertex, and bevel by 1 percent.



## MacType

### Earning a Certificate

This program requires that users achieve test results of 30 words per minute at 99% accuracy, or higher, to award a certificate. Or so it says. You'll have to do slightly better to get a hard copy of your achievement.



## MacWrite

### Use Text-Only Option to Export Data

Using the Text-Only option while saving deletes all fonts, styles, margins and other extras that are saved otherwise. Nonetheless, the Text format is easily transmissible over ASCII data lines, and is useful for transferring text data from the Mac to other machines, or from MacWrite to database programs.

## How Much Disk Space is Left?

Check how much disk space is left by choosing About MacWrite from under the Apple icon on the menu bar.

## Text-Only Files Are Smaller

Text files take up less space on the disk than MacWrite files, since they don't contain all that fancy formatting information. When you're backing up information to a crowded disk, save it in a Text file to free up about 30% more space.

## Defragment Large Files to Save Space

Another way to save space while working with a large document is to periodically Save As... instead of merely Save. Large documents are often highly fragmented as they're saved, and using Save As... often shrinks the size of the file by as much as 20%.

You can also defragment a file by saving it to a different disk.

## Squeeze a Lot of Information into Headers and Footers

Headers and Footers can contain up to 7 lines of information each.

## Numbering Pages With the Page Icon

The page icon automatically begins

numbering pages at 1. To eliminate the number on the first page, select Title Page from the Format menu.

### **Changing Font Styles of Special Icons in Headers and Footers**

The special icons in headers and footers (date, time, and page number icons) don't change font or style unless you specifically highlight them. To do this, click at the beginning of the header or footer window and then select your font and style.

### **Changing Font Styles in Headers and Footers**

Another way of changing an entire header or footer is to be sure the header ends with a carriage return. Then click at the end, move to the beginning, and press SHIFT while clicking the mouse button. Now choose your style!

### **Mixing Fonts and Styles in Headers and Footers**

It's even possible to mix fonts and styles between icon-driven and text entries in each window. Step one is to follow the procedure outlined above. Then type a space before setting the text's font and style. While different text information in headers or footers can be displayed in different fonts, all text produced by the icons will share the same font size and style.

### **Mixing Text and Graphics in Headers and Footers**

You can't place text next to pictures in this program...but you can move the special icons in the header and footer windows so it sits on top of any pasted graphics. Text these icons create will actually appear on pasted images.

### **Making Larger Margins on a Page**

To get larger top and bottom margins in your document, insert a few blank lines in the Header and Footer windows by opening them and pressing Return.

### **Using the Note Pad to Create Footnotes**

MacWrite doesn't have footnoting capabilities. But you can use the Note Pad to create them. Type your footnotes into the Note Pad as you write, then paste the text into the end of the document or at the bottom of your pages when you've finished the main body of the document.

### **Clock and Calendar Icons Update Automatically**

The clock and calendar icons change automatically (they're controlled by the Mac's internal clock). So, when you print, you'll always get the date and time of the printing—not the date and time your file was created.

## Remembering Time and Date a Document Was Completed

If you want to know exactly what date you completed a document, keep it in the text portion of the page to avoid having it change with the calendar.

## Sometimes Printing Counts as Modifying

Printing a document counts as modifying it in some versions of MacWrite. So if you want to check the date a document was completed, select it from the desktop and choose Get Info before you print it.

## Spacing Without the Ruler

To add a space and a half between paragraphs or lines without using a ruler, hit CONTROL-L (subscript) at the beginning of your new paragraph. When you reach the end of the text you want spaced that way, press CONTROL-L again to return to normal spacing.

## Create Exact-Sized Spaces In MacDraw

To add a space of a given size (for example, a three-inch space between test questions), you don't have to count out how many times to press Return. Instead, draw a line of the desired height in MacDraw, then make it invisible by selecting the dashed line or NONE in the pen menu. Now copy it, and when you need that space, just paste one into your document.

## Replacing a Single Word

To change a single word, double-click on it to highlight it. Then, simply type in the new word. It will appear in the space where the other word was.

## Highlighting Words Instead of Characters

You can select by word instead of by character. Double-click on the first word, then drag the cursor, and the text will be highlighted word by word, instead of character by character. You'll find this especially useful when selecting text in scaled or small fonts, especially LaserWriter screen fonts.

## Carriage Return Signifies End of a Paragraph

Never use a carriage return when you get to the end of a line, unless you mean to start a new paragraph. The text automatically wraps to the next line. When you hit carriage return, you'll find your next line indented as a paragraph, if you've used the indent marker on the ruler.

## Restoring the Last Text Cut

If you mistakenly cut important information out of your document, press COMMAND-Z or Undo to restore the lost text. This will only work if you have made no other changes to the file in the meantime.

## **Use Cut Command When Moving Text**

If you need to cut part of a document, make sure you use the menu command Cut after highlighting the text to be moved. Pressing the backspace instead can lose the information permanently (unless you immediately Undo), especially if the text contains more than 50 typeface characters. When you edit with the Cut command, your data remains in the Clipboard until something else is cut or backspaced. To avoid losing any work, paste the cut data where you want it to be as soon as you've cut it.

## **Restoring to Last Saved Position**

In a real emergency situation, the only way to restore data that you cut by mistake is to close the file without saving it. Then, reopen the file. It will remain the way it was as of your last Save command.

## **Tab Key Ensures Laser Printouts Come Out Straight**

When printing on the LaserWriter, what you see on-screen isn't necessarily what you get on paper. To ensure that numbers and columns are lined up properly, use the Tab key to set them into place. Otherwise, you might find numbers or columns that lined up perfectly on your screen have printed awkwardly out of position.

## **Decimal Tabs Override Regular Tabs**

Dragging a decimal tab on to a regular tab automatically changes the tab stop into a decimal tab. The tab marker may look like a regular tab, but it will behave like a decimal tab. To get a close look at the kind of tab you're working with, click on the tab marker or move it to reveal its true identity.

## **Hidden Spaces Can Affect Printouts**

If your text still doesn't print correctly after you've set up tabs for columns, check problem areas carefully for spaces that might have been inadvertently entered. Just erase them, and your printout should come out clean.

## **Printing Problems With Long Documents**

If MacWrite says it can't print a document, it might be because the document is too long. Try printing it out a few pages at a time.

## **Lack of Disk Space Can Cause Printing Problems**

Another printing glitch can result because there isn't enough space on the disk to save the document to the buffer. Either delete some files from the disk, or print a few pages at a time.

## Identifying Hookup Problems

Another reason you might have trouble printing is because the printer isn't hooked up correctly. Watch the dialog box while trying to print. If the Mac first says "Looking for the ImageWriter/LaserWriter" and then can't print, check all connections.

## Finding the Printer in AppleTalk

In AppleTalk printing, sometimes the printer doesn't show up in the Choose Printer dialog box. If this is the case, Quit the application and make sure the disk contains all the files you need. If it does, try this: In the Choose Printer dialog box, if the LaserWriter (or ImageWriter) doesn't show up as a print option, disconnect AppleTalk and close the dialog box. Then, reopen the dialog box and select AppleTalk Connected. Your missing icon should reappear so you can highlight it. Now, try printing again.

## When MacWrite Says It Can't Print a Document

If your bundle bit hasn't been properly set, you might also have trouble printing MacWrite documents directly from the desktop. If MacWrite says it can't print the document, and you have already exhausted the other possible problems discussed previously, here's a simple thing to try: open MacWrite, then open the file. Now, try to print it again.

## Avoiding ImageWriter Delays

When printing out MacWrite documents without a print spooler on the ImageWriter, the program often delays unnecessarily while it sets up to scroll the last page out of the printer. The delay increases in proportion to how much scrolling will be done. Get around this by choosing the Cancel button as soon as the last line of output has completely finished printing. This causes the printer to take over and scroll the page out.

## Shortcut Past Page Setup Dialog

When printing on the ImageWriter, you can shortcut past the page setup dialog box by pressing Enter right after you select Print from the File menu. This sets you up to print at the same density and paper type you last used, without the dialog box being drawn.

## Headers Can Cause Paper Feed Problems in Draft Mode

When printing on the ImageWriter using Draft mode, avoid using headers, substituting footers instead. When headers are used in Draft mode, the printer rolls the paper back after printing each page to print the header. That means the chances for a misfeed are dramatically increased. Put your important header information into a footer instead so that the printer doesn't have to wind

back. This saves time—and paper.

### **Printing Extra-Wide ImageWriter Text**

With the ImageWriter (not the LaserWriter) you can print MacWrite text up to a full seven inches wide on the paper. First, complete your document. Then, without closing it, click the Title bar and drag the entire MacWrite window two inches or so to the left. Using the size box at the lower right corner of the screen, expand the window horizontally to the right, and you'll see that up to eight inches of the ruler have become visible. Reset the right margin to 8 inches and let the text reflow into its new size. To view the text, slide the window to the left and right and readjust sizing as needed. To save or print, just follow normal procedures. Reset to default margins by closing that document and choosing New from the File menu.

You can accomplish the same thing by choosing the Wide box under Page Setup, but realize that if you do, your text will be printed out sideways on the page.

### **If Italics Are Cut Off At the Margin**

Sometimes you'll find the last letter of an italicized word at the end of a line cut off during printing, especially if that line is justified to the right. To avoid this, insert an invisible "hard space" that the Mac recognizes as a character by pressing OPTION-

SPACE right after the italicized word.

### **Avoiding Blank Last Page When Printing**

If you get a blank last page while printing, it's probably because there are extra spaces or carriage returns at the end. Solve the problem by going to the space after the last character in your text and scrolling down until you can't any more. You'll probably be able to highlight a few lines of blank space. Just hit the back space (or the Cut command) and your blank last page should not appear again.

### **Print on LaserWriter With LaserWriter Fonts**

If you're using the LaserWriter to print, make sure your font is not bit-mapped, or the result will look choppy. The LaserWriter automatically converts most standard fonts (Geneva becomes Helvetica, for example). But fancier fonts should be specifically created for, and installed into, the LaserWriter.

### **Last-Ditch Fix For Corrupted Document**

If MacWrite has Bombed while you saved a document, rendering your file unreadable by the machine, there's a fix using an editor like MacTools. Look for the first four bytes of the file's Data Fork and reduce that number by \$20 (for example, reduce from 0001 0258 to 0001 0238). This often makes the document readable by the Mac again, without significant loss of text.

## Reformatting Lines Without a New Ruler

You don't have to set up a new ruler every time you want to center, flush, or justify a line or two of type. Just highlight the section and select the alignment option you want from under the Format menu. Everything else will be left in place according to the Ruler setup.

## Reformatting Paragraphs Without a New Ruler

To reformat an entire paragraph, double-click any word on it, then choose format (flush left, center, etc.) from the Format menu or using the corresponding command keys. The entire paragraph will be reformatted to the point in which the Return key is pressed next.

## Right-Justifying Part of a Line

If you have to right-justify only a part of a line, use a decimal tab instead. For example, to place a numbered response blank at the far right side of a questionnaire, just set a decimal tab where you want the rightmost character to appear. As long as there isn't a period in whatever you type after pressing the Tab key, those characters, complete with style selections, will appear right-justified at the tab point.

## Inserting a Word Without Using the Mouse

To insert a word without taking your hands off the keyboard, backspace to the insertion point (make sure you don't backspace past 50 characters) and type in the word. Then hold down COMMAND-BACKSPACE to retrieve the backspaced text from the buffer.

## Use Replace Option to Enter Repeating Complex Words

If you have to type a complicated name or word repeatedly in your text, here's a way to shortcut all that messy typing: Make up a nonsense word, or a word that isn't used anywhere else in the text. For example, Digital could be just Dg. When you finish the document, go to the Search menu and select Change. Change your nonsense word to the actual word (choose the Whole Word option to avoid inadvertently misspelling real words) and let the Mac do the complicated typing for you!

## Resizing the Main Window to Accommodate Large-Screen Monitor

The main window can't be resized beyond the standard Mac screen, even when you're working with a large monitor or a software screen expander. But using ResEdit, you can patch MacWrite 4.5 to make the window expand to a full page. The patch consists of two parts.

In part one, you patch the code to allow for a larger window: Using ResEdit, open a copy of MacWrite (never alter an original application). Then open the CODE resource with an ID of 9 by double-clicking on the CODE line in the MacWrite window, then double-clicking on the line CODE ID=9. When the window opens, choose Find Hex from the Search menu, searching and replacing the only hexadecimal occurrence of 0136 with 0300. Then close all the windows and save the changes to MacWrite. You can now resize the MacWrite window.

If you want MacWrite to automatically default to the larger window, use ResEdit to open the MacWrite copy again. Double-click on the WIND resource line and locate and open, by double-clicking, the line WIND ID=301. Change the value of 337 (it's found in the third edit box) to 768. Close the windows, save the changes, and you've got a MacWrite that automatically opens to a large screen display.

### **Delete Text Quickly With Enter Key**

Use the Enter key to delete text quickly. Just hold down Enter while selecting the text. As soon as you release Enter, the highlighted text disappears. This is not a Cut, and it can't be Undone.

### **Finding the Cursor in a Long Document**

When you're working in a large

document, sometimes you might lose the cursor. Just hit Enter to rapidly scroll directly to the cursor entry point.

### **Insert Invisible Bind Between Two Words**

There's a way to keep two words together on a line, even if MacWrite wants to break them up. Just insert an invisible binding space by pressing OPTION-SPACE in between the two words. The Mac will treat the words as a single element.

### **Keeping Key Caps Window Open When You Need It**

If you use a lot of special text characters in your work, it's a good idea to shrink the word processor window down enough so that you can keep the Key Caps window open at the bottom of the screen.

### **Stretching or Shrinking Pasted MacPaint Graphics**

When you paste a MacPaint picture into MacWrite, the image can be stretched or shrunk. Just place the cursor over one of the three squares that you'll see on the bottom border. (Don't click anywhere else—that results in the picture being permanently placed!) Now, drag the mouse while still clicking to resize it. Release the button and the drawing reshapes itself. The only way to return the picture to its original proportions is to press Undo immediately after placing the picture.

## Correcting Distortion in Pasted MacPaint Graphics

Sometimes MacPaint images—especially circles—look distorted when you paste them into MacWrite documents. To correct the distortion, choose Page Setup from the File menu and click the Tall Adjusted box in the Orientation option to stretch the picture horizontally. This usually works.

## Pasting MacDraw Documents Into Large File

When trying to paste a MacDraw graphic into a large document, you'll often get a message saying that the Clipboard is too large to transfer. Not only that, but the Paste command then fails! Get around this by Pasting the graphic to a New, empty document, then Cut and Paste it into the document you need it in.

## Accessing Special Font Characters

To accent a letter with a diacritical mark, press OPTION while pressing the key that creates the mark (this changes from font to font, so check Key Caps to find the proper key). Release both keys, then type in the letter to be accented.

The same technique applies to creating an umlaut, or other accent marks.

Make an em dash (a long dash) by typing SHIFT-OPTION-dash.

Make an en dash (a very short dash) by typing OPTION-dash.

## MacWrite As a Poor Man's Database

You can use MacWrite as a short-term database. Use Search, Find, and Find Next to quickly locate names, phone numbers, cities or addresses embedded in a document.

## Varying Spacing Between Lines

There's a way to vary the spacing between your lines even more than you can with the three standard space controls. Just choose any blank space on the lower of the two lines of text, then change the font size of that space to the size just larger than the one you're writing with. The entire line will move down a little to accommodate the larger-font space.

## Double-Underlining Headlines

Double-underlining headlines makes them stand out on the page. To do it, first press COMMAND-U, then SHIFT-dash. Type in a few double underlines, then move the cursor back a few characters and click so that you'll end up typing into the middle of your lines. Then, type in the headline.

## Highlighting Large Portions of Text

There's a quick way to select a highlight a large portion of text

without having to scroll through it line by line. Click at the end of the text you want to highlight, then use the scroll bar on the right to get to the beginning of the text. Holding the SHIFT key, click on the beginning portion of the text. All text between the two click points will be highlighted.

### **When You Import a Document With Too Many Carriage Returns**

If you receive a plain text file that has carriage returns at the end of every line instead of at the end of every paragraph, MacWrite can fix the problem. Load the text file into MacWrite, and at the prompt, select the carriage return after every line option. When the file opens, all the text will have run together, so you'll have to separate paragraphs by hand.

### **Saving Time When Setting Up Rulers**

Using the ruler to set tabs, margins, etc. takes up a lot of time on large documents. To speed things up a little, insert a new ruler above the one already there, set the formatting the way you want it, and then select and Clear the ruler underneath. The text following the ruler will then reformat to the new specifications.

### **Creating a Title Page**

If your document requires an

unnumbered title page, select Title Page from the Format menu. This keeps header or footer information from appearing on the first page. The next page printed will be Page 2, and will have all header and footer data included.

### **Varying Default Page Number**

To make the second page of a document the first numbered page, go to the Format menu and select the Set Page # option. Enter a zero, and your title page will be Page 0, followed by Page 1, etc. The only problem with this is that you can't choose to print only the title page. If you need to, then temporarily reset the title page to Page 1.

The Set Page # option also lets you start numbering pages in any way you like. For example, if you were working on a book and the second chapter began on page 45, you could Set Page # to 45 for the Chapter Two document.

### **Adjusting Subscript Spacing**

When you use subscripts, you might be annoyed by the way MacWrite 4.5 adjusts the line spacing on all lines that contain the subscripts. To get around this, specify in the ruler that the text to follow is to be six lines per inch. This ensures uniform line spacing. Then use the line spacing icons to adjust for single, double, or triple spacing.

## Quickie Word Count

Want to count the number of characters in a line or paragraph? Select the area you need to count and choose **UNDERLINE** and **OUTLINE** from the Style menu. Look closely at the underscoring and you'll notice that at each interval of 15 characters (including spaces), there's a small dot inside the double underscore lines. Count these dots and multiply by 15, then add the number of characters to the right of the last dot. There's your character count. By the way, these dots won't appear when you print the document.

## Locked Documents Aren't Always Locked

Be extra careful when working with a Locked document in MacWrite. Version 4.5 ignores the Lock Box set it the Get Info window. If you select Save instead of Save As... when working with templates, the template will be changed into your work file.

## Keep Backup Templates

Avoid corrupting templates by mistake by saving template backups to a separate disk, used only for backup purposes.



## Make Millions

### Reach Out and Touch Someone

Tired of waiting for Manny the Mouth to call with the latest tips on how

much stock your competitor owns? Give him a call directly by picking up the phone and dialing 62669.



## MegaForm

### Creating Automatic-Fills For Forms

This program requires that each form has one cell that is manually filled out. You can get around this restriction by designing a form that uses its manually filled cell to force other forms to complete. For example, filling in a name on a master index card could force the creation of an index, a new record, and an updated customer record.



