

# The Best of Ottalini #6

(ORIGINAL DISK NAME: THE BEST OF OTTALINI #6)

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WELCOME!

WAP /// SIG Public Domain Library Disk  
Category/Number : WAP Articles/3WAP-06

This is the SIXTH disk containing articles written by WAP /// SIG Co-Chairman Dave Ottalini. All the articles on this disk are from 1991. All were published in the WAP Journal. We've also included articles written about our Public Domain Library and articles from other Apple /// authors. We hope you enjoy them!

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WAP /// SIG PUBLIC DOMAIN LIBRARY

PDS NAME: BEST OF OTTALINI #6

DISK ID : 3INF-35

## TRAIL.COLUMNS (1991)

### January

Some Nice Words; A+/Incider; Dobrowolski News

### February

Apple /// emulation on the Mac; February Disks

### March

On Three; Printer Questions; Disk Library

### April

///+///e Cards; Apple ///ers Unanimous; EASY Accounting

### May

Meetings; PD Disks; Directory Damage

### June

A3 Donations; Jim Jutzin; On Three

### July

GoBack ///; Budget Time; PD Library

### September

Sun Remarketing; Paul Campbell; On Three

**October**

Disk Drive Speed; New BBS; 256K Upgrade

**November**

Bob Consorti; TCS; Mail

**December**

Holiday Gifts; Other Clubs; PD Library

**PD.DISKS**

AUG.DISKS | SEPT.DISKS | OCT.DISKS | NOV.DISKS

**OTHER.ARTICLES**

Cooling the Jets on your Hot Apple ///

How to buy and collect old computers By Tim Swenson

Review of the //GS version of DTM

The Apple ///: Death Bed or New Found Life

Using DTM Macros

*By David Ottalini  
WAP /// SIG Co-Chairman*

**January 1991**

### **SOME NICE WORDS**

Science teacher Carol Sanders from Grace Episcopal Day School wrote to say how much her students are enjoying the Apple /// that was donated by former SIG member Trish Babylon last Fall. The /// is equipped with the Titan ///+//e cards and a 65C02 chip so it can run many of the "enhanced" //e programs.

Carol says that "having another computer aids our program greatly as we use them in individual classrooms as well as the computer lab setting."

If you have an unused /// or know of one that needs a home, please contact our Co-Chairman, Jim Jutzin about the Apple /// Donation Program. Jim has been working on a number of fronts to obtain more ///s, so be sure to give him a call if you would care to contribute!

### **OBSOLETE COMPUTERS?**

Peter McWilliams, a nationally syndicated columnist and author of "The Personal Computer Book" was recently asked during an interview on CNN how to ensure that a computer doesn't become obsolete. His comments, applicable to our SARA, were as follows: "Computers will continue to do what you bought them to do until they break. Will there be more sophisticated ones on the market next year? Yes. Will they be cheaper? Probably. But yours won't be obsolete."

And I like this comment from Dick Plum, writing in ATUNC's November Newsletter: "It never ceases to amaze me that when I pick up an Apple ///, I have in my hands more computing power and memory than the IBM 7090 had in the 1960s. The 7090 rented for about a million dollars per month, and supported an entire major scientific laboratory." If they'd only had a few ///s instead ...

### **A+/InCider**

Rumors proved true in December, as A+/InCider finally crossed the line and became an "Apple II/Macintosh" magazine. Editor in Chief Dan Muse says they're excited about reporting on both machines and how they interact.

The trouble is, that Apple II folks are interested in how Apple IIs interact. Mac folks don't really care. It's really great that Apple is coming out with a Mac that has ONE slot that can take a 128K Apple IIe card (another indication that the GS is on its own dead-end track). And frankly, covering that is something

that A+/InCider should (and did) do.

But to cross the line this way is questionable. Why would a Mac owner want to read this magazine? And depending on how many Mac articles start popping up, how many Apple II folks?

Muse says covering the "two platforms" is not only "justified but natural." Sorry, but the fact is there are plenty of Mac magazines already out there. It's hard enough covering one "platform" well. But I question whether A+/InCider will be successful trying to reach both audiences. Stay tuned.

### **DOBROWOLSKI NEWS**

Joe Dobrowolski's Apple Users Group International is still kicking out there in Guam. In his September/October 1990 issue, Joe indicates that his News and Views newsletter will basically become an all-Mac publication as of this month. That means this subscriber will be saying so-long. But if you are interested in a good compilation of Mac news and reviews from a number of user groups around the nation, you might want to give it a try for just \$18.00 per year.

You can contact Joe at PO Box 21477, Barrigada, Guam, 96921 for more information. AUGI was, for many years a strong supporter of our /// Community and Joe made an invaluable contribution to our PD by donating copies of his /// PD disks to WAP. We'll miss him on the /// side of things.

### **BACK UP YOUR DISKS**

Ahhhhhh. We talk about this on occasion, usually after a SIG member has had some problems. In this case, two Three EZ Pieces data base files were corrupted on a Profile and there was no backup. Luckily, the two files could be copied to a floppy, but they were unreadable by 3EZPS. What to do? I used Communications Manager (by On Three) to change the file type of the files from a 3EZP Data Base to an ASCII text file.

AppleWriter wouldn't touch it. But it was loaded without problem into the 3EZP's word processing module (again, as an ASCII file). Of course, all of the control characters and other associated garbage was left intact, along with the data.

Now the hard part came in. Trying to decide what was garbage and what was data. Then, reconstructing each record in a form that could be read into the 3EZPs Data Base module (it will read a text file in, if formatted properly).

Needless to say, that took some time and effort. But the data was saved. A backup, however, would have made life for everyone a lot easier. So if you haven't done it in a while, stop what you're doing right now (OK ... finish the column first) and go back up your hard disk.

### **PUBLIC DOMAIN DISKS**

We start off the New Year on a fun note with a new Games disk, **3GAM.04**. I went through a number of

old PD disks to put together two disk sides worth of some really great games for your Apple ///. You'll find a program for you handicappers out there who really want to know if your horse will win, place or show. Knowledge of horseracing is a requirement for this one. There's an NFL ranking program, and a host of other fun diversions, so give it a try.

The Best of On Three programs, disk **3BSB-07** contains two sides of Basic programs originally available in On Three Magazine. There's a great graphics sketching program, a font demo program, graphics demos and much more. As with most of our disks, you'll find this one is self-booting on side one.

Finally, **3MSC.15** is our fourth Contributions Disk. It includes John Lomartire's Visicalc sorting utility and disk cleaning programs, Robert Boston's "Banker" checkbook program, ProPak's Printer Control Program for Epson and Epson-clone printers, and Barbara Dudman's improvements to the Pascal Menu.Maker program (requires Pascal knowledge to use).

As for future offerings, look for another "Best of Ottalini" disk with my columns from 1990. I've also been having a lot of fun with an all-music disk (contributions welcome) and a disk dedicated to all you Star Trek fans out there.

### MORE TREK

Speaking of Star Trek and music, here's a program you can type in and run for a little indication of what our Star Trek disk will have to offer:

```
250  REM: STAR TREK THEME
270  RESTORE
280  OPEN#1, ".AUDIO"
290  OUTPUT#1
300  FOR X=1 TO 18
310    READ N,T
320    PRINT CHR$(128);CHR$(60);
330    PRINT CHR$(N-256*INT(N/256));CHR$(INT(N/256));
340    PRINT CHR$(T-256*INT(T/256));CHR$(INT(T/256));
350    NEXT X
360  CLOSE#1
380  END
390  DATA 3891,35,2915,10,2314,10,2597,30,3272,30,1733,30,1946,45
400  DATA 1946,10,1946,10,1733,10,2184,10,1946,30,2184,30,2314,30
410  DATA 2314,10,2915,10,2314,10,2597,40
```

### FINALLY: ON THE GRAPHICS FRONT

I've been working a bit more on that disk dedicated to showing graphics on the II and /// (basic programs in their II and /// forms). A December, 1990 A+InCider article by David Thornburg, Ph.D discussed how to use mathematics to calculate the shapes of trees.

Great article and with some work, I was able to rewrite the examples into Business Basic. One problem is that Applesoft HiRes Graphics homes 0,0 at the top left of the screen, while Business Basic starts at the bottom left. That created some difficulties. But with patience, I was able to make the transition.

Here's one example: The calculated image of a cypress:

```
10 HOME:PRINT"CYPRESS":PRINT
20 INPUT"NUMBER OF POINTS ";N
30 INPUT"MAGNIFICATION ";M
40 INPUT"CENTER COORDINATES ";XC,YC
50 INPUT"START AT ";X,Y
60 INVOKE".D1/BGRAF.INV"
70 OPEN#1,".GRAFIX"
80 PERFORM RELEASE
90 PERFORM INITGRAFIX
100 PERFORM GRAFIXMODE(%1,%1)
110 PERFORM PENCOLOR(%15):PERFORM FILLCOLOR(%0)
120 PERFORM FILLPORT
130 PERFORM GRAFIXON
140 FOR J=1 TO N
150     U=140+M*XC-M*X
160     V=95-M*YC+M*Y
170     IF U<0 OR U>279 THEN GOTO 200
180     IF V<0 OR V>191 THEN GOTO 200
190     PERFORM DOTAT(%U,%V)
200     GOSUB 260
210     XN=R*X*COS(A)-S*Y*SIN(B)+H
220     YN=R*X*SIN(A)+S*Y*COS(B)+K
230     X=XN:Y=YN
240     NEXT J
250 GET G$:PERFORM RELEASE:END
260 Z=RND(1)
270 R=.8:S=.9:A=0:B=0:H=0:K=20
280 IF Z<.4 THEN R=.3:S=.4:A=1.4:B=1.3:H=0:K=5
290 IF Z<.25 THEN R=.3:S=.4:A=-1.4:B=-1.3:H=0:K=5
300 IF Z<.1 THEN R=0:S=.8:A=0:B=0:H=0:K=0
310 RETURN
```

By David Ottalini  
WAP /// SIG Co-Chairman

February 1991

### APPLE /// EMULATION ON THE MACINTOSH (OR AMIGA)?

Hmmm. With the new Mac LC and its Apple // card, Apple has provided a pathway for Apple // (sorry GS) users to move on to a Mac without losing access to all those beloved Apple // programs.

But as usual, I have to ask, what about the Apple ///? From Apple's standpoint, the answer is the same as it is apparently giving the GS folks, which is, forget any card that could emulate a /// (or GS) in the Mac. (Why couldn't they have done a GS card that included Apple /// emulation too? – OK I know they don't care about our SARA any more ... but what happened with the GS?)

That brings up an interesting question, however. What about a software emulation of the Apple /// on the Macintosh? That possibility was recently kicked around on CompuServe's Apple /// forum on MAUG (Micronetworked Apple Users Group).

