

ON THREE

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The Magazine For Apple /// Owners and Users

Volume 6, No. 7/8

July/August 1989

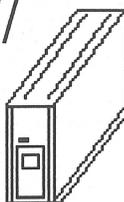
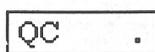
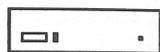
ON THREE Moving News

The History Of /// E-Z Pieces

Easy Spreadsheet Error Checking

Please check your magazine label and check that your subscription has not just run out. If so you will be shortly missing the only link Apple /// owners have to new and exciting products. Please renew your subscription today for the low price of only \$20 to enjoy uninterrupted service.

Selector /// - The Best Program Switcher For The Apple ///



Do you use a ProFile, Quark, Sider, UniDisk ///.5 or CPS disk drive?

Are you sick of the time it takes loading each of your different programs? Tired of searching through stacks and stacks of floppy disks for a particular program? Do you have a hard disk or a large capacity floppy disk drive? If so you can cure all of these headaches and more with the purchase of Selector ///!

Selector allows you to place all of the programs listed below (and many more) on your hard disk or large capacity floppy disk drive. Instead of waiting and waiting for a particular program to boot up, you simply boot your Apple /// with the Selector disk. When you want to run a program, just select it from the easy to use Selector menu by highlighting it and pressing RETURN. In a flash the program is loaded from the hard disk and you can be using it in seconds, not the minutes it usually takes.

Selector /// works perfectly with the Apple 5 and 10 megabyte ProFile, the Quark QC 10 and 20 drives, the Sider 10, Sider 20, Sider 40, the Trustor drives, the UniDisk ///.5 and the new CPS 800K drive. It even has an automatic installation program that places Selector on your hard disk or other floppy drive.

Selector can speed up using your Apple /// and make your use of the Apple /// more productive and beneficial. It even works with programs that *you* write in Basic, Pascal or assembly language! Selector can hold hundreds of programs with its hierarchical menus while other selectors only allow you 12 or 24 programs.

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Access ///	BPI Accounting	Fruit Machine	PFS: File*
Access 3270	Business Basic	Go Back	PFS: Report*
Advanced VisiCalc	Business Graphics	Graphics Manager	Quick File ///
Apple II Emulation	Cobol	Graph'n'Calc	Script ///
Apple File ///	Crossword Scrambler	Haba Merge	Senior Analyst ///
Apple Speller ///	Draw ON ///	Keystroke Data Base*	Side Print ///
Apple /// Pascal	Comm. Manager	Keystroke Report Generator*	StemSpeller
Apple Writer ///	Desktop Manager	Lazarus ///	StemWriter
Backup ///	EasyTerm	Mr. Sandman	VisiCalc ///
BattleFleet	Fortran ///	Multiplan	/// E-Z Pieces

The programs listed above with an asterisk after them are copy protected and require the 'key disk' to be inserted into the built-in drive when you select it from the Selector menu. After the program comes up you can remove that disk. Uncopyprotected versions of PFS: File and PFS: Report are available that work under Selector without the need for a key disk. Likewise an unprotected version of Word Juggler is available for only \$15 plus \$2 for shipping and handling.

Editor/Publisher:

Bob Consorti

Controller:

Joseph Consorti

Design Consultant:

Cathy Consorti

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The Magazine For Apple /// Owners and Users

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Apple Sauce

by Bob Consorti

Moving News

First off, Eileen is not wide -she's my wife. If you'll note, the letter D is right next to the letter F, so I do have an excuse for that typo. In any case, we're settling into our new house at 123 Groveland Avenue, Riverside, IL 60546. The new phone number for technical support of *ON THREE* products is (312) 447-3924.

While we were moving to the outskirts of Chicago this summer, the sales office also moved a short distance. Their correct address and phone number is now: P.O. Box 3452, Kirkland, WA 98083. (206) 659-6245. Please use these new addresses and numbers for all future orders and questions.

We have a couple of nice articles in this issue. The lead this month is by David Ottalini. In it Dave talks about the history of the /// E-Z Pieces integrated program for the Apple ///. It's really interesting and I hope everyone enjoys it.

The next piece is a helpful hint that describes how to do spreadsheet error checking on your Apple ///. If you use VisiCalc, MultiPlan or the spreadsheet portion of /// E-Z

Pieces you should look it over.

We're introducing a new product this month and lowering some prices. We now have available the Sider D7T hard disk drive. With over 66 megabytes of data, the D7T is a fantastic deal for the Apple /// power user.

As more and more ProFile hard disks fail we've been selling more and more Sider hard disks as upgrades for those failing ProFiles. Because of a special purchase, we're able to lower our prices on our entire line of Sider hard disk drives.

Our Sider 20 is now only \$799, while the D4T (Turbo) is now only \$1299. The new D7T is priced to sell at only \$1599. This is a savings of hundreds of dollars off of the regular prices. Order your Sider today! I almost forgot! We've slashed the price of the CPS 800K drive by \$50 to only \$249!

With what seems like everyone's ProFile failing at once, in the next issue we'll present a couple of methods for repairing your damaged ProFile (if it's possible). Until then, happy reading.

Apple /// Memory Expansion

Are you tired not being able to run certain programs because you don't have enough memory? Would you like to use Draw ON, Lazarus or even The Desktop Manager but only have a 128K or 256K machine? If so, look below to our listing of memory expansion products.

You can upgrade your 128K machine to 256K, your 256K Apple /// to 512K or go all the way from 128K to a 512K Apple ///. Installation of all of our memory upgrades is fairly easy and usually requires no more than a screw-driver and an hour or less to complete.

Remember, upgrading the memory in your machine does not require the use of one of the four slots in your machine. Those are reserved for interface cards. The memory upgrades are installed inside the machine.

Order your memory upgrade today. Remember, the memory chip market is particularly volatile so we may not be able to hold the prices down this low for much longer. Order yours today!

512K Memory Upgrade

Expand your spreadsheets and data bases, use larger word processing documents and the new desk accessories! Enjoy a full 414K desktop in /// E-Z Pieces, 442K in Advanced VisaCalc and 456K in Business Basic!

Includes: 512K board, installation guide, Utilities 1.2 which permits larger drivers, 512K Confidence Program that tests all memory, ultra fast RAMDISK driver with demonstration programs and 512K utility that updates your programs. We even offer a \$25/\$35 cash/product rebate upon return of your old 256K board. Includes a full 90 day warranty. Order your 512K today for only \$399+\$10

Call for info. on our spare 128K memory boards and memory board insurance.