## Microsoft BASIC Compiler

### Hiding Your BASIC Window When Running the Program

Every program compiled will immediately display a window upon startup when you run it. This window often differs from the main window of the program you wrote. Plus, it's a dead giveaway that you wrote the program in BASIC! Use a disk/file editor application to patch the compiled program and eliminate this window.

In the resource fork of the program, search for the hexadecimal string "00 29 00 02 01 54 01 FC" and replace it with all zeros. Save the changes to your file, and you'll never have to look at that opening window again.

## Restoring the BASIC Menu Bar

If you stop a program that has its own menus, you can restore the MS BASIC menu bar by typing in MENU RESET.

## Stop a Document From Launching

If you accidentally open a document from the Finder, but only meant to open the program, press COMMAND-period while the program boots. That launches the application instead of the document.

## Changing Font Size and Style in List and Command Windows

While MS BASIC allows you control over different font sizes and styles in the output window, there isn't an obvious way to change these for the List and Command windows. Do it using the POKE commands "POKE &H985, 4: POKE &H987,9". The 4 represents the font ID number (in this case, it's Monaco). Substitute the ID of the font you want to display in. The 9 is the point size, so you should substitute whichever font size number you want.

## Version 2.1 Glitch

In version 2.1, if a Tab character is before a label name you'll get an error message.



## Microsoft FORTRAN

### Make Each TYPE Statement Display Information on a New Line

The TYPE statement is an easy way to output data on to the screen, but typed output is not followed by a carriage return (as it is with FORTRAN on other computers). This can lead to a problem in which information from each subsequent TYPE statement appears on the same line and runs off the screen. To have each TYPE statement display information on a new line, have your code type the ASCII characters for a carriage return and a line feed at the end of each TYPE statement. To do this, include the following statements at the beginning of your MS FORTRAN programs:

```
CHARACTER*1 CR, LF  
PARAMETER (CR=13, LF=10)
```

Once these statements are included, all TYPE statements should include the variables CR and LF at the end of each parameter list. For example: "TYPE \*, 'This is the FIRST line', CR,LF." Other ASCII characters may be added to TYPE statements in the same way.



## MindWrite

### Sorting Text Within the Program

It's possible to sort text within MindWrite. With the arrow cursor, click to the left of the paragraph you wish to appear first. Then click to the

left of the other paragraphs in the order in which you want them to appear. Position the cursor to the left of a selected paragraph until a pointing hand appears. Hold down the mouse button until the pinching hand cursor appears, then drag that hand to where you want the items to appear and release the mouse button. The items will appear in the order in which you selected them.

### **Saving Clipboard as a Document**

It's possible to save the contents of the Clipboard as a document. Just open the Clipboard window and choose Save from the File menu. MindWrite then prompts you for a name for the document. This saves the entire Clipboard, including the dotted lines that separate selections. You can then restore the Clipboard by opening the document, selecting all (COMMAND-A) and copying it (COMMAND-C).

### **Illustration Count in a Document**

It's easy to keep count of the number of illustrations in a MindWrite document. Just label all your graphics with a special word, such as "Figure." You can later count the number of times the word occurs by conducting a Find All for that word, then using Word Count on the resulting search document. As long as none of the illustrations have subordinates, the number of paragraphs in the Word Count box tells how many times the

word "Figure" appears. You can use the same method to count the occurrences of any special word.

### **Extra-Wide Printouts**

The program allows you to produce a document up to fifteen and a half inches wide on a wide-carriage ImageWriter. Windows automatically zoom to the size of the screen, so you won't see more than six and a half inches of MindWrite's rulers unless you have a large external monitor or unless you drag the document window to the left and then resize it, larger, to the right.

### **Text Wraps to Fit Ruler or Window**

You can choose to wrap text to fit either the window or the ruler. This means you can conveniently edit text in a window the size of your screen without the distracting movement of horizontal scrolling, and then later select WRAP TO FIT RULER to review line and page breaks.

 **miniWriter** (Desk Accessory)

### **Scroll Screen Up and Down**

To actively scroll the screen up and down, press COMMAND in conjunction with the cursor keys.

### **Bypassing the Opening Screen**

Use the keyboard to get past the opening screen. Press COMMAND-N

while the DA is loading to start up with a blank document.

### **Access Text-Only Documents on the Disk**

Press COMMAND-O while miniWriter is loading to access other documents that have been saved as text-only. This opens the standard file selection dialog box.

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## **LVT MORE**

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### **Your Own Personalized Startup Screen**

You can personalize your MORE startup screen. Once you've "branded" your disk in this fashion, it's for keeps, so carefully consider what you etch into the startup.

### **Displaying More Than One Level of Headline in a Bullet Chart Slide**

Sometimes you'll want to display more than one level of headline in a single bullet chart slide. To do it, Cut or Copy to the Clipboard each outline section that you'd like to see appear on one bullet chart slide. Open a document window and Paste in the contents of the Clipboard. The indentations remain intact. Edit the leader characters to your satisfaction, then go to the Bullet Subheads dialog box and turn off the Subheads, then leave on Documents. Your slides will show multiple levels when you do bullet chart presentations.

### **Centering Bullet Charts For Printing**

To center a bullet chart on a page when printing, be sure to turn on the As Shown When Printed in the Bullet Options dialog box. If you don't, the chart will print the way it looks on-screen.

### **Indicating Where Sum Total Should Go**

The Calculate command normally positions the sum total at the beginning of a headline, although if there is already a number in the headline the sum total will replace that number. To indicate exactly where the sum total is to go, place a "\$0.00" in the location you want to specify.

### **Hiding Numbers From Calculations**

You can "hide" numbers from the Calculate command. MORE considers numbers containing a slash (/) to be dates, while it thinks of numbers containing a colon to be times. That means, any figures that contain these characters will be ignored when the Calculate command is executed.

### **Dollar Figure Takes Precedence Over Other Figures**

If a headline contains both a dollar figure and a non-dollar figure in the same headline, the dollar figure takes precedence for calculations, while the

other figure is ignored. For example, if you put both an expense amount and the date of an expense in the same headline, put a dollar sign in front of the expense and for calculations the date is ignored.

### **Hide A Headline While Reorganizing Outline**

You can reorganize an outline by dragging a headline under another headline that has collapsed subheadlines and "hiding" it there. This lets you clean up your outline and concentrate on organizing the main details.

To move a headline under another and hide it, select the headline you want to move. Then place the pointer to the right or left of the headline (or on the headline, if the Recognizes preference is set). Now click. The pointer changes to a right arrow. Hold down the mouse button and OPTION and drag the pointer underneath and to the right of a headline with collapsed subheads. Finally, release the mouse button. The chosen headline is now "hidden" at the end of the collapsed subheadlines.

### **Fast Access to Tree Size Dialog**

You can quickly access the Tree Size dialog box by double-clicking on any of the orientation icons (the first four icons at the top of the Tree Chart palette). This dialog box lets you alter the exact dimensions of the boxes in your tree.

### **Quickly Opening Tree Options Dialog**

A quick way to open the Tree Options dialog box is to double-click on any of the box shape icons in the Tree Chart palette. This dialog box lets you adjust the patterns of the lines and boxes in the Tree, and also allows adjustment of grid lines, rulers, and page lines.

### **LVTMORE 1.1**

#### **Toggle Between Headlines and Document Window**

You can quickly toggle between a headline and its document window by pressing OPTION-ENTER.

#### **Key Equivalents Work in Dialog Boxes**

For all dialogs where there is no text input, you can use C for Cancel, O for OK, Y for Yes and N for No. If there are text entry boxes, use the COMMAND key along with the key for choosing the button.

#### **Cancel Dialog Quick**

Cancel any dialog by pressing COMMAND-period.

#### **Reversing Text Entry Point**

While the Tab key advances through text entry boxes of a dialog, SHIFT-TAB moves the text entry point in reverse order.

## Entering Tabs Into Headlines

Enter tabs into a headline by typing OPTION-TAB.



## Multiplan

### Quick Column Addition

Quickly add a new column to a spreadsheet by holding down SHIFT while clicking in the head of the column directly to the right of the position in which you want to insert the row.

### Copying Rows and Columns Into Word Processor

It's easy to copy the rows and columns of your spreadsheet into a word processor. Just select all the cells in the spreadsheet and Copy them to the Clipboard. Then, launch your word processor make sure your word processor's tab settings correspond to the spreadsheet's column widths. Then, Paste the data in from the Clipboard.

### Sorting a Series of Rows

To sort a series of rows, select all the filled-in cells in the column containing the "field" on which you want to sort. Then choose the Sort... command. In the dialog box, click your sorting choice in ascending or descending order. The information in columns other than the one you sorted on will be rearranged to reflect the sorted column.

## Longer Header or Footer Text Than Text Box Can Display

You can create header or footer text that's longer than the box can display. To edit or view this text, place the cursor in the visible text near the rightmost end of the entry box and drag off its end. The text will scroll to the left and the "hidden" text appears highlighted and ready for editing.

## Recalculating New Value or Formula Entries

If you're having a problem because new value or formula entries aren't recalculated into the rest of your cells until the document is saved, you must have turned off the Automatic Calculation feature. You can either just use CALCULATE NOW from the Calculate menu (also accessed with COMMAND-=) or you can turn AUTOMATIC CALCULATION back on from the Calculate menu.

## Rounding off Half-Pennies

If your spreadsheet contains dollar figures with decimal places less than a penny, Multiplan executes the calculations exactly, using those values. You can choose the Round function to round the figures off to two decimal places before calculation, if you don't need such exacting figures.

## Fixed Numbers Act Like Text

If you display a number with the

**FIXED** function, it will act like text and can be treated as such for concatenation.

## Fonts Can Be Changed

If you don't like the default font of 10 point Seattle, change the font to 9 point Geneva. You might even be able to fit more rows and columns on printouts. The easiest way to do this is to replace Multiplan's System file with the one from Microsoft Chart. If you don't have that, use the Font/DA Mover to remove the Seattle fonts from the System file. Then it will default to 9 point Geneva. However, you'll have to reset the column widths to the size you want.

## Printing in Helvetica

To print in 9 point Helvetica on the LaserWriter, use the Font/DA Mover to remove all Seattle fonts and also remove 18 point Geneva. In Multiplan versions 1.1 and later, this won't be necessary, since you can choose your fonts from the menu.

## Use Forced Page Breaks When Printing Large Sheets

When you're printing large sheets of Multiplan documents, it's easier to use forced page breaks. These break up the spreadsheet into printable units. Then, select pages from the Print dialog box. This may sound cumbersome, but it's a lot easier than constantly selecting areas to print from the spreadsheet.

## Squeezing More Data On a Page

To squeeze extra data on to a page, choose a page size in Page Setup that's larger than the actual size of the paper you're using.

Another way of getting more data on the page is to select the Page Setup option and set all page margins to 0.

## Tall Adjusted Print Option is Better, But It Takes Longer

The Tall Adjusted printout is much darker and more legible than the printout you get using just the Tall setting, but Tall Adjusted pages take almost twice as long to print.

## Simulating Freeze Title Option on Printouts

You can simulate the Freeze Titles screen option on your printouts if you want. Copy and Paste an extra titles column at the leftmost side of each page, then obscure it from view by dragging the column to its right, over the dotted lines. You can't see it on the screen, but the printer will produce the titles column in its proper position.

## More Columns Can Be Printed Than You Think

Multiplan can print columns up to 128 characters wide with the orientation printing option, even though you can't enter numbers over

99 in the Column Width dialog box. First, open the spreadsheet and Show Values. Then use Column Widths to set the column width to exactly half of the width you want for the printout. Finally, select Show Formulas, and the column width will double to what you want. If you choose Column Width again, you'll get an "Invalid Column Width" message, but this won't affect any printing or operations.

### **Highlighting Sections With a Graphics Program**

It's not possible to highlight particular sections of a Multiplan sheet. But pasting the document into MacDraw or MacPaint lets you add tints to highlight headings and important totals.

### **Showing Cells That Need Alteration**

Use the Protect Document and Remove Cell Protection options together to set up a model in which cells that might require alteration show up as highlighted and unprotected. Then, to make changes, you can move instantly between these unprotected cells by using the Enter key. A plus is that row and column lines are suppressed on a protected sheet, making them easier to read and cleaner looking.

### **The Easy Way Into Protected Spreadsheets**

To recover protected spreadsheets, all

you have to do is open the protected document and Save As. Pick a new filename, Save, Close the protected document, and then open the Saved As copy and get to work. Protection does not transfer to new copies of documents.

### **Putting Titles at the Top of Lists After Sorting**

If you compile lists and want the title at the top after the sorting, type a space before the title. This space has a lower ASCII code than any other single character.

### **Possible Incompatibility**

If you use the System Update utility that came with Finder 4.1 on Multiplan 1.02, it makes some odd changes to the system fonts. For example, it designates 12-point New York as a system font, and assigns 9 point New York as the font the Finder should use for icon labels. Remedy the problem by creating a new System file on another disk, and using Apple's Font/DA Mover to be sure the new System contains only Chicago 12, Geneva 9 and 12, Monaco 9, and Seattle 10 and 20. Then, running the Mac from the new System, trash your Multiplan System file and replace it with the new one.



## **Multiplan 1.1**

### **Embedding Formatting Commands In Header or Footer Text**

You can embed formatting commands

and other instructions into the header or footer text. Insert the commands in the Page Setup dialog box:

- &L aligns the characters that follow at the left margin;
- &C centers the characters that follow;
- &R aligns the characters that follow at the right margin;
- &P prints the page number;
- &D prints the current date;
- &T prints the current time;
- &F prints the name of the document;
- &B prints the left, center, or right part of the header or footer in boldface;
- &I prints the left, center, or right part of the header or footer in italics;
- && prints a single ampersand (&).



**OverVUE**

## Previewing Reports

Preview a report by saving it to disk, then opening it with a text processing desk accessory like MockWrite or miniWriter. You'll be able to see and print the report, and can even make changes without reopening OverVUE.

## Problem-Free Column Insertion

Inserting a column into the middle of a group of columns in a data file can confuse the report templates, because these templates relate to the position of a field on the line in the data column. Fix the problem by choosing Hide Frames, then choosing Show Frames, and then rebuilding your report template to refer to the new line positions of the fields.

## Embedding Tabs When Exporting Data

OverVUE doesn't use Tab characters to separate fields, which can cause problems when you try to Paste information into a database manager or spreadsheet that uses Tabs as separators. To remedy problems on files you'll be exporting, place a tilde character (~) between fields in the Report Generator.

## Use Mac XL Edition With HyperDrive

If you'll be running OverVUE on a HyperDrive, be sure to use the Mac XL edition or you'll run out of memory.

## Incompatibilities

OverVUE might Bomb if used in conjunction with memory cache software like TurboCharger or PowerCache. If you find yourself having trouble running it with these programs, try using a smaller cache size, or else delete the cache application completely. You shouldn't experience problems using OverVUE with the Mac Plus' automatic disk caching.



## Don't Use GLOBAL REPLACE If You Can Help It

In applying the GLOBAL REPLACE function, if the < or <= values are

applied, you run the risk of trashing some data, especially if you're working in a numeric column. To sidestep this problem, use the < or <= value with SELECT instead of GLOBAL REPLACE. After the selection is made, use FILL to replace the old data with the new, then SELECT ALL to get all records back on-screen.



### PackIt III

#### **Packing Groups of Files Without Using File Selection Window For Each**

Pack a group of files without going through the file selection window for each one by moving all the files you want in the packed file and PackIt to the desktop. Then, select them all by using the Shift key, the selection rectangle, or both. When that's done, either double-click on the application (not on a document) or choose OPEN from the File menu. You'll then be requested to provide options and a destination filename, and the program will pack all of the selected documents into a PackIt file.

When you return to the desktop, reselect all the documents and the application, and put them back by using the PUT AWAY command under the File menu. This last step is important!



### PageMaker

#### **Correcting Underscoring Problems**

When making a "fill-in" sheet, the

underscore characters you type at the end of each line will occasionally line up with the end of other lines. To correct the problem, after you've completed the page draw a box over the edges of the ends of the lines which encompass all of the associated lines. Give that box a white shade and "None" lines, so it can't be viewed. It will cover (invisibly) the objects behind it.

#### **Easy Way to Identify Text Block Handles**

When working with a page containing a number of different text blocks, determining which handles belong to which block can be a problem. There's a workaround to the long handle lines: Select, from back to front, all of the text in a block and then cut it. Then select the arrow tool and paste it in the text in the Clipboard. You'll notice that the text now has short handle lines instead of long ones. Still, selecting to the right will reveal the old handle lines, which can be deleted quickly by typing a backspace.

#### **Deactivate Continued Text Handles in Version 1.2**

In PageMaker 1.2, a continued text handle (which displays the + sign) is accidentally clicked, the text doesn't have to be placed on to the paste board (the areas on the sides of the active page). Instead, deactivate the continuation by clicking on any of the tools in the toolbox. This ensures that your original text block won't be changed.

## Getting PageMaker to Remember Page Setup Alterations

Choose Page Setup from the File menu with no document open and only the gray desktop showing to alter your Page Setup settings in a way that PageMaker will remember. That way, whenever you start a new publication, your altered settings will be the default settings.

## Actual Size Display Rulers Are Most Accurate

The 200% size has the most fractional markings on the rulers, so you would assume this would be the most accurate, size-wise. But that isn't necessarily true—in some cases, items that appear to be correctly placed in 200% mode turn out to be slightly misaligned in Actual Size. The printed version matches Actual Size display most accurately, so keep this in mind when placing objects on a page.

## Toggling to MacPaint-Style Hand Tool

You can toggle to a MacPaint-style hand tool by holding OPTION down while clicking on your document in any other place but in a column guide. Use the hand to drag an image around the window and redraw any portions that weren't on the screen before you started the drag, when the image has been placed.

## Disabling SNAP TO GUIDES

Turn off SNAP TO GUIDES in the Tools menu if you don't use it often. If you want to make a move that isn't affected by these guides, just be careful where you place the pointer. If it's close to a guide when SNAP TO GUIDES is turned on, the item you're moving will be affected by the guides. If you position the pointer away from the guides when you start the move, you'll be able to place the element without any SNAP TO GUIDES effects.

## Printing on LaserWriter Plus Requires Version 1.2 or Higher

If you'll be printing PageMaker documents with the LaserWriter Plus, be sure you're working with PageMaker 1.2 or higher, or the printer will treat the newer ROM-based fonts (and other Adobe fonts) as bit-mapped images, making your printout choppy and ugly.