An Apple /// voice from the past, Daryl Anderson, whose excellent programs are all in our public domain library, suggested it should be possible (as would, in fact, an Apple // emulation). I asked him to expand on his brief comments on-line, and he responded with the following (keeping in mind he is now an AMIGA user (which is also a 680x0 machine):

*I still DO think a software emulation of a /// on a faster CPU such as a 68020 or 68030 is technically feasible - it seems to me you'd have about a 10 to 1 effective instruction speedup so, in principle, you could take 10 68030 instructions to emulate one 6502 one. In fact almost all 6502 instructions could be emulated in 1 or 2 680x0 instructions and clever design could keep a lot of the action in the 680x0 registers for MAX speed and even take advantage of CPU-cache if available (figuring 16 32-bit registers to simulate 3 8-bit ones (!) lots of room to fool around...*

*Course the real bear is gonna be simulating the "machine specific" stuff, e.g. specially the VIDEO... that's where a single 6502 instruction could take 10 or even 100 680x0 instructions to emulate - Storing a value to memory-mapped Apple /// video ram would have to be mapped to a bunch of code that adjusted colors, text, scrolling, etc. Writing directly to an I/O peripheral controller chip addressed register would require similar complexity. BUT all of these are essentially "FINITE-STATE Machines" and emulatable via software. It's simply the performance hit that would be open-ended. And, of course, on video you cannot really spare that piece...*

*I specifically recall an Amiga program called Transformer which never made it to commercial acceptance - that was emulating an 8088-PC on the 68000 Amiga - it ran about 1/3 speed (1/3 of the old, slow 4.77MHz PC's) and didn't handle graphics, just text --- but, in my opinion, it was a MARVEL... emulating the bizarre and convoluted instruction set of the 8088 with a 7 Mhz 68000*



is a wonder.

One thing Transformer did not do, but which I think I'd consider, is to take advantage of some special features of the Amiga - in this case Multitasking... I'd set up an entirely different task to only manage the display of the "///EM" 'pseudo-machine' - it would sit and wait for signals that the memory associated with the video had been modified then perform the update... an entirely separate task would do the emulation of the 6502 and/or the SOS environment - perhaps a couple of tasks in all. This would allow for selective and flexible tuning of the system.

Of course it's less "portable", e.g. to MAC if you do it this way... Also it will tend to be even slower if we set it up to run under the umbrella of an OS (e.g. AmigaDOS and the Amiga Multi-tasking EXEC) since that adds its own "system" overhead - but I think the whole point is to be able to run the emulation(s) simultaneous with the host environment. This is what the (HardWare) emulation of the Amiga BridgeBoard allows - PC/MessyDos running in a window while other Amiga Apps are also running, with disk/partition and clipboard level data interchange.

HOW would I go about it?

First I'd do, a straight 68000 Assembler version of a vanilla 6502 emulator, coded for modularity but optimised for speed - perhaps limit to a subset of instructions at first, then feed it a simple 6502 machine language program (simple brute-force imbedded loops with some memory access) and see how close I am to 6502 on the ///. I'd expect it to be faster, at this point.

{{ PS on memory access, initially just grab a 64KB chunk from the system, within the emulator, and call that 0000-FFFF and access it always using 68000 indexed addressing modes... you can see where this leads for the /// and its clever bank switching. The Ram addressed by the /// was not directly accessed by the 6502 anyways (and the 6502 was not really the CPU in the machine), the CPU and ram decoding was handled by the handful of chips, including the PIAs and VIAs which, together, constituted the CPU - really more like a mainframe "CPU" than the typical CPU=microprocessor setup... the Amiga is the only other (micro) machine that I know of that really sets up a bunch of other chips which work as a collective CPU (in this case they handle much of the video of the GUI) }}

Next I'd design an intermediate "video map" data structure (maybe it could just be the memory used for Video RAM but I'd expect some additional info would be useful, flags and such) and set up instructions to trap out any access to video memory (make these generic since we will later be trapping other machine specific addresses such as Page Zero and Page One accesses).

Let me back up. Here (I'm forgetting my ///) we've got to decide whether to implement our own .CONSOLE driver or run the standard one under emulation - former is faster but more work, I guess I'd probably do the former which would probably allow full-speed text. Can all /// text display be done thru .Console? If so then maybe skip the video-special stuff for now (my idea is to trap the references to video ram for color/graphics display and translate to the host machine's display format - I'm getting too used to machines like Amiga & Mac where text-aint-text, text is just a subset of color/pixel-mapped graphics on this machine. I think a text-only /// with a custom .CONSOLE (e.g. running as a 68000-coded task on AMI accepting /// formatted device commands) would give a nice 90% emulation - Graphics is probably why the ][ Emulation project

*on the new Macs ended up using hardware.*

*Hmmmm... I've convinced myself here that this is even more doable (without the graphics).*

*NOW. What about SOS. First cut would be to run it directly on top of the 6502-emulator but a good alternative is a rewrite - remember we would not be re-writing an OS from scratch, just writing a bunch of routines (maybe even in C) that use the host machine's OS to process SOS functions. This gets us around all the SOS code that accesses custom memory locations that are really I/O controllers, etc...*

*(You could also do a) custom .RS232 driver and .Printer driver and do a .Profile driver that just talks to a big (! 5M ?!) Amiga file via simple file access calls.*

*In general do the FileSystem by setting up a single file named Apple3 on the host drive and defining an internal data-structure for the whole thing that is just the /// file system layout.*

*Copy-protected stuff, special, low-level access to floppy-drive hardware, a real bugaboo (again why a /// is more doable than a []).*

*1Meg, 2Meg, 8Meg /// very doable (at least up to the limit of the "unused" bits on the bank-switch bytes - I think that would be 256 32K banks - yup 8 meg.*

#### WHAT WOULD IT TAKE?

Daryl (who no longer has a ///) says he'd love to see "someone" do this. How long would it take? Here's what he estimates:

*I'd guess a good notion of relative performance and a rough 6502 simulator could go in 2-3 weeks from an experienced 680x0 programmer. After that another 1-2 months for alpha cuts of the .Console and .Profile/file system emulators ought to get you to the point of wondering what the heck you're up to.*

*You know, I think the key point is the counter to the argument that "Apple couldn't (wouldn't) do the [] emulator or Mac in Software so it must not be doable; I.E. that the "special" features of the ///, Text vs. Graphics orientation, HardDrive vs Floppy, Application vs (copy-protected) games - all make a /// emulation more doable. Modularity of SOS and the /// filesystem also make it doable. Besides, I figure Apple just avoided a SW- only [] emulation because then it'd just get pirated around - their little card for the Mac is the ultimate "dongle".*

*Let me know if you or anyone else ever gets into it.*

#### WHY BOTHER?

Well, if for no other reason, this kind of project would again help to guarantee that our investment in software and data continues over time, and would be easily accessible on a state-of-the art machine.

Anyone interested in pursuing this (even with the graphics limitations)? All it would take (!) is 1) a

programmer willing to take on the job and 2) some money to pay him/her. What could be done is get people to commit (without money) to purchasing the product and getting all the Apple /// user groups to put some funds up front for seed money. If it were combined with a // emulation (or could lead to one), the interest might be even greater (since it would work on ANY Macintosh instead of just the LC).

Daryl, who (as you might have guessed) is into Amiga these days, says it would be a "good choice for host machine (to develop emulation on) since its floppy controller can read MFM <or> GCR-format disks, same as ][ and ///.

I'll kick this one around to see if there's any interest and report back to you in a future Trail column.

## FEBRUARY DISKS

I've been working on a number of new PD disks for you of late, but I'm not quite ready to release the one's I'm most excited about. In the meantime, I'll pass along some disks to keep your whistle whetted:

**3ZAW-03** is another 3EZP/Appleworks disk. Side one is a simple accounting program provided by /// SIG member Irving Tessel of Los Angeles. It's simple to use and instructions are provided. On side two we've taken a number of Advanced Visicalc templates and converted them over to 3EZP/AppleWorks spreadsheet format. Templates included will let you keep track of your expenses, computer your net worth, keep track of your stock portfolio and much more.

**3INF-17** is the Best of Ottalini, Disk #5. Yes, I know it seems hard to believe that my columns could fill up five double-sided disks, but they you have it. This disk includes all my articles from 1990. In 1992 (when disk 6 is released), you'll be able to purchase the whole set in a giftwrapped edition!

Rounding out our offerings is disk **3MSC-18**, "Music, Music, Music." As you may have guessed by the title, this disk includes songs, information about a MIDI interface for the /// (assembly language expertise required), even a fun music game you might want to try. For you Basic programmers, the programs offer some guidance if you're interested in incorporating single octave music in your programs. I really enjoyed putting this one together and hope you'll enjoy it.

In coming months look for a host of Pascal disks, a Star Trek disk and that long-promised (I know ... just about every month!) Apple // - Apple /// graphics disk.

## FINALLY

Hats off to Paul Campbell of Detroit, Michigan. Singlehandedly, he's been working to bring the Apple /// back to life in Motown. I recently talked with Paul, who I hope will also have joined WAP by the time you read this.

Despite working full time and going to school, he's sold and installed seven Apple /// systems, including one to a law office which uses 3EZ Pieces exclusively. Paul says he's always looking for more Apple ///s to buy, so if you're interested, contact him at xxxxx, Detroit, MI. 48219. His phone number is 313-xxx-xxxx.

*By David Ottalini  
WAP /// SIG Co-Chairman*

**March 1991**

**MEETINGS**

I need your help to determine if it is worth continuing our monthly meetings, or try to cut them back. Attendance over the last 6-8 months has been poor. There have been meetings where just myself or Jim Jutzin were the only ones to show up.

I know from the surveys that you like the Journal and the PD. But the meetings are of less importance. Part of it is our location. It is difficult for our Virginia members to come to Maryland for a meeting, even if it is once a month.

And I realize that we don't do a very good job about preparing programs. Frankly, without someone willing to do that job, it's just not in the cards for Jim or me to try and put together a whiz bang program every month.

If you have any thoughts about our meetings, please let Jim or myself know. Due to the war, I was unable to attend the January meeting and don't believe anyone else attended. We'll see how things go through the Spring to see what you, our SIG members, might have to offer as alternatives. Frankly, it might just be fun to have one meeting during the Summer for everyone to simply get together. Think about it and give Jim or me a call or drop us a note at the WAP office.

**ON THREE NOTE**

Couple of notes from On Three. They have run out of 512K upgrade kits and are not taking names on a waiting list. Bob Consorti apparently needs 100 orders to have the boards manufactured, so if you are interested, please call On Three at 206-xxx-xxxx to place your name on the list. Speaking from experience, the 512K upgrade is one of the best things you can do for your ///.