256K Memory Upgrade

If you need more memory but don't want to change your Apple /// all the way to 512K, the 256K upgrade kit is for you. With 256K installed you'll be able to use programs like Selector, Draw ON, Desktop Manager and more! Includes installation instructions, 256K users guide, Apple /// Confidence Program and chip extractor, free technical support, 90 day warranty and fully populated 256K memory board. All this for only \$169+\$10 Order yours today!

512K Memory Upgrade Kits

We now supply the 512K memory boards with either no memory (0K) or with 256K of memory installed. If you have an Apple /// with 256K you can order the 512K with 256K of memory. Then, remove the memory from your board with the supplied extractor tool and plug it into the 512K to get a full 512K of memory. Likewise, you can buy the extra memory elsewhere and order the the 512K with 0K of memory. 512K/0K \$159.95. 512K/256K \$299.95. + \$10 s/h.

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QUANTITY	PRODUCT DESCRIPTION	EACH	TOTAL	SHIPPING

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Credit Card _____ Card No. _____
Exp. Date _____ Phone _____

PRODUCT SUB TOTAL
SHIPPING SUBTOTAL
C.O.D. (\$3.00)
LOCAL STATE TAX

GRAND TOTAL

A History of Robert Lissner's /// E-Z Pieces

by David Ottalini /// SIG Co-Chairman

Insight into a great program

When he was designing it he said, "Should I do it on the Apple ///?" and I said, "You'll never be able to sell the Apple II product to Apple if you don't do it on an Apple ///." Because internally at Apple everybody was using the Apple ///. There was not an Apple II being used around the company. If you want to sell them something you've got to have software that can run on what they are using.

- Don Williams, Former Apple Business Marketing Manager At the Phase /// Conference October, 1987

Apple /// users are lucky to have /// EZ Pieces, the original AppleWorks integrated program that combines a word processor, data base and spreadsheet. It was a hit almost from the start, and drew rave reviews from the computer press. But it almost wasn't developed for the ///. And therein lies our story. The purpose of this article is to look at the history of /// EZ Pieces and how it came to be developed for the Apple ///.

It's an interesting story, one that could not have been told without the help of Don Williams, the current President of Productivity Software (the developers of Microsoft Works...the Macintosh version of AppleWorks). Williams worked two times for Apple Computer during the early 1980s, years when the Apple /// was being developed, introduced and later, reintroduced. This article makes heavy reference to two talks given by Williams about Apple Computer and the Apple /// during the Phase /// Conference in Chicago, Illinois in October, 1987.

THE EARLY DAYS

Our story begins with a lucky coincidence. Don Williams and Rupert (later Robert) Lissner lived across the street from each other. Williams had worked at IBM for 16 years and in September, 1979 jumped ship to Apple. He did financial forecasting to begin with and then took a full-time job as Apple's Business Marketing Manager.

Williams did not want his family to live in Silicon Valley, choosing instead Scotts Valley, a good 17 "miles of terror" (Williams words!) drive away over the Santa Cruz Mountains. He and Bob Lissner were soon to become close friends: "The first time I ever met Bob Lissner, he was in his bathrobe and slippers coming out to get his newspaper. He lived across the street from me. And he was writing mainframe code in Silicon Valley for the public school system."

Lissner had bigger ideas than writing code for the public schools, however. He wanted to know what he could do to "make some money in the micro business" and looked on his new-found friend Don Williams for some answers. An Apple II data base program called File Cabinet began the journey towards a solution. The President of Apple, Mike Markkula had rewritten File Cabinet as "Small Job." But the Apple //Division refused to publish it because they claimed it was "spaghetti code" and not in Pascal, the program of choice at the time. Markkula needed someone to rewrite it, and Williams realized that Robert Lissner was that person.

By mid August, Lissner and Markkula had met and by October, 1981, the Pascal version of "Small Job" was up and running. Lissner later rewrote the program in Assembly code, speeding it up by about 40%. "Small Job" finally got published as "Quick File" in both Apple /// and Apple II versions.

THE INTEGRATED IDEA

By the Spring of 1982, Don Williams had left Apple the first time to start his own software company (before Productivity Software). To get things going, he proposed to Bob Lissner the development of a word processor for the IBM PC because there weren't many available at that time. But Lissner was more interested in a version for the Apple II family. Now comes the interesting part. Lissner got the idea to merge the word processor with

Quick File. Writing to the National Appleworks Users Group in November, 1988, Lissner said the Lisa Integrated Office System convinced him that he could do something similar on the Apple II (but without the graphics interface).

Basing the word processor on Word Juggler, he got the program (combined with the data base) running enough to show Mike Markkula at Apple. Markkula thought that was a great idea, but had his own suggestion. Marry it to a spreadsheet for a truly integrated package. That night, Bob Lissner was banging on Don Williams door, asking what he should use for a spreadsheet. It just so happened that Don had a spare copy of VisiCalc. And by the Summer of 1983, the program with word processor (based on Word Juggler), data base (based on Small Job/Quick File) and spreadsheet (based on VisiCalc) was up and running.

One other interesting note here. Because Don Williams told Bob Lissner to develop the program for the /// first, he decided to make it as easy on himself as he could. So, Lissner wrote his own high speed Assembler that could be used to turn his source code quickly into either an Apple /// version or an Apple II version with a minimum of change (the programs really were the same at the start. The only major difference was how they dealt with their respective operating systems: SOS and ProDos). In fact, if you list the ///EZ Pieces boot and program disks, you'll notice that SOS.Interp, Seg.00, and Seg.PR are all listed as ProDos System disks. There's no mention of SOS on either disk!

APPLE MAKES A DECISION

It was at this point that /// EZ Pieces hit its crossroads. Bob Lissner wrote the program on and for the /// so it would be accepted by Apple and published for both Apple II Family machines. Yet Apple decided not to distribute the /// version. There never was an "official reason" for the decision. But by that point, it was probably obvious to the "Powers That Were" in Cupertino that the /// was not going to last much longer (development stopped in May, 1984 and it was discontinued in 1985). Had the decision been otherwise, well, Bob Lissner put it this way:

"Given the ultimate popularity of AppleWorks, one must

wonder what impact Apple's decision not to publish /// EZ Pieces had upon the longevity of the Apple /// computer."

