

# Apple-Works Forum

The Monthly Publication of NAUG: *The National AppleWorks Users Group*

Volume II, No. 3

March 1987

## TABLE OF CONTENTS

<b>LETTERS</b>	<b>2</b>	<b>SPREADSHEET TIPS</b>	<b>10</b>
<ul style="list-style-type: none"><li>• AppleWorks 2.0 and RamWorks cards.</li><li>• RAM disk problems.</li><li>• Pinpoint Document Checker problems.</li><li>• Apple Library Users Group uses AppleWorks.</li><li>• How to underline with Epson FT and Spirit 80 printers.</li></ul>		How to transfer data between spreadsheets.	
<b>AUTO-BOOT YOUR RAM DISK</b>	<b>4</b>	<b>APPLEWORKS ADD-ONS</b>	<b>11</b>
How to set up an auto-boot disk for RamWorks cards.		How to improve your printouts: A review of FontWorks.	
<b>LATEST VERSIONS</b>	<b>6</b>	<b>DATA BASE TIPS</b>	<b>12</b>
AppleWorks 2 Expander software for Applied Engineering cards.		How to get more than three selection rules.	
<b>BACK ISSUES</b>	<b>6</b>	<b>PRINTER PRIMER</b>	<b>13</b>
<b>NEXT MONTH'S AppleWorks Forum</b>	<b>6</b>	How to print on continuous feed postcards, Rollodex cards, and short pieces of paper.	
<b>SOFTWARE REVIEW</b>	<b>7</b>	<b>USING AUTOWORKS AS A DISK LIBRARIAN</b>	<b>15</b>
1040Works and AppleWorks can fill out your tax forms.		How to use AutoWorks or Super MacroWorks to maintain your disk catalog.	
<b>WORD PROCESSOR TIPS</b>	<b>8</b>	<b>QUICK TIPS</b>	<b>15</b>
"Sticky spaces": What they are and how to use them.		<ul style="list-style-type: none"><li>• Move your TransWarp card out of slot 7.</li><li>• The data base module in version 2.0 is slower.</li></ul>	
<b>DOCUMENT CHECKER "BUG"</b>	<b>9</b>	<b>ADVERTISING IN THE AppleWorks Forum</b>	<b>16</b>
There's a bug in non-interactive mode in this excellent spelling program.		<b>MEMBERSHIP INFORMATION</b>	<b>16</b>
		Join NAUG today.	

## Support for AppleWorks & ///EZ Pieces Users

# LETTERS

## QUESTIONS ABOUT APPLEWORKS 2.0 AND RAMWORKS CARDS

Dear Cathleen,

Apple's news release about version 2.0 of AppleWorks says the program loads automatically into an Apple memory expansion card. This raises some questions:

1. Will version 2.0 load automatically into a RamWorks II card? If not:
2. Can you use the Applied Engineering Desktop Expander program to load version 2.0?
3. Will the entire AppleWorks program, including the printer function, load?
4. Is version 2.0 the same as version 1.3 in that loading onto an Apple card and a RamWorks II card of the same size results in (a) more memory available in "desktop memory" with the Apple card and (b) larger limits in the number of records that fit in the the data base and word processor files with RamWorks II? (For example, the Applied Engineering Desktop Expander program allows a data base user a possible 15,000 records on RamWorks II, while the Apple card only allows 1350 records but will store approximately 20% more data than the same size RamWorks II.)

Vincent Barrett  
West Falls, NY

[Ed: 1. Version 2.0 of AppleWorks only loads automatically into an Apple //gs or into memory expansion cards that fit in the peripheral slots at the back of an Apple //e (such as the Apple memory or RamFactor cards). As with earlier versions of AppleWorks, you need special "desktop expansion" software to load version 2.0 into memory cards that fit in the auxiliary slot of the //e or into the //c. So, version 2.0 does not load automatically into the RamWorks, Ultra-Ram, and Checkmate Technology cards; they are auxiliary slot cards.

2. You need updates of the desktop expansion software to use version 2.0 with the auxiliary slot cards. The December, 1986 issue of the **Forum** includes a list of the version 2.0 compatible updates of these programs. However, note this change: You need the new AppleWorks 2 Expander software from Applied Engineering to use a RamWorks card with version 2.0 of AppleWorks. Until now, Applied Engineering referred to this product as version 6.0 of the AppleWorks Super Desktop Expander. See the "Latest Versions" article in this issue of the **AppleWorks Forum** if you have a RamWorks card.

3. When you enhance version 2.0 with the desktop expansion software, you can load the version 2.0 printer overlays into your RamWorks card.

4. The file size limitations of version 2.0 of AppleWorks are much larger than the limitations of earlier versions of the pro-

gram. Using version 2.0 with the appropriate memory expansion software and a sufficiently large memory expansion card, you can store approximately 22,000 records on Applied Engineering and Checkmate Technology cards. With an unenhanced version of AppleWorks 2.0, you can store approximately 7,000 records on an Apple memory card.

Checkmate Technology appears to make the most efficient use of your computer's memory. The Checkmate MultiRam software lets you declare the maximum number of records you want to load into memory. If you declare a small number, the Checkmate software configures the memory expansion card to let you handle larger word processing and spreadsheet documents. If you declare a large number, the software reserves space to keep track of that larger data base file.

No matter which product you use, remember that as your files grow, so will the time necessary to manipulate records in your data base. The large file sizes available in version 2.0 are generating increased interest in "speed-up" cards such as the TransWarp card from Applied Engineering.]

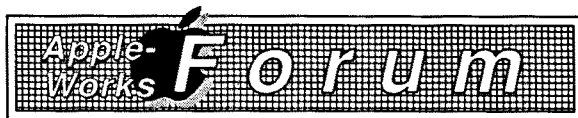
## NEED MORE MEMORY IN RAM DISK – USING PINPOINT DOCUMENT CHECKER

Dear Cathy,

I followed the directions on how to copy files onto a RAM disk in the November issue of the **Forum**. I think I'm getting the hang of this and I see some obvious advantages to using a RAM disk. However, I'm not convinced it pays to do all the work of loading these files onto the RAM disk just to write a couple of short letters.

A problem: When I tried loading AppleWorks, the Pinpoint Document Checker, the Pinpoint spelling dictionary and Copy II+ into the RAM disk, it didn't work...it said my disk was full. Am I stuck, or can I get more onto my RAM disk?

The **National AppleWorks Users Group (NAUG)** is an association that supports AppleWorks users. The group provides assistance to members and information about the AppleWorks program and applications of the program. Our primary means of communication with members is through the monthly newsletter entitled the **AppleWorks Forum**.



Editor: Cathleen Merritt

Design & Laser ImageSetting: Don Shall, The PaperWorks

Publisher: **The National AppleWorks Users Group**

© COPYRIGHT, 1987, by NAUG, the **National AppleWorks Users Group**, for the exclusive use and enjoyment of its members. Any reprint or reproduction must be approved, in writing and in advance, by NAUG.

The "AppleWorks Forum" is published monthly for \$24 per year by the **National AppleWorks Users Group**, 43566 Applewood, Canton, Michigan 48188. Application to mail at Second-class postage rates is pending at Westland, Michigan.

POSTMASTER: Send address changes to **AppleWorks Forum**, NAUG, P.O. Box 87453, Canton, MI 48187

In addition, when I used the Pinpoint Document Checker, I ended up with a bunch of tildes (~) in my file...they appeared before and after several words. There seemed to be no logic as to where they appeared. Any idea what happened?

Bob Strong  
Portland, OR

[Ed: 1. If you have a 512K or larger memory expansion card in your Apple, you should be able to load more onto your RAM disk. However, you will have to change the default configuration in your RAM disk software to increase the size of the RAM disk and decrease the size of the AppleWorks desktop.

Each vendor of memory expansion cards gives you (a) the software necessary to configure that card as a RAM disk, and (b) programs that can change the default configuration.

If you are using an Applied Engineering card, boot the Super Desktop Expander, get into BASIC, and run a program called PARTITION. (To run that program, get the BASIC prompt on the screen and type -PARTITION). You can then allocate more memory for the RAM disk feature on the card...at the cost of reducing the desktop space available for AppleWorks files. Then return to the BASIC prompt, insert the Copy II+ disk, and type -UTIL.SYSTEM to run Copy II+.