## Reset LaserWriter Before Printing PageMaker Documents

If you have used the LaserWriter to print from other applications, turn it off and then back on again to reset it before printing PageMaker documents. This is because PageMaker initializes the LaserWriter with Aldus Prep, but it doesn't replace the old Laser Prep file. Both are memory hogs, so when the LaserWriter stores both it slows down

in printing speed. Likewise, reinitialize the printer after finishing your PageMaker printing. If the Mac is on a LaserWriter-connected network and it seems to be printing very slowly, someone probably initialized the LaserWriter with Laser Prep. Reset it to speed up printing.

### **Evenly Spaced Lines in Difficult Places**

There will be times when you want evenly spaced lines in a place not easily divided with the ruler. To make them easily, create and save your own simple ruler (with some division lines) in a PICT file using MacPaint or MacDraw. Then, enter PageMaker and use the PLACE command to put your ruler on the page. Now, select the ruler and resize it to fit the space you need to divide. You can now draw lines using the ruler as a guide. When you're finished, remove the ruler.

### **Workaround For Graphic Clipping Problems**

When you open PICT files within PageMaker, a bug sometimes surfaces that clips off the top part of a graphic, especially if it consists of text placed above graphics. Work around this by placing a shape above the text and giving it no line fill or fill pattern. This invisible shape fools the program into including the full text.

### **Toggling Between Full Page and Fit in Window Views**

Toggle between the Full Page and Fit

In Window views by holding down the COMMAND key while clicking in the page window.

### **Early Versions Bomb When You Delete Several Pages in a Row**

Early versions of PageMaker can crash if you try deleting several pages in a row. Avoid this by deleting only one or two pages at a time, saving the document between deletions. Each page contains a lot of data, so the Save process is quite slow, but it's better than Bombing. Use PageMaker 1.2 or higher to avoid this kind of crash.

### **Save Often to Avoid Corrupted Files**

As with many page layout programs, PageMaker's complexity increases the chance that it will crash the system. Make sure to save your files often, and keep your backups and version numbers up to date.

## **PageMaker 2.0**

### **Selecting Closely-Packed Objects**

When working with a number of objects that are confined to a small space, it's often hard to select the exact object you want to manipulate. In PageMaker 2.0, you can flip through closely packed objects by COMMAND-clicking near an object.

## Guide Lock Aids in Object Selection

PageMaker 2.0 places all non-printing guides “over the top” of a document, so it can be difficult to select items located on or under a guide without grabbing the guide by mistake. Use Guide Lock from the Options menu to lock the guides temporarily, making it impossible to select and move them accidentally. When you’re done moving the objects, toggle the Guide Lock off by choosing it a second time.



## Parameter Manager

### Copying Formulas to Another Calculated Parameter

If you’re entering a formula into the calculated parameter dialog box and you need to use the same formula in another calculated parameter, select the formula and use the Cut and Copy commands by their usual keyboard equivalents (COMMAND-X and COMMAND-C). You can then use the Next or Previous buttons to advance to the desired parameter and use COMMAND-V to paste in the cut or copied formula. Since the menu bar isn’t accessible while the calculated parameter dialog box is open, the only way to edit these items is to use the keyboard equivalents.

### Quickly Scrolling to the End of a File

You can speed up data entry without having to scroll to the end of the data

base to select a new date/sample field. Hold down COMMAND-OPTION while pressing Return. This will scroll you to the end of the file and place the cursor in the date/sample field, preparing you for entry in a new row.

COMMAND-T does the same thing, except that it also enters the date, time and the next sample number.



## PowerCache

### Incompatibilities

Running this program with a HyperDrive 20 results in a Bomb.

If you run PowerCache on a Mac XL, it will damage your System file.

### Different System Files Can Hang This Program

Avoid switching disks that contain System files while working with PowerCache. It may cause your system to hang. The most frequent reason for this is users starting up an application from another disk when it contains a System file. You can avoid this problem if you keep a copy of your application on a disk without a System file, using a PowerCache-equipped startup disk to enter the application.



## Professional Composer

### Workaround For Ignored Rehearsal Marks

Use the Print Parts option under the

File menu to “consolidate” rests in parts. However, in all parts other than the first, rehearsal marks will be ignored if rests precede *and* follow the rehearsal mark. You can fix the problem by inserting a thick barline from the Barlines palette at the left side of any measure in which a rehearsal mark is inserted. Any barline at rehearsal marks, other than the standard one, force Professional Composer to break consolidated rests around rehearsal marks in parts where rests precede and follow the mark.

### Place Ties and Articulations After Transposing Parts

When working with transposing instruments, be sure that you place your articulations and ties after you **TRANPOSE PARTS**. This program will not allow for the fact that the direction of note stems often change after transposition. Your articulations and ties will often end up on the wrong side of the notes, and redoing articulations and ties can be tedious.

### Quick & Dirty Utilities, Volume 2

#### Reset FKEY to Simulate Shut Down

Using the Reset FKEY can be a timesaver if your program freezes, since it performs an operation similar to Shut Down, saving hard drive users the long recovery time after a

system error.

Sometimes if your mouse freezes, you'll be able to call up the Reset FKEY, but will be unable to reset the Mac because the default dialog choice only allows you to Cancel the operation from the keyboard. But you can solve it by patching the FKEY using a disk/file utility application. Start by opening the FKEY in its own file and changing the one hexadecimal occurrence of 6740 to 6640. Then, make an ASCII change of “Reset” to “Don't” and an ASCII change of the occurrence of “Cancel” to “Reset!” (Make sure to include the apostrophe and exclamation point.) Save your changes, then install the modified FKEY in your System file.



### Radius FPD

#### Turn On Custom Feature to Activate Screen Blinking

If you have the Radius FPD installed in your Mac, but the Radius screen is turned off, the automatic screen blanking won't work unless you have at least one custom feature turned on.



### Rags to Riches

#### Charts Can't Be Deleted, But They Can Be Redefined

Plan carefully before creating your Chart of Accounts. You can't delete a chart once it's been added. It can be completely redefined and used elsewhere, though.

## Key Codes Are Forever

Caution also applies when you assign a key code to an account. Once this has been done, you can't use that account without a key code, although you do have the option to change it to another code. Unused key codes won't interfere with the program's operation.

## Capital Account Is Calculated When You Print

Usually, a set of books has a Capital account which reflects accumulated profits or losses. The Rags to Riches G/L doesn't keep this as a regular account in your chart, but instead it is calculated when you print an Income Summary and Balance Sheet report. The figure will appear on the Balance Sheet as "Computed Retained Earnings" underneath the owner's Capital account.

## Combining Files on an 800K Disk

You can combine Rags to Riches files on to an 800K disk. Just make a startup disk containing the fonts and printers you'll be using, and then copy the program files to this disk. You need files carrying RR logo icons, named Ledger, Payables, and Receivables. You should still have room for the Templates folder as well unless you have numerous printers and fonts in your System file. Now, make a data disk that contains no System and save the data files to this disk, backing it up periodically to

head off potential disasters.



## RAMdisks

### Configuration to Minimize Disk Swapping, Maximize Application Storage

To minimize disk swapping and still allow several applications on a disk, try this setup: configure the RAMdisk to contain the System file, Finder, and ImageWriter driver. Then, after booting the RAMdisk, remove the System disk and you'll have two free disk drives if you work on a two-drive system. Put a disk containing the applications you want to use in one drive, and you'll find the disk space gained by having no System or Finder leaves enough room for several good-sized applications. Leave the second drive empty, inserting disks when they're asked for.

### Modify Phantom Copies of Applications

If you're going to attempt complicated changes to an application program (for example, if you'll be modifying it in ResEdit), load a phantom copy of the application into the RAMdisk and make the modifications there. That keeps your disk copy safe, and if the worst case happens and you completely scramble the data, just start over by powering off and on.

### RAMdisks Aren't Permanent Storage

Whenever possible, avoid storing data

files on a RAMdisk. If you do, be sure to save your files to floppies often so you never lose data in a crash or power failure.

### Save As... Slows Operations

Once you've used Save As..., most applications will work with the copy on the disk, ignoring the RAMdisk copy and slowing down applications. You can avoid this by immediately invoking Save As... again to save back to the RAMdisk.



### RamStart

#### Keep Programs to Be Copied At Root Level

Avoid problems when using version 1.0 with an HFS system by keeping all the programs you want to copy to the RAMdisk at root level. Versions 1.21 or 1.22 don't have as much trouble using HFS.



### Ready, Set, Go! 2.1

#### Tips For Importing Formatted or Tabbed Data

If you're bringing heavily formatted and/or tabbed data into the program, use a screen-to-Clipboard DA like the Clippy FKEY or the Quick Grab DA from Quick & Dirty Utilities Vol. II. Bring your information in as a graphic or series of graphics (take bit map dumps of word processor screens). Matching the MacWrite ruler with Ready, Set, Go's block layout in Switcher makes this easy.

Only bring in finished documents, though, since if you have to make corrections you'll have to reimport the word processor screen. This should work when you're using any program that accepts Clipboard graphics.



### Ready, Set, Go! 3.0

#### Wrapping Text Around Text

It is possible to wrap text around other text. Just choose Specifications from the Special menu and pick "run around." The resulting text can wrap around the text block just the way it can be done for a picture.

#### Viewing Page At Text Block Insertion Point

Using COMMAND-1 to COMMAND-5 to view a page can be annoying, since you always see the upper left corner of a page. To work around this, while the text tool is activated, click and hold the mouse button with the cursor in the text block you want to zoom to. Still holding down the button, type the Command key to zoom to any factor. When you release the mouse button, the view will shift to show the insertion point in your text block.

#### Import Documents of 32K or Less

If you're importing a complex PostScript document, check the size of the file first. It has to be 32K or less to import properly, because Ready, Set, Go! 3 is limited to 32K text blocks. Using longer documents is asking for trouble.

## Use Program's Own Drawing Tools To Save Printing Time

Although Ready, Set, Go! is excellent at importing 300 DPI graphics, if your needs aren't too complex, try to make do with the drawing tools in the program. It saves considerable time outputting a page. You can create pretty elaborate logos with some imaginative use of the fill patterns and shapes, and your page will print almost as fast as if it was text-only.

## Bypass GET PICTURE By Using Clipboard Instead

Although most people copy graphics from files using the GET PICTURE routine, you can skip a step by passing an image through the Clipboard. If you work with a drawing or painting program and RSG under Switcher, cut the image to the Clipboard, switch to RSG, use the cropping tool to prepare the target graphics block, and then Paste. You'll still have the same control as if you had imported the image through a file.

## Link Text Blocks in Exact Order, Page By Page

When linking text blocks together, be sure to link them in the exact order page to page that you want. The program won't assume that you want the blocks linked in numerical page order, but instead will take your commands literally. If you try to link up the blocks from front to back, the

result will be an awful mess.



## Red Ryder

### Disabling the Opening Screen

Disable the opening screen by creating a dummy file (such as a text file with a single character in it) with the name RRJ\$, then place it on the same disk (when using MFS) or folder (when using HFS) in which Red Ryder's application is located.

### Versions 8 or Higher Incompatible With 128K Mac

If you're still using a 128K Mac, don't use Red Ryder versions 8 or higher.

### Other Incompatibilities

Version 7.0 can have compatibility problems when used on an Apple Hard Disk 20 under HFS. With this configuration, if you put Red Ryder in a folder, that folder can take up as much as 15 megabytes of disk space and prevent it from being available to other programs unless the folder is deleted. Either don't put this version in a folder, or upgrade to version 9.2.

Version 8 can crash upon Quitting if you are using a Mac with 64K ROMs and a hard disk. Again, upgrade to version 9.2.

Version 8 also has problems in using CompuServe's B protocol. For the last time, upgrade!

## Turning the Mac Into a Mainframe Terminal

You can use Red Ryder to turn your Mac into a mainframe terminal. The ability to write procedures simplifies logging on, and you can use the VT100 emulation mode to produce a good full-screen terminal. The ability to define macro keys and have thirty of them available at a mouse click reduces the need to remember a jumble of mainframe commands. But perhaps the most convenient feature is the ability to copy from the screen by dragging the mouse. Combine this feature with the Paste to Modem command, and an IBM mainframe can be given a substitute clipboard.

## Smooth Scrolling in TTY Mode

Implement smooth scrolling in TTY mode using Red Ryder version 9.4. Just select VT100 Mode from the Special menu and then check the Smooth Scroll Mode box. Red Ryder will now produce smooth scrolling, even in TTY mode.

## Resource Editor (ResEdit)

### Always Work On A Backup—If Not, You Could Be Sorry

First and foremost, never work with ResEdit on anything other than a backup copy of your application.

## Using RAMdisks As Work Disks

Your safest bet when using ResEdit is to work from a RAMdisk. Create a ResEdit disk containing the System, Finder, ResEdit, and RAMdisk programs, using no folders. Then copy the application you want to customize to the RAMdisk. Set RamStart as the startup application and then Shut Down. Then, reboot using the disk. You'll find that working from a RAMdisk speeds up the moves between your application and ResEdit, and RamStart spits out your application disk after loading its files—so you never have to worry about trashing your only copy of an application. If things go wrong, just reboot and try again.

## Open Any Resource As If It's Another Resource Type

Press OPTION-SHIFT while opening a resource to get a dialog box that allows you to open any resource as if it was another resource type. You'll find this feature useful for examining version resources. Open them as STR resources to see an English language string instead of hex data. The string usually contains version numbers, but sometimes you might be surprised. Just type into the box to add to or change the text.

## Full Clipboard Can Cause Trouble Cutting Resources

If you have trouble cutting resources, it could be because your Clipboard is

getting full. Remember, when you cut, everything moves to the Clipboard, but when you Clear, the data disappears. Cuts can be undone, but Clears are irreversible.

## Customizing Scroll Bar Patterns

You can use ResEdit to customize the patterns of your scroll bar. Open your System file and open the PAT resources. Double click on the light gray pattern, and make sure that the name of the opened window reads "Pattern ID = 17." If it doesn't, close the window immediately. You'll now be presented with a FatBits environment that can be used to edit the file. When you find a pattern you like, save the System file, quit, reboot, and have a look at those new scroll bars.

## Getting the Finder to Recognize a Modified Icon

You probably already know that you can use ResEdit to modify an icon. But your new icon might not appear on the desktop after you return to the Finder. This is because the Finder is still working with a copy of the old icon in its desktop file. Get your new design to the desktop file by either removing the desktop file using a disk utility, or by ejecting the disk, trashing its icon, and then reinserting it while holding down COMMAND-OPTION.

## Keep Work Files At Disk Root Level

When working with ResEdit on an HFS system, keep files you want to Open under ResEdit at the root level on the disk. If you try opening a file in a folder, ResEdit might create a new resource instead of opening the file you want.

## Creating Your Own Resources

Newer versions of ResEdit can create resources. Just use the New option under the File menu to begin.

## ResEdit/ComicWorks

There's a special FKEY in ComicWorks that copies any part of the screen to the Clipboard as a bit-mapped image. You can paste this FKEY into your own System using ResEdit. First, open the System on the ComicWorks master disk and open the FKEY resources. Select FKEY 6 (Screen Clip) and copy it, then close the file, open the System file you want to install it on, open FKEY, and Paste.

## ResEdit/Finder 5.2

You can disable the message "Are you sure you want to remove the application X?" from popping up when you throw applications in the trashcan. Find and open the LAYO resource, open ID = 128, and you'll find a number of options, including "Skip trash warnings." Select the

number one radio button and close ResEdit, saving the changes.

### **ResEdit/FullPaint**

Recue the size of FullPaint by using ResEdit to clear the two help screens (stored as PICT resources). This clips 14K off the program.

Screen dumps are created as PICT files, but even so, FullPaint can't open them directly from the Finder. Use this modification to correct the problem:

Open up your System file with ResEdit. Within the System file, open up FKEY 3. Find the characters MPNT on the right side, and change them to PANT, then close and save the System file.

### **ResEdit/GraphicWorks 1.1**

You can use ResEdit to edit and permanently change any of the default patterns in GraphicWorks 1.1. Enter ResEdit and open a copy of the GraphicWorks 1.1 application. You'll find a resource of type PAT# (Pattern List). Double-click on the PAT# line and then double-click on any of the four palettes that have appeared. The editor you'll see is similar to MacPaint's FatBits. The pattern currently being edited is shown in the bottom center of the window. Click on the pattern to its right to make that pattern the one being edited.

### **ResEdit/LightSpeed C**

The project window in LightSpeed C

can only display up to 12 file names at once. You might need to enlarge the window to view your file names, but when you run the program, the project window goes back to its normal size.

Use ResEdit to change the location and default size of this window. Open ResEdit, open LightSpeed C, and open the WIND resources. Find the resource numbered 129 and open it. The boxes with numbers shown are ordered by top, left, bottom and right. Change the bottom number by adding some multiple of 14 (this represents a 14-pixel line in the project window). To add seven new lines, type in 318 (220 plus 7 times 14). Then quit and check out the changes to your copy of LightSpeed C. To change the default location of the project window, alter the number that shows the left bound of the window.

### **ResEdit/Mac SE**

Use ResEdit to remove some unnecessary resources from the System 4.1 file on the Mac SE. The PTCH resources are "patches" to a particular machines ROMs. The unnecessary PTCH resources are those numbered 28927, 105, 117 and 376, which are patches for other computer models such as the Mac 512K and XL. Also, now that the SANE mathematical routine functions are found in the SE's ROM, you can remove them from the System file as well. The SANE resources are PACK 4 and PACK 5.

## ResEdit/miniWriter

miniWriter defaults into settings that you can change by using the Options in the miniWriter menu. But you can customize the default settings to your own taste. First, open the miniWriter DA from its icon (don't open it from within the System file). Then, copy the TMPL resource you'll find there and Paste it into the TMPL resources of a copy of ResEdit. Next, quit and reboot from the modified ResEdit copy. Then, open the mWRT resource in miniWriter, scroll down to the default options, and set them according to your needs. 0=off, and 1=on.

## ResEdit/Phone Pad

ResEdit can help if Battery Pak's Phone Pad desk accessory pages are too small for your needs. Start by using the Font/DA Mover and save the Phone Pad DA into a new file. Then enter ResEdit, open the new file, and locate and open the WIND resource that's shown, then click on the Set button. Now, draw a rectangle large enough to accommodate the Phone Pad page you wish to create. (Don't draw the rectangle too close to the menu bar, though, or you could find problems later.) Save the changes to the DA file, quit, then install your altered DA.