And so, while deciding to distribute AppleWorks for the Apple II, Apple returned the Apple /// rights to its author in late 1983. Bob Lissner turned around and signed an agreement with Chaz Haba of Haba Systems to publish the package as /// EZ Pieces. It was called "The Executive Work Station; A High Performance 4-part Business Package" and the retail price was \$295.00. In a July, 1984 article in the old "Softalk Magazine", author David Hunter wrote that Haba had made a "smart move" by picking up /// EZ Pieces and that it "is currently a runaway bestseller in the /// market." Chaz Haba even said that Bob Lissner was a big influence on the company and its programmers.

Despite the optimistic outlook provided by the article ("Busting down the walls of its current space, financially healthy (the company just received \$2 million dollars in venture capital) and bubbling over with creativity, Haba Systems seems destined to get its name in lights. And they don't give a damn about IBM), Haba had its troubles. Refusing to write programs for the IBM was shortsighted, and its programs for the Macintosh proved to be less than best-sellers. The demise of the /// also didn't help matters, although Apple did bundle 3 EZPs with all Apple ///s for the final few months it was still produced.

Only Bob Lissner and Chaz Haba know when it happened, but at some point (probably about the time the Apple /// was discontinued in 1985), Haba stopped sending royalty checks. That decision was made before Haba's "name in lights" burned out and it faded into bankruptcy (even after it had taken on a partner and was called Haba/Arrays). There's little information about it, but Lissner apparently has yet to get the rights back from Haba for the program (word is he simply doesn't want to waste his time with it).

At the point of Haba's bankruptcy, Sun Remarketing in Logan, Utah purchased all the remaining 3 EZP stock. On Three buys copies from Sun to sell to its customers as well. Bob Consorti, On Three's President says it makes more sense to continue selling the program, with the instruction manual, rather than have people ask for support for illegal copies.

THE FINAL UPGRADE

As released, 3 EZPs was and is version 1.0. Those who purchase On Three's 512K memory kit also get an upgrade to version 1.1, that simply allows the program to take advantage of the additional memory. There have been no additional changes. Unlike AppleWorks, there have never been any attempts to "patch" the program to improve it (and AppleWorks patches do not work on 3 EZPS).

However, there was an attempt in early 1987 to upgrade the program to the then-current 2.0 version of AppleWorks. Bob Consorti of On Three got Bob Lissner to agree to write the upgrade if 5000 /// users would pay a \$50.00 fee. Flyers went out to On Three's huge mailing list of 22,000 Apple /// users and ///ers on CompuServe and in the remaining clubs spoke of nothing else for a number of months. Even with the publicity, no more than 1000+ users agreed to the update and Lissner decided not to go ahead with it. That effectively ended all hopes for ever upgrading the program and it stands now as it always has at version 1.0.

Despite the disappointment, /// EZ Pieces remains the favorite Apple /// program of all time. Its roots with AppleWorks make it a program that will continue to be a favorite for as long as there are users of the Apple ///. And that, we suspect, will be for a long time to come!

* TAU TALES was the original name for the newsletter of the Third Apple Users Group in Wheaton, Illinois. New publication name is TAU Journal.

* The Apple Tree is the publication of the Syracuse (New York) Apple Users Group.

* Apple ThREE Newsletter is the publication of the Colorado Apple /// Users Group.

Note: ON THREE produces an add-on to /// E-Z Pieces that allows you to spell-check your /// E-Z Pieces word processing files. StemSpeller /// is currently available for only \$49.95.

AN EARLY /// EZ PIECES BIBLIOGRAPHY

If you'd like to find out more about how /// EZ Pieces was originally received in the /// community, the following articles might help.

PUBLICATION	TITLE	AUTHOR	VOL	ISSUE	MONTH	YEAR	PG(S)
TAUTALES	Demonstration:/// EZ Pieces	Rann	2	5	February	1984	Disk
Hardcore Update #65	Apple News				February	1984	1
TAUTALES	The Unicorn's News and Views	Galvin	2	9	June	1984	Disk
Apple ThREE Newslttr	An Interesting Quote...		2	12	December	1983	14
The Apple Tree	The /// and Me	Lloyd		22	March	1984	5
The Apple Tree	The /// and Me	Lloyd		24	May	1984	5
The Apple Tree	The //e and /// and Me	Lloyd		26	July	1984	5
The Apple Tree	The //e and /// and Me	Lloyd		27	August	1984	3
The Apple Tree	The //e and /// and Me	Lloyd		28	September	1984	3
The Apple Tree	The //e and /// and Me	Lloyd		31	December	1984	3
TAUTALES	Product News	Rann	2	5	February	1984	Disk
Apple Orchard	/// EZ Pieces	Chu	5	5	June	1984	54-55
A+	/// EZ Pieces	Albertson	2	8	August	1984	62-67
InfoWorld	/// EZ Pieces	Brevdy	6	19	May	1984	110-1
InfoWorld	Apple /// Integrated Software	Freiberger	5	49	December	1983	28-30

Helpful Hints

A Practical Guide To Keeping Your Apple /// Running Smoothly

If you have a helpful hint, please share it with other Apple /// owners by sending it to our editorial office listed below:

ON THREE, Inc.
Attn: Helpful Hints
123 Groveland Avenue
Riverside, IL 60546

SpreadSheet Balancing Act

by Gary G. Ricker

I am an Apple /// owner and have just started using the program /// E-Z Pieces. I set up a spreadsheet to break down court cost for a friend of mine (a court clerk). The cells are filled in by a look up table according to the cost. Each column must be totaled and the entire sheet balanced out with the column totals equaling the row totals.

I have set the sheet up so that each column totals and then each row totals. In the lower right hand corner of the sheet I set a balance cell. The balance cell uses the logical function >IF<.

This formula checks the entire sheet and if anything does not balance it displays the "ERROR" message. This had proved especially helpful in that a large number of my entries are label entries and sometimes a value is entered as a label and the totals are not correct.

I do have one problem that perhaps someone else can help with when I use the column totals to produce a monthly report. As I use several sheets I have set up a monthly report on a different spreadsheet. I keep trying to find a way to copy the column totals to the clipboard. I then insert them in the other sheet. I do this with several sheets and I need to total up all of these. The problem arises when I recalculate the cells I copied still contain the formulas and they calculate to give me errors. I want to know if there is some way to copy the values only, not the formula which gave me the value - without transferring them manually.