If you have a Checkmate Technology card, the program necessary to change the allocation of memory between the RAM disk and AppleWorks data files is part of the MULTIRAM.PRO file and is accessed by selecting MULTIRAM.PRO from the MultiRam Utilities Menu. Boot up your Apple using the **back** side of the MultiRam disk and indicate you want to "customize" MULTIRAM.PRO. After you customize MULTIRAM.PRO to increase the size of your RAM disk, return to BASIC, insert the Copy II+ disk, and type -UTIL.SYSTEM to run Copy II+.

But before doing this, read Hal Heidtman's article on how to configure an auto-boot AppleWorks disk in this month's **AppleWorks Forum**. His suggestions can save you time and effort.

2. The tildes inserted by the Pinpoint Document Checker are meaningful and important. The Document Checker gives you the capability to correct spelling errors from within the spelling program...you do not have to return to AppleWorks to correct your errors. However, the Document Checker does not reformat your AppleWorks document if you delete a word or replace it with a word that is longer or shorter than the original. Instead, it places a tilde in the file near the point where reformatting is necessary. When you're done checking your document, Document Checker warns you that your file needs reformatting. If you get that message, you should return to AppleWorks, load the files that require reformatting onto the desktop, and use the Find command (Apple-F) to find all the tildes. Remove each tilde and check the spacing of words near that point in your document. Most of the time, simply removing the tilde will reformat your document.

Since you have to load the document back into AppleWorks to print your file anyway, the need to locate and delete the tildes doesn't add much to your workload.

Remember that Document Checker preserves the original copy of your file on the disk. Delete the backup files using option number four on the Other Activities Menu.

In my opinion, the speed and convenience of the Pinpoint Document Checker, particularly when run from a RAM disk, makes the overhead worthwhile.]

---

## LIBRARY USERS GROUP USES APPLEWORKS

Dear Cathy,

I thought members of **NAUG** might be interested in the Apple Library Users Group (ALUG), an association of 7,500 librarians from the U.S., Canada and other countries.

Our main method of communication is through the Apple Library Users Group Newsletter. We've managed to keep publication of the newsletter on schedule with four issues a year in January, April, July and October and I continue to be impressed with the quality of the contributions to our newsletter.

Another project of ALUG is the Apple Library Template Exchange. The Template Exchange includes approximately 500 templates contributed by members, over 400 of which are AppleWorks templates. Librarians have designed AppleWorks templates for printing catalog cards, generating overdue notices, special collection catalogs, bibliographies and the like. Please write to ALUG for a catalog of templates.

Membership in ALUG is free. Send me a letter and I will add you to our mailing list.

Monica Ertel  
Apple Library Users Group  
Apple Computer  
10381 Bandle Drive  
Cupertino, CA 95014

[Ed: Thanks to Monica and Apple Computer for sending **NAUG** copies of the excellent ALUG newsletter and the AppleWorks templates. John Denzer and Marilyn Machette, the **NAUG** public domain librarians, added those files to our growing collection of public domain disks.]

---

## PROBLEMS WITH UNDERLINING ON EPSON FT AND SPIRIT 80 PRINTERS

Dear Cathleen,

I have an Mannesmann Tally Spirit 80 printer that I've entered as a custom printer. But I can't get the printer to underline properly. I've entered the codes ESCAPE, hyphen, and the

(LETTERS, Continues on Page 4)

number 1 for underline begin as indicated in the manual... but that doesn't work. Any suggestions?

William Bartley  
Columbia, Maryland

*[Warren Williams replies: Your Mannesmann Tally Spirit 80 printer emulates the older Epson FT printers. Unfortunately, the Epson FT printers are not on the AppleWorks printer menu and the printer control codes differ from those used by the FX printer that is on the menu. So if you have an Epson FT, a Spirit 80, or some other Epson FT-compatible printer, you will have to configure your printer as a "custom printer" in AppleWorks.]*


*To complicate matters further, your printer manual has the same ambiguities and errors that appeared in the Epson FT manuals. It's almost impossible to figure out how to turn underline on and off from those manuals.*

*To turn underline on with Epson FT-compatible printers, enter:*

*ESCAPE, a hyphen, and a Control-A (a Control-A generates the ASCII equivalent of the binary value of one.)*

*To turn underline off, enter:*

*ESCAPE, a hyphen, and a Control-@ (a Control-@ generates the ASCII equivalent of the binary value of zero.)*

*And here's another problem...I can't get version 2.0 of AppleWorks to accept a Control-@ in the printer specifications. Until we can resolve that, you'll want to use an earlier version of the program.]* 

## AUTO – BOOT DISKS

### CREATING AUTO-BOOT DISKS FOR RAMWORKS CARDS

by Hal Heidtman

An auto-boot AppleWorks disk is a startup disk that:

1. configures your RAM card so it serves as a RAM disk,
2. automatically loads AppleWorks and other programs onto the RAM disk, and
3. runs AppleWorks from the RAM disk.

Last month, Mark Conley described how to set up an auto-boot disk for a Checkmate Technology memory card. This month, I will describe how to prepare a similar auto-boot disk for Applied Engineering RamWorks cards.

I will assume you have at least a 1 megabyte RamWorks card. If you have less than 1 megabyte of memory, you will have to adjust some of the sizes suggested in the configuration procedures described below.

### What you will need

Here's what you will need to create your auto-boot disk:

1. A blank disk.
2. A copy of the AppleWorks Super Desktop Expander disk (supplied by Applied Engineering with your RamWorks card).
3. A disk formatting and file copying program such as those available on the Copy II+ or the Apple System Utility disks.
4. A copy of your AppleWorks Startup and Program disks.

In addition, if you are using version 2.0 of AppleWorks, you will need the AppleWorks 2 Expander from Applied Engineering. [Ed: For more information about the AppleWorks 2 Expander, see the article "Latest Versions: Applied Engineering Software Update" in this issue of the **AppleWorks Forum**.]

### Getting started

Follow these steps to prepare your auto-boot disk:

1. Enhance your copy of AppleWorks using the AppleWorks Super Desktop Expander (for AppleWorks versions 1.3 and earlier) or the AppleWorks 2 Expander (for AppleWorks version 2.0). Set the autoload feature to "NO" when enhancing your AppleWorks disk.
2. After the changes are made to AppleWorks, boot up your computer with Copy II+, the System Utility Disk, or another disk containing disk formatting and file copying programs.
3. Format a blank disk and give it the volume name "/AW".
4. Use the "copy files" feature of the copy program and copy the following files to the new /AW disk:

A. From the Applied Engineering Super Appleworks Desktop Expander disk, copy the following files in the order given below:

- (1) PRODOS
- (2) BASIC.SYSTEM
- (3) PRODRIVE
- (4) AUTOCOPY
- (5) GET.LEN
- (6) PARTITION

It is important that the file BASIC.SYSTEM be the first system file on the disk; make certain you copy the files in the exact order listed above.

B. From the AppleWorks Startup disk, copy all the files except ProDOS.

### Defining the size of your RAM disk

Now you will specify the size of your RAM disk. Follow these steps:

1. Boot the new Startup disk (/AW). When booted it will leave you in BASIC.
2. Then type -PARTITION (in ProDOS, the hyphen is a substitute for the RUN command) and press the RETURN key.

3. Select choice "A" from the menu to indicate you want to modify both Appleworks and the ProDrive program.

4. Use the arrow keys to allocate at least 512K of memory to the RAM disk, then press the RETURN key.

5. At the "?" prompt, type /AW/PRODRIVE and press the RETURN key.

6. Next type /AW/APLWORKS.SYSTEM and press the RETURN key (File names can only be 15 characters long; APLWORKS.SYSTEM is the correct spelling). When this step is complete, the program will leave you in BASIC.

7. Type NEW and press the RETURN key. Then type the following:

```
10 PRINT CHR$(4)"-PRODRIVE" and press the
   RETURN key
20 PRINT CHR$(4)"-AUTOCOPY" and press the
   RETURN key
```

8. Now type SAVE STARTUP and press RETURN. This will save the two line program called STARTUP on the disk.

### Modifying AUTOCOPY

The next step is to modify the AUTOCOPY program so it knows which files you want copied to the RAM disk. You modify AUTOCOPY as follows:

1. Type LOAD AUTOCOPY and press the RETURN key.

2. Type LIST 40-50 and press the RETURN key.

This is what you will see on the screen:

```
40 PROMPT = YES
41 ASKFILE = NO
42 EXITFILE$ = "/"
44 MULTIVOL = NO
45 MV$(0) = "/?": MU$(0) = "/"
46 MV$(1) = "/?": MU$(1) = "/"
47 MV$(2) = "/?": MU$(2) = "/"
48 MV$(3) = "/?": MU$(3) = "/"
49 MV$(4) = "/"
```

3. If you are working with 5.25 inch disks, you will want a prompt to tell you which disk to put in the drive; therefore leave line 40 alone. If you are using 3.5 inch disks and do not want to be prompted for the name of the disk to put in the drive, change line 40 to read "NO". To do that, type

```
40 PROMPT = NO and press the RETURN key.
```

4. Line 41 controls whether or not you are asked to confirm each file before it is copied to the RAM disk. If you change it to "YES", you will significantly lengthen the time necessary to boot up AppleWorks; I recommend that you leave it at "NO".