Also, On Three is also out of StemSpeller, the only Apple /// program that can spell check /// EZ Pieces word processing files directly. Prospects for getting more from the Australian publisher are not good. Your alternative here is to get Apple Speller /// from Sun Remarketing (1-800-821-3221). Print your /// EZ Pieces word processing file to disk as an ASCII file, and then load it into Apple Speller for checking.

**SPEAKING OF SUN**

That 800 number is now a 24 hour order line number for your convenience. Unfortunately, the last two catalogs I've gotten have not even mentioned the ///. Despite that, Sun continues to support the /// by

offering repair services and sales of hardware and some software. Get on their mailing list (as well as On Threes) if you haven't already.

### INTERESTING WORDS

I'm always looking for comments about our ///. Lavona Rann, of the Third Apple User's Group in the Windy City had this to say recently on CompuServe:

*Learning Messy-DOS reminds me of the old /// days. It is a lot more like SOS than I had thought. AND learning text editors reminds me of my first experiences with the original AppleWriter. I went out and bought software right away to make it a little more user useable (not friendly). Poor Sara, one wonders what she would have been if her first name had been IBM. Or, on the other hand, IBM had not decided to enter that market. The more I see of DOS 3.3, the more I believe the people just starting out with ///'s are better off than I had thought.*

### PRINTER QUESTIONS

Always of interest to Apple /// users, the question comes up frequently during Hotline calls. There were some recent comments about connecting two printers (A Qume Daisywheel and the original Imagewriter printer) on an Apple /// on CompuServe, which our good friend Ed Gooding answered:

*You will need a modem eliminator cable for your Imagewriter. And you can use a T-Connect (also called an A-B Switch) as well. You would connect the modem eliminator cable to the serial port, then connect a serial cable from that to the T-connect. Connect two cables from the T-switch to your two printers and you will be in business. You will want to use separate printer drivers for the two printers, though. I use the version 1.3 serial printer driver for both. The Imagewriter is set up for 9600 baud, 8 bits, no parity, and the Qume is set up for 1200 baud, 7 bits. I named the Imagewriter driver .PRINTER, as it is my default printer, and named the Qume driver .QUME.*

*Since I pretty much only use my Qume from Applewriter, I set up my SYS.PRT file to direct print to .QUME. If I want to print a draft, I can redirect my output with the PD command. I also have a print control file set up named IMAGE.PRT that I can load in with different margins and such so I can quickly print a draft, edit, switch back to the Qume, and print a final. If you have Macro Mgr., you can set up macros to make this very easy to do. If you use your Qume more than your IW, then you may want to make the Qume driver .PRINTER, and the IW driver .IW.*

By the way, your /// SIG PD library has a double-sided disk full of drivers (3UTIL-04), including the Imagewriter and Qume drivers.

### ON THE PUBLIC DOMAIN FRONT

This month, I'm happy to announce EIGHT new disks. They all fall under a new category in our Public Domain: Pascal. We've basically tried to gather all the latest Pascal language disks we could find that

you might be interested in. In fact, a knowledge of Pascal is really required for you to really work with these disks.

The WAP PD library has all the Pascal manuals which you can take out if you're interested. In fact, we have a number of extras you may have for the asking. Now for the disks:

**3PCL.1** is the Pascal 1.2 Interp and associated files. It is NOT self-booting. **3PCL.2** has the Pascal 2.0 Compiler and Toolkit #1. **3PCL.3** has the Pascal Toolkit disks 2 and 3. **3PCL.4** has the Pronto Debugger and SANE disk #1. **3PCL.5** has SANE disks 2 and 3. **3PCL.6** has SOS I/O and ExerSOS examples (this disk is self-booting). **3PCL.7** has Pascal Utilities and the Putdemo and Putlib demos. And finally, **3PCL.8** has Wade's Pascal Patch for Pascal 1.2 (allows you to put 1.2 onto a hard disk) and a PCode Dissembler.

We do have earlier versions of Pascal, and if there is interest, we'll put those into the PD as well.

By the way, if you are looking for a good tutorial on Pascal, I can recommend Elliot Koffman's "Pascal, A Problem Solving Approach" as a good way to get started.

In the future, we'll add Fortran and some other languages too, so stay tuned. Also on the agenda, some foreign language drill disks, a great program by our own Jim Salerno that was designed to keep bowling scores, yes that Star Trek disk and much more.

## USED COMPUTERS

Following up on a previous column, I've found one company locally that offers to help to buy or sell a used computer. It's called Computer Recycler Classifieds. A recent ad in the "Washington Post" says its a "unique on-line system to access listings for all makes and models" of computers. Phone number is 301-858-7050 or if you have a modem the number is 301-858-7094 or 301-626-8682.

I haven't had a chance to check into these folks, but will report to you more fully in a future Trail column.

## FINALLY

My 4 year old (this month!) really enjoys this game, which I adapted from an Apple // program. It's a simple drawing program that requires an Apple /// joystick and is much like an Etch-A-You Know What.

```
10  INVOKE".D1/BGRAF.INV"
20  OPEN#1, ".GRAFIX"
21  PERFORM RELEASE
22  PERFORM INITGRAFIX
30  PERFORM GRAFIXMODE(%1,%1)
40  PERFORM PENCOLOR(%15):PERFORM FILLCOLOR(%9)
50  PERFORM FILLPORT
55  PERFORM GRAFIXON
60  Y=PDL(1)*.74902:REM 192/255
80  X=PDL(0)*1.09804:REM 280/255
90  PERFORM MOVETO(%X,%(191-Y))
```

```
100 IF BUTTON(0)>0 THEN GOTO 50
105 IF BUTTON(1)>0 THEN GOTO 50
115 ON KBD GOTO 170
120 Y=PDL(1)*.74902
140 X=PDL(0)*1.09000:REM SMOOZED A BIT FOR RIGHT EDGE OF SCREEN
150 PERFORM LINETO(%X,%(191-Y))
160 GOTO 100
170 IF KBD=27 THEN GOTO 50:ELSE GOTO 300
300 TEXT:HOME:PERFORM RELEASE
310 CLOSE#1:END
```

By David Ottalini  
WAP /// SIG Co-Chairman

April 1991

### ADIEU TO APPLE /// UNANIMOUS

Word from the West Coast is that this San Francisco Bay-area group has decided to combine with ATUNC - The Apple Three Users of Northern California. Newsletter Editor (and WAP /// SIG member) Tom Linders wrote in the January, 1991 Newsletter that "Neither club is doing well at meetings, and memberships are waning. So we are going to combine the two clubs as of the first of February, 1991. There will be one newsletter, one set of officers, one dues, but two meetings."

The new group will be called ATUNC, with a southern chapter (like our Slices) called "ATUNC South." Its combined membership will be about 70 members (just a little under what the /// SIG membership has).

We're sorry to lose Apple ///ers Unanimous, but happy to see ATUNC strengthened and perhaps better able to focus on the needs of all the Bay-area owners of our SARA.

### TITAN ///+//e CARDS

I've talked a number of times about this set of two cards you can buy for your /// to give it full 128K Apple //e compatibility. Add a 65c02 chip (replace it for your ///s 6502 CPU chip) and you can run ANY program that can run on an enhanced Apple //e including Publish It!3 and AppleWorks 3.0. They also work with the less expensive hard disks now being sold by On Three (1-206-334-8001).

The cards are still available from a company called GR&D for \$299.00. If there's enough interest, I may be able to get a group purchase deal from them like we did a few months ago. Their phone number is 1-313-677-4122.

If you've never given much thought to owning these cards, Ron Collins recently gave some great reasons on MAUG (Micronetworked Apple Users Group) on CompuServe):

*The benefit of the Titan boards over even an original //e when installed into the Apple /// are many. The few I am impressed with are... A) I can still run all of my // software. B) I can now run any of the //e and some of the //c software, C) I can use my ///'s 256K memory as a high speed ramdisk without having to purchase an add-on board, D) I get a number pad that the //e doesn't have and I get extended graphics support and extra video memory without the enhanced //e's extra cost, E) I get 80 columns without the expense of a //e 80 column card. To me, the cost of the two boards (which have a //e joystick port onboard as well!) is far less than the cost of a new system with similar hardware.*



## SOFTWARE NOTES

If you've purchased the EaSY Accounting System and are having some problems getting it up and running, please check your disks to make sure the files are UNlocked. EaSY needs its files unlocked to write to them and responds in a very unfriendly manner if they are not (i.e. it won't work!).

Additionally, please be sure to read the instructions on side one of Disk **3ACT-01**. They are not complete by any means, but should help to get you up and running. Most importantly, the instructions explain the password you'll need to use to get into the system.

And on one other front, your illustrious /// SIG Co-Chairman mis-numbered some of the PD disks the past few months. As a result, you'll notice a few holes in our Miscellaneous category. We'll fill those in soon, so stay tuned.

## APRIL PD DISKS

Five disks find their way into our PD this month and yes, we are finally going to release the long-anticipated Star Trek disk. ///ers from all over the nation have been clamoring for this, so send in that \$2.00 for your copy before we run out (just kidding ... we'll transport more into the WAP office if demand warrants).

The Star Trek disk is **3GAM.05** and includes the only two known versions of the Star Trek game (both in Basic) for the Apple ///. There is some musical entertainment, some Foto Files, and information about what you can find on the Science Fiction Forum on CompuServe about Star Trek. There's even a file describing fan clubs you can join.

Be forewarned that much of this material is Next Generation (or as they call it on CompuServe STTNG) in nature (since it's my favorite). And just wait till you see the boot program!

Moving on, Disk **3INF.21** is our ///s Company BBS Information disk. If you've never tried Ed Gooding's Bulletin Board, here's your chance to see what it is you are missing. This disk shows you what the BBS looks like and what it offers. That includes descriptions of many of the newest files that are being offered. ///s Company is free save for the phone call and has truly been a labor of love for Ed over the years. By the way, this is our third ///s Company disk. **3INF.01** and **3INF.02** has programs and other information you might enjoy.

Disks **3MSC 13** and **14** are for those of you interested in learning or practicing your French or Italian. Contributed by Jim Salerno, French Tutor and Italian Tutor can run you through the paces to hone your skills. These disks are really great for students who want a fun way to practice. The French Tutor disk (3MSC.13) is double sided and self-booting, while Italian Tutor is only a single-sided disk.

Jim also donated a program for our final disk, **3MSC.16**. Bowling is a Basic program designed by Jim for a senior center interested in keeping track of bowling league scores. It could easily be adapted to your own league needs if desired. On the flip side, we've but some programs for teachers. Grid Grade allows teachers to keep track of their students and grades. There are four programs, GRIDDER, GRADER, GRADESHEET and CLASSLIST. All are written in Basic and the disk is self-booting.