**Remember, if you have a hint,
share it with us and we'll share it
with all Apple /// owners.**

@ IF * @ SUM (ALL ROW TOTALS) = @ SUM (ALL COLUMN TOTALS) ,
@ SUM (ROW TOTALS) , @ ERROR

	A	B	C	TOTALS
1	\$1.00	\$2.00	\$3.00	\$6.00
2	\$1.00	\$2.00	\$3.00	\$6.00
3	\$2.00	\$4.00	\$6.00	FORMULA

@IF (@SUM(A3...C3)=(@SUM(D1...D2) , @SUM(A3...C3) , @ERROR

Letters To The Editor

by Bob Consorti

Questions And Answers From Your Apple /// Experts

Wrong Way Driver

Dear Sir:

I recently purchased an Epson MX-100 printer for my Apple ///. I can print using the Epson with AppleWriter and QuickFile but have been unable to add the printer to my VisiCalc program. Also, when using AppleWriter how do you change to the different print modes that are built into the Epson?

I do hope that you can help with these problems or refer me to someone who will be able to answer my questions.

Sincerely,

Carol McGahan
Grand Island, Nebraska

Dear Ms. McGahan,

It sounds as if you simply need the correct driver installed on your VisiCalc disk for things to work properly. To get the correct printer driver on your VisiCalc disk, use the System Utilities program to copy the file named **SOS.DRIVER** from either your AppleWriter or Quick-File disk onto your VisiCalc disk. Note that the System Utilities program will ask you to make sure you want to delete the old **SOS.DRIVER** file before it copies the new one. After you do this your VisiCalc program should print correctly.

With regards to the different print modes that's a bit more difficult. If you study your Epson manual you will find that to enable certain modes such as boldface or underline a command code must be sent from the computer to the printer. These codes cause the printer to switch from one mode to another.

In AppleWriter you can insert a control code into your text by pressing CONTROL V at the same time. After that you will be able to type the character representations of the control code that you want to insert into your document. These keyboard equivalents of the control

codes can be found in the back of the Standard Device Driver's manual.

With those two bits of info you can insert whatever control code your printer needs for the effect you desire. When you're finished with the control code(s) you can go back to entering normal characters by pressing CONTROL V a second time. This will put you back into text input mode where you can insert more text, save, print your document or whatever you want.

Incorrectly Installed TDM

Dear Mr. Consorti,

I would appreciate your assistance with a problem I'm having with The Desktop Manager and AppleWriter 4.0. I copied AppleWriter with a program called EDD, by Utilco, and the copies work fine. However, when I attempt to add TDM to the driver file, I get an error message "System Failure \$01". This is a re-entrant system call according to the manual. Of course I have no idea what that means or how to correct the problem. It may be important to note that I copied the SOS driver file from a working copy of /// E-Z Pieces. Also when I change the status of the .DESKTOPMANGER driver to inactive, the AppleWriter program runs fine.

A second question regarding AppleWriter. Is there a command function comparable to the Control B refor-

ON THREE O'Clock

Did you know that the Apple /// has provisions for a built-in clock and calendar? The ON THREE O'Clock is easy to install and does not require a slot. Compatible with all Apple /// programs, simply save your files and the time and date will be saved along with it. You can then use the System Utilities or other file listing utility to see the date files were created or modified.

Includes battery holder, cable, micro chip and easy to follow instructions for installation and use. Batteries not included. Now only \$39.95+\$3!!!

matting that I am accustomed to in WordStar. Really, the only reason I would consider changing is to get to use The Desktop Manager and gain some versatility in SOS instead of C/PM.

I have also been unsuccessful in adding TDM to the Checkbook 3 program by Pair Software. It initializes TDM but then continues to read the disk instead of returning to the Checkbook program disk and continuing with the boot process.

I appreciate the support you provide for the Apple ///, keep up the good work.

Yours very truly,

Don L. White
Louisville, Kentucky

Dear Mr. White,

Please note our new address and phone number. To start off with, you do not need to us EDD to copy the 4.0 version of AppleWriter. Among its strengths is that the program is not copyprotected and may be copied with the normal system utilities program. That should help you a little.

Now for the hard part. The problem you describe happens when the .DESKTOPMANAGER driver is installed in the SOS.DRIVER file by using the system

configuration program rather than the Desktop Manager installation utility. The installation utility changes both the SOS.DRIVER file and a hidden file on the disk called the SOS boot code.

The SOS boot code is located on blocks 0 and 1 of every bootable Apple /// disk. It contains the routine that loads in the SOS.KERNEL file which then loads in the drivers and interpreter. Before it does any of this it first checks to see how much memory is in the system to see where to load SOS into. The Desktop Manager modified boot code reserves one 32K bank of memory for the Desktop Manager. When the .DESKTOPMANAGER driver gets control, it expects it to have the highest bank of memory for itself. When you install the .DESKTOPMANAGER drive manually this does not occur as SOS itself is loaded in the highest bank of memory.

Side Print ///TM

For years people have been asking if there was a way to print very wide spreadsheets sideways on the Apple ///. Until now there wasn't. But with our new Side Print /// you can print your /// E-Z Pieces, VisiCalc and Advanced VisiCalc spreadsheets sideways on your Apple DMP, ImageWriter, Epson or OkiData brand printers.

Side Print /// is available today for only \$29.95 plus \$3 for shipping and handling.

Apple ///'s For Sale

If you've been looking for a spare or backup Apple ///, now's the time to get one. The powerful Apple /// computers with monitor & a 90 day warranty is now available from ON THREE.

Save hundreds of dollars on one of the worlds finest microcomputers. Please add \$35 for shipping, handling and insurance.

The **512K** Apple /// with monitor is now **only \$799** and a **256K** Apple /// with monitor is **only \$399**.

Don't be caught with a dead Apple ///, get an extra one today!

AUTHORS WANTED!

We are accepting article submissions for review and possible publication from readers who are willing to share their Apple /// knowledge and experiences with others. If you would like to contribute to the pages of ON THREE Magazine, here's your chance! We're looking for articles of general interest, short programs, tutorials, hints on getting things done easier & more efficiently, games and anecdotes. Anything goes!