## ResEdit/Ready, Set, Go! 3

Sometimes Ready, Set, Go! 3 loses its application icon, which can result in a "Couldn't find the application" error when you try to open a RSG 3

document. On a backup of the application:

Launch ResEdit and select the Ready, Set, Go! 3 application. Choose GET INFO from the File menu and click on the Bundle box to turn it on. Then close the window and save the changes. (Setting the bundle bit in an application specifies that the application "owns" documents and that it has its own individual icon.) Now, double-click on the RSG 3 application to open it and show its resources. Select NEW from the File menu and enter a new resource type of MRSN (all caps). A blank MRSN window opens immediately. Choose NEW again from the File menu and enter the following at the insertion point:

```
0B 56 65 72 73 69 6F 6E 20 33 2E 30
```

Close the window and you'll notice how the only listing in the MRSN window is highlighted. Choose GET INFO from the File menu and change the ID name to zero. Finally, quit ResEdit and save the changes made to the RSG 3 backup. Now, just reboot the backup and go!

## ResEdit/System

If you aren't sure what version of the System file you're using, ResEdit can tell you. Open it and double-click the System file, then scroll through the window until you find the resource type STR. Open this and you'll find a number of STR resource files. Locate the STR with ID=0 and double click it to open it. You'll see the version number and the date on which that System was created.



## Rogue

### Rescuing Characters From Automatic Deletion

Rogue deletes a character from the disk each time the character file is opened at the beginning of a game session, making it difficult to save him—and impossible if he meets an untimely end. To avoid this, save your character and then eject the disk and lock it. Reinsert the disk and play the game. Since the disk is locked, the game can't erase your character. To save his newest exploits back to disk, eject the disk and unlock it, then reinsert it to save again.



## Sargon III

### Setting Handicaps

Less experienced players will find the game's normal settings too hard. You can make the game more enjoyable for non-experts by handicapping Sargon III. Do this by taking pieces away from Sargon's setup before starting the game. Handicap by pulling down the Options menu and choosing CHANGE BOARD. Then, drag the pieces you want off the board and click OK to begin the game.



## Scrapbook (Desk Accessory)

### Scrapbook Limits

Your Scrapbook can contain up to 256 different entries.

## Index Large Scrapbooks

If you work with a large Scrapbook, reserve the first page or two for an index so you can find specific pictures more easily than you would by scrolling through them.

### Use Scrapbook To Access Often-Used Graphics or Text

If you use a certain illustration (or even a paragraph or so of text) very often, save it into your Scrapbook so it's immediately available whenever you need it.



## Shadowgate

### Use Randomizing To Your Advantage

The sphinx guarding the tower will ask you to bring him various items found throughout the castle. Exactly what he asks for is generated randomly by the game, so save the game just before entering this room. If he asks for something you don't have access to, or if you just don't understand the meaning of the riddle, quit the game and reboot. Then try your luck again.

### Note Pad Lets You Track Clues on the Fly

Use the Note Pad DA to copy any clues that you want to refer back to later.



## Sleep

(Public Domain Desk Accessory)

### Temporary Deactivation

Temporarily deactivate Sleep by holding down the OPTION key. The screen will show in full view until OPTION is released.



## Smartcom II

### Forcing SmartCom to Use Text Protocol

Instead of **SENDing** a file, **PASTE** it from the Clipboard. This makes Smartcom use a text protocol, even if MacBinary or Hayes Verification protocol has been selected.

### Capture Routine Saves Only Selected Text

If you capture data to disk after receiving a transmission, highlight the text you want to save. The Capture routine saves only selected text, so if you save a file with nothing selected, nothing is what you'll end up with.

### Saving Text From the Capture Buffer

If you accidentally Close your document without having saved the contents of the capture buffer, don't panic—yet. Try reopening a communications document. If you didn't use the Clear command from the Edit menu to purge the buffer before you closed the transmitted

document, the text is still in the capture buffer, and it will appear in the document window. This won't work if you accidentally Quit Smartcom.

### Save and Save As... Don't Save What's in the Capture Buffer

The Save and Save As... commands only save the settings, not the data in the capture buffer.

### Put Your Work Files At Root Level

Some earlier versions of Smartcom (2.1 a, for example) can't recognize documents or applications that are in folders on an HFS system. Remember to put your work files on the root level before starting, and you shouldn't have any problems. Version 2.2b corrects the folder problem.

### Use Different System File When Using Sidekick

If you'll be using Smartcom II with Sidekick desk accessories, replace the System file with a new one. Hayes removed some resources from the Smartcom II System, and this can cause operating problems with SideKick.



## Smash Hit Raquetball

### Fast Shutdown

Want to shut down quickly from within the game? Just press

COMMAND-Q to end the game and return to the Finder.



## Software Sampler

### You Can't Save MacPaint and MacDraw Demos, But...

MacPaint and MacDraw are both given to new Macintosh owners on the Software Sampler disk. But in both of these programs, the Print and Save options have been disabled. If in the course of testing the programs, you create a graphic you just don't want to part with, you can cut the artwork, open the Scrapbook DA, and paste the graphic in. Later, when you buy the program, you can move it back to the application for further work. And, if you use a word processor, you can move the Scrapbook file on to the word processing disk and paste it into your text document.



## Studio Session

### Note Entry Shortcut

Need a shortcut for entering notes into Studio Session? After putting any note on the staff, hold the mouse button down. Dragging it left or right changes the duration, and dragging up and down changes accidental. After moving one way back and forth, you'll have to click again to make a different kind of change.



## SuperPaint

### Using the Lasso While the Marquee is Selected

While in the Paint layer, you can have the marquee tool selected and still be able to use the lasso tool. Just hold down the OPTION key and the cursor turns into a lasso, making it easy to select odd-shaped bit-maps on the screen.

### Nudging Selected Graphics By a Single Pixel

While any item is selected with either the lasso or with the marquee, you can "nudge" it in any direction by using the arrow keys. If you're using a keyboard that has no directional arrow keys, use COMMAND-Y to nudge upwards, COMMAND-J to nudge left, COMMAND-K to nudge right, and COMMAND-D to shift downwards.

### Closing All Open Windows at Once

Hold down OPTION while selecting Close from the File menu to close all windows that are currently open.

### Crosshairs Can Help When You Paint From Centered Point

Instead of choosing DRAW (PAINT) FROM CENTER before drawing one of the QuickDraw primitives to paint the shape from a centered point, double-click on the palette tool you

select instead of just clicking. The icons in the palette will then show crosshairs to identify the difference.

## Reversing the Pattern

When editing paint patterns or paint brush shapes, hold down COMMAND while clicking the mouse anywhere in the pixel editing box to reverse the pattern, making white black, and black white.

## Obtaining a "Spattered" Effect

Obtain an interesting "spattering" effect by choosing the paintbrush pattern that you'd like to spatter. Then, choose the spray can tool and, while you paint, hold down OPTION. The faster you move the mouse, the further apart the spattering will paint.

## Obtaining a "Screening" Effect

A great "screening" effect can be created by using Paint on Black and the selection rectangle, especially in conjunction with the Laser Grey patterns. If you don't like the effect, try moving the marquee one pixel up or down to change most of the screen effects.

## Smoothing Bit-Mapped Images For Laser Printing

If you have an extensive bit-mapped clip-art library, there's a way to smooth images for printing on the

LaserWriter. Open your image in SuperPaint and Save it. Then Open a new document, hit the PLACE LASERBITS command, and tell it to use the file you just created. The result will be a 1/16 original size document at 300 DPI, and it prints perfectly. Realize that the larger your original image, the longer it takes to print.

## Turn Smoothing Off to Speed Up Printing

When printing a LaserBit document, turn the smoothing effect off to speed up printing.

## Adjusting Length On Imported MacDraw Graphics

SuperPaint's print area is approximately 7 11/16 inches by 9 5/8 inches, which is slightly wider but shorter than MacDraw. A quick fix is to set the Page Setup to enlarge at 104%. This results in ten-inch lengths when you need them. Just remember to watch the width of your job, since it expands sideways as well, and also set the print dialog box to print only the first page. This circumvents SuperPaint's need to send a blank page through when enlargements are requested.

## Lower Detail Level Speeds Smoothing

When using the FatBits mode, don't immediately jump to the finest detail level. Instead, use the left side of the

screen (which displays the actual appearance of the work) as your guide. If you can see all of the object you'll be working on, stay on that magnification level unless you need a finer one. You'll save time smoothing work if you work in the lowest possible magnification.



### Switcher

#### **Finder is a Good Switcher Addition**

Installing the Finder as a Switcher application lets you easily shift files between disks, and you'll be able to quickly launch another application (that hasn't been loaded into Switcher). Once the Finder is installed, you can move into the Finder, launch the new application, cut or copy what you need, then switch back to the application you were working on. Switcher's double arrow remains in use even with your non-installed application. You might have to reinstall the Finder after leaving the non-installed application, but it's still faster than quitting and reinstalling the entire Switcher set.

#### **Load The Finder First**

If you'll be using the Finder under Switcher, always be sure to load the Finder before loading any other application.

#### **Express Route to Main Switcher Window**

When working in an application, you

can take the express route to the Switcher window by clicking in the center of the arrow in the upper right corner of the screen.

#### **Don't Start Up From Installed RAMdisk**

Occasionally you might get the message "Sorry, but you don't have enough memory to run Switcher. Go get a 512K Macintosh," it doesn't mean the 512K Mac you're using is going on the fritz. There's a good possibility that the message came up because you tried to run Switcher after using a startup disk that included an installed RAMdisk. The easy remedy for the problem is to replace the old System file (not the System folder) with a new copy.

#### **If You Crash or Freeze**

In the event of a crash or a screen freeze, try holding down **COMMAND-SHIFT-OPTION-Period**. If your problem is localized in the application you were working in, this should return you to the Switcher screen. If this works, go to each of the application windows that didn't crash and Save, then Quit, immediately. Then quit Switcher and restart the system. This avoids the damage that can result if the crash has damaged Switcher's System files.

#### **Attaching Documents to Applications**

An application in a Switcher set can Open a document when launched

from a saved Switcher set. To attach a document, select an application's slot in the Switcher screen and choose Attach Document from the File menu. You'll see a box with a list of all the documents that application can open. Select the document you want and click Open. Its name now appears in the application's slot in the Switcher screen. If the application is active, it doesn't open the document you selected, because the document currently Open might be destroyed before you can save your changes. But if the application is inactive, the document will open as soon as you launch the application. If you save the Switcher set, the document will be attached to the application every time you load the set until you change the configuration.

### **QUIT Doesn't Reboot Computer**

When the Finder is loaded into Switcher 4.8 (or a higher version number), the SHUT DOWN command in the Special menu changes to QUIT, which releases the Finder but does not reboot the computer.

### **"Always Convert Clipboard" Is Slow**

Choosing "Always Convert Clipboard" slows down the operation of the program. To convert the Clipboard easily and reasonably quickly, hold down OPTION while switching applications.

### **Bypassing the Startup**

If your startup applications set has been set in a file named "Switcher.Startup," you can bypass it by holding down OPTION while launching Switcher.

### **Causes For MacDraw Crash**

MacDraw works well with the default 128K memory allocation, and it works with the Same One Twice option. But if you create a document that uses more than 80% of MacDraw's available memory, or if you Cut or Paste to consume more than 80%, the program will crash. Check the amount of memory used by looking in the About MacDraw window under the Apple menu.

### **If MacWrite Has Been Missing the End of a File**

MacWrite might suddenly truncate text files that you try to open if you have allocated to small a Switcher partition in MacWrite. When MacWrite runs out of memory, it simply stops loading the file, and will display only what it can load. If you've been having trouble like missing lines at the end of MacWrite files, allocate MacWrite a larger partition next time.

### **Give MacWrite Large Partition If Laser Printing**

If you'll be printing MacWrite documents with the LaserWriter, give this application a larger partition than the default 128K. 144K or more

will give you better printing results.

### **Double MacWrites or MacPaints Can Double Your Trouble**

Never open two copies of MacWrite with different documents in each, under Switcher. It could crash both your files. That's because MacWrite creates temporary work files as you write, and both copies would then be creating temporary files with the same names—or at least, they'd try. If the copy of MacWrite you're currently working on gets confused, it could mangle your document to the point of ruin. If your copies of the applications are on two different disks or in two different volumes, you might fare better. The same applies for working with two copies of MacPaint.

### **How Much Should You Allocate to an Application?**

You can't allocate less than 64K to an application, and most applications default at a 128K allocation. Change these settings before launching an application by choosing Configure, then Install from the Switcher menu. Then input the settings you prefer into the dialog box. Switcher always attempts to allocate an application's Preferred Memory Size. If it doesn't have enough space to do so, it allocates the Minimum Memory Size. (Many applications include a size resource that relay both of these sizes to Switcher.) If there's not enough memory to allocate Minimum size, you'll get an error message.

### **Saving Memory Settings**

The memory allocation dialog box has two buttons in the lower left corner, Permanent and Temporary. If you click on Permanent after changing the memory settings, Switcher remembers the settings in future uses of the application. Click on the Temporary button to make the settings apply only to the current session.

### **Ideal Memory Allocations**

Jazz requires 304K allocated to work properly.

MacPaint should be allocated 179K. And make sure Switcher saves MacPaint's screen to avoid problems.

Allocate 310K to Helix if you use it under Switcher.

With Microsoft Chart, allocate 192K.

With Excel, allocate 304-512K.

With File, allocate 288K.

Multiplan works best with 160K allocated.

Allocate 160K for Word.

If you're working with Finder 5.2 or higher, allocate at least 192K.

### **Running Word With Finder Can Damage Files**

Avoid damaged Word files by making

sure not to run Word and the Finder simultaneously in a Switcher set. You might find Word's temporary files damaged by the Finder.

## **Switcher And Scientific Writing**

To incorporate Switcher's best attributes into scientific writing (such as preparing drawn figures), install a language like BASIC or FORTRAN as one application, with Cricket Graph as the other. The output of the computer program can be stored in the Clipboard, switched to Cricket Graph, and then charted easily. Use the resulting graph (modified in MacPaint or MacDraw, if you like) in your word processing document.

## **Design Custom Symbols As You Work**

If you need special fonts while working, run Altsys' Fontastic font editor in Switcher with a word processing program for the capability to design custom symbols as you go. Put custom characters into unused Shift and/or Option key font slots. These custom symbols can be incorporated as a custom font which you can install to be standard in your word processor's Font menu.

## **Quit All Applications Before Quitting Switcher**

Remember to Quit all applications before Quitting Switcher. If you're using the Finder, quit by switching to it and double-clicking the Switcher

icon. (this removes the Finder and returns you to the Switcher screen). You can quit Switcher with only one application installed. In this case, the Switcher screen disappears and the remaining application stays on the screen. But that application will still only be able to use the memory allocated in Switcher. To utilize your Mac's full RAM capacity, quit the Switcher set and then start the application from the Finder.

## **Last Application Installed Remains Active When You Quit**

When you end a Switcher work session, the last application that was installed remains active. If you Quit Switcher without Quitting the application, it will return to the screen with whatever work you had in progress after Switcher has deactivated.

## **Telecommunications**

### **Beginners Should Get Cheap Practice**

If you're new to telecommunications, or are just getting to know a new telecom program, you don't have to pay expensive connect charges while you learn how to upload and download on networks. Contact your local Macintosh users' group or an experienced friend and get the phone number of a free local bulletin board. Practice uploading and downloading on the free network. Once you know your way around the

local network, look for shareware and public domain libraries, where you might be able to download programs for far less than you'd be charged by a national network.

### **When Call-Waiting Disconnects Transmissions**

If you have call waiting and a modem, you can run into a lot of interrupted telecommunication sessions. A little-known trick is to add "\*70" on touch tone phones, or to dial 1170 on pulse phones, just before the number to be dialed in your modem dial command. This disables call waiting. This tip doesn't work in all areas of the country. Ask your phone company. Sometimes they can put it in on request.

### **Telephone Noise Can Interrupt Transmissions**

If you experience continued failures midway through transmission while using a protocol transmission, you're problem could be telephone noise. Try getting a cleaner connection by hanging up and dialing again.

### **Cutting Noise On CompuServe**

On CompuServe, as on any other network, line noise can ruin an upload or download. To cut out the noise, make the first character in each "typing" command in your macro the control character that says to the network, "Ignore what I've typed so far." This cuts down on problems

associated with your program's reading noise input as your typing. When you're on CompuServe, type CONTROL-U. This tells the service to ignore noise.

### **Disabling Internal Modem Speaker**

The internal modem speaker of a Hayes or Hayes-compatible modem can be temporarily disabled. Just type ATM0 from your terminal program and press Return. The command will be acknowledged by an "OK." Turn the volume back on by typing ATM1 and pressing Return.

### **Getting Your Program to Wait Longer Before Redialing**

Many terminal programs allow users to change the amount of time that the modem waits for a carrier before redialing when in auto-redial mode. The command ATST7 = x sets the number of seconds the program waits, with x = the default number of seconds. Default value is usually 20 seconds, but you can change it to almost any number less than 255 by changing the default value.



## **Tempo**

### **Get Tempo To Install Itself on Startup**

Tempo's ability to run a macro upon startup can be used to make it install itself in the menu bar (by selecting Tempo from the Apple menu).

## Don't Duplicate Application Command Key Combinations

While creating macros within an application, don't assign command key combinations that are already being used by the applications. Combinations like COMMAND-V, X, and C are obvious no-no's... but check your application's command keys before entering any new combinations.

## Use Command Key Combinations When Possible

You can get more speed in your macros by minimizing the use of the mouse to select menu commands. Use command key combinations whenever it's practical.

## Tempo Can Tell You It's Finished

Tempo can be programmed to beep after it's finished running a macro. To do this, the application that the macro is running should have a Save As... command under its File menu. The current file should have been saved to disk at least once. When the main part of the macro has been programmed, select the REAL TIME recording, choose SAVE AS..., and press Return. After the beep sounds, just select CANCEL. Then, stop recording. If you make this into a separate macro, it can be branched to from any other macro, so the Mac can always beep to let you know it's finished running the macro.

## Don't Hold COMMAND Too Long

When holding down COMMAND to invoke a macro, don't hold the key down too long. Otherwise, you'll find upper case letters displayed in lower case. Use OPTION instead of COMMAND when creating macros to avoid this problem completely.

## Incompatibility With 512K Mac and Hard Disk on AppleTalk

If you're using a 512K Mac with a hard disk and AppleTalk, you might experience problems with Tempo. (The same combination with a Mac Plus works perfectly well.) Disconnect AppleTalk or the hard disk, or else use the combination with a Mac Plus.



## ThinkTank

### Organizing Scrapbooks With ThinkTank

If you work with a number of different Scrapbooks, organize and archive them with ThinkTank. You can Paste the Scrapbook into the program with a single command. Then, return to the Finder to activate different Scrapbook files (changing their names to make them the default Scrapbook) and then load them all into ThinkTank graphic windows. With this method, you can rearrange pages and put them all back into the Scrapbook with a single command, either as replacements or additions to the existing Scrapbook files.