5. Line 42 should be changed to indicate that you want to run AppleWorks from your RAM disk after programs are loaded onto the RAM disk. Type the following:

```
42 EXITFILE$ = "/RAM/APLWORKS.SYSTEM" and
   press the RETURN key.
```

6. If you use 5.25 inch disks, your files are on several disks, so line 44 should be changed to "YES". To change this line, type the following:

```
44 MULTIVOL = YES and press the RETURN key.
```

7. Lines 45 - 49 ask the volume name of the disk(s) on which the files are located and the volume name of the disk(s) to which you want to copy. In our case we want to copy our files onto /RAM, the name assigned to the RAM disk.

We will start by copying the AppleWorks Startup and Program disks onto /RAM, so we must modify AUTOCOPY to expect those files. Type the following to replace lines 45 and 46 (since we have two disks named "APPLEWORKS" we need to modify two lines in AUTOCOPY):

```
45 MV$(0) = "/APPLEWORKS" : MU$(0) = "/RAM"
   (That's "MV$(zero)" not the letter "oh". Also, don't
   forget the colon.)
46 MV$(1) = "/APPLEWORKS" : MU$(1) = "/RAM"
```

Now we can modify AUTOCOPY to accept additional programs we want to load onto the RAM disk. For example, we may want to load in the Pinpoint accessories (which are on a disk named /ACCESSORY). To do that, type the following:

```
45 MV$(2) = "/ACCESSORY" : MU$(2) = "/RAM" and
   press the RETURN key.
```

8. To load the dictionary file for the Pinpoint Spell Checker, type the following:

```
46 MV$(3) = "/PP.DICT" : MU$(3) = "/RAM" and press
   the RETURN key.
```

9. Change lines 45 through 49 as necessary to load files from other disks onto your RAM disk. Delete the lines you do not use by typing the line number and pressing the RETURN key.

10. To save your changes, type SAVE AUTOCOPY and press the RETURN key.

You are now ready to boot your new Startup disk. Here's what should happen when you boot that disk:

ProDOS will load followed by BASIC.SYSTEM, which calls the STARTUP file, which in turn loads PRODRIVE to set up the RAM disk. After the RAM disk is loaded, the program automatically runs the AppleWorks system file.

### Some additional ideas

If you have enough memory, you may want to set up a large RAM disk and load the AppleWorks program, Pinpoint accessories, and Pinpoint Document Checker onto the RAM disk. The Pinpoint Spelling Checker and Document Checker share the same dictionaries, so you only have to load one set of dictionaries onto the RAM disk.

If you are using 3.5 inch disks, set up your disk so all the files to be loaded onto a RAM disk are contained in one sub-directory. I call mine /AW/RAMDISK (disk volume name /AW

(AUTO BOOT DISKS, Continues on Page 6)

and subdirectory name /RAMDISK). In the AUTOCOPY file, I set line 40 to read:

40 PROMPT = NO.

Line 42 is changed to read:


42 EXITFILE\$ = "/RAM/APLWORKS.SYSTEM"

and line 45 is changed so the program loads from /AW/RAMDISK. I deleted lines 46 - 49. When I boot this disk, it configures my memory card as a RAM disk, loads the files onto that "disk" and automatically runs AppleWorks.


Another idea is to replace the original copy of ProDOS that is on the AppleWorks disk with the enhanced ProDOS from the MacroWorks or AutoWorks disk. If you use this "new" version of ProDOS, you do not need to remember the system file names to move between applications; you can select your next application from a menu of files that appears when you leave AppleWorks. [Ed: See Mark Conley's article on page 6 of the December, 1986 issue of the **Forum** for information about this enhanced ProDOS.]

Experiment with the AUTOCOPY file to customize the auto-load combination to fit your own needs.


[Ed: NAUG recently obtained a copy of RAMUP, a program that automatically configures your Applied Engineering card as a RAM disk and prompts you to load files onto the "disk". We will review RAMUP in a future issue of the **AppleWorks Forum**.]

[Hal Heidtman is an Associate Principal at Anthony Wayne High School in Whitehouse, Ohio. He is a technical advisor to NAUG, a member of the NAUG Editorial Review Board, and conducts AppleWorks seminars for NAUG throughout the country.] 

## BACK ISSUES AVAILABLE

Back issues of the **AppleWorks Forum** are available for \$3.00 per issue, including postage. An index appears in the January, 1987 issue. Please send your check and request to NAUG at the address on the back cover. 

## NEXT MONTH'S AppleWorks Forum

- Δ How to select between the data base and spreadsheet modules.
  - Δ How to reprint selected labels from a data base.
  - Δ Overcoming AppleWorks' limitations as a non-WYSIWYG word processor.
  - Δ How to print on 3-across labels.
  - Δ Tricks and techniques with FontWorks.
  - Δ How to use AppleWorks with 3.5 inch disks.
  - Δ How to link two spreadsheets.
  - Δ Tricks for setting up spreadsheet templates.
  - ...and much more.
- 

## LATEST VERSIONS

### Applied Engineering Software Update

While version 2.0 of AppleWorks looks similar to earlier versions of the program, it includes major changes in the way AppleWorks uses memory. These changes make it necessary for manufacturers of memory expansion cards to re-write their desktop expansion software so AppleWorks can use those cards.

If you want to use version 2.0 of AppleWorks with an Applied Engineering (AE) RamWorks, Z-RAM, Ultra-RAM or GS-RAM memory expansion card, you should get AE's AppleWorks 2 Expander program (version 1.1). The AppleWorks 2 Expander patches version 2.0 so it can make use of your additional memory. In addition, the Expander:


1. modifies AppleWorks so you can create larger files. (For example, with the Expander you can store over 22,000 records in an AppleWorks file; without the Expander the limit is approximately 7,000 records).
2. increases the size of the clipboard so you can move more data between applications.
3. lets you define an area on your card as a print buffer so you can continue to work while your printer produces long documents and reports.

[Note: Applied Engineering earlier called this product version 6.0 of the AppleWorks Super Desktop Expander. The name has been changed. Version 5.3 of the Super Desktop Expander is still available for users of earlier versions of AppleWorks.]

#### Limitations

1. If you have a RamFactor card, you can also benefit from the AppleWorks 2 Expander because it lets you build larger files. However, you cannot get print buffering with a RamFactor card used with version 2.0 of AppleWorks. For the moment, at least, if you want print buffering, RamFactor owners should continue using version 1.3 of AppleWorks.
2. The AppleWorks 2 Expander will not work on an Apple II+. If you are using a RamFactor card on an Apple II+, don't upgrade to version 2.0 of AppleWorks.
3. The AppleWorks 2 Expander only works with version 2.0 of AppleWorks. It does not work with earlier versions of the program. If you have an earlier version, use the AppleWorks Super Desktop Expander, version 5.3, available from AE.

The AppleWorks 2 Expander is available at no charge from AE dealers or for \$10 from Applied Engineering, Box 798, Carrollton, TX 75006 (214) 241-6060.

If you have a Checkmate Technology card, version 5.0 of the MultiRam expansion software works with version 2.0 of AppleWorks. 

# SOFTWARE REVIEW

## DOING YOUR TAXES WITH 1040WORKS

by Bert Greene

[Ed: This review is based on a careful examination of the 1985 version of TaxWorks, a cursory review of the 1986 version, and discussions with Phineas Fiske, the program's author.]

'Tis the season. I am once again faced with the need to make an accounting to Uncle Sam. If you must file a tax return (and who doesn't), if you complete your own tax forms, and if you use AppleWorks, you should consider 1040Works. 1040Works (née "TaxWorks") is a series of AppleWorks spreadsheet templates that do much of the work necessary to help you prepare your tax return.