In the works for future disks, more offerings from Dr. Al Bloom, and another Contributions disk. I've also started working on a disk that will be called "How Can I..." that will include articles explaining many of the questions folks seem to ask when they call on the Hotline (i.e. "How can I transfer files from my /// to an IBM or Mac", "Where do I find software?" and more). Contributions for that disk are more than welcome.

Finally, I've updated the New Member disk to reflect continuing changes in the Apple /// Community.

*By David Ottalini  
WAP /// SIG Co-Chairman*

**May 1991**

### **MEETING UPDATE**

After discussions with some of the more active /// SIG members, we've decided to discontinue monthly meetings of the SIG in favor of quarterly meetings at member's homes. These meetings (on either a Saturday or Sunday) will be informal sessions, designed to give us a chance to do a little socializing while seeing how the host uses his/her Apple ///(s).

Our first quarterly meeting will be in July. Date and host are still being set as of this writing, but we should have it nailed down by the time I sit down to write my June Trail column. As a result, effective immediately, we will no longer be meeting at the WAP office.

I hope that by making this change, those /// SIG members in the Washington Metro area will make a real effort to attend our meetings. We'll still have PD disks available and, if there's enough interest, will also conduct an informal mini-flea market of Apple /// hardware and software.

Anyone interested in hosting a /// SIG meeting please contact me directly. At this point, we'll meet in July, October, January and April. We'll take another look at this arrangement next year to see if it's worth continuing or, if necessary, alternatives.

### **PUBLIC DOMAIN LIBRARY**

Even as you read this, I hope to have completed a lengthy and time-consuming project to revamp our /// SIG PD library catalog. Basically, I've gone back and done a better job of describing exactly what is on each disk, so that you, as a PD consumer, will know exactly what you are getting for your \$2.00.

It's all part of a bigger project to update the Apple // and /// hardcopy PD catalog. And while this was NOT something I particularly enjoyed, it did help me to get a better handle for what we have in our library. In the process, I've also updated these disks so that they reflect the new numbering system as well as sporting the newest version of the Menu.Maker program. Some files that no longer have relevance have been eliminated, and I've updated files where possible.

These updated disks will be making their way into the PD over time, as John Ruffatto can get to them (I will give him the disks a few at a time to update along with our new offerings each month).

By the way, John could always use some help with disk copying. I can't say enough good things about John Ruffatto and the help he's provided our /// SIG. Without his continuing support, our PD library would never have become what it is today - the best Apple /// PD library in the nation.

## NEW DISKS THIS MONTH

That said, what new disks are making their way into the PD this month? First of all, a second "Best of Bloom" disk (**3INF.22**) full of articles and reviews. Learn how to underline in Applewriter, convert Apple // Pascal files to the Apple ///, use Access /// Interp version command files, deal with DIF files within 3EZ Pieces, and convert files to and from the Macintosh (OK, not all the articles are by Dr. Bloom. The Mac article is by Milt Johnson). There's also an article detailing everything you'd ever care to know about Mail List Manager. As with most of our disks, this one is self-booting and double-sided.

Disk **3MSC.17** is called "Floppy Book by Shapiro." EdSIG chair Phil Shapiro recently put the original version of this disk into the Apple // PD. It interested me enough to also release it for the Apple /// PD (which basically took some converting from AppleWorks to ASCII text files and then proper formatting).

The "Floppy Book" articles and reviews all deal with Apple // subjects. But the value is in the fact that you can use a floppy to easily get information out with little real cost involved (many of our Information disks do that already to some extent.)

And of course, for us /// folks, the additional lesson here is that anything done in Appleworks or 3EZ Pieces or in ASCII (that is a standard text file) on the // is directly transferable to the ///. Our Menu.Maker program allows these files (once properly converted and formatted) to be read on screen or printed. That can be done selectively if desired.

In any case, give this disk a look and see what you think. I'd welcome a /// SIG member contributing his/her own "Floppy Book" to the PD in the future!

Our final offering this month is **3MSC.19**, CHAOS programs in Pascal by C.M. Davidson. We've offered some Chaos programs in Basic in the past, but this is the first Pascal disk containing several programs for drawing some of the familiar icons of chaos theory: MANDELBROT graphs, FEIGENBAUM diagrams and LORENZ attractors. Documentation is provided on disk. You will have to be familiar with Pascal to use these programs. There are Fotofiles showing examples of what each program can do.

## DIRECTORY DAMAGE

If you have ever gotten the dreaded "Directory Damaged" error message, don't worry. Here's what long-time /// supporter Daryl Anderson said a few years back about how to deal with the problem (thanks to Charles Boos of TAU from whom we take this):

*"Directory Damaged" is "more bark than bite," according to the ubiquitous Daryl Anderson who has run Catalyst with that warning for 6 months without difficulty. "It is when the bitmap in block 6 of the diskette says, for example, 205 blocks are used by files on the disk, but the tally of actual blocks used by the files comes to <> 205...I believe it happens when either a file delete operation or a create or expand is interrupted half way"*

## RAM ERRORS

We do get questions, and this is one of the latest. What happens when you boot a program and get a Ram error? This happened to ///er David James a while ago, and it prompted him to do a little exploring. It also led him to write what he found was necessary to test the memory of a 12 volt 128K Apple ///.

These were older ///s (serial numbers less than 10,000). Newer units have 5 volt power supplies, but the information below should also prove useful. You should remove all plug-in cards before going through the following:

- When you "boot up" your ///, a matrix of data dots flashes very quickly in the upper left hand corner of the screen. Your /// performs a diagnostic check of its Ram chips. If any of the dots in the matrix are replaced by a "non-dot" character (1's), it indicates a faulty Ram chip. The position of the 1's in the matrix identifies which Ram chip is actually faulty.

DIAGNOSTIC RAM

D I A G O N I S T I C

R A M

- "But how can I identify any information when the matrix flashes so quickly"? Well, a little known fact is the built-in diagnostic tests can be initiated from the keyboard and run continuously.
- First, enter the Monitor by holding down the "CONTROL" and "OPEN APPLE" keys, while pressing and releasing the "RESET" key. You should receive the Monitor prompt, a "-->", in the upper left hand corner of the screen with the underline blinking.
- Next, type "F6E6G" then RETURN. The screen will appear to be filled with "garbage" for a moment. The system should next begin continuously executing the built-in test (every 20 seconds) and alternately displaying a series of test patterns on the screen. Run this test for about 20 minutes, longer if it normally takes that long for the error to show up. If the dots keep appearing, then everything is normal.
- But if an inverse 1 shows up, you probably have a bad RAM chip. By comparing the location of ones (1's) found in the display matrix against the Ram chip locator matrix below a faulty chip can be located.
- To definitely identify the faulty chip Dave re-located the suspect chip a couple of times, re-ran the diagnostic check, and tracked the re-occurring error. If replacing the chip does not solve the problem, it could be the memory board itself. Swap it. If it still persists, swap the main logic board. If ACIA, ROM & VIA error messages appear below the Diagnostic Ram display it indicates a probable problem with the A/// main logic board itself & replacing it should fix the problem. If you receive any additional error messages (or if you have a 256K /// which has different memory locations) you'll need to look them up in an Apple /// Service Reference Manual (available in the WAP library).

## **FINALLY**

The ATUNC Newsletter has a new Editor. /// SIG member Tom Linders has taken over for Lee Kung Shaw who oversaw the San Francisco Bay Area club's publication for many years.

*By David Ottalini*  
*WAP /// SIG Co-Chairman*

**June 1991**

### **DONATIONS**

Your /// SIG continues to be the recipients of SARAs from all over the world. This time, our friend Joe Dobrowolski has taken the plunge, donating two Apple ///s, two Profiles and a host of other hardware. The contribution ends the Apple Users Group International's official ties with the /// as it moves on exclusively to the Macintosh world.

Unfortunately, the ///s are not feeling well after their lengthy trip from Guam and will require some work to get them up and running. One is a ///+ with 512K memory. Joe promises more stuff as he cleans out his storehouse.

To say "thank you" for this contribution, as well as an earlier donation of his Apple /// Public domain library, the WAP Board of Directors in April agreed to send AUGI a complete set of Macintosh disks from the WAP PD library. Dave Weikert will coordinate that for us, and we appreciate it.

With these donations, we now have perhaps four ///s that we would like to find homes for. If you know of a group that could use a /// in native mode or ///+ in emulation mode (or if they were willing to spend the \$300.00 to add the Titan cards) please let Jim Jutzin or myself know.

### **/// SIG**

Over the past few years, our Co-Chairman Jim Jutzin has proven to be of invaluable help to the SIG by making phone calls, answering questions, working on our Apple /// donation program and handling meetings when I couldn't make them.

But I have to admit I am getting stretched pretty thin right now, what with the increasing weight of family responsibilities, being the WAP BOD Secretary, continuing development of the PD library and writing this column on a monthly basis.

And so I've asked Jim to take on some added responsibilities. Namely, he will now be in charge of our quarterly meetings as well as any advertising that might be part of that (I will continue to give them prominent mention in my Trail columns of course.) He will also be responsible for coordinating our participation in the upcoming WAP Open House on June 8th.

I welcome Jim's additional help and invite any other SIG member to volunteer if you're interested in becoming more active with our group.

## QUICKIE

I am happy to report that the Vitesse Quickie Scanner works without a hitch in ///+//e Emulation mode (with a 65C02 chip). It's very easy to use and will scan just about anything you might be interested in. It claims it will work with a 64K //+ by the way, so any of you with the original Titan card (that could give you a 128K //+ if fully populated with memory chips) might consider it as well.

The neat thing is that once you've scanned something, you can save it as an Apple // double Hi-Res Binary file. As I've mentioned before, that's a 33 block file that can be read into On Three's Graphics Manager and then saved as an Apple /// FOTO file (you can also change the file type from Binary to FOTO with a program like Communications Manager) . This is the long way around of course, but the only way since prospects for an Apple /// driver for the Quickie are remote at best.

As for the /// SIG, the end result of all this will be some additional graphics PD disks (see below). I'm already starting to collect some things I think you'll have fun with! One idea, which I've discussed with EDSIG Chairman Phil Shapiro, is a "Coloring Book on Disk" for kids. It's an extension of his "Floppy Book" and one that would be fun to use.

What I am also especially interested in is a program called InWords, that can use the Quickie to scan text and save it in ASCII format. That means the possibility of scanning manuals or other Apple /// material that is not always easy to get ahold of right now.

On Three's Bob Consorti reminded me that InWords needs 512K on a //e with Apple or AE style memory card or on a GS with a minimum of 512K. But does that mean you could use it with a 512K Apple /// in ///+//e emulation mode? That has yet to be tested, but is something I hope to report to you on next month.

## ON THREE

As I've mentioned, On Three remains the one Apple /// vendor that continues to develop and sell software and hardware. Unfortunately, one of its best offerings, a 512K memory upgrade is currently not available.