## Don't Use RAM Caching

ThinkTank uses memory differently than most applications do, and it can have problems with caching. Therefore, don't use this program with disk cache programs.



## Through the Looking Glass

### The Cheshire Cat Holds Many Secrets

This program has a lot of interesting, undocumented features. For example, click on the Cheshire Cat's left eye and the opposing pieces will change at random.

Click on the cat's mouth and the playing field turns upside down.

Click on the cat's nose to reverse all of your mouse movements on the screen.

Click on the cat's right eye and the black hole on the playing board multiplies until the entire board has been eaten away.



## VideoWorks

### Each Animated Sprite Consumes Memory

Each animated sprite takes up memory space and slows down the program. When choosing how many objects you'll animate during each sequence, keep it simple for the best results.

## Creating Self-Running Animations

Make a self-running animation from your VideoWorks files. Just put your animation files on a disk with the VideoWorks player and set the Player to run as soon as the disk is inserted. Copy the System folder and the VideoWorks player from the MacroMind Utilities Disk to your blank, then copy the Demo List document from VideoWorks, and finally, transfer your animation files over. Select the VideoWorks Player icon on the new disk and choose Set Startup from the Special menu. Now, when the disk is inserted, it immediately launches into your animation.



## Wizardry

### Avoiding Your Mistakes Being Written to Disk

You just can't get a break in Wizardry. Unlike other role playing games, it writes all your stupid mistakes to disk. When you're about to enter a situation that experience has told you is dangerous, pop the disk using the COMMAND-SHIFT-1 or COMMAND-SHIFT-2 keys, then enter the area. When the dust from the battle clears, the program will ask for the disk to be reinserted. If none of your important characters has died, go ahead. If the battle wasn't so lucky, turn the computer off and reboot.

## Werdna's Buddies Are Randomly Generated

The final battle with the evil wizard Werdna is harder some times than it is others, since the game randomly generates the number of monsters keeping him company. Before entering his chamber, pop the disk, or lock it. If he's accompanied by only two monsters, it's probably the best time to fight.

## Exit—Stage Right

To quickly exit the maze from Level 10, walk into the little alcove right next to the entry point.

## Dishonesty Pays (Well)

If you want unlimited gold so badly you're willing to cheat for it, use the Swag bag to duplicate potions and other expensive treasures. When your roster has an item in the bag, you can switch rosters and the potion will still be there (this lets you duplicate a Wand of Conflagration so that every party member has one). Just back up the roster, Give the item to the bag, and then Restore the roster. Keep the duplicated item or sell it.



## Protecting Sensitive Work Sessions From Prying Eyes

If you're working on a sensitive document, here's a quick way to keep

it safe from prying eyes while you're working on it. First, open a new document. Using its size box, make this document as small as you can and then move it to the bottom of the page with only its title bar showing. Then, open your private document. If anyone walks over to the machine to see what you're working on just double-click the new document's title bar and it instantly expands to cover your sensitive document.

## Don't Delete Documents Until You Quit Switcher

If you use Word and the Finder in Switcher, be sure not to delete any Word documents that you're working on in that particular section. Instead, wait until you have Quit Switcher and are in the Finder to delete.

## Easy MacWrite-to-Word Conversions

There's an easy way to convert MacWrite files into Word. First, open a Word file, then close it. Then choose Open from the File menu to call up the Minifinder. You'll notice that all Word and all MacWrite documents resident on the disk are now listed. Open any MacWrite file and you'll get a dialog saying the file is being converted. Click OK and you'll be able to open a converted file that preserves all your formatting—including font sizes, boldface, and margins. The only thing missing is the paging information.

## Removing the Last Word Typed

To remove the last word you typed, hold down **OPTION** and then press **Backspace**. This feature stops at punctuation and other special characters, so to delete a word like "Done?" you have to press **OPTION-Backspace** twice—once for the question mark, and once for the word itself. This also removes the space in front of the word, like a cut or a **SHIFT-Backspace** does. But this removal is permanent; the word is not copied to the Clipboard.

## Express Route to the Right Edge of a Page

Word version 1.0X gives you the ability to create a document with the right margin at 19 1/2 inches. If you find using the horizontal scroll bar to see information not displayed in the window tedious, there's a way to get to the right edge fast: First, set up the margin where you want, then create one "word" by typing in a long string of letters. End the string with **Return** just before the right margin. If you're using a numeric keypad and want to jump to the right, press 6. If you're using the keyboard, use **COMMAND-OPTION-semicolon** instead. This is the command to move to the right of the current word.

## Viewing Several Points In Very Wide Documents

To be able to view several specific points in a very wide document, use

the same tip as above, but separate the "word" string into several parts. Be sure to delete these nonsense characters when you're finished working.

## Copying Paragraph Formats

If you want to copy one paragraph's format to another, choose **SHOW ¶** from the Edit menu. Then choose the break symbol (¶) from the end of the paragraph containing the format you want copied, then **COPY** it. Finally, select the ¶ from the end of the paragraph you want to modify and **PASTE** the first ¶ into its place. (If you **CUT** the ¶, a paragraph automatically picks up the format of the paragraph directly beneath it.

Another way to change a block of text to the style of another block is to highlight the text you want to change, then hold down **COMMAND-OPTION** while clicking on the text that has the style attributes you want to change to. The original block will change to reflect the second block's format.

## Quick Copy-And-Paste

Copy and Paste in a single motion by clicking the place where you want the text pasted while pressing **OPTION**. To Cut selected text instead, press **OPTION-SHIFT** while clicking on the insertion point.

## Copying Graphics to CheapPaint Easel

If you use Hayden's CheapPaint DA

with Word, graphics already in the Word document can't be cut and pasted into a CheapPaint easel. Get around this by copying the graphic and pasting into an easel.

## Recovering Corrupted Files

Sometimes you can recover a seemingly-lost file after a system crash. First, reboot the Word disk or boot from another disk and insert Word in the second drive. On the desktop, you should see a file named MW0000 or a similar name that begins with the letters MW. Using any utility that allows you to modify a file's Type attribute (like MacTools or ResEdit), change the file's Type from WTMP to WDBM. Then change the name of the file, removing the MW. Hopefully, Word can now read the file.

## Put Main Document and Merge Data File In Same Folder

If you'll be using the Print Merge function on an HFS disk or volume, it might not work properly unless the main document and the merge data file are in the same folder.

## Accessing Hidden Message

There's a hidden message embedded in the program. Open About Microsoft Word from under the Apple menu and press COMMAND-SHIFT to see it.

## COMMAND-Period Comes In Handy

A number of commands can be aborted by pressing COMMAND-period. This stops printing, Find, Change, and Repagination.

## Selecting Characters Via the Keypad

Word 1.05 contains the hidden ability to select characters with the keypad. On the keypad, hitting \* selects the character to the right of your insertion point. (If text has already been selected, the selection will instead be extended one character to the right.) Press the + key to select the character to the left of the insertion point. To quickly extend the selection, just hold down either of these keys.

## Selecting By Word

If you double-click on a word and then drag the mouse, the highlighting moves backward or forward one word at a time, instead of character by character.

## Selecting By Sentence

Press COMMAND while double-clicking to select the entire sentence so that, while keeping the mouse button pressed, you can select text a full sentence at a time.

## Superscript and Subscript Fonts Are Smaller

When you choose a Superscript or

Subscript font style from the Style menu, you'll get a smaller font, which will then be adapted to the style. But if you choose Superscript or Subscript from Format under the Character menu instead, it will not automatically show up in a smaller font.

## Dialog Box Command Keys

Word allows users to substitute command key combinations for mousing in all dialog boxes. Any dialog box can be canceled by using COMMAND-W or COMMAND-period.

In the Save As... dialog box:  
COMMAND-1 or COMMAND-S saves the file;  
COMMAND-2 or COMMAND-E ejects the disk;  
COMMAND-3 or COMMAND-C cancels;  
COMMAND-4 or COMMAND-D switches drives.

In the Open... dialog box:  
COMMAND-1 or COMMAND-O opens the file;  
COMMAND-2 or COMMAND-E ejects the disk;  
COMMAND-3 or COMMAND-C cancels the box;  
COMMAND-4 or COMMAND-D switches drives.

In the OK or Cancel dialog box:  
COMMAND-1 or COMMAND-O presses the OK button;  
COMMAND-2 or COMMAND-C cancels the box.

In the Change... dialog box:  
COMMAND-1 or COMMAND-F finds next;  
COMMAND-2 selects Change, Then Find;  
COMMAND-3 selects Change;  
COMMAND-4 or COMMAND-C selects Change All.



## Word 3.0

### Use Highest Quality When ImageWriting Tiny Fonts

When printing on the ImageWriter, choose the highest quality printout for 5, 6 and 7 point fonts. The Mac will scale existing 10, 12 and 14 point fonts to half-size for the printing, so all three of these sizes should be in your System file if you'll be printing a lot of small fonts.

### Closing the Space Between Boldfaced Headline Words

Are you getting too much space between boldfaced headline words? Try choosing the space between the words and select Plain Text. This draws each word closer together.

### ImageWriting in Bidirectional Mode

Although Word 3.0 won't allow the ImageWriter to print in bidirectional mode with the standard Caps Lock, Shift and Option keypress combination while clicking OK, it can still be done: Begin by holding down the Shift and Option keys before pulling down the File menu to choose

**PRINT.** Then, hold down the CAPS LOCK-SHIFT-OPTION and click OK. Nothing will print this time, but the next time you choose print, just click OK and your document will print bidirectionally.

### **ImageWriter Driver 2.5 Has Trouble Producing Draft Copy**

When used with the ImageWriter Driver version 2.5 (it comes with the Mac SE), Word 3.0 won't produce draft print. Get a copy of the ImageWriter Driver version 2.3, provided with Word 3.0, to get draft quality printing.

If you can't find Driver 2.3 and want to print draft quality now, put the Serial Printer Driver and Typewriter Driver into your System folder. Then, click the Chooser DA, click on the SerialPrinter icon, and select TypeWriter. This is a quick fix that should allow you to get fast Draft quality with the old ImageWriter Driver.

### **Scaling Graphics Down**

You can scale a graphic in this program by pressing COMMAND-SHIFT-Y and choosing a number (from 0-9) to scale the graphic down according to its corresponding number. The best way to learn to use this trick is to experiment with it to get the feel of how it scales.

### **Placing Graphics Under Text/Filling a Page With a Graphic**

Word 3.0 has an undocumented ability to place a graphic underneath next, or even to have a graphic that fills the entire page. First, place the graphic in your Scrapbook. Then, begin by typing the text you want and open the header, then click in the zoom box so that the header window fills the whole screen. Hit Return a few times to position the graphic down from the top of the page. Next, copy the graphic from the Scrapbook and paste it in the header window, positioning it as if it would be the only item on the page. Then close your Header, saving the changes.

You'll need to change the top margin to get to the top of the header. To do this, select PAGE SETUP and change the top margin to a negative value, i.e., -3 inches. Align the graphic exactly using PAGE PREVIEW, which will show the graphic block on top of the text, although it will look different when you print. The closer your margin is to zero, the higher your text will print on the page.

### **Converting Formatted MacWrite Documents**

There's an easy way to convert formatted MacWrite documents into Word. First, open a new Word document, then close it immediately. Choose Open from the File menu, insert the disk containing the MacWrite document, and then select it from the minifinder. This

automatically converts the file into a Word-readable document.

## Returning the Insertion Point to Most Recent Location

There's a fast way to return the insertion point to its most recent location. For example, if you notice an error several words back while typing, correct the error and then type **COMMAND-OPTION-Z**. The cursor will return to where you were typing. This command works for the three most recent insertion point locations.

## Marking Draft Copies as Draft Copies

When printing on a LaserWriter, you can make sure that draft copies will never be misinterpreted as completed projects. First, open header. Then, type in this text, exactly as it appears:

```

.page.¶
/Times-Bold findfont 100 scalefont
setfont¶
wp$х 2.8 div wp$у 3.5 div translate¶
0 setlinewidth¶
52.3 rotate 0 0 moveto (D R A F T)
true charpath¶
gsave .95 setgray fill grestore stroke¶
Now, select the text you just typed in
and press COMMAND-SHIFT-S to
get into the style definition mode.
Then type POSTSCRIPT (it will
appear in the lower left corner) and
press Return. Close and save your
header. This makes the word DRAFT
appear in large, outlined letters
across every page.
```

## Quickly Extending Current Selection

To quickly extend the current selection, type **COMMAND-OPTION-H** and you'll see the words **EXTEND TO** in the page number box. To advance to a specific character, just type the character, and the selection will extend to the next occurrence of that character. This command differentiates between upper and lower case letters. To extend the selection to the end of a paragraph, press Return. This technique also works for tabs and new line marks (**SHIFT-RETURN**).

You can continue to extend any selection as long as **EXTEND TO** shows in the page number box. To deselect **EXTEND TO**, type **COMMAND-period**, or choose another command, or scroll with the mouse.

## Problems With RAM Caching

RAM caching with Word 3.0 can cause a number of printing problems, so try not to use it with this version. To enhance your printing speed using RAM, turn on both the Program and File check boxes in the Preferences dialog box (it's found under the Edit menu). This loads the entire Word application and the current document into memory to allow for faster printing and operations.

## Exporting To Applications That Don't Accept Formatted Word Documents

Many page layout applications will

not accept formatted Word 3.0 documents directly. Work around this by saving Word 3.0 files in Word 1.X or MacWrite formats (using File Types in the Save As dialog box), and the page layout program will probably accept either one. For this to work correctly, you'll have to stick to Word 1.X formats.

For Word 3.0 formats that can't be transferred into Word 1.X or MacWrite documents, select the text and copy it to the Clipboard as a QuickDraw graphic by typing **COMMAND-OPTION-D**. This formatted graphic will be usable in most page layout programs.

### **Tiling the Active Window**

When you're working simultaneously on a number of documents, use **OPTION-COMMAND-[** (left bracket) to quickly tile the active window. The first two windows will each tile half the screen vertically, the next four will tile a quarter of the screen vertically, and the rest will tile from the center of the screen.

### **Bypassing the Mouse With a Numeric Keyboard**

You don't have to reach for your mouse if you have a numeric keypad. Type a period on the keypad to activate the menu bar. Then, you can choose the desired menu by either typing a letter, choosing a number, or using the arrow keys. Type a letter to pull down the first menu from the left that begins with that letter (like F for

File). Or type a number to pull down the menu that falls in that position (0 for the Apple menu, 1 for File, etc.). Once the menu has been chosen, select an item by using the up and down arrows to move vertically within that menu, or type in a letter to choose the item that begins with that letter. If more than one item begins with a specific letter, type the letter again to move to the next item with that initial. Once the menu item is highlighted, press Return or Enter to execute the command. Cancel the menu selection by pressing Backspace or **COMMAND-period**.

### **On the SE...**

When using Word 3.0 on the Mac SE, once the criteria for your Find command has been established, you can close the Find dialog and use the **=** (equal) key on the numeric keypad to search for the next occurrence of the word.

### **Getting an Estimated Word Count**

Word 3.0 can't do automatic word counts. But there's a way to get an estimated word count. Just make sure to save the document before doing this, because it alters the file. First, bring up the **CHANGE** dialog from under the Search menu and Change All occurrences of white spaces to end-of-line marks. When that's done, select **SECTION** from the Format menu, click on the Line

Numbering check box and the Continuous button, then click OK. Then, select PAGE PREVIEW from the File menu, drag the scroll box to the bottom of the scroll bar, and use the magnifying glass to view the number just before the last word listed. This number is the approximate word count for the text contained in the main document.

### Creating a Table

To create a table is easy. First, figure out where you want the table to fall on the page and insert a blank line (hit Return) in that spot. Then select the line and choose PARAGRAPH from the Formats menu. The Paragraph dialog appears with a ruler. Here, choose a Border with BOX and SINGLE options and adjust the size of the table using the margin markers on the ruler. Then, place the vertical line markers in the ruler precisely where you want vertical bars to appear in your table, and place tab markers after the vertical line markers. You can use any type of tab, but make sure no tab markers are placed on top of any vertical line marking. Now, click OK and the skeleton of your table appears. Enter the data, using the tab key to place information in each column. You can spice up the table by choosing any line and changing border thicknesses to emphasize entries. You can also press SHIFT-Return to produce a double-spaced entry line.



## Works

### Moving a Selected Range of Cells in the Spreadsheet

While in the spreadsheet, you can quickly move a selected range of cells by holding down COMMAND-OPTION while clicking in an empty cell. The cell that you click in will become the upper left cell of the moved range.

### Using a Word Processor to Change Fonts in a Block of Cells

Although the spreadsheet has no font changing capabilities, you can move a block of cells from a spreadsheet to a word processing document via the Clipboard, and then change the font, sizes or styles in the new word processing document. The only problem with this is that you lose the display grid, if you had one. Works' drawing functions allow you to easily reintroduce one.

### Sorting Columns

The program's spreadsheet can sort rows, but there is no direct way to sort columns. A column sort can be performed by first selecting and copying the range of columns you want to sort. Then paste this selection into a new spreadsheet using PASTE WITH OPTIONS instead of the standard Paste. Choose BOTH FORMULAS AND VALUES and TRANSPOSE and click OK. Then reselect the range (it's now in a

row) and use the Sort command from the Edit menu. Once the sort is completed, cut the data and then paste it back into the original range, using the PASTE WITH OPTIONS command and with BOTH FORMULAS AND VALUES and TRANSPOSE options selected.

### **Avoiding Swaps With 400K Version**

If you're using the 400K version of Works, you will notice that you have to do a lot of swaps between your data disk and the program disk while loading a data file. An easy cure is to create a RAMdisk for the Finder, ImageWriter, and a stripped-down System file (with one DA and few fonts). Load this RAMdisk and place your program disk in one drive and your data disk in the other, and you won't have to swap disks. Keep the RAMdisk under 180K for greater memory availability.

### **Microscrolling**

When horizontally scrolling, your view usually shifts a fixed length. Scrolling in the word processor happens one inch at a time, while scrolling in the data base or spreadsheet moves you one column. Hold down SHIFT while scrolling to microscroll, allowing you to position all or parts of a window more exactly.

### **Hanging Up Fast in Communications Mode**

While in the communications mode,

you can quickly hang up the phone or modem by typing COMMAND-=(equal).

### **Pasting In Data Without Field Names**

If you have cut or copied information from the data base, hold down OPTION while pasting it into a word processor to avoid pasting in the field names along with the data.

### **Saving Files With Return At End of Each Line**

Hold down OPTION while saving a word processing file as text (Export File) to save the file with Return characters at the end of each line. This will come in handy for transmitting the text files.