The first thing that should peak your interest in 1040Works is the price. At \$23.95 for the 128K version and \$26.95 for Apples with 256K or more of RAM, this is probably the lowest priced tax program available. The "standard" version of 1040Works runs on a 128K Apple and divides the basic 1040 tax form into two segments. The expanded ("X") version of the program puts the complete 1040 form into a single worksheet. The "X" version is easier to use, although the "standard" version is certainly workable. However, the "X" version requires you to have at least 256K of RAM in your Apple.

What one gets for this price is a tax program that will prepare your basic 1040 form and Schedules A,B,C,D,E,F,G,R,SE, and W. In addition, 1040Works completes forms 2106 (Employee Expenses), 2119 (Sale of Primary Residence), 2441 (Child-Care Expenses), 3903 (Moving Expenses), 4562 (Depreciation), 4972 (Lump-Sum Pension Distributions), and 6251 (Alternative Minimum Tax).

The program comes with a number of utilities that make it easier to use 1040Works. For example, the author includes macros for AutoWorks, MacroWorks, Super MacroWorks and KeyPlayer that facilitate data entry into your spreadsheet if you have any one of these four AppleWorks enhancements. In addition, the Utility disk that accompanies 1040Works has a short tutorial introducing 1040Works, a financial organizer to help you sort out your tax information, a W4 template to help you complete that unbelievable new W4 form, and a file called "Paper" that produces lined paper in case you run out of the green bar paper shipped with 1040Works (the IRS requires you to use lined paper if you don't use standard IRS forms).

### Strengths of the program

Aside from its attractive price, this program has several strengths that recommend its use. First, it is a template based on a spreadsheet, so spreadsheet users should find

it easy to learn and use. Furthermore, because it is a spreadsheet, many of the forms are side by side; you can jump to almost any form without having to go through menus and long disk accesses. (Those are the bane of many Apple tax programs I've tried.) In 1040Works you can jump directly to the appropriate cell. If the memory in your Apple is large enough, you can keep all the forms on the desktop and quickly switch between them with the Apple-Q command.

Although a novice can use this program, the better one knows AppleWorks, the easier it is to use 1040Works. If you've used the AppleWorks spreadsheet, there is virtually no learning time needed; you can begin to use the program immediately.

Data entry into 1040Works is fast and easy. In some cases, the program includes a data entry area so you don't have to skip around the standard Form 1040 layout. And calculations are suppressed while you enter data into the spreadsheet, so most of the time spent at the computer is useful input time.

As in any spreadsheet, there are cells containing formulas and labels that should not be manipulated by the user. Those cells are protected so the user cannot write to them. It is virtually impossible to damage the template itself.

The 1986 version of the program has some features not included last year. These include the helpful and clever keyboard macros mentioned earlier and a spreadsheet that computes the depreciation on newly acquired property.

### "Data porting"

Of course, the federal tax forms are too large and numerous to include in a single template, even on an Apple equipped with an expanded memory card. 1040Works overcomes this limitation by separating the forms into different AppleWorks spreadsheet files. The author uses a technique called "data porting" to move data from one worksheet to related tax forms. The process is relatively easy. [Ed: For more information about "data porting" see the *Spreadsheet Tips* article in this issue of the **AppleWorks Forum**.]

### Weaknesses of 1040Works

The spreadsheet-based nature of the program puts some constraints on its design. For example, while the spreadsheet is fast and easy to understand, 1040Works does not offer some of the features of the more expensive tax computation programs. While it might not be fair to compare 1040Works to tax computation programs that cost between \$60 and \$250, the quality of 1040Works invites that comparison.

1040Works provides relatively few "work areas" where you can list the items that contribute to a total that appears on your tax form. By contrast, using "Tax Advantage" (a \$60 dedicated tax program), you can enter a list of all your conferences attended onto a separate "page". The computer

(1040WORKS, Continues on Page 8)



inserts the total in the appropriate place on the tax form and prints the itemized list for use if you are "invited" to do a command performance before the IRS. 1040Works has no place to store those notes.

It is difficult to do "what if" calculations with 1040Works. Although playing "what if" is generally one of the strengths of spreadsheets, the design of 1040Works requires that you "port" data from one spreadsheet to another. That makes "what if" calculations too tedious. (This should be somewhat easier on the "X" version of the program, but I did not test that version.)

Another weakness of the program is its inability to show you the consequence of each data entry on your total federal income tax. You cannot tell your tax position until after the taxes are calculated. Thus, if you need to make a decision about whether or not to place money in an IRA account, you would have to calculate your taxes under two conditions (the IRA being the variable) in order to make an intelligent decision. By contrast, some tax programs let you watch the impact of each entry on your total tax, so you can complete your tax forms and then manipulate variables you control (e.g., IRA and Keogh investments) and immediately see the impact of those decisions on your taxes.

Many of the 1040Works templates replicate the IRS forms. As a result, taxpayers with several investments may find that they run out of space. For example, on Schedule A (Itemized Deductions), you are required to list the interest you paid others. After listing your interest payments for a home mortgage and a credit card, there are only four lines for other interest payments. For some people this is inadequate. You can work your way around this problem by inserting the combined interest from a number of sources and including that list with your filed return, but that is clumsy and inelegant.

### **Problems filing multiple Schedule C's**

This is also a problem for taxpayers who must file more than one Schedule C. My technique is to use 1040Works to fill out separate Schedule C's for each business and then complete an additional Schedule C that contains the totals from all the other forms. I submit the separate Schedule C's to the IRS, but use the combined schedule to generate the correct numbers to carry over onto the Form 1040.

### **Other minor problems**


Data entry into 1040Works should be made with the "overwrite" cursor, and one of the problems I experienced was caused by the need to use the Apple-E to keep the "overwrite" cursor on the screen. Although the documentation clearly indicates the need to use the "overwrite" cursor, I found that when I turned the machine off and later returned to 1040Works, I sometimes forgot to enter an Apple-E.

Finally, 1040Works does not automatically round your entries. The user will probably want to remember to round to the nearest dollar.

## **Conclusion**

While it is true that this template is AppleWorks based, it is definitely not for AppleWorks beginners. Although it is possible for an AppleWorks beginner to use this program, it will require some effort. On the other hand, if one is near a decision about whether or not to learn the AppleWorks spreadsheet, this program makes learning that module worth while.

If your income tax is relatively simple and not complicated by numerous side businesses, interest payments, and dividends, 1040Works may be the program for you. If you file a complex tax return, you can still use this program, but it becomes more labor intensive. At tax deductible prices of \$23.95 for the "standard" version and \$26.95 for expanded Apples, it's a bargain.

*[Bert Greene is a Professor in the Teacher Education Department at Eastern Michigan University and is a frequent contributor to the AppleWorks Forum.]* 

## **WORD PROCESSOR TIPS**

### **"STICKY SPACES": WHAT THEY ARE AND WHEN TO USE THEM**

by Cathleen Merritt, Editor

One of the differences between beginning and advanced users of a word processing program is the recognition of the importance of the word processor's formatting commands. For example, beginners often "paint" the screen...they move the cursor to where they want something to appear and type it there. At other times, beginners will insert extra spaces to align text.

Advanced users recognize that if they use the program's formatting commands correctly, they can later add or delete text from their documents without concern about the impact of those editorial changes on the format of the document. On the other hand, "painting" the screen or inserting spaces can return to haunt the beginner if he reformats his work.

The "sticky space" (Apple-Space Bar) is one of many AppleWorks formatting commands that insures your final document remains correctly formatted; even when you add or delete text or change the type style or margins.

#### **What is a "sticky space"?**

Like most word processing programs, AppleWorks offers "word wrap". When a word doesn't fit on a line, AppleWorks "wraps" the word onto the following line. The program treats spaces as "word breaks"; each time AppleWorks sees a space, it thinks you are starting a new word. If the new word will not fit on the same line as the previous word, the new word is moved to the next line.

But there are times when a space does not truly designate a new word, or times when you don't want words separated onto two different lines. For example, if you enter the date



November 9, 1986 you don't want "November" to appear on one line and the number "9" to start the next line. Similarly, you don't want "1986" to start a new line. So AppleWorks lets you insert "a sticky space", a different type of "space", between "November" and "9" and between the comma and "1986".

A "sticky space" is a command to AppleWorks to insert a space between two words but to not split those words onto two different lines. In the example above, you would put "sticky spaces" between "November" and "9" and between the comma and "1986". When printing, AppleWorks will check to see if November 9, 1986 fits on one line. If it does, AppleWorks will print it all on that line. However, if the entire date will not fit on the line, AppleWorks will not split the date at a sticky space...and the entire date will be moved to the following line.