Just send your article or program on diskette to ON THREE. If it's chosen for publication we will check it for accuracy and even correct those silly spelling errors. Before you know it, you will become a rich (at least in spirit) and famous author. Your work will be read worldwide, by a captivated & spellbound audience.

For a copy of our author guidelines, please send a self-addressed, stamped envelope to **ON THREE Magazine, 123 Groveland Avenue, Riverside, IL 60546**, or give us a call at (312) 447-3924.

The Desktop Manager ends up calling some routine in SOS rather than in itself which results in the quick system crash. The solution is to use the installation program to add the driver and you'll be set.

I don't know what the CONTROL-B function does in WordStar but if it involves screen reformatting you won't be able to duplicate it in AppleWriter. It's not a WYSISYG (What you see is what you get) type of word processor as you have to manually insert the codes to switch from one printing mode to another and no on-screen viewing of the results is possible.

There is another word processor that may serve your needs better in this capacity. It's the word processor in ///E-Z Pieces. It does on-screen displays of repagination and may be what you are looking for in a word processor.

I don't know what the problem is with the Checkbook 3 program but you should make sure that the .DESKTOP-MANAGER driver is installed as described above. If that doesn't fix it, please make sure that you are using the 1.3 version of SOS and the 1.3 or 1.31 version of the .CONSOLE driver. Thanks for your order.

/// E-Z Pieces is best

Dear Sir,

Thank you for sending me a complimentary copy of ON THREE. I have found it useful to me. I am a new owner of an Apple ///+. I have many questions that I hope can be answered by the book I have ordered from you. I also want to start my subscription to ON THREE.

I do have a question about the Apple ///+. What is the best way to set the system up. I mean what is needed to have a good basic system, with the power to do ordinary computing. For example, what programs are the best to have, what type of printer is the best for my system etc. I am a teacher and have cause to use my computer often. I also have the program /// E-Z Pieces. What type of program is the Titan ///+//e and is it one of the programs I need to have in my collection? I just need some suggestions as to what else I may need to get to be more productive.

Thank you for your help so far. I'm looking forward to hearing from you.

Sincerely,

Lewis Cook
Washington, Kentucky

Dear Mr. Cook,

Since you already have the ///E-Z Pieces program you're on your way to using the Apple /// to the best of its capabilities. With the power of a word processor, data base and a spreadsheet that program is the best all around package for any Apple /// owner.

For a good purpose printer I suggest a Panasonic KXP model. They are dot matrix style printers but have a switch that you can use to select the print quality. Draft mode is the fastest printing but you can select the slower near letter quality print mode. This provides very high quality printouts. The KXP 1091 is the one we use at the office and we've had very good luck with it.

The Titan ///+//e is a set of two interface cards that fit inside your Apple /// that provides the Apple /// with the capability to run software that requires a 128K Apple //e. It's not a perfect emulation but it does a good job. The only sticking point is its price. At about \$300 it's almost a better idea to go buy a used Apple //e.

I think that covers it. If you have any further question or problems please don't hesitate in calling or writing to us at our new address.

Game & Number Pick

Improved version of Pick-It (ON THREE, Feb. '87). Setup for 7 standard games and can be used for other games. Eliminate duplicates & places numbers in order when necessary.

Numbers can be sent to the printer. Send \$1 & a stamped self-address envelope for a copy of the program or send \$7 for the program on disk.

**M. DeMuro
77 Gordon St.
Yonkers, NY 10701**

Disk Drives For All Of Your Apple /// Storage Needs

Are you tired of swapping floppies? Tired of the few minutes it takes to boot your system each morning? Sick of not being able to save your files on those tiny 140K disks? Well, have we got a deal for you! No matter what your need we have a disk drive that fits the bill.

You can get a 20 or 40 Megabyte hard disk drive or a 3.5 inch 800K drive from ON THREE. A 20 megabyte hard disk is the equivalent of over 140 floppy disks, all in one convenient and easy to use place.

With the Sider brand of hard disks or even the 800K micro-floppy disks, you can eliminate the floppy disk shuffle forever. Store all of your files on the Sider or 800K drives and get to them so much faster. The Siders are over 10 times faster than a regular floppy disk and far more reliable. Never again will you need worry about losing or damaging a diskette.

ProFile Upgrade Program

How long have you had your 5 megabyte Apple ProFile hard disk? Two years, three, four? Have you ever wondered what it would be like to use the latest technology Sider hard disks & enjoy the much greater speed & reliability? Do you ever get worried about your old ProFile breaking down?

If you have any of these questions, we have the answer - **Upgrade Today!** Our new ProFile upgrade program is designed for every Apple /// user that has a ProFile hard disk. Simply order our Sider 20 or Sider 40 hard disk drives and we will give you a \$150 rebate on your old ProFile! If you have two ProFile's we'll give you up to \$300 off the price of a Sider. Now you can get the best hard disks for as little as \$599!

* After ordering a Sider, return your old ProFile with interface card, cabling and power cord within 60 days to obtain the \$150 rebate for each ProFile (limit 2 rebates per Sider order). Your ProFile must be in good working order as we will not accept non or barely-working drives.

Sider 40 T Hard Disk

The latest in a line of inexpensive yet very fast hard disk drives for the ///, the Sider 40 T (Turbo) 42 megabytes* of storage for your Apple ///.

The Sider's are by far the fastest hard disk drives available for the Apple /// and are the most reliable. With an average access time of 3 times faster than a ProFile, the Sider 20 is very fast, but the Sider 40T is an incredible 7 times faster!

Attractively styled to fit next to your Apple ///, the Sider 40T is now priced at **ONLY \$1299 + \$35 s/h.**

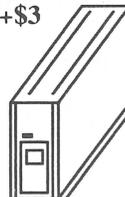
* Because the Apple /// can only handle disks of up to 16 megabytes in size, the Sider 40 T is partitioned into 3 volumes. Two are 16 megabytes in size and the third holds the remaining 10 megabytes. The Sider 40 T will not work in Titan ///+Ie emulation mode, you should use the Sider 20 for that.