### **Bringing the Bottommost Window to the Front**

When working with multiple documents, type COMMAND-comma to bring the bottommost window to the front. Use this to quickly switch between different documents you're currently working on.

### **Entering Page Breaks From the Keyboard**

Enter a page break without having to go to the Format menu by hitting SHIFT-ENTER while you're typing. The page break will be entered at that point.

## Quickly Accessing Graph Specifications Dialog

Double-click in a chart window to quickly bring up the graph specifications dialog box that allows you to change the graph.



## WriteNow

### Automatic Scrolling Gets Faster As Cursor Gets Lower

Automatic scrolling is proportionately faster as you move the pointer further away from the text. When you drag beyond the bottom of the window, scrolling is faster when you move the pointer outside the window than it is if you move only to the horizontal scroll bar.

### Finding A Page In Long Documents

To move quickly through long documents to a given page, drag the vertical scroll box until the page number you want is displayed at the bottom of the document window.

### Changing Font or Style of Identical Characters

Holding **SHIFT** while making a font or style change affects only those characters with the identical characteristics as the first character in the selected area. For example, to italicize only headlines that are currently in boldface, select all text from the first bold headline to the

end, then hold down **SHIFT** and select italic from the Style menu. All bold text becomes bold and italic. The selection criteria are independent of each other, so a selective size change will affect all those characters of the same size, regardless of style or typeface.

### Appending the Main Dictionary

All words currently selected in a document will be appended to the program's main dictionary when the Learn button is pressed.

Those same words will be deleted when the Forget button is pressed.

### Keep Check Spelling Window Active to Save Access Time

The dictionary remains in memory as long as the Check Spelling window is on the desktop. If you use the dictionary from another disk because of space limitations on your startup disk and you're checking spelling intermittently or over several documents, keep the Check Spelling window on the desktop at all times to avoid time spent accessing the dictionary disk.

### Using the Same Format in Header, Footer, or Footnote Area

To use the same format in the Header, Footer or Footnote area as in the rest of your document, use Copy

Ruler from the Edit menu to copy the format before going into Header/Footer or Footnote view. Then Paste Ruler in the Header/Footer or Footnote view to apply the format there.

### **Checking Header and Footer Marker Locations**

If you want to check the locations of all the header and footer markers in the document, click at the beginning of the document and then choose View Headers/Footers, View Page and Go To Selection from the View menu. Each of these selections has a keyboard equivalent.

The same procedure applies to footnotes: simply substitute View Footnotes for View Headers in the procedure described above.

### **Set ImageWriter Pages as Tall Adjusted**

When printing on an ImageWriter, set up your pages to be Tall Adjusted. Line breaks will be the same as when you print on a LaserWriter, more text will fit on the screen horizontally, and you'll be able to do Better (medium) quality printing in the background.

### **Workaround to Print High Quality From 128K Mac**

You'll have trouble printing in High Quality mode on the original

ImageWriter if you use a 128K Mac. That's due to the printer driver on the WriteNow disk requiring too much memory. The solution is to create a new disk containing Finder 1.1 and the original ImageWriter driver on it (it's the one with the Mac icon, found on the Macintosh Guided Tour disk that came with your Mac). Now, just place the WriteNow application on the new disk and reboot with the finished disk, and you can print in High Quality to your heart's content.

### **Working With Double-Sized Font On-Screen**

Page and ruler reduction lets you work on-screen with a much larger font than you might want to print with. For example, if you want your printed output in 6-point font, and you want to work on-screen with 12-point characters, set the page and ruler reduction to 50% and your 12-point characters will print as 6-point text.

### **Using the Ruler to Change Selected Paragraphs**

A ruler change usually affects all selected paragraphs. But if you hold down SHIFT when making a ruler change to several selected paragraphs, the change will be made only to paragraphs that have the identical ruler settings as those in the first selected paragraph. Used in conjunction with Copy Ruler and Paste Ruler from the Edit menu, this feature can simplify formatting of complex documents.

## **Controlling Open Spacing in Paragraphs**

There's an easy way to control open spacing in paragraphs. Just add an extra space before the end of each paragraph, and then Subscript it. The more times you choose subscript, the larger the distance will be before the next paragraph starts.

Control spacing from the top of a paragraph by adding a space at the beginning and then choosing to Superscript the space.

## **Convert All MacWrite/Word Documents At Once**

To save time while translating MacWrite or Word documents to WriteNow, convert them all in a single operation, rather than individually. The Translator has a Transfer to WriteNow option that, when selected, automatically opens WriteNow and all the documents which have just been translated.

## **With Multiple Documents, Use Send Behind to Switch Windows**

When working with a lot of documents at once, it's handy to use the Send Behind command in the View menu to switch between windows. Even more interesting, if the windows have zoom boxes, you can use the size box to make each window very small and line them up along the bottom of the screen, using the zoom box to expand a window to

full size when you want to work with it. When you're finished with the document, use the zoom box again to shrink it back to its easy-to-manipulate size.



## **ZBasic**

### **Easily Making Changes to Nonsequential Line Numbers**

If you're using the Edit window and make a number of changes to nonsequential line numbers, press COMMAND-E twice and all lines and line numbers will be placed in their proper locations.

## THE MACINTOSH CARE AND MAINTENANCE

Cleaning Your Disk Drive .....	1
Possible Problems: .....	1
Screen Wavering .....	1
Frozen Cursor .....	1
Keyboard Repair .....	1
Silencing the Mac .....	2
Changing the Screen Color .....	2
The Programmers' Switch .....	2

## GENERAL INFORMATION

Freeze the Screen	
While a Document is Open .....	2
Close Without Saving	
to Restore to Last Saved	
Position .....	3
Why Your Menu Bar or Apple	
is Flashing .....	3
When Your Calendar	
And Clock Aren't Working .....	3
The Keyboard Remembers	
What You Type .....	3

## THE MACPLUS/HFS

Incompatibility With	
Older Software .....	3
Recovering From a System	
Crash .....	4
RAM Caching .....	4
The New Control Panel:	
How To Set the Alarm Clock .....	4
Desk Accessories Under HFS .....	4
Selecting Files	
In the Minifinder .....	4
Moving Through the HFS	
Hierarchy .....	5
The New SCSI Ports .....	5
Plus and Minus Keys	
Reversed on Some Plus	
Keyboards .....	5

Replacement Parts .....	5
Spacing Problems	
With New Apple Fonts .....	5
Using the Keyboard to Move .....	6
Numeric Keyboard Problems .....	6
The New ROMs .....	6
Screen Dumps	
From the New ROMs .....	6
Save Time By Avoiding	
Self-Diagnostics .....	7

## THE MAC SE

Access the Hidden Slide Show .....	7
Ejecting Disks on the SE .....	7

## THE MACINTOSH XL

Easy Booting .....	7
Exporting Excel Documents	
to Standard Macs .....	7
Incompatibility .....	8

## THE MOUSE

How To Tell If Your Mouse	
Needs a Bath;	
Cleaning the Mouse .....	8
Getting Rid of a Squeak .....	8
Mouse Foot	
Protectors/Replacements .....	8
The Poor Man's Mouse Pad .....	9

## APPLETALK

Use the Same Printer Drivers	
on a Network .....	9
Update Mac 128K and 512K	
Systems For the Network .....	9
Choosing a Printer .....	9
When You Disconnect	
AppleTalk .....	9
Making a Quick Break	
From the Network .....	10

## INDEX

Don't LaserPrint MacWrite and MacDraw Documents Simultaneously .....	10
RAMdisks Can Cause AppleTalk Printing Problems .....	10
Causes of a System Crash .....	10
If the Network Isn't Working .....	10
Printing Problems .....	10

### THE IMAGEWRITER

Storing ImageWriter Ribbons .....	11
Replacement Ribbons .....	11
ImageWriter Maintenance .....	11
Don't Leave Disks On the ImageWriter .....	11
Quick Printing .....	11
Smoothing Lines in Gray Areas .....	11
Creating Smaller Top Margins .....	11
Solutions For Squished Printers .....	11
Avoiding Paper Jams .....	12
Don't Overheat the Print Head By Printing Too Much Black Space .....	12
When A Blank Page Prints At the End of a Document .....	12
Printing More Than One File At A Time .....	12
Stop Printing Quickly .....	13
What You See Isn't Always What You Print .....	13
An ImageWriter Extension Cable .....	13

### THE IMAGEWRITER II

What To Do When Your Printouts Are Smudged .....	13
A Solution For Scrunched Top Lines .....	14
Avoiding Paper Jams .....	14

Printing Letter-Quality Fonts .....	14
ImageWriter Driver 2.0 Problems .....	14
Bidirectional Printing Decreases Printing Time .....	14
Faster Quality Can Result in Darker Picture .....	14
Has AppleTalk Lost Your ImageWriter? .....	15
Don't Use Print Spoolers With ImageWriter II .....	15
Printing Medium Quality is Slower With New Driver .....	15
Use Two Sheets While Printing, If Possible .....	15
How To Access the Self-Test Mode .....	15

### THE LASERWRITER/ LASERWRITER PLUS

Solve Uneven Toning by Shaking Printer Cartridge .....	15
Should You Refill Empty Cartridges? .....	15
You Must Have LaserWriter Printer Driver and Laser Prep to Print .....	16
Turn Off Smoothing To Print Textures .....	16
Use LaserWriter Fonts For LaserWriter Printing .....	16
Resource ImageWriter Fonts to Laser-Print .....	16
Use Largest ImageWriter Font for Substitution .....	16
Font Substitution Better With Later LaserWriter Drivers .....	16
LaserWriter Driver 3.0 Can Crash When It Deinstalls Chicago 12 .....	17
Style Changes Can Make LaserWriter Driver 3.0 Reset While Printing .....	17

Having Trouble Collating?.....17  
 Why Optional Characters  
 Might Print Incorrectly .....17  
 Use PAGE SETUP If You  
 Switch Printers .....17  
 Print Multiple Copies  
 of Multiple Documents One  
 at a Time .....17  
 You Have 90 Seconds To  
 Feed Paper Manually .....18  
 Avoiding Envelope Jam .....18  
 Creating Envelope Templates .....18  
 Tighten Up Bit-Mapped  
 Graphics For Laser Printing .....18  
 LaserPrinting Acetates  
 and Color Seps.....18  
 Protect Your Printout  
 and Seal Its Surface .....18

**DIGITIZERS**

Scan Vertical Lines Sideways .....19  
 Frayed Tape Strip Causes  
 Horizontal Distortion Line .....19  
 Using ThunderScan On a Mac  
 Plus or SE .....19

**DISKS**

If You Can't Erase a Disk .....19  
 Always Work On Backups of  
 Application Disks .....19  
 Cheap, Safe Disk Storage .....19  
 Eject Disks Before Turning  
 Off Power .....20  
 How to Lock/Unlock a Disk .....20  
 HP Disks Can Snag In Your  
 Disk Drive.....20  
 Magnets Are Lethal to Disks .....20  
 Protect Your Disks From  
 Airline Security Scanners .....20  
 Don't Touch the Actual Disk .....21

Disks Aren't Infallible—  
 Back Them Up!.....21  
 Noisy Disks Signal Trouble .....21  
 If A Crucial Disk Bombs... .....21  
 Overwrite Sensitive Data .....21  
 Many Games Can Only Boot  
 From the Internal Drive .....21  
 Disk Labeling Tips .....21  
 Don't Use Caps Lock When  
 Formatting 400K HFS Disk .....22  
 Having Trouble Formatting  
 800K Disk? .....22  
 Save Room By Defragmenting .....22

**HARD DISKS**

Unplugging A Hard Disk  
 Erases All Its Data .....22  
 Shut Down Before Powering  
 Down .....22  
 Easy To Find Hard Disk  
 Extension Cord .....23  
 Solution For Slowed-Down  
 Hard Disk Operations .....23  
 To Use a Floppy  
 As the Startup Disk .....23  
 Paradise Hard Disks .....23  
 HyperDrive .....24

**RAMDISKS**

DASCH RAMdisks .....24

**MODEMS**

Quiet Dialing .....24  
 If You Can't Connect, Tell  
 Your Modem to Wait Longer .....25  
 Don't Put Your Phone On Top  
 of Courier 2400 .....25  
 If Your Courier 2400 Has  
 ROM 241 or 242, Get a Free  
 Replacement .....25

**ON THE DESKTOP:  
THE FINDER**

Label Your Application With  
Its Version Number ..... 25

Rename File, Folder or Disk ..... 25

How Large Is Your Folder? ..... 25

Put Minifinder Icon Into  
System Folder ..... 25

Finding Windows In a Hurry ..... 25

Express Route to Root  
Directory Level ..... 26

Moving Window Without  
Making it Active ..... 26

Rebuild the Desktop ..... 26

Get Info Comments Lost  
When You Rebuild Desktop ..... 26

Don't Use Colons in a File  
Name ..... 26

Ejecting Disks ..... 26

With One Disk Drive  
Opening Files On Non-  
System Disk Is a Drag ..... 27

Games Access Disks  
Frequently ..... 27

When You Get the Dreaded  
"Sad Mac" ... ..... 27

Take a MacPaint "Photo" of  
Your Screen: Screen Dumping  
Made Easy ..... 27

Get the Time (and Date) of  
Day In Your Document ..... 28

Unlock Files and Folders For  
Disposal ..... 28

Duplicating Files With  
Finder 5.4 ..... 28

Launching Applications With  
Multiple Open Windows ..... 28

How Long Do Files Stay in  
the Trash Can? ..... 28

Superfast Cleanup on the  
Desktop ..... 29

Organizing Files Under MFS ..... 29

Installing HFS on a 400K  
Disk ..... 29

Use View By Date to Know  
Which Files Should be  
Backed Up ..... 29

Different Desktop View  
Modes Behave Alike ..... 29

Alphabetizing Your Desktop  
Icons ..... 29

Viewing Folder Sizes in  
Different View Modes ..... 30

Has Someone Changed Your  
Default Font? ..... 30

The Fast Way to Switch  
Startup Disks ..... 30

Tips on Copying Files ..... 30

Remove the Finder to Save  
Disk Space ..... 30

Bypass the Minifinder and  
Return to the Desktop ..... 31

Cut, Copy and Paste are  
Universal ..... 31

**GENERAL INFORMATION**

Command Key Equivalents  
Work in Dialog Boxes ..... 31

Templates Save Time ..... 31

Keyboard Buffer Stores  
Typing ..... 31

Caps Lock Doesn't Disable  
Numbers or Punctuation ..... 32

Lock Your File To Prevent It  
From Being Altered ..... 32

Is This File Locked? ..... 32

Be Careful About Naming  
Files ..... 32

Superceding Alphabetized  
Minifinder Names ..... 32

Take the Express Route  
Through Minifinder Box ..... 32

Open Files The Easy Way ..... 32

When You Launch an  
Application By Mistake ..... 32

Finder 4.1 Lets You Cancel  
Dialog Boxes With Command  
Keys ..... 33  
Close Desk Accessories Before  
Shutting Down ..... 33  
Don't Duplicate Files in  
Trash Can ..... 33  
Re-File What You Rescue  
From the Trash ..... 33  
Save Disk Space by Removing  
Fonts ..... 33  
Reduce Clipboard Size  
If Memory Is Short ..... 33  
Dialog Boxes Allow Flexible  
Reponses ..... 33  
The Hidden Character  
in Most Fonts ..... 33  
Use Calculator to Paste On  
Equations ..... 34

**SOFTWARE**

**AIRBORNE!**

A Christmas Present for  
Gamers ..... 34

**ANCIENT ART OF WAR**

When Taking A Fort,  
Back Up Archers With Second  
Squad ..... 34  
The Coward's Way to Inflict  
Casualties ..... 34  
Let Non-Archer Squads  
Attempt to Take Your Font ..... 34  
Screen Dumps Don't Work,  
But... ..... 35  
You Don't Need An Army To  
Capture a Flag ..... 35

**ALARM CLOCK  
(Desk Accessory)**

How To Keep Alarm Clock  
Active While You Work ..... 35

**CHART**

Widen the Window Before  
Starting Work ..... 35  
Extra-Long Text in Headers  
and Footers ..... 35  
Embedding Formatting  
Commands in Headers and  
Footers ..... 35  
Use White on Labels  
That Overlap ..... 35  
Add Legends Before  
Formatting ..... 36  
When You Link Chart Files to  
Multiplan ..... 36  
Margins Settings Determine  
Printed Size of Charts ..... 36  
Let Chart Do Your Math For  
You ..... 36  
Modify Chart Files to Create  
Sequences of Pie Charts ..... 36  
Exporting Charts to  
MacPaint ..... 36  
When You Can, Modify Chart  
Files in MacDraw ..... 36  
Intersecting Gray Areas May  
Print Blurred ..... 36  
Tips For More Effective  
Charting ..... 37  
Create Templates to Save  
Time ..... 37  
Save As You Go to Prevent  
Confusion, Mistakes ..... 37

**CHEAP PAINT (Desk Accessory)**

Opening Multi-Scrap Files  
From Cheap Paint ..... 37

**CHOOSE (Desk Accessory)**

Embedded Message ..... 37  
 Only Use Chooser With  
 Recent Printer Drivers ..... 38  
 Making Semi-Permanent  
 Printer Setting Changes ..... 38  
 Auto Disk Cache Only Works  
 With 128K ROMs ..... 38  
 Some Older ROMs Have  
 Trouble With Key-Repeat  
 Setting of Zero ..... 38

**CONCERTWARE**

Keep Instruments In Same  
 Folder as Player File ..... 38

**CONTROL PANEL  
 (Desk Accessories)**

Accessing the "Secret Message" ..... 38  
 You Don't Need Control Panel  
 on All Your Disks ..... 38

**COPY II HARD DISK**

Installing Copy-Protected  
 Programs to a Hard Disk ..... 39  
 Moving Copy-Protected  
 Programs From 400K to 800K  
 Disks ..... 39

**COPY II MAC**

Use Copy II Hard Disk to  
 Transfer to Double-Sided  
 Disks ..... 39

**CRICKET DRAW**

Use Align Objects to Control  
 Object Placement Completely ..... 39  
 Ungroup Objects For Faster  
 Printing ..... 40

**CRUNCH**

Cells That Once Contained  
 Values Always Occupy Memory ..... 40

**CYBORG**

Run Cyborg on a Mac Plus ..... 40

**DARK CASTLE**

Experts Can Track the  
 Number of Times They Win  
 in a Session ..... 40  
 Unlimited Shields ..... 40  
 How to Walk on Air (In the  
 Game, Folks, In the Game) ..... 40  
 Express Route to the Trouble  
 Room ..... 41

**DELUXE MUSIC  
 CONSTRUCTION SET**

Hook Up to Your Stereo ..... 41  
 Incompatible With Hard Disk ..... 41  
 Don't Modify the System  
 Fonts ..... 41  
 Only Save When You Have  
 Enough Room On-Disk ..... 41