On Three's President, Bob Consorti, says he is out of the kits and needs an order of 50 to have more produced. This is one of the best possible upgrades to your /// and I highly recommend it. For more information, call On Three at 206-xxx-xxxx.

## /// SIG MEETING

I'm happy to say that Dave Jurnigan has agreed to host our first quarterly meeting of the /// SIG at his home this coming July 6th. We'll be sending out more information shortly, including maps on how to get to his home.



## DISKS

My lengthy project to update our PD disks and provide complete listings for all our disks has taken much longer than I originally planned. So, I'm afraid that it probably will take another month or so to complete.

As a result, my attempts to get out the PD disks promised last month hit a bit of a snag. But I'm now happy to report that The Best of Bloom #2, Floppy Book by Shapiro and CHAOS Programs in Pascal are now available in the /// SIG PD.

In addition, I've put together our first disk full of scanned graphics, thanks to the Vitesse Quickie Scanner. I hope to put together a number of disks for you in the future, but this one should help whet your whistle for more. Many of the graphics on disk **3GRX-30** have a semi-college theme, although you'll also find a scan of the WAP Pi Logo and a few other goodies.

## FINALLY

If you are looking for another possible source of Apple /// hardware, try Weird Stuff Warehouse in Sunnyvale, California. Their phone number is (408) 746-1100.

## ON THE TRAIL OF THE APPLE III

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By David Ottalini  
WAP /// SIG Co-Chairman

July 1991

### WHEW!

How many months has it been? It's seemed like more than a few that I've been working to complete this little project to go back through our PD library and e-x-p-a-n-d the listings a bit. Actually more than just a bit. Take a look now at the listing for our New Member Disk (**3INF-01**):

PDS NAME: **WAP /// SIG PD Catalog**

DISK ID#: **3INF-01**

BOOTABLE?: Bootable

SUBJECT: Information

DISK SIZE: DS 5.25 OS: SOS

DESCRIPTION: Information about all the Public Domain disks offered by Washington Apple Pi's /// SIG. Files on this disk can be read or printed using the included Menu.Maker program, or with any Apple /// word processing program. An Appleworks/3EZ Pieces Data Base version is also included.

Categories include: Accounting; AW/3EZ Pieces Templates; Business Basic; Games; Graphics; Information; Miscellaneous; Pascal; Repairs; Telecommunications; Utilities and Word Processing. (Check the back of the WAP Journal for updates.)

On side one:

-: A3.CABLES: Information about printer cables for your ///.  
-: AN.A3.POEM: You have to read it to appreciate it.  
-: EZP.TIP: Tips that will help you get more out of 3EZ Pieces.  
-: READ.ME.FIRST: An introduction to the New Member Disk.  
-: SIG.HISTORY: A brief history of the WAP /// Special Interest Group.  
-: WAP.INFO: Some basic information about Washington Apple Pi.  
-: WAP.SIG.PD: Some basic information about our PD library and some suggestions about what initial disks you should have.  
-:

On side two:

-: A3.HELPS1 (subdirectory)  
-: :Battery Backup: How to put one in your Apple ///  
-: :CURSOR.MOD: Modify the Cursor /// Joystick to play A ][ games.  
-: :GRAB.BAG : A grab bag of tips from a variety of sources.  
-: :SERIAL.CABLE: How to build one.  
-: :SOS.DRIVERS: Safely modifying your SOS.Driver file.

- : A3.HELPS2 (subdirectory)
- :       :EPSON PRINTERS:     Escape sequences for Epson and clone printers.
- :       :POWER SUPPLIES:     Power supply problems and how to fix them.
- :       :RF.NOISE:            How to deal with this problem.
- :       :TITAN.CARDS:         128K Apple ][e emulation on two cards.
  
- : A3.INFORMATION:    Where to find the information, dealers, etc. you need.
  
- : A3.NUTSHELL:        How to start up your /// with power off or on.
  
- : A3.QUESTIONS (subdirectory)
- :       : Set1:                Aligning Disk Drives and other questions.
- :       : Set2:                Emulation mode, stack overflows and more.
- :       : Set3:                3EZ Pieces, 512K expansion, repairs.
  
- : A3.SOFTWARE:        A list of the latest software versions.
  
- : A3.DOCTOR:          Symptoms of a sick Apple /// and possible solutions.
  
- : COLOR.MONITOR:     Hook up your color monitor so it will work in emulation.
  
- : DRIVER.CONFIG:     How to set up your SOS.Driver file.
  
- : SOFTWARE.HELPS:    PFS file conversion, Clock chip after 2000 and more.
  
- : SOS.DRIVER.NOTE:    How the SOS.Driver file is set up on this disk.
  
- : THE.APPLE3:         The real skinny about your Apple /// and its features.
  
- : UPGRADING.SOS:     How to make sure you have the latest SOS version (1.3).

Hard to believe it's the same listing isn't it. It has taken a long time to complete. But the effort was worthwhile because we now have this in one (hugh!) 3EZ Pieces data base that makes searching for files a snap. I'll put this into the PD soon. Given its size, the data base will probably have to be split in half. But you'll be able to re-combine it and put it on one 800k disk or onto a hard disk for easy access.

This material will now go to Paul Meyers, who has been working to update the Apple // and /// hard copy PD listings. Soon, you'll be able to buy a book just as nice as the Mac PD library has, but one that lists Apple // and /// disks. New WAP members who own an Apple // or /// will also get it as part of their New Member Disk.

### **Public Domain Library**

We have some wonderful disks for you this month. I'm happy to say that we continue to get some great PD contributions from our members. I like developing PD disks and there are still a small corps of ///ers out there who obviously do too. I hope you'll consider joining us!

In any case, this month we offer FOTOVIEW, a Basic program that will let you look at or print any Apple /// FotoFile you might choose. This disk (**3GRX-31**) was developed by John Lomartire and Ed Gooding, two of the Real Good Guys in the /// Community (more on John below).

I've added a number of graphics to this disk, to make it easy for you to use the program. Complete documentation is available on disk and it is self-booting on side one.

**3GRX-32** is a disk I've spoken to you about a number of times. It's called "A2 to A3 Graphics" and is a disk that I started working on a long time ago. It's full of Applesoft Basic programs I've attempted to convert over to Apple /// Business Basic. Some with more success than others.

I consider this a disk still "in the making" since it is not complete. I hope you'll take a look and see if you can improve on my attempts. It's a great exercise to help you learn Basic programming or to just see the differences between the Apple //'s Applesoft Basic and the ///'s Business Basic.

This is a double-boot disk, which means you can boot it in an Apple // or ///. There is some documentation, but I've not taken the time to convert these programs to ASCII text files so they can be pulled into a word processing program. But take a look and see what you think. I'd love to see your suggestions or any conversions you might have done. We'll include them in a future update to this disk.

Disk **3UTL-34** is a demo disk for anyone interested in CustomFont, disk **3UTL-21**. It's Pascal based, self-booting and provides an excellent demonstration of what CustomFont can do (which is allow you to create custom Apple /// Fontfiles.)

That said, what's on the front burner for new disks? More 3EZP templates, Fortran for the Apple //, new disks from Dr. Bloom and more "Best of" disks from the Apple Three Users of Northern California (ATUNC). The latter was developed by our old friend Robert Howe, who continues to support our /// SIG even while moving on the Mac (more about him below too).

## BUDGET TIME

It's that time of year for WAP and I've put in some requests for our SIG. Number one on the list is money to purchase a set of Titan ///+//e cards for our ///+ in the WAP office.

Perhaps of more interest is a separate request I've made for \$500.00 in seed money to use for an Apple /// software development fund. The number of people out there willing to write drivers or programs for our /// is growing steadily thinner. I hope to get other Apple /// groups (TAU and ATUNC primarily) to contribute to this fund as well. Together, we would decide on a project or projects that are of great interest to the /// Community and then use this fund to provide the seed money to get it started.

I'm not sure if the WAP Board will approve all or part of the request, or if the other groups will participate. But I feel strongly that we need to try something to get some additional software developed for our ///.

That said, what kind of projects could this go for? Drivers for some of the newer printers (Apple or others) and for the Vitesse Quickie Scanner come immediately to mind, as well as those new CD ROM

drives (used with On Three's SCSI card). If you have others, please forward them to me.

### ON THREE

I thought that one possible use for these funds might be to help push On Three's Bob Consorti to finish his GoBack harddisk backup utility program. He told me recently on CompuServe that he is finding much success programming for the //e side of our family and does not feel providing seed money would help at this time ("I can make 1-2 grand per week programming on the Apple //e but the /// market can't support the kind of money necessary to keep me programming a 2-3 month long project."). He does promise to work at finishing the program this summer IF nothing else comes up. Let's hope he does, as this is one program many of us would really like to see.

Bob also says that orders for the 512k upgrade are not coming in very quickly. In fact he says, "even if we get the magic number it's going to be a problem getting the boards built as the PCB manufacture house that we used burnt down and all of our engineering films went down with it. I've got the masters somewhere in a storage locker and I'll have to dig them up before we do anything."

As I mentioned last month, if there were two upgrades that I would consider for a ///, the 512k upgrade, along with the Titan cards would rank one and two respectively. If you are at all interested, I would urge you to call On Three at 206-334-8001 and place your name on their waiting list.

### MENTORS AND HOTLINERS

Dave and Joan Jernigan have really outdone themselves for our /// SIG. I asked them to take on a rather big project a number of months ago. Namely to contact all members of our SIG and find volunteers willing to serve as Mentors to new /// SIG members as well as Hotline Volunteers.

The results are finally in and I'm happy to report a total of eleven members have agreed to help out. They include members both local and as far away as California: Dr. Al Bloom, Joseph Brown, Robert Howe, Dave and Joan Jernigan, Jim Jutzin, John Lomartire, J. Carey McGleish, Dave Ottalini, Eric Sheard and Jim Suthard.

The Jernigans included the letters from some of those contacted and I'd like to pass along some of the comments. Eric Sheard, of Lescon, Inc. of Flemington, NJ. says he has a total of three Apple ///s. Two are used in his business. He writes "We are not hackers and know little if anything about programming or other fancy stuff. But we do get the most out of the programs we use. So if this is helpful to you, it is OK by me." Eric also says "Keep up the good work. We are part of the silent group that cannot get to the meetings, but could not survive without the WAP Magazine and the help of others."

Then there's the inimitable Dr. Al Bloom (Blacksburg, Virginia). No stranger to these pages, Dr. Bloom has contributed many, many excellent programs to our PD (and there are more coming). Commenting about his expertise, he writes "... Mail List Manager and in Pascal Programming and in file and data conversion twixt the /// and other computers. In those areas I would have stacked myself up with anyone in the world. I would be happy to help where I can. I don't know how much I can help, what with my skills being dated and perhaps blunted, but I'd like to help."