### ***When to use a sticky space***

Use a sticky space if you don't want AppleWorks to split text between two lines when there is a space between two words or characters. For example, use sticky spaces between words in a date, between numbers in a list of numbers, between characters in a chemical formula and between words in a name. Use the sticky space consistently ...not only when the space appears near the end of a line. Remember, you want to be able to modify the text in your document without concern for formatting. While the name "Robert J. Renolds" may fit on one line now, it might be split across two lines if you change your margins or print style or modify the text in your document. It's helpful to get in the habit of using a sticky space between any two words you want to appear on the same line.

### ***How to generate a sticky space***

To insert a sticky space, hold down the Apple Key and press the space bar. A caret (^) will appear. If you put the cursor on the caret, a message at the bottom of the screen confirms that you inserted a sticky space.

Remember, the sticky space is a substitute for a regular space. Don't insert regular spaces in addition to the sticky space. So the date used in our example above will appear on the screen as "November^9,^1986".

## **PINPOINT DOCUMENT CHECKER "BUG"**

by Cathleen Merritt, Editor


There appears to be a "bug" in version 1.0 of The Pinpoint Document Checker. Document Checker has both interactive and non-interactive modes. While in interactive mode, Document Checker scans a document, shows you each unrecognized word, suggests alternative spellings, and lets you decide whether to correct the word, add the word to the dictionary, or skip the word. Interactive mode is the most frequently used mode, and it works properly.

However, Document Checker also offers a non-interactive mode; a "batch processing" capability. In this mode, Document Checker lets you specify a list of files to be checked, checks the files on the list, and writes all unrecognized words into an ASCII file called DOCUMENT.LOG on your data disk. You can then read DOCUMENT.LOG into AppleWorks' word processor as a text (ASCII) file and look for misspelled words.

Non-interactive mode is very useful if you write a lot of letters, short notes or articles. You can do your writing and check all files while the computer is unattended. That's how I check the articles submitted to the **AppleWorks Forum**.

While in non-interactive mode, Document Checker works properly on a few files. But after checking a few files, the program fills the DOCUMENT.LOG file with garbage until your disk is full and then generates an error message that it cannot access DOCUMENT.LOG. Nothing is ruined on your data disk; your files are intact, and your first files are checked correctly. After correcting the words listed in DOCUMENT.LOG, you can delete that file and check additional documents on your list. However, this bug does limit the power of the non-interactive mode of Document Checker.

We contacted Pinpoint about this problem and expect that a fix is in the works. Make certain you register your copy of Document Checker so you get notices of updates to the program.

Meanwhile, Document Checker remains my favorite spelling checker for AppleWorks. 

**There are over 100 things you can do  
in school with **APPLEWORKS**.  
And **SCHOOLWORKS** does them all.**

Over 100 pre-programmed—and copyable—school application templates help educators make the most out of **AppleWorks**. Why work harder when you can work smarter? Satisfaction guaranteed, so order today! Available as three separate modules for \$55.00 each, \$99.00 for two, or all three for \$125.00.

### **SCHOOLWORKS: OFFICE**

- |                   |                   |
|-------------------|-------------------|
| ■ CALENDARS       | ■ ROOM USE        |
| ■ EVALUATIONS     | ■ STUDENT RECORDS |
| ■ PURCHASE ORDERS | ■ AND MORE!       |

### **SCHOOLWORKS: TEACHER**

- |                |                   |
|----------------|-------------------|
| ■ ATTENDANCE   | ■ PROGRESS REPORT |
| ■ GRADEBOOK    | ■ TEST FILES      |
| ■ LESSON PLANS | ■ AND MORE!       |

### **SCHOOLWORKS: ATHLETIC DIRECTOR**

- |              |                 |
|--------------|-----------------|
| ■ ROSTERS    | ■ PRINT TICKETS |
| ■ STATISTICS | ■ AND MORE!     |

### **K-12 MicroMedia Publishing**

Dept. TH, 6 Arrow Rd.  
Ramsey, NJ 07446  
(800-922-0401)

## **SPREADSHEET TIPS**

### **TRANSFERRING DATA BETWEEN SPREADSHEETS**

by Phineas R. Fiske

*[Ed: This is the first of a two-part series by Phineas Fiske on how to transfer data between AppleWorks spreadsheets. Mr. Fiske developed these data "porting" procedures for 1040Works, a series of federal income tax templates. A review of 1040Works appears elsewhere in this issue.]*

Spreadsheet users who own Version 2.0 of AppleWorks have several advantages over owners of earlier versions. Version 2.0 offers a few new functions including rounding and the ability to move data from one spreadsheet to another without moving the underlying formulas.

If you own an earlier version of AppleWorks and try exporting data from one spreadsheet to another, you will probably have unhappy results. You will find that when AppleWorks copies data from one spreadsheet, it also copies the formulas underlying those figures. When the formulas arrive at their new location, they destroy the very data you are trying to move.

#### **Can you save your data?**

When I was developing 1040Works, Personal Financial Services' tax templates for AppleWorks, I ran into exactly that problem. I decided that the best way to make a useful tax package was to link all the popular tax forms on a single template. But it turned out that there were far too many; they quickly consumed all 55K of RAM available on the Desktop when AppleWorks was running on a standard 128K Apple.

Rather than abandon the principle, I decided to break the spreadsheet in two parts — one representing the front of the IRS Form 1040 and its related schedules, the other representing the back with its forms and schedules — and link them electronically. But prior to Version 2.0, one AppleWorks spreadsheet could not routinely import information from another the way Multiplan can. I needed another way.

It turns out there was one. Just as there are ways to duplicate most of Version 2.0's new functions by combining several of the old ones, there is also a way to trick an earlier version of AppleWorks out of wreaking havoc with unwanted formulas transported along with data from one spreadsheet to another.

The answer is to write formulas that destroy themselves, instead of destroying your data.

#### **Self-destructing formulas**

A self-destructing formula is one that works in one spreadsheet but won't work — that is, won't pick up data or perform arithmetic functions — when it gets to its new home.

Let's say you want to transfer data from spreadsheet "A" into spreadsheet "B". You assemble the data in "A" that you want to move into a single row (call it the Transfer Row). To gather the information, write cell references in the Transfer Row that pick up the values you developed elsewhere in the spreadsheet. For example, if you want to transfer a value that is in cell B20, write the cell reference +B20 in one cell in the Transfer Row. But, as you are now aware, when you move the row to Spreadsheet B, the cell reference +B20 will go looking for the value in cell B20 in its new home, and presto, your data will disappear.

The cure is to make that reference to cell B20 self-destruct. The way to do that is with an @IF statement that refers to some value in Spreadsheet A that's absent in Spreadsheet B. For example, put the number 1 in some distant, unused corner of Spreadsheet A — perhaps cell A100 — and protect the cell, so nobody will change the value. Now rewrite that +B20 formula with an IF statement that starts like this: @IF(A100=1,B20... . Make sure that Spreadsheet B does NOT have the value 1 in cell A100 and protect cell A100 so nobody will put it there.

When the Transfer Row gets to Spreadsheet B, the first thing AppleWorks will do is go looking in cell A100 to see if it equals 1. When it finds no 1 there, it will disregard the second expression in the formula, B20. And that is just what you wanted: You have made the unwanted part of the formula self-destruct.

We are not done, however. For one thing, an @IF statement must have three expressions and there is no third expression in @IF(A100=1,B20... . What should it be? And there's another problem, too.

The reason the Transfer Row contained the data you wanted when it was part of Spreadsheet A was the reference to B20. Now that you moved the row to Spreadsheet B, and disabled the B20 reference, what happens to your data?

#### **Answers to these two questions**

There's one answer to both questions. The third expression in the @IF statement must hold onto the value that you picked up in Spreadsheet A and keep it when the Transfer Row arrives at its new location. The way to do that is to convince the Transfer Row to refer not to some value elsewhere in the spreadsheet but to itself, since the value you wish to transfer is already in your cell. So, as the third expression in the @IF statement, type in the location of the cell where you are writing the @IF statement.

For example, if you are working in cell D30 in Spreadsheet A, complete the formula so it says @IF(A100=1,B20,D30). Now when the @IF statement self-destructs upon leaving Spreadsheet A, it will still hold onto the value that you installed in it.