**DESK ACCESSORIES**

Use Up to 15 Desk  
 Accessories ..... 41  
 Always Leave One DA On  
 Disk ..... 41  
 How Much Room Does Your  
 Desk Accessory Fill? ..... 42  
 Close DAs At End of  
 Work Session ..... 42  
 Link DAs Directly to  
 Applications ..... 42  
 Set the Alarm From  
 the Keyboard ..... 42

Keeping Multiple Note Pads..... 42  
 Note Pads Remember Fonts  
 and Styles ..... 42  
 Keeping Multiple Scrapbooks ..... 43  
 Keep Scrapbook Open While  
 You Work ..... 43

**DINNER AT EIGHT**

Dress Up Menu Printouts  
 With Graphics Applications ..... 43  
 Clear Before Selecting New  
 Category in Silver Palette  
 Edition ..... 43

**DISK EXPRESS**

Run The Program From  
 Original Disk ..... 43

**DISKTOP  
 (Desk Accessory)**

Perform Commands On  
 Multiple Files ..... 43

**DOLLARS & SENSE**

Older Versions Are  
 Incompatible With New Macs ..... 44  
 Only One Screen Dump Can  
 Be Saved At a Time ..... 44

**EXCEL**

More Than a Megabyte's  
 Wasted ..... 44  
 Select Commands by Typing  
 First Letter of Selection ..... 44  
 COMMAND-A Selects Entire  
 Worksheet ..... 44  
 Show or Print All Worksheet  
 Formulas ..... 44

Quickly Reopening Linked  
 Documents ..... 44  
 Insert New Row/Column  
 Without Using File Menu ..... 45  
 Automatic Dates In Column  
 Heads ..... 45  
 Displaying/Printing Columns  
 Beginning With Zero ..... 45  
 Copying Spreadsheet As a  
 Graphic Image ..... 46  
 Command Key Combinations  
 to Select Page Setup Options ..... 46  
 Highlighting Multiple Cells ..... 46  
 Cursor Key Movement With  
 Mac Plus or SE ..... 46  
 The Easy Way to Name Cells  
 in Column ..... 46  
 Formatting Commands in  
 Headers and Footers ..... 47  
 Protect Sensitive Data By  
 Hiding It From View ..... 47  
 Protecting Sensitive Data  
 While You Work ..... 48  
 Centering Tables With  
 Borders ..... 48  
 Trim Document Space by  
 Removing Formulas ..... 48  
 Some Text Strings Should Be  
 Entered As Formulas ..... 48  
 With a Single 400K Drive  
 Make a RAMdisk ..... 48  
 Copying Cell Groups For  
 Page Layout Applications ..... 48  
 Recompute Macro Functions  
 By Reopening Macro Sheet ..... 49  
 Use XMODEM to Import  
 Lotus 1-2-3 From PC ..... 49

**FEDIT**

ONLY Work on a Backup ..... 49  
 Removing the Trash Can  
 Dialog ..... 49

## INDEX

Fedit/MacDraw .....	49
Fedit/Multiplan .....	50

### FILE

Generating Line Fields At Insertion Points Lets You Create Lists .....	50
Quickly Select the Entire Field .....	50
Generating Exportable Tab Characters .....	50
Display Box is Bigger Than It Looks .....	50
Changing Field Formats While Preserving Your Data .....	50
Enter Data Fastest in Smallest Database Window .....	51
If Your Select Bar Pushes Your Form Aside .....	51
Mac Plus Keyboard Cursor Movement .....	51
Printing Solid Rules on the LaserWriter .....	51
Don't Use Embedded Tabs Within Fields When Exporting to Other Database .....	52
Creating File Records With a Word Processor .....	52
Saving Changes to Page Setup Parameters .....	52
Saving Files in a Sorted Order .....	52

### FILEMAKER PLUS

Solution For Label Peels on ImageWriter II .....	53
Embedded Credits .....	53
Use OPTION-SPACE to Enter Multi-Word Phrases As Search Identifiers .....	53
Entering Copies of a Record Using COMMAND-M .....	53

### FILEVISION

Establish HELP Files For Other Users of Your Database .....	53
Controlling Object Sequence By Numbering Your Objects .....	54
Save Graphics For Use in Other Files .....	54
Use Pre-Made Graphics, If You Need Them .....	54

### FINDFILE

Use MOVE TO DESKTOP To Put Files On the Desktop .....	54
--	----

### FLIGHT SIMULATOR

Poster-Sized Screen Dumps .....	54
Access Five Hidden Situations .....	55

### 1ST BASE

Chaining Fields To Create Mergable Paragraphs .....	55
Compatibility Problems With Phone Pad DA .....	55

### FONT/DA MOVER

Open Directly Into Desk Accessory Mode .....	55
Fast Access to Other Disks' Systems .....	55
Lock Disks to Avoid Accidental Erasures .....	55
Install Font or DA Directly Into Application .....	56
Display File Size and Resource Forks .....	56
Quick Ejecting .....	56
Access Extra Information About Desk Accessories .....	56

You Don't Always Have To  
 Remove Old DAs ..... 56  
 Store Small Custom Graphics  
 As Fonts ..... 56

**FONTS**

Designing Fonts the Easy  
 Way ..... 56  
 Don't Edit LaserWriter Fonts  
 With ImageWriter Editors ..... 57  
 Apple Symbol Is a Character ..... 57  
 Accessing Accurate Quotation  
 Marks ..... 57  
 New Font Changes May  
 Affect Document Spacing  
 Created With Old Fonts ..... 57  
 Mac Attack A Source of  
 Special Fonts ..... 57  
 Accessing Diacritical Marks ..... 57  
 Accessing Ellipses ..... 57  
 Use Ellipses To Make Quick  
 Dotted Lines ..... 58  
 If You Need A Heart... ..... 58  
 With New York Fonts, What  
 You See Doesn't Always  
 Match What You Get ..... 58  
 Accessing "Secret" Font  
 Characters ..... 58  
 Keep Proportions When  
 Designing Double-Size Fonts ..... 58  
 Mac Point Sizes Aren't  
 Always Accurate ..... 58  
 When You Assign A Font ID... ..... 58

**FULLPAINT**

Creating Dashed Boxes or Lines ..... 59  
 Expanding Graphics To Fit  
 Entire Page ..... 59  
 UNDO Remembers Last  
 Mouse Drawing Action ..... 59  
 Creating a Custom Brush  
 From On-Screen Pattern ..... 59

Making Textures Match  
 Specific Areas ..... 59  
 Create Your Own Paint  
 Brush ..... 59  
 Randomizing Patterns to  
 Look "Washed" ..... 60  
 Forcing the Rectangle to  
 Close As Tight As It Can ..... 60  
 Toggle Menu Bar  
 On and Off ..... 60  
 Toggle Paint Palette  
 On and Off ..... 60  
 Pasting to Upper Left Corner  
 of the Active Window ..... 60  
 Grabbing Palettes Anywhere  
 Within Their Windows ..... 60  
 Easy Access to Picture Fonts ..... 60  
 Creating Transparent Text ..... 60  
 Putting White Text on a  
 Black Background ..... 60  
 Fill Outside of a Shape  
 Instead of Its Inside ..... 61  
 Cut or Copy All White Or  
 Empty Space Within Lasso ..... 61  
 Quickly Creating a  
 Borderless Shape ..... 61  
 Selecting Objects Tightly  
 Packed Among Other Objects ..... 61  
 Variable Eraser Size ..... 61  
 Game Within a Program ..... 61  
 Recovering Corrupt or  
 Damaged Files ..... 61

**GRAPHICWORKS 1.1**

Specify New Origins on  
 Rulers ..... 61

**GRAYPAINT**

GrayPaint/MacPaint Combo  
 Lets You Work on Entire  
 Page At Once ..... 62  
 Turn Any Area Into a Fill  
 Pattern ..... 62

**HELIX**

Plan Function Before Building It When Using Abacus Icons ..... 62  
 Viewing Entire Complex Calculation ..... 62  
 Avoiding Icon Confusion ..... 62  
 Save Time—Copy Old Calculations, Then Modify Them ..... 62  
 Save Time While Setting Up New Relation ..... 63  
 How To Move A Single Tile ..... 63  
 Move A Single Arrow Segment ..... 63  
 Moving Groups of Segments or Tiles ..... 63

**INSTALLER**

Selecting More Than One Script ..... 63

**JAZZ**

Power Off Before And After Work Sessions ..... 63  
 Link a Copied Graph to a New Worksheet ..... 63  
 Trouble-Free SYLK File Conversions ..... 63  
 How Much Memory Jazz Allocates To Each Application ..... 63  
 Printing Empty Cells ..... 63  
 Cut And Paste In Communications Mode ..... 63  
 Loading Jazz Spreadsheet Data Into Excel ..... 63  
 When The Program Tells You It Can't Print Your Document ..... 63

**KEY CAPS**

Making Screen Dumps of Key Caps Special Characters ..... 65

**MACDRAFT**

Use MacDraft To Produce Laser-Printable Diagonal Dotted Lines ..... 65  
 Don't Name Documents the Same As MacPaint Document Names ..... 65  
 Create Original Patterns Easily ..... 65

**MACDRAW**

Use Smoothing to Make Complex Arcs ..... 66  
 Creating Proportionally-Spaced Text Lines ..... 66  
 Quickly Select the Last Tool Used ..... 66  
 Centering Items Perfectly in the Middle of the Page ..... 66  
 Grabbing Tiny Resizing Handles ..... 66  
 Proportional Enlarging and Reducing ..... 66  
 Print Out a MacPaint FatBits Screen ..... 67  
 Maintaining Fill Patterns When Transferring to Bit-Mapped Program ..... 67  
 Selecting Multiple Objects At Once ..... 67  
 Duplicating Objects Easily ..... 67  
 Toggling to the Grid Option ..... 67  
 Redrawing the Object Most Recently Created ..... 67  
 Automatic Selection of Objects ..... 68  
 Creating Unusual Sizes of Fonts ..... 68  
 Selecting All Text Within a Block ..... 68  
 Always Use the Same System to Create, Display and Print ..... 68  
 Avoiding Default to Geneva Font ..... 68

The Easy Way to Sign Your Name ..... 68  
 Previewing Horizontal Layouts ..... 68  
 When You Can't Complete the Print Command ..... 69  
 Laser Printing Small White Type ..... 69  
 Enlarging or Reducing Can Clip Document Text ..... 69  
 See the Graphics, Not the Rectangle ..... 69  
 An Easy Way to Make Perfect Hollow Lines ..... 69  
 Microsoft Chart Graph Cells Become Individual Elements ..... 69  
 Wrapping Text Pasted From the Clipboard ..... 69  
 Centering Primitive Objects ..... 70

**MACGOLF**

Putt Like a Pro ..... 70

**MACINTAX**

Less Disk Swapping ..... 70

**MACLIGHTNING 2.0**

Set RAM Caching to 128K or Less ..... 70  
 Don't Capitalize Non-Proper Nouns in the Dictionary ..... 70  
 Check Spelling Before Making Dictionary Entries ..... 70  
 Spell-Checkers Can Be Used as Word Counters, Too ..... 70

**MACMONEY**

Making an 800K Disk That Accepts Data Files ..... 71  
 Fit More Transactions On-Disk With Minifinder Instead of Finder ..... 71

**MACPAINT**

Leave Enough Disk Room to Work ..... 71  
 Hints For Saving Disk Space ..... 71  
 Straight Lines in a Snap ..... 71  
 Restraining Works Throughout the Program ..... 71  
 The Fast Route to FatBits ..... 72  
 Erasing Large Portions of the Screen ..... 72  
 Customizing Erasers ..... 72  
 The Fast Way to Get to Brush Shapes ..... 72  
 Edit Brush Shapes With a Font or Resource Editor ..... 72  
 Trim MacPaint By 13K With ResEdit ..... 73  
 Creating a Ruler to Keep On-Hand ..... 73  
 Making Multiple Copies of an Image ..... 73  
 Controlling Space Between Copies ..... 73  
 Creating Straight-Line Multiple Copies ..... 73  
 Avoiding Pattern Distortion in Multiple Copies ..... 73  
 Stretching Images ..... 73  
 Keeping Patterns Intact During Stretching ..... 74  
 Proportional Stretching/Shrinking of Rectangular Images ..... 74  
 Keeping Rectangle Patterns Intact While Resizing ..... 74  
 Merging Patterns in Shapes ..... 74  
 Change Fonts Without Creating a New Entry Point ..... 74  
 Changing Font Size of Entered Text ..... 74  
 Changing Font of Entered Text ..... 74

## INDEX

Grid Option Assists Text Entry .....	75
Adding New Patterns to Patterns Palette .....	75
Cataloguing MacPaint Documents On a Different Disk .....	75
Creating Ultrabold Letters .....	75
Creating Psychedelic Letters .....	75
Shadowing Images .....	75
Lasso Tool Doesn't Have to Be Closed Loop .....	75
Don't Reinvent the Wheel If You Don't Have To .....	75
Printing Multiple MacPaint Copies .....	76

### MACPASCAL

Running Multiple Programs In a Row .....	76
Quick Debugging .....	76
Close Unnecessary Windows .....	76
Hit Return Instead of Brace When Entering A Lot of Remarks .....	76
Text-Only Files Can Be Read As a Program .....	76
Warning on Possible Incompatibilities .....	76

### MACPROJECT

Using MacProject to Estimate Hours .....	77
Incompatibility With New Macs .....	77

### MACPUBLISHER III

No Free Space on Master Disk .....	77
------------------------------------	----

### MACSERVE

Incompatibilities .....	77
Problems With Early SCSI Hard Disks .....	77
Use Only Applications That Don't Have to Use Printer Port .....	77
Enter Dummy Printer Name When Disabling Spooler .....	78
When Using Two Printer Drivers, Rename One .....	78
MacServe Can Choose Printers .....	78
Showing MacServe Where the ImageWriters Are .....	78
If the System Crashes... Causes of System Crashes .....	78
When You Update the System, Update MacServe Immediately .....	79
Keep XL/Serve Node Names Short .....	79
Why Can't This Disk Be Erased? .....	79
Formatting Volumes in HFS .....	79
Plan Volume Sizes in Advance .....	79
Leave Room For Volume Expansion .....	79
Use Subdividing Software Included With Hard Drive .....	80

### MACSPELL+

Don't Use MacSpell+ With Boston II Font .....	80
---	----

### MAC•SPELL•RIGHT

Fastest Way to Check Spelling .....	80
-------------------------------------	----

**MAC TERMINAL**

How to Use Cursor Keys Instead of Mouse .....	80
Command Key Combinations .....	80
Use Hard Backspace When Correcting Mainframe Data .....	81
Mac Plus Keyboard Substitution .....	81
Create Replacement Mac-to-Mac Document .....	81
Avoiding System Hang .....	81

**MAC TERMINAL 1.1**

Why You Should Upgrade .....	81
------------------------------	----

**MAC TERMINAL 2.0**

Use ResEdit to Correct Bundle Bit Problem in Transferring .....	82
---	----

**MAC 3D**

Verify Selection by Rotating It .....	82
--	----

**MAC 3D 2.0**

Creating Endmarks on Arcs and Curves .....	82
Importing QuickDraw Graphics .....	82
Adding Tiny Details to Drawings .....	82
Dimensioning Edges on Rotated Objects .....	82
Quickly Redrawing All Objects in a Window .....	83
Splitting Vertexes .....	83

**MACTYPE**

Earning a Certificate .....	83
-----------------------------	----

**MACWRITE**

Use Text-Only Option to Export Data .....	83
How Much Disk Space is Left? .....	83
Text-Only Files are Smaller .....	83
Defragment Large Files to Save Space .....	83
Squeeze a Lot of Information into Headers and Footers .....	83
Numbering Pages With the Page Icon .....	83
Changing Font Styles of Special Icons in Headers and Footers .....	84
Changing Font Styles in Headers and Footers .....	84
Mixing Fonts and Styles in Headers and Footers .....	84
Mixing Text and Graphics in Headers and Footers .....	84
Making Larger Margins on a Page .....	84
Using the Note Pad to Create Footnotes .....	84
Clock and Calendar Icons Update Automatically .....	84
Remembering Time and Date a Document Was Completed .....	85
Sometimes Printing Counts as Modifying .....	85
Spacing Without the Ruler .....	85
Create Exact-Sized Spaces In MacDraw .....	85
Replacing a Single Word .....	85
Highlighting Word Instead of Characters .....	85
Carriage Return Signifies End of a Paragraph .....	85

## INDEX

- |                                   |    |
|-----------------------------------|----|
| Restoring the Last Text Cut ..... | 85 |
| Use Cut Command When              |    |
| Moving Text .....                 | 86 |
| Restoring to Last Saved           |    |
| Position .....                    | 86 |
| Tab Key Ensures Laser             |    |
| Printouts Come Out Straight ..... | 86 |
| Decimal Tabs Override             |    |
| Regular Tabs .....                | 86 |
| Hidden Spaces Can Affect          |    |
| Printouts .....                   | 86 |
| Printing Problems With Long       |    |
| Documents .....                   | 86 |
| Lack of Disk Space Can            |    |
| Cause Printing Problems .....     | 86 |
| Identifying Hookup Problems ..... | 87 |
| Finding the Printer in            |    |
| AppleTalk .....                   | 87 |
| When MacWrite Says It Can't       |    |
| Print a Document .....            | 87 |
| Avoiding ImageWriter Delays ..... | 87 |
| Shortcut Past Page Setup          |    |
| Dialog .....                      | 87 |
| Headers Can Cause Paper           |    |
| Feed Problems in Draft Mode ..... | 87 |
| Printing Extra-Wide               |    |
| Image Writer Text .....           | 88 |
| If Italics Are Cut Off At the     |    |
| Margin .....                      | 88 |
| Avoiding Blank Last Page          |    |
| When Printing .....               | 88 |
| Print on LaserWriter With         |    |
| LaserWriter Fonts .....           | 88 |
| Last-Ditch Fix For Corrupted      |    |
| Document .....                    | 88 |
| Reformatting Lines Without a      |    |
| New Ruler .....                   | 89 |
| Reformatting Paragraphs           |    |
| Without a Ruler .....             | 89 |
| Right-Justifying Part of a        |    |
| Line .....                        | 89 |
| Inserting a Word Without          |    |
| Using the Mouse .....             | 89 |
| Use Replace Option                |    |
| to Enter Repeating                |    |
| Complex Words .....               | 89 |
| Resizing the Main Window to       |    |
| Accommodate Large-Screen          |    |
| Monitor .....                     | 89 |
| Delete Text Quickly With          |    |
| Enter Key .....                   | 90 |
| Finding the Cursor in a Long      |    |
| Document .....                    | 90 |
| Insert Invisible Bind Between     |    |
| Two Words .....                   | 90 |
| Keeping Key Caps Window           |    |
| Open When You Need It .....       | 90 |
| Stretching or Shrinking           |    |
| Pasted MacPaint Graphics .....    | 90 |
| Correcting Distortion in          |    |
| Pasted MacPaint Graphics .....    | 91 |
| Pasting MacDraw Documents         |    |
| Into Large Files .....            | 91 |
| Accessing Special Font            |    |
| Characters .....                  | 91 |
| MacWrite As a Poor Man's          |    |
| Database .....                    | 91 |
| Varying Spacing Between           |    |
| Lines .....                       | 91 |
| Double-Underlining                |    |
| Headlines .....                   | 91 |
| Highlighting Large Portions       |    |
| of Text .....                     | 91 |
| When You Import a                 |    |
| Document With Too Many            |    |
| Carriage Returns .....            | 92 |
| Saving Time When Setting          |    |
| Up Rulers .....                   | 92 |
| Creating a Title Page .....       | 92 |
| Varying Default Page              |    |
| Number .....                      | 92 |
| Adjusting Subscript Spacing ..... | 92 |
| Quickie Word Count .....          | 93 |
| Locked Documents Aren't           |    |
| Always Locked .....               | 93 |
| Keep Backup Templates .....       | 93 |