Robert Howe (Placerville, California) is a long-time friend of and contributor to our SIG and has been a frequent caller into the TCS. His efforts to create a number of new "Best of ATUNC" PD disks will soon make their way into our PD. Even though he no longer owns a ///, he says he is "willing to have my name down as a reference."

And finally, another long-time friend of our SIG, John Lomartire (Westport, Connecticut), writes "although I may not have the solution to all questions that might arise, I generally can do a bit of checking to see if the answer to the question can be found."

It's never too late to throw your name into the hat as a Mentor or Helpline Volunteer. If you're interested, please contact Dave or Joan Jernigan. Their address is xxxxx, Lovettsville, VA. 22080.

### **SOFTWARE GALORE**

/// SIGer and ATUNC Newsletter Editor Tom Linders has lots of Apple /// software available for sale or rent he says. The software includes AppleWriter, Quick File, Backup ///, Visicalc, Pascal manuals, Business Basic, and various other manuals. He also has keyboard lights, 32k memory chips, copies of Catalyst //e and /// and copies of Word Juggler/Lexicheck //e and /// for free. Write to him at xxxx, Saratoga, CA. 95070.

*By David Ottalini*  
*WAP /// SIG Co-Chairman*

**September 1991**

### **FALLING BACK IN**

We took a short detour along the Trail last month, /// SIGers for a little R&R. Hope you enjoyed the replay of an earlier column.

I want to say thank you to all of those who supported me during the past WAP election (despite its many, many problems). It is hard for me not to feel a little bitter after running for a Directors-At-Large seat for a fourth time and losing once again. But I'll look on this as an opportunity to mix up a little lemonade and rededicate myself to making our SIG the best it can be, as long as you remain interested in my doing so.

### **THAT SAID**

I must tell you that I purchased an Apple //GS during the recent garage sale, with the idea of using it to run some //-side programs that require more memory than the Titan Cards can access (programs I can use to help prepare /// PD disks). I have to admit to you that I have not had an easy time of it with this machine. Frankly, I found the Titan cards easier to use and much less frustrating.

Let me tell you that I am running a bare-bones system with "only" 1.5 megabytes of memory, one 3.5" disk drive and one 5.25" drive, both non-Apple brands. To say I have had trouble would be an understatement. The Laser 3.5" drive appears to have trashed a number of the disks. I keep getting "Error = \$0027" messages. Loading programs is slow since they are much bigger than most of our /// programs (I don't have a hard drive yet). And in a lot of ways, I find fooling around with a mouse a lot more trouble than it's worth.

On the other hand, most of the problems appear to be with the ProDos 16 and GS/OS programs. The trusty ProDos 8 programs (which our Titan cards run beautifully) run without a hitch. And my old Electrohome RGB monitor (that was designed for a ///) works on a GS. I'm even using the same cable (but some of the colors are a bit weird).

Admittedly I still am in the middle of a learning curve here. John Ruffatto tells me the problem is definitely with the disk drives and I should get a "Platinum GS 3.5 drive." I'll do that, but would suggest that if YOU are interested in adding an Apple // to your family, I would spend the \$300.00 and buy the Titan cards from GR&D. Their phone number is 1-313-677-4122. And be sure to add a 65C02 CPU chip (JAMECO has them) to make it an "enhanced //e." That way, you'll be able to run practically every Apple // program out there. And I would stick with Apple-brand disk drives, despite the extra cost (buy them used at the garage sales). Stay tuned, though. I'll have further reports as I muddle my way through.

## SUN REMARKETING

Of course the other alternative is to simply buy a used //e from Sun Remarketing, which is now going for little more than \$300.00, including a monitor and disk drive! Sun finally came out with a catalog for the // side of the family in July and they have a number of good buys.

I recently spoke with the folks at Sun about some things they could do to continue supporting our ///. One thing I suggested was to place their old Apple /// software (programs they produced many years ago) into the public domain. They've already done that with a BBS program called INFONET, which is what Ed Gooding's BBS runs on. But there are a few others, like SOSTRAN, that I would love to add to our PD.

If you are not on Sun's mailing list, I strongly suggest you make your move by calling them at 1-800-821-3221.

## ON THREE

... The Magazine lives. The January/February issue arrived in mid-July. No complaints here. I'm just glad it's still showing up. A one year subscription is just \$20.00.

Bob Consorti announced that On Three now has a new line of hard disks, including a removable 45 MB Hard Disk. He is also promising his GoBack Backup utility will show up later this summer. I have my fingers crossed! And if you've been looking for a spellchecker specifically for 3EZ Pieces, I can report that StemSpeller is available again. I have a copy and it works well on EZP Word Processing files.

If you haven't gotten on the On Three mailing list, it is well worth the effort. Their address is xxxx, Lake Stevens, WA. 98258. Order number is 206-xxx-xxxx.

Also of interest to me was an ad in the DeClassified section this time around. Larry Beyer says he has "large quantities" of 5 and 10 MB Profiles for sale. He can also do repairs (as can Bob Consorti) on Profiles and other hard disks. For more information, call 312-xxx-xxxx evenings.

## DONATIONS

Robert Howe not only came thought with his great "Best of ATUNC" disks I am working on right now, but has also donated a ton of software to the club. Joe Dobrowolski, cleaning out the last of his Apple /// materials has done the same, including manuals and books.

Sara Thornton, a microbiologist for the US Food and Drug Administration has donated a /// system (she did that during the garage sale). Of interest to me is that this particular /// was once owned by columnist George Will (How did I know? His name is on the machine!). It was not working when we got it, but a new graphics chip seems to have done the job.

Thanks to all for your support. We're always looking for donations of hardware and software. If you have a /// not being used, consider giving it to WAP. Call me for more information.



## ATUNC DOINGS

/// SIG member Tom Linders has gotten the ATUNC Newsletter back on track these days, but reports /// membership in their club (actually two clubs) is waning. Tom just got out of the hospital, having had a goodly part of his colon removed. We wish him well.

## AND INTRODUCING....

Paul Campbell, the newest Apple /// SIGer to contribute an article to the Journal. Paul hails from Detroit and has been using a /// for just a couple of years. But he's sold on our SARA and has been setting up systems for businesses in the motor city. His first article (in this month's Journal) is about one way he's found to cool off his ///. It's an interesting means of handling a hot problem. See what you think.

Paul has also been active on our TCS and had some comments recently that I wanted to pass along:

*I've been doing a lot of reading and research on MS-DOS 5.0, it's pretty amusing to see 6 page ads boasting about increasing memory 45 to 65K, the reason, of course, is because applications on an IBM can only load into the lower 640K, no matter how many megabytes of memory you have. Another factor on IBM compatibles is that the more memory that is in use, the slower the system runs.*

*With this in mind, I thought I would do another infamous IBM/Apple /// comparison to see if SARA would bog-down under a heavy load like the "other" computers. First step was to run a test I have been using for a while to check speed. The test was first run with 398K free memory, then several times with more and more memory full. Finally the test was run with Selector ///, The Desktop Manager, Three EasyPieces, 140K RamDisk, the test file, and all the other files that would fit in to memory (including the text from a few books). This filled the memory to the point where I could not even type a single character into a file. The test was run again and the results compared to the other tests. Every test time was within one one-hundredth of a second! Yaaaaaay SARA!!!*

*How's this for a neat idea, when you want to share a rather complex operation (like setting up new printer codes for EZP) how about sending it as a Macro Map (TM - On Three) and having the recipient change the name of their own MACRO.MAPS file and load the new one and let it do its work? Afterwards, they just change the file names back, or the macro could do that itself!*

*I am going to be installing a new system this week in a business that recently lost ALL its client information on an IBM clone, They are going with an A3 using Selector ///, DTM, and EZP. There are also a few people who are waiting for A3s locally.*

*I should also send an article about the law firm in Detroit that changed from Wang+WordPerfect to Apple ///+EZP! People around here are shocked to know that I manage close to eight hundred files on the Apple ///, and have not lost one to date.*

*PS: Don't tell everyone that a standard A3 is almost twice as fast as a standard ][e, they might get upset!*

Paul IS working on more articles. He says the first is about how the /// stacks up against other computers that are still supported in today's market and even some NEW computers. It also deals with the future of the Apple ///.

The next one planned is about laser printers. Paul also says he's found a neat trick with the Panasonic KX-P1124 to get headline size text and complete control over almost all the options. I'll look forward to both!

### KEYBOARD PROBLEMS

I've been working on one of Joe Dobrowolski's ///s, trying to get it working. Everything is fine save for the fact that three of the keys do NOT work. Even with a known-to-work keyboard. The problem seems to be in the H-14 Keyboard Encoder ROM chip. Tom Linders suggested that I lift the chip out and plug it back in. I did that but no go. So Tom promises to send a replacement chip and we'll see if that takes care of the problem.

Tim Bouquet has had his own problems, with a shift key that didn't want to work. Dave Jernigan recently told him on the TCS that:

*There are three fixes I have heard about. First is to try blowing stuff out of the key with canned air (caution, most of that stuff kills ozone), 2) try squirting color tuner cleaner in the key, 3) try heating the connections with a soldering iron and re-melt the connections. You can also replace it with one of the other less used keys, e.g. switch the solid apple key with the left shift key. I think the keys are interchangeable with the ][ keys but check with someone before you buy one as a replacement for a /// key.*

*Having replaced a number of keys, I can say that it is NOT an easy job, but it will work as a solution of last resort. If anyone needs a key, I have a keyboard I keep for just that purpose. Let me know.*

### HELPING OTHERS

While I'm talking about Tim Bouquet, let me add that he has been working with the Semaritan Ministry of St. Stephans Church in the District, helping them to get their Apple /// system up and running.

This kind of one-on-one help is a great way for SIG members to have an impact in the community. If you know of a group or church that could use a computer and would be willing to help set it up, we have some Apple /// systems to donate.

### AND THAT'S

All for this month. Please be sure to see my separate article on our new additions to the /// SIG PD Library elsewhere in the Journal.

By David Ottalini  
WAP /// SIG Co-Chairman

October 1991

### DISK DRIVE SPEED

One of the more frustrating moments when operating an Apple /// can come when you get the dreaded "Device dependent error #34, see Manufacturer's documentation." What that means is that your Disk /// drive is too fast. And THAT means your drive can't read or write information properly.