UniDisk ///.5 800K Drive

The UniDisk ///.5 is a regular Apple 800K 3.5 inch disk drive for your Apple ///. If you have a hard disk but hate making back-ups, the UniDisk is for you! Back up an entire ProFile with just seven micro-floppies! No hard disk? Then this is a great way to say goodbye to your floppies! With Selector or Catalyst you can store all of your programs on the UniDisk and switch between them in seconds. The new 3.5 disks are so small they can easily fit into your shirt pocket but they're a lot tougher than regular 5.25 inch floppies. Complete with 800K drive, interface card, cabling, driver disk and complete instructions. All for **ONLY \$499+\$10!**

We also offer just the Apple /// driver and documentation for those who want to get the UniDisk elsewhere. **\$50+\$3**

The Sider 20 Hard Disk Drive



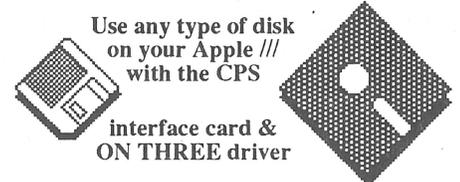
If you have a Titan ///+Ie board your

choices have been very limited if you want a hard disk that worked in ///+Ie emulation mode. The Sider 20 expands your options by working in the native Apple /// mode, the Apple II & Titan ///+Ie emulation modes.

You can store your files on the hard disk in the regular Apple /// mode, then switch to the emulation mode and access those same files with all of your Apple II programs.

The Sider 20 comes complete with interface card, Apple /// driver disk, documentation and cabling. The Sider 20 even supports Apple II DOS, Pascal and Apple II CP/M partitions through it's powerful installation utility. The Sider 20 is a truly great hard disk. Now only **\$799+\$35**

CPS 800/400/140K Drives



While many of you select the UniDisk for your expanded storage needs, many /// owners have told us they wanted a low cost alternative to the the 800K Apple UniDisk 3.5 drive, for main storage or for backups.

With our new Universal CPS Driver, you've got it! The CPS interface card allows you to attach an Apple 3.5 drive and a 5 1/4 inch drive, or a Apple 3.5 and a CPS 800K drive, or a CPS 800K drive and a Mac 400K drive or any Apple II 5 1/4 inch drive.

Any combination will automatically be recognized by our new Universal CPS Driver. No need to re-configure your driver files, it's all automatic! Includes the driver disk and instructions for installing the CPS interface card and all disk drives. We even carry the CPS interface card, 800K, 400K and 140K floppy disk drives with some of the lowest prices around!

Universal CPS Driver: \$50+\$3
Universal CPS Driver & Universal CPS Interface Card: \$149+\$5

CPS 800K Drive: Now only \$249
CPS 400K Drive: \$149
CPS 5 1/4 inch 140K Drive: \$139
Add \$6 s/h per drive ordered

NEW Product:

The Sider D7T

The Sider D7T (Turbo) is the latest in the line of low cost, high performance Apple /// disk drives from ON THREE. The largest drive ever offered for Apple /// users, the D7T can hold over 66 megabytes of programs and data. Best yet it has an average access of only 29 milliseconds, making it the fastest hard disk available for the Apple ///. And to top it off, the Sider D7T is a SCSI hard disk which means you can also use it on your Macintosh or any other computer with a SCSI port.

Because of limitations within the Apple ///'s operating system, the Sider D7T is partitioned into five volumes. The first four hold 16 megabytes each and the last one hold 2.7 megabytes, for a total of 66.7 megabytes (136680 blocks). The Sider D7T costs only \$1599 plus \$35 for shipping & handling and is available for immediate delivery.

Incredible new prices on our entire line of Sider hard disk drives

For a limited time, due to lowered costs on our Sider brand of hard disk drives, we're able to pass these savings on to you.

The Sider 20 hard disk is now **only \$799**. The Sider 40T is now **only \$1299**, that's down \$200 from the regular list price. With our newest Sider, the D7T which is priced at **only \$1599**, we now offer a complete line of hard disks for all of your needs.

From the budget conscious to the power user who demands performance and a great price, we have your hard disk needs covered.

Remember, all Sider's carry a full one year warranty on parts and labor and are the performance leaders.

Draw ON /// - The Apple /// Graphics Tool

Have you ever wanted to simply draw, sketch out floorplans or put together some artwork on your Apple ///? If so you need **Draw ON /// - The Best Graphics Program For The Apple ///**. You can draw circles, boxes, lines - enter text in a variety of sizes and styles, pickup, move and copy objects from libraries of screen images, shrink, expand, rotate, invert and texture images on the screen - **In Black/White AND Color!** You can zoom in on a particular portion of the screen to do very finely detailed work. And with our *Brush* capability, you can use any object on the screen as a drawing tool.

Features such as rubber-banding of lines, user adjustable grids and easy to follow menus make Draw ON the only graphics package for the Apple /// that is both powerful and easy to use. Draw ON gives an individual tremendous power. You can use it in creating charts, preparation of slides and tables for presentations, and letterhead design. You can make changes to the dull graphics that your other programs create by adding borders, textures and different typefaces. Even CAD applications, drafting and flowcharting are now possible on your Apple /// with Draw ON ///. Combined with an excellent instruction manual, you can be doing useful work in less than an hour.

So you know the product. It's the most popular graphics program on the market for the Apple ///. Draw ON /// is the standard for drawing, painting and creating images on the Apple ///. Draw ON /// works with the joystick, mouse, graphics tablet (\$20 extra) and the new TrackBall /// to provide page after page of great looking charts, graphs or other drawings. Why don't you have it? Don't you want a graphics program, or is pencil and pen good enough? If you've been waiting for the price to drop, wait no longer. For a limited time, order Draw ON /// for **\$100 OFF** its regular price of \$179. For **ONLY \$79** plus \$5 for shipping and handling order the best graphics program for the Apple ///.

When ordering please specify the printer & interface card you are using. We support almost every printer connected to the PKASO and PKASO/U interface cards and the Apple DMP, ImageWriter and Epson (MX, FX and RX) line of printers via any interface card or connected to the RS-232 port on the back of the Apple ///. Draw ON /// requires a 256K or 512K Apple ///. Works perfectly with Selector /// & Catalyst and may be installed on your hard disk for quick access.

Desk Accessories (Available From All Programs)

The Desktop Manager

The Desktop Manager (TDM) is a utility that allows you to use desk accessories like those on the Macintosh™. They are utility programs that you use within other programs. You can be using /// E-Z Pieces or any other Apple /// program and a simple keystroke will freeze your program and display the TDM menu. Simply highlight the accessory you want, press RETURN and in a moment it will be up and running. When you're finished, press escape and you'll be right back in your program.