**MAKE MILLIONS**

Reach Out and Touch  
Someone ..... 93

**MEGAFORM**

Creating Automatic-Fills For  
Forms ..... 93

**MICROSOFT BASIC  
COMPILER**

Hiding Your BASIC Window  
When Running the Program ..... 93

Restoring the BASIC Menu  
Bar ..... 94

Stop a Document Form  
Launching ..... 94

Changing Font Size and Style  
in List and Command Windows ..... 94

Version 2.1 Glitch ..... 94

**MICROSOFT FORTRAN**

Make Each TYPE Statement  
Display Information on a New  
Line ..... 94

**MINDWRITE**

Sorting Text Within the  
Program ..... 94

Saving Clipboard as a  
Document ..... 95

Illustration Count in a  
Document ..... 95

Extra-Wide Printouts ..... 95

Text Wraps to Fit Ruler or  
Window ..... 95

**MINIWRITER**

Scroll Screen Up and Down ..... 95

Bypassing the Opening Screen ..... 95

Access Text-Only Documents  
on the Disk ..... 96

**MORE**

Your Own Personalized  
Startup Screen ..... 96

Displaying More Than One  
Level of Headline in a Bullet

Chart Slide ..... 96

Centering Bullet Charts For  
Printing ..... 96

Indicating Where Sum Total  
Should Go ..... 96

Hiding Numbers From  
Calculations ..... 96

Dollar Figure Takes  
Precedence Over Other  
Figures ..... 96

Hide A Headline While  
Reorganizing Outline ..... 97

Fast Access to Tree Size  
Dialog ..... 97

Quickly Opening Tree  
Options Dialog ..... 97

**MORE 1.1**

Toggle Between Headlines  
and Document Window ..... 97

Key Equivalent Work in  
Dialog Boxes ..... 97

Cancel Dialog Quick ..... 97

Reversing Text Entry Point ..... 97

Entering Tabs Into Headlines ..... 98

**MULTIPLAN**

Quick Column Addition ..... 98

Copying Rows and Columns  
Into Word Processor ..... 98

Sorting a Series of Rows ..... 98

Longer Header or Footer Text  
Than Text Box Can Display ..... 98

## INDEX

Recalculating New Value or Formula Entries .....	98
Rounding Off Half-Pennies .....	98
Fixed Numbers Act Like Text .....	98
Fonts Can Be Changed .....	99
Printing in Helvetica .....	99
Use Forced Page Breaks When Printing Large Sheets .....	99
Squeezing More Data On a Page .....	99
Tall Adjusted Print Option is Better, But It Takes Longer .....	99
Simulating Freeze Title Option on Printouts .....	99
More Columns Can Be Printed Than You Think .....	99
Highlighting Sections With a Graphics Program .....	100
Showing Cells That Need Alteration .....	100
The Easy Way Into Protected Spreadsheets .....	100
Putting Titles at the Top of Lists After Sorting .....	100
Possible Incompatibility .....	100

### MULTIPLAN 1.1

Embedding Formatting Commands In Header or Footer Text .....	100
--	-----

### OVERVUE

Previewing Reports .....	101
Problem-Free Column Insertion .....	101
Embedding Tabs When Exporting Data .....	101
Use Mac XL Edition With HyperDrive .....	101
Incompatibilities .....	101

### OVERVUE 2.1

Don't Use GLOBAL REPLACE If You Can Help It .....	101
--	-----

### PACKIT III

Packing Groups of Files Without Using File Selection Window For Each .....	102
--	-----

### PAGEMAKER

Correcting Underscoring Problems .....	102
Easy Way to Identify Text Block Handles .....	102
Deactivate Continued Text Handles in Version 1.2 .....	102
Getting PageMaker to Remember Page Setup Alterations .....	103
Actual Size Display Rulers Are Most Accurate .....	103
Toggling to MacPaint-Style Hand Tool .....	103
Disabling SNAP To GUIDES .....	103
Printing on LaserWriter Plus Requires Version 1.2 or Higher .....	103
Reset LaserWriter Before Printing PageMaker Documents .....	103
Evenly Spaced Lines in Difficult Places .....	104
Workaround For Graphic Clipping Problems .....	104
Toggling Between Full Page and Fit In Window Views .....	104
Early Versions Bomb When You Delete Several Pages in a Row .....	104
Save Often to Avoid Corrupted Files .....	104

**PAGEMAKER 2.0**

Selecting Closely-Packed  
Objects .....104  
Guide Lock Aids in Object  
Selection .....105

**PARAMETER MANAGER**

Copying Formulas to Another  
Calculated Parameter .....105  
Quickly Scrolling to the End  
of a File .....105

**POWERCACHE**

Incompatibilities .....105  
Different System Files Can  
Hang This Program .....105

**PROFESSIONAL COMPOSER**

Workaround For Ignored  
Rehearsal Marks .....105  
Place Ties and Articulations  
After Transposing Parts .....106

**QUICK & DIRTY UTILITIES,  
VOLUME 2**

Reset FKEY to Simulate Shut  
Down .....106

**RADIUS FPD**

Turn On Custom Feature to  
Activate Screen Blinking .....106

**RAGS TO RICHES**

Charts Can't Be Deleted, But  
They Can Be Redefined .....106  
Key Codes Are Forever .....107

Capital Account Is Calculated  
When You Print.....107  
Combining Files on an 800K  
Disk .....107

**RAMDISKS**

Configuration to Minimize  
Disk Swapping, Maximize  
Application Storage .....107  
Modify Phantom Copies of  
Applications .....107  
RAMdisks Aren't Permanent  
Storage .....107  
Save As...Slows Operations .....108

**RAMSTART**

Keep Programs to Be Copied  
At Root Level .....108

**READY, SET, GO! 2.1**

Tips For Importing  
Formatted or Tabbed Data .....108

**READY, SET, GO! 3.0**

Wrapping Text Around Text.....108  
Viewing Page At Text Block  
Insertion Point .....108  
Import Documents of 32K or  
Less .....108  
Use Program's Own Drawing  
Tools To Save Printing Time .....109  
Bypass GET PICTURES By  
Using Clipboard Instead .....109  
Link Text Blocks in Exact  
Order, Page By Page .....109

**RED RYDER**

Disabling the Opening Screen .....109

## INDEX

Versions 8 or Higher Incompatible With 128K Mac .....	109
Other Incompatibilities .....	109
Turning the Mac Into a Mainframe Terminal .....	110
Smooth Scrolling in TTY Mode .....	110

### RESOURCE EDITOR (ResEdit)

Always Work On A Backup— If Not You Could Be Sorry .....	110
Using RAMdisks As Work Disks .....	110
Open Any Resource As If It's Another Resource Type .....	110
Full Clipboard Can Cause Trouble Cutting Resources .....	110
Customizing Scroll Bar Patterns .....	111
Getting the Finder to Recognize a Modified Icon .....	111
Keep Work Files At Disk Root Level .....	111
Creating Your Own Resources .....	111
ResEdit/ComicWorks .....	111
ResEdit/Finder 5.2 .....	111
ResEdit/FullPaint .....	112
ResEdit/GraphicWorks 1.1 .....	112
ResEdit/LightSpeed C.....	112
ResEdit/Mac SE .....	112
ResEdit/miniWriter .....	113
ResEdit/PhonePad .....	113
ResEdit/Ready, Set, Go! 3 .....	113
ResEdit/System .....	113

### ROGUE

Rescuing Characters From Automatic Deletion .....	114
--	-----

### SARGON III

Setting Handicaps .....	114
-------------------------	-----

### SCRAPBOOK

Scrapbook Limits .....	114
Index Large Scrapbooks .....	114
Use Scrapbook to Access Often-Used Graphics or Text.....	114

### SHADOWGATE

Use Randomizing To Your Advantage .....	114
Note Pad Lets You Track Clues on the Fly .....	114

### SLEEP

Temporary Deactivation .....	115
------------------------------	-----

### SMARTCOM II

Forcing SmartCom to Use Text Protocol .....	115
Capture Routine Saves Only Selected Text .....	115
Saving Text From the Capture Buffer .....	115
Save and Save As...Don't Save What's in the Capture Buffer .....	115
Put Your Work Files At Root Level .....	115
Use Different System File When Using Sidekick .....	115

### SMASH HIT RAQUETBALL

Fast Shutdown .....	115
---------------------	-----

**SOFTWARE SAMPLER**

- You Can't Save MacPaint and  
MacDraw Demos, But..... 116

**STUDIO SESSION**

- Note Entry Shortcut ..... 116

**SUPERPAINT**

- Using the Lasso While the  
Marquee is Selected ..... 116  
Nudging Selected Graphics  
By a Single Pixel ..... 116  
Closing All Open Windows at  
Once ..... 116  
Crosshairs Can Help When  
You Paint From Centered  
Point ..... 116  
Reversing the Pattern ..... 117  
Obtaining a "Spattered"  
Effect" ..... 117  
Obtaining a "Screening"  
Effect ..... 117  
Smoothing Bit-Mapped  
Images For Laser Printing ..... 117  
Turn Smoothing Off to Speed  
Up Printing ..... 117  
Adjusting Length On  
Imported MacDraw Graphics ..... 117  
Lower Detail Level Speeds  
Smoothing ..... 117

**SWITCHER**

- Finder is a Good Switcher  
Addition ..... 118  
Load The Finder First..... 118  
Express Route to Main  
Switcher Window ..... 118  
Don't Start Up From  
Installed RAMdisk ..... 118

- If You Crash or Freeze ..... 118  
Attaching Documents to  
Applications ..... 118  
QUIT Doesn't Reboot  
Computer ..... 119  
"Always Convert Clipboard"  
Is Slow ..... 119  
Bypassing the Startup ..... 119  
Causes For MacDraw Crash ..... 119  
If MacWrite Has Been  
Missing the End of a File ..... 119  
Give MacWrite Large  
Partition If Laser Printing ..... 119  
Double MacWrites or  
MacPaints Can Double Your  
Trouble ..... 120  
How Much Should You  
Allocate to an Application? ..... 120  
Saving Memory Settings ..... 120  
Ideal Memory Allocations ..... 120  
Running Word With Finder  
Can Damage Files ..... 120  
Switcher and Scientific  
Writing ..... 121  
Design Custom Symbols As  
You Work ..... 121  
Quit All Applications Before  
Quitting Switcher ..... 121  
Last Application Installed  
Remains Active When you  
Quit ..... 121

**TELECOMMUNICATIONS**

- Beginners Should Get Cheap  
Practice ..... 121  
When Call-Waiting  
Disconnects Transmissions ..... 122  
Telephone Noise Can  
Interrupt Transmissions ..... 122  
Cutting Noise On  
CompuServe ..... 122

## INDEX

- Disabling Internal Modem Speaker .....122
- Getting Your Program to Wait Longer Before Redialing .....122

### TEMPO

- Get Tempo To Install on Startup .....122
- Don't Duplicate Application Command Key Combinations .....123
- Use Command Key Combinations When Possible .....123
- Tempo Can Tell You It's Finished .....123
- Don't Hold COMMAND Too Long .....123
- Incompatibility With 512K Mac and Hard Disk on AppleTalk .....123

### THINK TANK

- Organizing Scrapbooks With ThinkTank .....123
- Don't Use RAM Caching .....124

### THROUGH THE LOOKING GLASS

- The Cheshire Cat Holds Many Secrets .....124

### VIDEOWORKS

- Each Animated Sprite Consumes Memory .....124
- Creating Self-Running Animations .....124

### WIZARDRY

- Avoiding Your Mistakes Being Written to Disk .....124
- Werdna's Buddies Are Randomly Generated .....125
- Exit—Stage Right .....125
- Dishonesty Pays (Well) .....125

## WORD

- Protecting Sensitive Work Sessions From Prying Eyes .....125
- Don't Delete Documents Until You Quit Switcher .....125
- Easy MacWrite-to-Word Conversions .....125
- Removing the Last Word Typed .....126
- Express Route to the Right Edge of a Page .....126
- Viewing Several Points In Very Wide Documents .....126
- Copying Paragraph Formats .....126
- Quick Copy-And-Paste .....126
- Copying Graphics to Cheap Paint Easel .....126
- Recovering Corrupted Files .....127
- Put Main Document and Merge Data File In Same Folder .....127
- Accessing Hidden Message .....127
- COMMAND-Period Comes In Handy .....127
- Selecting Characters Via the Keypad .....127
- Selecting By Word .....127
- Selecting By Sentence .....127
- Superscript and Subscript Fonts Are Smaller .....127
- Dialog Box Command Keys .....128

### WORD 3.0

- Use Highest Quality When ImageWriting Tiny Fonts .....128
- Closing the Space Between Boldfaced Headline Words .....128
- ImageWriting in Bidirectional Mode .....128
- ImageWriter Driver 2.5 Has Trouble Producing Draft Copy .....129
- Scaling Graphics Down .....129
- Placing Graphics Under Text/Filling a Page With a Graphic .....129

Converting Formatted MacWrite Documents .....	129
Returning the Insertion Point to Most Recent Location .....	130
Marking Draft Copies as Draft Copies.....	130
Quickly Extending Current Selection .....	130
Problems With RAM Caching .....	130
Exporting To Applications That Don't Accept Formatted Word Documents .....	130
Tiling the Active Window .....	131
Bypassing the Mouse With a Numeric Keyboard .....	131
On the SE... ..	131
Getting an Estimated Word Count .....	131
Creating a Table.....	132

## WORKS

Moving a Selected Range of Cells in the Spreadsheet .....	132
Using a Word Processor to Change Fonts in a Block of Cells .....	132
Sorting Columns .....	132
Avoiding Swaps With 400K Version .....	133
Microscrolling .....	133
Hanging Up Fast in Communications Mode .....	133
Pasting In Data Without Field Names .....	133
Saving Files With Return At End of Each Line .....	133
Bringing the Bottommost Window to the Front .....	133
Entering Page Breaks From the Keyboard .....	133

Quickly Accessing Graph Specifications Dialog .....	134
--	-----

## WRITENOW

Automatic Scrolling Gets Faster As Cursor Gets Lower .....	134
Finding A Page In Long Documents .....	134
Changing Font or Style of Identical Characters .....	134
Appending the Main Dictionary .....	134
Keep Check Spelling Window Active to Save Access Time .....	134
Using the Same Format in Header, Footer, or Footnote Area.....	134
Checking Header and Footer Marker Locations .....	135
Set ImageWriter Page as Tall Adjusted .....	135
Workaround to Print High Quality From 128K Mac .....	135
Working With Double-Sized Font On-Screen .....	135
Using the Ruler to Change Selected Paragraphs .....	135
Controlling Open Spacing in Paragraphs .....	136
Convert All MacWrite/Word Documents At Once .....	136
With Multiple Documents, Use Send Behind to Switch Windows .....	136

## ZBASIC

Easily Making Changes to Nonsequential Line Numbers .....	136
--	-----

Quickly Accessing Graphs ..... 132

Specifications Dialog ..... 132

WFLWINDOW

Automatic Resizing Gets ..... 134

Parser for Postscript Lower ..... 134

Reading & Editing Jobs ..... 134

Documents ..... 134

Changing Font or Page of ..... 134

Individual Characters ..... 134

Appending the Main ..... 134

Dictionary ..... 134

Keep Check Spelling ..... 134

Window Active ..... 134

to Save Jobs From ..... 134

Using the Same Format in ..... 134

Header Footer ..... 134

or Footnote Area ..... 134

Check for Header and Footer ..... 136

Marker Locations ..... 136

Set Integer/Writer Pages as ..... 136

Tab Adjusted ..... 136

Workaround to Print High ..... 136

Quality from LPR Jobs ..... 136

Working With Doubleword ..... 136

Font On Screen ..... 136

Using the Printer to Change ..... 136

Selected Paragraphs ..... 136

Controlling Open spacing in ..... 136

Paragraphs ..... 136

Convert All Into Writer/Word ..... 136

Documents in Once ..... 136

With Multiple Documents, ..... 136

Use Send Field to Switch ..... 136

Windows ..... 136

CLASSIC

Using the Print Changes to ..... 136

Reopening the Windows ..... 136

Converting to Latex ..... 132

MacWrite Documents ..... 132

Marking the Location Point ..... 130

to Most Recent Location ..... 130

Marking Draft Copies as ..... 130

Draft Copies ..... 130

Quickly Resending Current ..... 130

Selection ..... 130

Problems With LPR Spooling ..... 130

Exporting To Applications ..... 130

That Don't Accept Postscript ..... 130

Word Documents ..... 130

Using the Active Window ..... 131

Passing the Jobs With ..... 131

Windows/Workshop ..... 131

On the BSL ..... 131

Getting an External Word ..... 131

Count ..... 131

Creating a Table ..... 132

WORKS

Moving a Selected Array of ..... 132

Cells in the Spreadsheet ..... 132

Using a Word Processor to ..... 132

Change Fonts in a Block of ..... 132

Cells ..... 132

Sorting Columns ..... 132

Avoiding Spots With ADR ..... 132

Version ..... 132

Interlocking ..... 132

Changing Up Fast in ..... 132

Communications Mode ..... 132

Printing in One Window ..... 132

Field Names ..... 132

Saving Files With Names At ..... 132

End of Line Line ..... 132

Changing the Font ..... 132

Window to the First ..... 132

Changing Page Breaks From ..... 132

the Response ..... 132

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