///er Dale Stencil had that problem recently and asked for some help on CompuServe's Apple /// board on MAUG (Micronetworked Apple Users Group). As usual, there were a number of replies, including this one from On Three's Bob Consorti:

*My favorite method requires taking the bottom 4 screws off of the base of the Disk /// and removing the bottom plastic assembly. With that off you will see a small flywheel with a pattern on the bottom. On the back, bottom of the right edge of the Disk /// is the speed adjustment pot.*

*With the drive upside down and with a diskette in it <-- important!, boot up the System Utilities and go to the device handling commands menu and verify the disk. The idea is to keep the disk spinning so you can see the flywheel moving. Note that the pattern on the flywheel will appear to rotate in one direction ever so slowly (or quite fast if the speed is really off). Use your fingernail or a small screwdriver to turn the speed adjustment pot in one direction and note the change in the speed of the moving pattern. When the speed is correct the pattern should only be moving VERY slowly if at all.*

*Note that you should be able to then format the disk and get no speed problems. This works best in an area with fluorescent lighting but if you have trouble seeing the pattern moving, try adjusting the position and/or angle of the drive with respect to the lighting until you see it.*

### NEW BBS

///er J. Carey McGleish has started a new BBS called "The Briar Patch." Not sure how much Apple /// material will be available, but you might enjoy giving it a try. One thing he does plan to offer is a "Dear Abbey" style forum. Let's see ... My Apple /// left me and the kids and... The number is: (313) xxx-xxxx.

### NEW DONATION

A voice from the WAP /// SIG past called me in mid-August with an offer I couldn't refuse: an Apple ///,

disk drive and ton of software, all for our /// donation program. The donor was Bill Hershey, who helped lead our /// SIG in 1984. As my history of the WAP /// SIG (WAP Journal, December, 1988) states:

*By May of (1984)...Bill Hershey had been elevated to SIG Chairman, the first "official" leader of the SIG. In July, Hershey reported that the SIG now had 73 members! He also reported that an Apple Rep assured the members of Apple's "continuing commitment to the ///."*

Bill couldn't do anything about Apple's "continuing commitment" but his own commitment has resulted in his donation of eight boxes of /// programs as well as manuals and other materials. Some will find their way into our hard copy library, some into our growing "Apple /// Software Library" and some will go to those whom we donate ///s to, or to /// SIGers whose own versions of programs have crashed.

Bill's machine, by the way, is a bit sick as of this writing, so we'll have to do some work on this end to get it up to speed (or at least our good friend Tom Linders in California will get that job!).

### 256K UPGRADE

///er Tim McWhorter recently got a 256K memory card from Co-Chairman Jim Jutzin and tried to install it in a 128K Apple ///. It didn't work! The reason? The 256K card is 5 volts. The 128K card is 12 volts. Luckily, nothing was harmed when the power was thrown on. The 128K card was replaced and all was well.

But how to upgrade? I won't take the time to go into it here. Instead, I would direct you to PD disk 3INF-07, The Best of ///'s Company for an excellent tutorial. In short, it requires not only a 5v 256K card, but 2 new PROM chips and a small amount of surgery on your ///'s mother board.

On Three sells a 256k upgrade kit by the way, for just \$99.00. It includes everything you'll need, including installation instructions and a full one year warranty. Their number is 1-206-xxx-xxxx.

By way of comparison, the original 256k upgrade offered by Apple in 1981 or so was \$750.00 during a 90 day introductory period plus \$50.00 dealer installation fee (considered a minimum fee). After 90 days, the price went up to \$950!

The "Apple Three" Newsletter I have in my collection also notes that Apple intended to sell the 256k Apple /// system for \$4295.00. That was \$800.00 more than the 128k machine. Cost per Kilobyte of memory was \$6.00 back then. The authors said that compared favorably to the cost per kilobyte for the IBM PC, which came in at \$8.44. And the author also noted that to increase from 64k to 256 on a PC cost \$1620.00!

### PD LIBRARY

As noted in our separate article, two news disks are being introduced into the PD this month. I've been working on quite a few new disks for you in the future, but also need your help. One of the disks will be a program that Sun Remarketing has put into the PD called Infonet. I've got the program but need someone to transcribe the manual. The volunteer gets a free copy of the program and (of course) a

copy of the manual too. Please call if you are interested.

I've been trying out Inwords on my GS to transfer some other Apple /// manuals and information onto disk, but its slow going. I think the program will be extremely helpful for us, but I am still in a learning curve, so it will take a while to get things fully up to speed. I understand that a new version of the program will be out soon (perhaps by the time you read this) that takes care of some current problems. Stay tuned.

As for the future, look for more ATUNC disks, our first "How Do I?" disk, Powerkeys DM+ Source Code files, more AI Bloom disks and some new Shareware offerings.

#### **FINAL TRIVIA**

Q: What was Apple's sales goal for Apple ///s in 1982?

A: 60,000 machines.

(A total of 100,000 or so were sold over the ///'s lifespan of some 4 years).

By David Ottalini  
WAP /// SIG Co-Chairman

November 1991

### THIRD APPLE USERS CLUB NEWS

For years, one of the major supporters of the /// was TAU, the Third Apple Users Group. Even when they moved on to emphasize the Macintosh, TAU continued to run /// articles and accept new /// PD donations.

Now, I'm sorry to report some major problems with the TAU group could mean its demise, at least in its current form. Their fine publication, the TAU Journal, has ceased publication and dues are no longer being accepted.

TAU Chairwoman Lavona Rann says she's simply run out of time to produce the newsletter due to personal problems and attempts to finish a book (Macintosh related) while getting a new business operating. Helpline calls continue to be answered and their local corps of members continue to meet, however.

Lavona recently told me that she mentioned the name and address of TAU prominently in her book and hopes to give it a try again. She adds:

*One thing that is even more a reason to try is that I have a basement of Apple /// parts and manuals that belong to my company and might a) have a little resale value, and b) be of value to people now that Sun does not even want to talk about the Apple ///. (They give everyone my phone number!). The way things stand, I think it is likely that we'll work out something with a local group that has a similar problem and is being run almost totally by another one of the TAU core group. Sort of share a number of articles and disks. IF .. we do that, it seems that maybe an Apple /// classifieds page might be worthwhile (free listings to paid up members), since it is getting harder to find things for the ///.*

Despite the problems, I hope TAU can work something out so it can continue in some form into the future. If you would like to send encouragement, you can write to Lavona Rann at: xxxx, Wheaton IL. 60187.

### AND AS FOR JOE DOBROWOLSKI

Yes, he continues cleaning out his closet. I thought that he had found just about everything there ever was for the ///, but he continues to surprise me! This latest contribution is largely software, with some new titles I hadn't seen before. You'll see some of that material this month, in fact. ///er David Craig's Pascal programs have made up three great double-sided disks for us. Please see the accompanying

Disketeria article for more information.

### BOB CONSORTI NOTES

Heard a rumor recently that On Three's Bob Consorti was jumping the Apple ship completely and heading into the land of Messy-DOS. A quick conversation on CompuServe confirmed he's started learning PC, but has not entirely given us up either:

*If I get any more contracts on the Apple // I will do some more Apple II work but I'm not going to waste my time anymore. I've purchased a 33 mhz 486 clone and am learning to program it with the anticipation of work from the people I contracted my last two Apple II projects with. They really like my work but they just don't have enough Apple II work to keep me busy so they suggested and I agreed to learn PC programming. GOBack may be done but that is completely up to how much work they throw my way over the next few months.*

*Note that I don't intend to leave the Apple II market at all. Heck, I'll always have a /// (somewhere) but I need to survive and the Apple /// died, the Apple // died and I don't want to risk going to a Mac.*

GOBack is the long-awaited backup utility that would be a boon to all hard disk users on the ///. If you are interested in seeing this project completed, I would urge you to call On Three and place an order for the program (you will not be billed until it is, in fact released). On Three's phone number is 206-xxx-xxxx.

### TCS NOTES

Motor City ///er Paul Campbell continues his efforts on behalf of our Sara. He recently noted on our TCS Board that:

*I'm about halfway finished with the next article that includes laser printers on the /// in a business environment (yes, in 1991!). BTW, did you catch my post to Jim about SARA's workout the other day? That was the day my /// wound up producing ALL the material for a business meeting including a schedule and two full pages of graphics. The person called back to say that the meeting went very very well, and that they needed the schedule revised and extended all the way to 1993 (the previous stopped at August 1992). The schedule was created with an EZP spreadsheet and printed on the Panasonic KX-P1124 at 17 CPI and 8 LPI which resulted in 3 months per page for a total of six pages. The spreadsheet covers over 10 thousand cells and I just finished creating a test calendar that goes to June 1994 and covers almost 22 thousand cells. Sorry Tandy,... DeskMate will have to sit this one out.*

### WE GET MAIL ...

From former ///er Robert Howe, who reports SIG members Dave and Joan Jernigan were recent visitors to his home in Placerville, California (outside Sacramento). Robert reports that

*They (the Jernigans) are nice folks; my wife and I (and the kids too) had a nice long conversation about computers, work, children, living back east vs. the west, traveling, and plenty of other subjects. I, of course, got to show off my Mac...but even it failed to win over Joan since she is a quick typist and even by fast screen draw wasn't fast enough for her. It just goes to show you that even to this day the good ol' /// compares favorably to the mac in some respects for some people.*

## REPAIRS

Our friend Roger Caldicott in the Boston area has been having some major problems with his /// and a cranky Epson printer. After numerous calls to me and a futile search for a company that could really find out what was wrong, he finally hit a goldmine. "AAA Computer Repair" is based in Framingham, Mass. and specializes in the repair of older computers and printers. Roger says they really like Apple ///s:

*Don Conaghan, the president, told me that if he couldn't fix my problem, then no other outfit in the country could. He guaranteed to have it repaired in three hours and he did. This is a very large service center and Don took me through a tour of his facility and showed me the latest in test equipment. I was impressed by the warehouse loaded with Apple ///s including brand new boards and parts in original boxes.*

*If you know anyone who is looking for components, new boards or restored instrumentation or is in need of service, I found the goose that laid the golden egg. This outfit has skilled, courteous staff who have it all together.*

Wow! You couldn't ask for a better recommendation than that. I hope to have talked with Don Conaghan by the time you read this and will report on that conversation next time. Meanwhile, you can contact these folks directly at xxxx, Framingham, MA. 01701. Their phone number is (508) xxx-xxxx. Fax is (508) xxx-xxxx.