You may recognize that when the Transfer Row gets to Spreadsheet B, it won't necessarily be in the same row as it was in Spreadsheet A. Won't that destroy the third expression in the @IF statement, which depended on its location in Spreadsheet A? The answer is "No". When the Transfer Row gets where it is going, it rewrites the formula in the @IF statement so the third expression continues to refer to the

cell the formula is in. For example, if you move the Transfer Row from row 30 in Spreadsheet A to row 40 in Spreadsheet B, AppleWorks will revise the formula to read @IF(A100=1,B20,D40).

The only hitch here is that when you move a row from one spreadsheet to another, AppleWorks warns that you may "Clear or Remove Protected Cells." Removing the cells is your purpose, and the warning can be ignored.

So now you've done it. You've moved data from one spreadsheet to another. But don't get smug. It's true you've duplicated one of the capabilities of the new AppleWorks Version 2.0 without spending \$50 for an upgrade. But there's another problem: You may find that Spreadsheet B isn't so eager to recognize the value of the newcomer. There are several methods for dealing with that; next month, we'll have a look at them.

*[Phineas R. Fiske is President of Personal Financial Services, a certified financial planner, and a journalist who writes about economic issues. Personal Financial Services publishes 1040Works, spreadsheet templates that prepare your federal income tax forms. 1040Works, for 128K Apples is available for \$23.95 and 1040Works-X for Apples with expanded memory cards costs \$26.95 from Personal Financial Services, Box 1401, Melville, NY 11747. Telephone (516) 261-8652.]*



## APPLEWORKS ADD-ONS

### REVIEW OF FONTWORKS

by Brian Theil

*[Ed: This is the first of two articles about FontWorks. This month Brian Theil shares evaluative comments about the program. Next month he describes techniques to help you use this add-on.]*

FontWorks, by The Software Touch, is an AppleWorks add-on that promises to improve your printouts. I found this claim to be true.

FontWorks makes it possible to print AppleWorks files in a variety of fonts, ranging from standard computer type to large gothic typefaces. FontWorks lets you incorporate up to four font styles in any one document. It allows changes in font styles within a word, a line, or an entire paragraph. Fontworks will even print AppleWorks files sideways....a definite plus for large spreadsheets.

The different type faces and sizes available in FontWorks increases AppleWorks' versatility. In addition to changing font styles to emphasize key words, phrases and titles, many other uses are possible. For example, unique name tag badges are easy to prepare. Posters too complicated for Print Shop are a breeze with the various fonts. You can also use FontWorks to change the fonts of the titles in spreadsheets for a professional appearance.

#### **FontWorks is easy**

FontWorks is an easy program to learn and use. I configured the program for my system and was printing files in

various fonts in twenty minutes. If you understand the AppleWorks menus, you will understand FontWorks; the menus are similar in appearance and operation. You follow the menu instructions through the processes of font selection, file retrieval and printing. It is that easy.

FontWorks will print word processor and spreadsheet files directly from your data disk. However, database files must be "printed" to the clipboard first and transferred into a word processor file. The word processor file can then be printed, using the various type styles and sizes.

FontWorks requires a graphics-capable dot matrix printer. The program is pre-configured for most graphics capable printers including all Apple dot matrix printers, and all dot matrix printers produced by C. Itoh, Epson (except non-Grafrax equipped FX-80s), IDS, Legend, Mannesmann Tally, NEC, Okidata, Panasonic, Star, and Transtar.

The program works with all Apple printer interface cards as well as with the following cards: Apricorn, CCS, Dispatcher, Dual-Com, Dumpling, Epson, Fingerprint, Grafstar, Graphicard, Grappler, Microbuffer, Microtek, Mountain Computer, MPC, Omnigraph, Pkaso, Pretty Print, Printer Pro, Printerface, Printermate, Quadram, Spies, Texprint, Tymac, Versacard, Videx, and Wizard.

Configuring FontWorks for your printer / interface card combination is easy...you select your printer and interface cards from menus.

The documentation is adequate and easy to follow. The tutorial is helpful. The wrap-around feature in FontWorks takes the worry out of changing the size of the fonts; your documents are automatically reformatted as you change type sizes.

#### **Disadvantages of FontWorks**

Unfortunately, FontWorks is not without some disadvantages. These include the following:

1. When using FontWorks, you modify your original AppleWorks file by inserting AppleWorks formatting codes such as boldface, superscript and subscript codes that FontWorks intercepts. FontWorks then changes into the fancy character sets you specified. However, if you want to retain your original document for normal printing, you must create a duplicate AppleWorks file before inserting the formatting codes.

2. Turning individual fonts on and off in a lengthy document is tedious. You must insert boldface, superscript and subscript codes into the document to turn on and off the second, third, and fourth font choices. Any unaltered text is printed in the first (default) font choice. Once these codes are inserted in the file, only FontWorks will print the intended style document. If you also want to print in regular AppleWorks fonts, you must use the original file...so editing changes must be made to both files.

3. FontWorks does not let you mix large and small character sets effectively. It sets up spacing for the largest character set you specify, and this limitation keeps you from mixing

(FontWorks, Continues on Page 12)

large and small characters in a document. While this limitation is not described in the manual, it was confirmed in a call to The Software Touch.

4. Printing in FontWorks can be a slow, tedious process, particularly when you want to print lengthy documents. FontWorks uses the graphics mode of your printer. You'll have to be patient.

### ***I recommend the program***

All in all, the advantages of this versatile font program made especially for AppleWorks outweigh its shortcomings. If you have a dot matrix printer and want to add variety to your AppleWorks output, I believe that FontWorks deserves a place in your software library.

*[Ed: FontWorks is available for \$49.95 from The Software Touch, 9842 Hibert Street, Suite 192, San Diego, California 92131. The program is also available from mail order discount distributors. Version 2.05 is current.]*

*[Brian Theil, a graduate of the Educational Technology program at Eastern Michigan University, is a compensatory education teacher in the Taylor (MI) Public Schools.]*



## **DATA BASE TIPS**

### **HOW TO GET MORE THAN THREE SELECTION RULES**

by Warren Williams

Every program has limitations, but the program developer's task is to provide enough flexibility so we can circumvent those limits. While AppleWorks has some serious shortcomings, one of its greatest strengths is its flexibility...the power it gives us to circumvent its limitations.

One of the most troublesome limitations in the AppleWorks data base is the fact that the selection of records from a file is limited to only three selection "rules". For example, AppleWorks will easily find all people in your Address Book who (1) were born in January, (2) are a member of your family, and (3) should get a birthday card. However, it will not let you add a fourth selection criterion. That is, you cannot also specify that you want to only select children from the data file.

There are numerous ways to circumvent this problem. For example, you can develop a sophisticated coding scheme to differentiate family members who are adults from those who are children. However, coding schemes are often complex and difficult to implement. The solution described here does not require you to anticipate all your selection criteria before you enter data. This procedure lets you use as many rules as you like when selecting records from your data base. *[Ed: For more information about using codes in an AppleWorks data base, see the article entitled "When and How to Use Codes in Your Data Base" in the October, 1986 issue of the Forum.]*

### **How to get more than 3 selection rules**

Here's the general idea:

1. Use the first three selection criteria to develop a sub-set of your total file.
2. Save those records on the clipboard.
3. Delete all records from the file.
4. Copy the selected records from the clipboard.
5. Apply the next three selection rules.

You repeat this process as often as necessary to identify the records you want to select.

### **Step-by-step procedures**

Here are the step-by-step procedures. I will assume you already established your data base file and know how to use the various AppleWorks commands such as Delete, Insert and Copy.

While using these procedures, you might get a warning message that you are exceeding AppleWorks' space limitation on the clipboard. If that happens, see the section entitled "Working with Large Files" later in this article.

1. Bring your data base file onto the desktop.
2. Change the name of your file with the Apple-N command. I suggest a name such as "WORK FILE". During this procedure, you will be deleting records from the data file. You don't want to accidentally save your new file and over-write the complete data file; by changing the name you eliminate this possibility.
3. Get the multiple record layout on the screen using the Apple-Z command. Do all your work in the multiple record layout mode.
4. Use the Record Selection Rules (Apple-R) command to select records that meet your first three criteria. Try to implement the selection rules that eliminate the greatest number of records first.
5. Use the Apple-M command to move the selected records onto the clipboard.
6. Cancel the Record Selection Rules command by using the Apple-R command again.
7. Move to the beginning of your file by typing Apple-1.
8. Use the Insert command (Apple-I) to insert a blank record at the beginning of the file. (AppleWorks will not let you delete all the records from the file...so you are inserting a blank record that will not be deleted.)
9. Return to multiple record layout with the Apple-Z command.
10. Place the cursor on the second record in your file (the first non-blank record) and use the Delete command (Apple-D) followed by an Apple-9 to delete all the non-blank records from your file.
11. Use the Apple-M command to move your selected records from the clipboard onto your screen.