With TDM you can throw away your paper, pen, calculator, appointment book and more! We've included a number of standard features to enhance your productivity. TDM is also expandable. You can design the system that best suits your own needs. TDM has a built in: Note Pad, Appointment Calendar, Calculator, Pickup & Paste, Built-in self help screens and more.

Add new accessories such as macros, disk utilities, a communications program, games and more at any time.

The Desktop Manager requires an external disk drive of any capacity and a 256K or 512K Apple ///. TDM uses about 32K of memory. A hard disk or large capacity floppy disk drive is highly recommended. Works with Selector, Catalyst and ALL other Apple /// programs. Only \$69+\$6.

ASCII Chart

This Desktop Manager add-on lists the decimal, hexadecimal and corresponding character values of all ASCII keyboard characters. A second screen shows the decimal and hexadecimal equivalents of keypresses which include the control key. Keypress table can be invaluable when you need to know printer commands to enable different printer modes. Only \$9.95+\$3.

The Communications Manager

The Communications Manager (TCM) is a powerful tool that allows your Apple /// to communicate or talk to other computers or services such as Dow Jones™, CompuServe™, The Source™ and others. Complete VT-52 terminal emulation makes this program really powerful.

You can record incoming text to a printer or disk file for later viewing and transmit standard ASCII and Pascal Textfiles automatically. TCM has every feature of the other Apple /// comm. programs plus error free transmission of files via the popular XModem & Binary II transfer protocols.

TCM also supports Turbo Downloading for ultra fast file XModem downloads. Turbo downloading gives 2400 baud performance on 1200 baud modems!

TCM Continued...

Included with this package is a version of TCM that runs as a stand- alone program and a version that can be run as an accessory under The Desktop Manager. If you have The Desktop Manager you have the best of both worlds! You can be inside /// E-Z Pieces or VisaCalc and send a spreadsheet or data base file directly. Only \$29.95+\$3.

Disk Manager

This TDM add-on allows you to list, copy, delete, rename, lock/unlock files and list the devices, copy, format, rename and verify disks. Virtually all the features of the System Utilities available in an instant. If you've ever typed in info, and then found that you didn't have a blank disk to save it on, the Disk Manager can be a lifesaver.

Are you sick of not being able to remember the names of certain files? Worry no more - It's Disk Manager to the rescue! You can even copy files to the printer! Instead of the few minutes that it takes to boot the System Utilities, Disk Manager is ready in a few seconds and it takes no additional memory away from your programs! \$24.95+\$3

The Graphics Manager

The Apple // version is being acclaimed as the best graphics printing program *EVER!* The Apple /// version is even better! The Graphics Manager (TGM) allows you to take any Apple /// black/white or color and any Apple // black/white hi-res, color or double hi-res. color or Print Shop image and print it the way you want it!

Sophisticated image analysis lets you take your entire picture, or any portion of it, and expand it to fill an entire page or shrink it down to a small section. Rotate, invert or flip the image to suit your needs. TGM is the *ultimate graphics printing utility!*

Included with this package is a version of TGM that runs as a stand- alone program and a version that can be run as an accessory under The Desktop Manager. Learn what people in the Apple // world are all talking about! Get the original! Get The Graphics Manager /// today! \$29.95+\$3

Macro Manager

One of the most popular add-on accessories for TDM. It's a keyboard macro program that can redefine any keystroke to be a series of keys. Thousands of keystrokes may be assigned to a single key.

You can set a certain key to contain the name of a city, state, zip code or any other commonly typed item. Phone numbers, salutations or *anything that you type* can be setup to as a macro and played back at a moments notice - via a single keypress!

Macro Manager Continued...

Our innovative Macro Recording lets you type in the information as you usually do and will automatically assign you a key. You can use up to 50 different macro keys at once and switch between sets of macros (MacroMaps™) in just a few seconds.

The Macro Manager eliminates repetitive typing and improves your personal productivity by making the /// faster and easier to use than ever before. Like all the other TDM accessories Macro Manager uses no additional memory. Only \$24.95+\$3.

Super Accessories Disk #1

Contains the following TDM accessories: Printer Setup lets you send complex controls to your printer via menus, TypeWriter, Labeler, New Desktop Setup allows better control over the ClipBoard, Make Subdirectory, Menu Manager which provides submenus so you'll have an infinite number of accessories on your Apple ///.

Best of all, each accessory has built-in self help screens and the standard ON THREE power and ease of use. Only \$29.95+\$3.

Super Accessories Disk #2

Contains the following TDM accessories: File View lets you view another file within a file: Change Font: Show Time (no need to go back to Systems Utilities to change the date or time) plus there's an elapsed timer in this module: Change File Type; File Print, Print Screen better than screen dump, you can opt to Print Screen, Form Feed Printer or Line Feed Printer: Reload and Exit: PKASO U commands and The Warning Module. Only \$19.95+\$3.

Super Accessories Disk #3

Contains the following TDM accessories: Accessory Manager lets you customize your TDM menus, rename accessories & more. Character rulers displays rulers on the screen to help you align text. Hex View/Hex Print lets you view or print any file in hexadecimal form. Info Help lets you enter any type of info into a TDM window for instant recall. SOS Errors is an Info Help accessory that lists all SOS errors. Block View/Edit is a powerful disk block editor. Included are both a stand-alone and TDM version. A great value at only \$24.95+\$3.

Extra-Special Sale

For a limited time, in addition to the fantastic sale prices of The Desktop Manager and its add-on accessories (already 25-50% off), you can get the main accessories along with ANY two add-on accessories for **ONLY \$99 + \$9 s/h.** At these low prices we may have trouble keeping them on the shelf so hurry and order your copy today!

MOVING?

If you are in the process of moving, please give us a *minimum* of one months notice. Because the magazine must be printed and mailed prior to the date on the cover and because it takes us a short while to update our records, tell us before you are moving. Doing so will assure that your copy of ON THREE won't be lost in the mail or get to you late.

DeClassifieds

FOR SALE: 128K Apple ///, Advanced Visicalc, VisiSchedule, S-A G/L, AppleSpeller ///, Pascal, Business Basic, Micro-Sci Gameport ///. Best offers take. Scott, (206) 246-9189.

FOR SALE: Apple ///, 256K, Sanyo monochrome monitor, 5 MB ProFile, cover, software, \$550 or offer. (209) 538-1071x4262 (days), (209) 521-1093 (nights, weekends).