You have implemented your first three selection rules and deleted all records that were not selected. Return now to step 4 and repeat steps 4-11 as often as necessary to implement additional record selection rules. Remember to delete the one blank record when you are done.

### **Working with large files**

An unmodified copy of AppleWorks can store only 253 data base records on the clipboard; you will get a warning message if you try to move more than 253 records onto the clipboard. The easiest way to overcome this limitation is to get a Checkmate Technologies or Applied Engineering memory expansion card. These cards come with software that enhances AppleWorks so you can put more records on the clipboard.

*[Ed: Early versions of this software did not expand the clipboard. See the article entitled "What's the Latest" in the December, 1986 issue of the **Forum** for the version numbers of the latest AppleWorks enhancement software...those versions expand the clipboard beyond the 253 record limitation. Note that these enhancements only work in conjunction with the manufacturer's memory expansion board.]*

However, you can still use the techniques described above even with an unmodified copy of AppleWorks. Here's how:

1. Put a copy of your data base file on the desktop. You will delete all the records from that file and will use it to store records after you execute the first Apple-R command. These steps are described below.
2. Use the Apple-N command to change the the name of that file to FINAL.
3. Use the Apple-I command to insert a blank record at the beginning of the FINAL file.
4. Use the Apple-Z command to get the multiple record layout on the screen.
5. Use the Apple-D command to delete all the non-blank records from the FINAL file.
6. Put another copy of your original data base file on the desktop.
7. Use the Apple-N command to re-name this copy of the file to WORKING.
8. Use the Apple-R command to implement your first three selection rules.
9. Use the Apple-M command to move the first 253 (or fewer) selected records onto the clipboard.
10. Use the Apple-Q command to switch from the WORKING file to the FINAL file.
11. Use the Apple-M command to move the selected records from the clipboard into the FINAL file.
12. Use the Apple-Q command to switch back to the WORKING file.
13. Repeat steps 6-10 as necessary to move the remaining selected records from the WORKING file into the FINAL file.

14. Delete the WORKING file from the desktop and get the FINAL file on your screen.

15. Use the Apple-R command to find the blank record you inserted in step 3 above.

16. Use the Apple-D command to delete the blank record.

17. You now have a smaller data file. Implement your additional record selection rules within the FINAL file following steps 4 through 11 in the section above entitled "Step-by-step procedures".

It would be nice if AppleWorks gave you the power to implement more than three record selection rules without these manipulations. But these procedures work and allow you to implement an unlimited number of selection criteria.

*[Dr. Warren Williams teaches courses in the Educational Technology program at Eastern Michigan University. He is a technical advisor to NAUG, a frequent contributor to the **AppleWorks Forum**, and also conducts AppleWorks seminars throughout the country.]*

## **PRINTER PRIMER**

### **HOW TO PRINT ON POSTCARDS AND 3" X 5" CARDS**

by Warren Williams

If you ever asked the Great Houdini how he escaped from a straight jacket under water, he might have replied, "It's easy... if you know a few tricks." Well, the same is true about printing on continuous feed postcards, 3" x 5" cards, Rollodex cards, short forms, or on any paper less than eleven inches long. It's easy...if you know the tricks.

Here are some things you should know if you're having trouble printing on postcards, forms or short pieces of paper.

Schematically, there are two major modules in AppleWorks. One is the editing module, the other is the printing module. When you issue a "next page" command or a "page length" command in an AppleWorks word processor document, you are giving commands to the editing module. So, if you tell AppleWorks that you want to print at six lines per inch on a page that is three inches long and that you want to leave a one-inch bottom margin, the editing module adjusts so it will accommodate only two inches (twelve lines) of print on a page. When you print, the print module will start a new page after printing twelve lines.

There are two ways the AppleWorks print module tells your printer to feed a new page. One way is to send out a "top of page command" to your printer. The other way is for AppleWorks to send out RETURNS so your printer feeds up to the top of the next page. When the AppleWorks print module is set up to send a "top of page command" to your printer, AppleWorks relinquishes control of the actual length of each page to your printer or printer interface card.

Many printer interface cards count lines as you print. (In some systems the printer counts lines; in other systems the

(**PRINTER PRIMER**, Continues on Page 14)

printer interface card controls the page length. However, both approaches are functionally equivalent to AppleWorks. I will write as if the interface card always controls page length.) These cards are programmed to "know" that there are sixty-six lines on a page; they expect paper that is eleven inches long and, at six lines per inch, that's sixty-six lines per page. When these interface cards receive a "top of page command", they send out a message to feed the required number of lines to bring you to the top of the next eleven-inch long page.

And that's the problem. In the editing module you told AppleWorks to end each page after printing two inches. So, after two inches, the AppleWorks printing module sends out a "top of page command" to your printer. Your interface card has no way to know that you put postcards, 3" x 5" cards, Rolodex cards, or checks in your printer...it expects every page to be eleven inches long. so the interface card follows your instructions...and feeds enough paper to bring you to the top of the next eleven-inch long page. Since you cannot re-program your interface card, you must make the changes in AppleWorks.

If your printer or interface card accepts top of page commands, AppleWorks is programmed to use that feature... and most popular printers (including the ImageWriter) accept that command. However, if you want to print on pages other than eleven inches long, you will have to change the "Accepts top of page command" instruction in the printer module so AppleWorks, not your printer interface card, controls the length of each page.

### ***How to change the "Accepts top of page command" setting***

Here's how to tell AppleWorks not to relinquish control of the page length to your printer interface card:

1. At the Main Menu, select #5 ("Other Activities").
2. At the Other Activities Menu, select #7 ["Specify information about your printer(s)"].
3. At the Printer Information Menu, select "Change printer specifications". That will be choice #4, #5, or #6.
4. At the Change a Printer Menu, select #2 ("Accepts top of page commands") and change that setting to "NO".
5. Leave your AppleWorks program disk in the drive and issue an Apple-Q command. AppleWorks will save the change in the printer module on your program disk.

AppleWorks will run just as well with the "Accepts top of page command" always set at "NO"; you do not have to set it back to "YES". However, do not make these changes if you are using AppleWorks with a LaserWriter; the LaserWriter requires the top of page command to be set to "YES".

### ***Some additional suggestions***

Here are some other ideas to help you print on postcards and other small forms. You can generalize these ideas to other applications:

1. Set the platen width to the width of each card...not to the width of your platen.
2. Set narrow left and right margins...consider settings of .5 inches for both margins.
3. Set the page length to the length of each card.
4. Leave the top margin setting at zero but change the bottom margin to one inch. That will leave you a 1/2 inch margin at the bottom of the page if you start printing 1/2 inch from the top of the card or form.
5. Type the postcard the way you would any other document. Use the Apple-K command to be certain your printing fits on a single page.

### ***Techniques for printing on single cards***

If possible, use continuous feed cards with tractor feed strips on the edges. If you want to print on individual cards, consider the following:

1. Set your printer for "friction feed" so the cards feed as they would in a typewriter. However, even set at "friction feed", some printers will not handle cards properly.
2. Check your printer for a way to accommodate thicker paper. For example, the ImageWriter has a lever that adjusts the printer for different paper thickness. That lever is on the right side of the ImageWriter under the lid that covers the print head.
3. Many printers have an "out of paper" sensor to keep you from printing on the platen. Most often, this feature is helpful. However, if you want to print on a single postcard or 3" x 5" card, the out of paper sensor can disable your printer.

There are two ways to turn off this sensor...either physically or electronically.

If you want to disable the sensor physically, look for a switch where the paper feeds into the back of the computer... somewhere near the left-hand edge of the paper path close to the platen. This switch stops the printer if the line touches the printer case. You can deactivate the switch by taping a piece of card stock over the switch.