FOR SALE: Apple /// 256K with Monitor ///, Apple Dot Matrix Printer, software. \$400 negotiable. Susan Shulman (214) 233-4660.

FOR SALE: I have one brand new Micro-Sci A143 560K disk drive that's in perfect condition. Includes manual, drivers and disk drive. \$299 gets you this great disk drive. Call Bob at (312) 447-3924.

DeClassifieds Work!

Been searching for hard to find hardware or software? Need to sell some excess equipment? Try an inexpensive DeClassified ad! Our readers tell us that they really get results! Place your ad by phone or mail. All copy must reach us 30 days prior to publication date, e.g. April 1 for the May/June issue.

Rates \$2 per word \$25 minimum.

Subscriber discount \$1 per word, \$15 minimum.

Mail your copy with payment to:

ON THREE DeClassifieds
P.O. Box 3452
Kirkland, WA 98083
Or Phone (206) 659-6245

Uncopyprotect Driver

The Uncopyprotect Driver allows you to make backup copies of AppleWriter ///, VisiCalc /// and Advanced Visicalc. It also allows you to install those programs on hard disks and eliminate the need for key disks.

Protect your original copies of these valuable copy-protected programs and order your Uncopyprotect Driver today. Priced at only \$29.95 plus \$3 shipping and handling - **This is the one of the few programs you must have!**

How Would You Like A Fast, Reliable And Easy To Use Hard Disk Backup?

After years of complaints about Backup /// being too slow and in many cases losing people's important information we've decided to do something about it. We know that many people *never* backup their hard disk because Backup /// is sooooo slow or because they've had a problem with it losing information.

A while back we started work on a product we call Go Back. If you're sick and tired of the time it takes to backup your hard disk with Backup /// or the System Utilities, Go Back is what you need.

Go Back is written entirely in assembly language for speed, is four to five times faster than Backup /// and much more reliable. We guarantee it!

We were about half-way finished with the project when we stepped back, took a look at the potential market and asked ourselves, "Will there be enough sales to warrant finishing Go Back?"

If there's enough interest in Go Back we will complete it. Now we **don't** want you to send in your money, or give us a credit card number. All we want is your assurance that you will buy Go Back if we spend the effort to finish it. Actually, we want the assurance of at least two hundred people.

If you want a reliable, very quick and inexpensive (around \$50) program for backing up your hard disk, drop us a note or give us a call at (206) 659-6245. Just leave your name and address so we can notify you if and when the project is finished.

Lazarus ///

Lazarus /// allows you to restore or undelete almost any file which you've accidentally deleted. Completely menu driven, it's incredibly easy to resurrect your deleted files. One wrong keypress can send a months worth of work into limbo. The right keypress with Lazarus /// will recover it in a few short seconds. Lazarus /// is normally priced at only \$49.95. For a limited time you can get a copy for only \$39.95 + \$2 s/h.

Next Time In ON THREE:

Apple /// <-> Macintosh File Transfers

Repairing Your ProFile

Fantastic Products For Your Apple ///

///**E-Z Pieces**

///**E-Z Pieces** is a fully integrated spreadsheet, word processor and data base manager rolled into one program. ///**E-Z Pieces** combines the power of the three most commonly used programs with the ability to quickly and easily transfer data among them. This program was written by the author of the Apple II program **AppleWorks** - the best selling software package on any computer!

AppleWorks & ///**E-Z Pieces** look and function exactly the same, even the data files can be swapped between II and the Apple ///**E-Z Pieces** utilizes the full memory available in your Apple ///**E-Z Pieces**, 180K on a 256K Apple ///**E-Z Pieces**, 414K+ on a 512K machine! This best seller was originally \$245. You can get your copy for only \$135+\$3.50 s/h.

Modems For The Apple ///

If you want to enter the wonderful world of communications, an **ON THREE** modem is all you need. For a limited time, both our 1200 baud and the faster 2400 baud modems come with the **Communications Manager**. With it you can talk with other Apple ///**E-Z Pieces** users on **CompuServe™**, the **Source™**, **Dow Jones™** and other information services. Even connect directly with another PC!

Fully Hayes compatible our modems are an exceptional value as they include both communications software and all necessary cabling. 1200 BAUD modem is **ONLY \$129.95** and our 2400 BAUD modem is **ONLY \$249.95**. \$10 for s/h on either modem.

Do You Use Draw ON Or The Graphics Manager?

If so you should have an Apple Mouse or the new Trackball ///**E-Z Pieces**. With the mouse or trackball, using **Draw ON** will be that much easier. **ON THREE** has a good supply of both the Apple ///**E-Z Pieces** mouse which works in either the Apple ///**E-Z Pieces** or ///**E-Z Pieces** and the **TrackBall ///**.

StemSpeller - ///E-Z Pieces Spelling Checker****

Compatible with standard ASCII files, Pascal Text, **StemWriter** and ///**E-Z Pieces** word processing files, **StemSpeller ///** is fast and very easy to use. It has a 50,000+ word main dictionary and the ability to create auxiliary dictionaries of words you commonly use. Written in 100% assembly language for speed and comes as a standard interpreter that can be run by itself or loaded and run under **Selector** or **Catalyst**. In stock and available today. Originally priced at \$69.95, **StemSpeller ///** is available for a limited time at only \$49.95 + \$5 s/h.

StemWriter ///

This new word processor from Australia lets you view two files simultaneously and combines all of the features you wanted most into a powerful document processing system! Now you can design your own templates, make headlines, adjust column width, utilize on-screen over strike & underlining, date stamp documents, count words, label and personalize form letters. **StemWriter** has four levels of subscripts and superscripts, utilizes a desktop like ///**E-Z Pieces** and the four arrow keys to "see and point". It also uses the full memory available in your Apple ///**E-Z Pieces**. Has redefined numerical keypad, and file managing on built-in utilities program. Many more state of the art features! Originally \$99, for a limited time you can get **StemWriter** for only \$79.95!

ON THREE, Inc.

Your Apple ///**E-Z Pieces** Experts
P.O. Box 3452
Kirkland, WA 98083

**BULK RATE
U.S. POSTAGE
PAID
Permit No. 776
Everett, WA**

Please check your address label. To the right of your name is your expiration date. If it says **July 89** or **August 89** then your subscription has just run out. Please renew for another year for the low price of only \$20.