You can also disable the switch electronically by sending out the command to turn the switch off from within AppleWorks. (On an ImageWriter the command is called "Paper error detector off" and is activated by the keystrokes ESCAPE-O (that's a capital letter, not a zero). On an Epson, the command is called "Ignores 'paper out' sensor" and is activated by an ESCAPE-8.) If you disable this switch only occasionally, you can send out these codes from the spreadsheet module... see Hal Heidtman's technique in the Printer Primer article in last month's **AppleWorks Forum**. If you want to disable this switch permanently, you can change the printer interface card setting codes so it includes the necessary keystroke commands. However, making those changes is beyond the scope of this article...I will describe that technique in a future issue.

Like most things with AppleWorks, printing postcards is relatively easy...if you know a few tricks.



# USING AUTOWORKS AS A DISK LIBRARIAN

by Robert J. Netro

The availability of add-on AppleWorks utilities, such as MacroWorks, Super MacroWorks, AutoWorks and Key-Player, increase the power and flexibility of AppleWorks. All of these programs go beyond their primary purpose of adding "macros" to AppleWorks.

[Ed: A "macro" is a series of keystrokes and commands that are "memorized" by the computer. These keystrokes can be re-used by invoking a command to "call" or "run" the macro. For example, you can develop a macro to type your return address at the top of a letter. That macro would give the command to set characters per inch to 12, issue the Center command, type your name in boldface, turn off boldface, type your address, turn off centering, and skip three lines.]

Super MacroWorks and AutoWorks both offer a disk cataloging feature, something that should be useful to any AppleWorks user with a significant collection of data disks. The disk catalogue is an AppleWorks data base that lets you locate a file using the disk name, file name, or keywords from a description of the file.

AutoWorks was the first to offer this capability, so I will describe the function as implemented in that program. It's just as easy to do with Super MacroWorks.

## Disk Organizer in AutoWorks

The AutoWorks Disk Organizer uses a data base template provided on the AutoWorks disk and a set of macro commands. The macro reads the catalog on each of your ProDOS data disks and inserts information about each file on your disk into the data base. You then use the AppleWorks data base sorting, selecting and reporting features to keep track of your ProDOS data disks.

Once you've installed AutoWorks on an AppleWorks disk, it is relatively easy to use the Disk Organizer. Here's how:

1. Add the AppleWorks data base file called "FILES" from the AutoWorks disk onto the AppleWorks desktop. Then remove the AutoWorks disk so you don't accidentally overwrite the FILES template with a file containing data.
2. Type an Open-Apple X to invoke AutoWorks.
3. Insert a ProDOS data disk you want to catalog into the disk drive designated at the top of your AppleWorks screen and select "Read Disk" from the AutoWorks menu.

The Disk Organizer puts on quite a screen show as it reads the catalog on your data disk and adds information about the files on your data disk into the AppleWorks data base.

4. Replace the data disk with the next disk you want to catalog and again select "Read Disk" from the AutoWorks menu. The "FILES" data base will be expanded to contain information about the new disk.

When you're done, you can "clean up" the AppleWorks data base, add a description of your different files, and use

the AppleWorks data base commands to locate the files you're seeking on your growing collection of AppleWorks data disks.

## Two suggestions

Some AppleWorks users call all their data disks by the same name. That makes it easy for them to specify pathnames when working with ASCII, DIF, and other non-AppleWorks files. However, the Disk Organizer inserts the name of the data disk into the data base file. Unless you want all your files listed as being on the same disk, you should change the names of your disks so they are different. Write the disk name on a label you paste on the disk.

For unexplained reasons, the Disk Organizer won't always function properly when cataloging a protected file. If you protect some of your template files by locking them, unlock those files before using the Disk Organizer.

Each person should experiment and establish a system suitable for his or her own needs. For example, I completely catalog my "Sider" hard-disk system once each day. Then I use the data base "Arrange" command to identify the files I recently added or changed. When my Sider was recently repaired, the availability of this data base catalog of files simplified the task of reconstructing the files on the hard disk.

[Robert Netro is President of MIH Associates in Canton, Ohio. He is a frequent contributor to "AppleWorks: Exclusive Reference" and "IAC Express". Bob's primary interests are system design, operational templates and organizational efficiency.]

## QUICK TIPS

### USING A TRANSWARP "SPEED UP" CARD

by Tom Hexum

Many NAUG members are using TransWarp cards to speed up AppleWorks when working with large spreadsheet or data base files. The combination of a TransWarp card and a RAM disk makes AppleWorks fly. But I had problems with scrambled entries in the spreadsheet when I used my TransWarp card in slot 7 and a Checkmate Technology memory card in the auxiliary slot. Moving the TransWarp to slot 4 solved the problem and everything works fine.

The TransWarp card is an excellent investment and works well with both Applied Engineering and Checkmate cards... but keep your TransWarp out of slot 7.

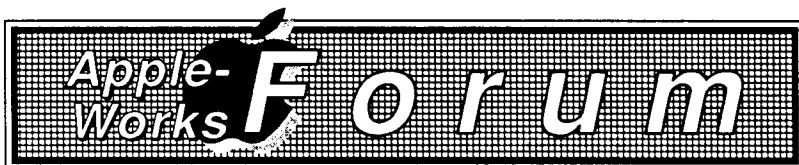
### APPLEWORKS 2.0 IS SLOWER

by Jack Freedman

Some functions in the data base module in AppleWorks 2.0 are slower than the same functions in earlier versions of the program. For example, the Arrange command (Apple-A) in the data base module is measurably slower in version 2.0 than in version 1.3. If you maintain a large data base, you should continue to use version 1.3 of AppleWorks.

[Ed: NAUG confirmed this finding with the technical support personnel at Applied Engineering. We plan to publish an article comparing the operating speeds of versions 1.3 and 2.0 of AppleWorks in a future issue of the AppleWorks Forum.]





**NAUG:**  
**The National AppleWorks Users Group**  
**Box 87453, Canton, Michigan 48187 U.S.A.**

## TIME VALUE MATERIAL

### NAUG MEMBERSHIP

Name: \_\_\_\_\_

Member N° (if renewing): \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip or mail code: \_\_\_\_\_ Country: \_\_\_\_\_

Home Phone: \_\_\_\_\_

Work Phone: \_\_\_\_\_

Computer type: \_\_\_\_\_

Modem type: \_\_\_\_\_

Printer type: \_\_\_\_\_

Peripherals: \_\_\_\_\_

Computing interests: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NAUG shares members' addresses with other users groups & selected vendors. If you do NOT want to receive mail from these agencies, please check here: ☐

Check all which apply:

- \_\_\_ Membership: \$24 for 12 months of the  
**AppleWorks Forum**  
\_\_\_ 1st Class Mail (to U.S., Canada, and Mexico): \$10\*  
\_\_\_ Surface Mail (outside U.S., Canada, and Mexico): \$10\*  
\_\_\_ Air Mail (outside U.S., Canada, and Mexico): \$25\*

\* In addition to NAUG membership

**Send this completed application AND  
your payment. Total Enclosed: \$ \_\_\_\_\_**

### ADVERTISING IN THE AppleWorks Forum

#### ***Classified advertising for NAUG members***

**NAUG** members are welcome to place classified advertisements in the **AppleWorks Forum**. Classified advertisements are offered as a service to **NAUG** members; they are not available for commercial ventures. Advertisements must meet the following criteria:

1. Only individuals qualify for classified advertising.
2. The individual's name, home addresses and telephone number must be included in the advertisement; no postal box numbers or business telephones.
3. No commercial advertising is permitted in the classified section.


**Rates:** \$25 per advertisement per month. Advertisements can be up to 40 words in addition to name, address and telephone number.

#### ***Commercial advertising***

The **AppleWorks Forum** is a service to **NAUG** members. Commercial advertisements are accepted only on a space-available basis and will not be allowed to supplant editorial space. Advertising rates are as follows:

Full page:	7.25" x 9.75"	\$500.00
Half page:	3.25" x 9.75"	\$275.00
	7.25" x 4.5"	\$250.00
Quarter page:	3.25" x 4.5"	\$125.00
Eighth page:	3.25" x 2.25"	\$ 75.00

**NAUG** does not have an advertising department and is not equipped to do art work or layout for advertisements. Space is reserved upon receipt of payment in full and must be received in the **NAUG** office at least two months prior to the cover date on the newsletter. Art work must be received in the **NAUG** office no later than 45 days prior to the cover date on the newsletter. Confirmation of space availability will be sent upon receipt of payment.

Vendors offering discounts to **NAUG** members of 10% or more may qualify for a brief description of their offer in the **AppleWorks Forum**. Submit your discount offer to **NAUG** in writing for consideration. 

**AppleWorks is a trademark of Apple Computer, Inc.**