## HOW DO I?

Ever wonder how to change the "\ " key on your /// to make it a delete key (like on the ///+ in in 3EZ Pieces?) Barry Downes offers the solution:

*"Sholes B" is a small Pascal program that allows the user to easily change his/her keyboard setup on a standard Apple /// so that the "\ " key found on the upper right corner of the keyboard will work as a destruct (delete) key. This is how the key already functions in 3EZ Pieces and the Apple ///+. By using System Configuration one can quickly install this alternate keyboard into programs such as Word Juggler where it should prove to be a valuable addition. When making such a change on any boot disk it is always wise to have a backup copy of the disk available should you mess up somehow in the installation process. Basically it's quite easy.*

*A quick review of the procedure for installation:*

- *Boot system utilities*



- *Select "S" system configuration from the main menu*
- *Select "R" Read a Driver and read the SOS.Driver from the disk into which you want to install this alternate keyboard*
- *Go back to the main menu and select "C" Change System Parameters*
- *Select "4" Keyboard Layout*
- *Place disk with file "SHOLES.B" in .D1 or .D2 and at prompt at bottom of screen, type in .D1/SHOLES.B or .D2/SHOLES.B*
- *A message at the center of the screen should now confirm that you have loaded in SHOLES.B as your keyboard layout*
- *Escape back to main menu and select "G" Generate New System*
- *Follow the standard steps for generating a new system on the disk you want the new keyboard on*

*One additional note: Since you have now changed the " " key into a destruct key you may still need to type in the actual character in certain documents. You can do so by holding down the Control Key when you press the key.*

"Sholes B" will be uploaded to the Apple /// TCS Library by the time you read this, and will be on our "How Do I" PD disk.

*By David Ottalini  
WAP /// SIG Co-Chairman*

**December 1991**

**HAPPY HOLIDAYS**

With Santa just around the corner once again, it's time to take a look at our /// SIG and how it fared in 1991.

First off, I think it is a victory for us that we continue to exist. And that, my friends, is because you care enough to remain a member of WAP, read my columns and buy our PD offerings. Even without an active participation, your continued support for our SARA is evident and appreciated. I wish we could have continued to hold meetings. But we found that most local /// SIGers were not willing to make that investment in time.

Members DID invest time to help out other ///ers in need, however, even when they had not joined WAP. /// SIGers offering to join the WAP Hotline grew considerably this year. And we found other members around the country contributing articles and offering help in any number of ways.

The one thing I really like about our SIG is the fact that it's made up of so many nice people in the Washington DC area and around the country. There's no bickering or in-fighting. Just a love for a poor orphaned computer that keeps chugging along like that "Little Engine That Could."

How much longer can we continue? It's up to you, really. Jim Jutzin and I remain open to your ideas, thoughts and suggestions about what we can do to improve your enjoyment of our SIG. But if you make a suggestion, be ready to pitch in and make it happen too!

**THAT SAID**

What to get a ///er for a holiday gift tends to be a burning question this time of the year. Let me make a few suggestions that can be passed along to the right person (But hurry.... time is running out!)

On the hardware front, I would say either the Titan ///+//e cards or an Apple // 800K Unidisk would make excellent presents. Both run in the \$300.00 range. A company called GR&E still sells the Titan cards. Their number is 1-313-xxx-xxxx. Add a 65C02 chip (from Jameco or other electronics supplier) and you have an enhanced //e inside your /// that can run Publish It! and most other Apple // ProDos software.

The Unidisk and controller card (for the //e) can be had cheapest via mailorder. Check out A+/InCider or the back of Computer Shopper. On Three (206-xxx-xxxx) has the device driver.

In you want to go with a hard drive, On Three also sells a complete selection that uses the latest SCSI interface card along with the proper driver. Or you can buy the SCSI hard disk elsewhere and purchase the driver from On Three. Just check with them first before purchase to make sure it will work in the ///. Sun Remarketing also sells Profiles and Quark hard disks that will work in your ///. Their order number is 1-800-821-3221 (24 hours).

As for software, I can recommend programs I use every day: Selector /// for your hard disk, Desktop Manager as a background utility, Three Easy Pieces and AppleWriter. All save AppleWriter are available from On Three. AppleWriter is in our PD library. In fact, just about any disk from our PD would make a great holiday gift. The price is certainly right.

### OTHER CLUBS

Despite my rather pessimistic report about TAU last month, the club does continue. A new issue of the TAU Journal showed up in my mailbox in mid-October. In it, President Lavona Rann indicates they've been able to rebuild their stable of volunteers and are once again soliciting articles for their Journal. That's good news, since TAU remains one of the ///'s best friends.

Lavona says that the Journal will begin offering space for Apple /// classifieds on a first-come, first served basis. Members are free. Non-members \$25.00 per column inch. If you're interested, you can contact TAU at xxxx, Wheaton, IL. 60187.

On the down side, TAU reports that Sun Remarketing has reportedly dropped Apple /// support. Sun seems to be directing Apple /// inquiries to TAU these days. Those callers indicate they've been told Sun no longer supports the ///. I intend to find out if this is true and why they aren't directing some folks our way as well. Stay tuned.

### DOMBROWOLSKI NEWS

Thanks to Joe's final contributions to our SIG, we now have complete libraries of his group's Apple /// PD. We also have extra copies of other current and formerly commercial programs. IF you have a piece of software crash on you, please call. We'll be happy to help if we have what you need.

### PD DISKS

This month I've updated our /// EZ Pieces version of the PD Library listing for you (**3INF-23**). It is beyond up-to-date, as it includes some disks I plan to place into the PD in January. More on that next month, but I can tell you they will be a set of Apple /// databases that I have basically spent years putting together.

I'm pleased to tell you that we now have 186 disks in our Public Domain Library. All save a few are double sided offerings. No other club offers more /// material. There are some 34 disks with nothing but Apple /// information on them. 34 Graphics disks contain programs, fotofiles and more. We have accounting programs, languages, utilities, repair information. You name it. And many of the disks were

developed just for you as a member of the /// SIG.

I know it's hard to believe, but there's still lots more to come. So hang on to 1992. It should be a great year for Apple /// public domain disks.

### **HAPPY HOLIDAYS**

I want to wish you all a most joyous and happy holiday and prosperous New Year. I hope to continue seeing you in 1992, as we travel down this Apple /// trail together.

*By David Ottalini*  
*WAP /// SIG Co-Chairman*

## AUG.DISKS

Some really great Apple /// PD disks will be coming your way in the next few months. **3INF.24**, The Best of ATUNC#2 kicks things off. /// SIG member Robert Howe volunteered to go through many of the past Apple Three Users of Northern California newsletters (on disk) and pull out the best articles. He's gone beyond the call of duty, by not only pulling out the articles but putting them into categories as well.

This disk is the first of five that will find their way into our PD. As you can see below, it includes information about Applewriter, Business Basic, Catalyst, Copy Protection, Desktop Publishing and Apple // Emulation Mode.

As with most of our PD disks, this one is self-booting. You can read each file and print it to your serial printer if you like (or copy your SOS.Driver file from an appropriate disk to use your printer).

Robert Howe (who lives outside Sacramento) has gone on to the Macintosh world at this point. But I'd like to thank him for making such a great contribution to the /// SIG PD.

### SIDE ONE

#### APPLEWRITER

- |                  |   |
|------------------|---|
| - AW3.AND.DMP    | Super/Subscript printing using AppleWriter & DMP Printer. |
| - AW3.CHAR.COUNT | How to make Applewriter not count character returns.      |
| - AW3.FOOTNOTES  | Footnotes in Applewriter.                                 |
| - AW3.HINTS      | Hints for beginners.                                      |
| - AW3.HINTS.PT2  | More hints for beginners.                                 |
| - AW3.HINTS.PT3  | Even more hints for beginners.                            |
| - AW3.PRINT.PROB | Problem with blank lines printed at the end of each page. |
| - AW3.SUPER.FIX  | Fixing single page print bug in AW 4.0.                   |
| - AW3.SUPERAW3   | What is Super AppleWriter?                                |
| - AW3.WPL        | What is Word Processing Language and how to use it.       |
| - AW3.WPL.PT2    | Part of using WPL.  |

### SIDE TWO

#### BUSINESS.BASIC

- |                   |                             |
|-------------------|-----------------------------|
| - BBAS.DISKLABELR | Disk Label program (text).  |
| - BBAS.DRIVECLEAN | Drivecleaner program (text) |

- BBAS.EDUCATION	Article exhorting ATUNC members to do some programming.
- BBAS.EXEC.COMMDD	Using the Business Basic EXEC command.
- BBAS.INFO.2	BB version 1.23 highlights.
- BBAS.PD.DISK	Review of ATUNC PD BB disk #1.
- BBAS.PROG.LIST	Sending BB program to your printer.
- BBAS.RUNTIME.PM	Program that tells you a program's run time (text).
- BBAS.STRUCTURED	Structured programming in BB.
- BBAS.UNDOC.FEAT	Undocumented features of BB 1.23.
- BBAS.WORD.PUZZ	Program that will make an anagram word puzzle with your words.
- WORD.PUZZLE	Basic version of BBAS.WORD.PUZZ. It's fun!
CATALYST	
- CATLYT.COP.PRO	Getting around copy protection problems with Catalyst.
- CATLYT.COPY	Getting copy of the Catalyst Boot Disk.
- CATLYT.DECATER	Review of FIXER, a program that fixes catalyzed disks.
- CATLYT.DNAM.DRI	Dynamic Drivers under Catalyst 2.0.
- CATLYT.DYNNM.DRV	Catalyst and Dynamic Drivers.
- CATLYT.TRANSFER	Transferring Catalyst from Profile to QC10 Hard Drive.
- CATLYT.UPGRADE	Upgrading Catalyst.
- CATLYT.VS.SELEC	Comparing Catalyst and Selector.
COPYPROTECTION	
- COPY.OF.PROTECD	Advanced Visicalc damaged boot disk. Copy II+.
- COPY.PROTECTION	Disk Data organization and copy protected software.
- COPY.PROTECT.2	More on Apple // programs that can copy copy protected Apple /// programs.
- COPY2PLUS.V6	Review of Copy 2 Plus, Version 6.
DESKTOP.PUBLISH	
- DESKTOP.PUB	Word Juggler and DTP.
- DESKTOP.PUBLISH	General discussion of DTP and how to get started on the Apple ///.
- INSERT.CARR.RTN	Automate Carriage Returns.
- NEWSLTRS.MAKE	Printing newsletters with the Apple ///.
EMULATION.OF.A2	
- A2.GAMES.ON.A3	Apple // games on the Apple ///.
- APPLE2.EMUL	The basics about Apple // Emulation.
- BASIC.BUGS.EM	"BUGS" program for use in Emulation Mode.
- COMPATBILTY.A2	Compatibility between Apple /// and Apple //.
- EMUL.COLOR	Getting color in Emulation Mode with a Panasonic Monitor.
- EMULAT.PROGRAMG	Programs for those interested in Apple // Emulation Mode.
- RESET.A2.EMULAT	Modify Emulation Disk to reset an Apple // program.
- RESET.A2.EM.PT2	Part 2 on how to modify the Apple // Emulation Disk.
- TIME.MONEY.A2	Review of the Apple // program "Time is Money" that can run in Apple // Emulation Mode on the ///.

*By David Ottalini  
WAP /// SIG Co-Chairman*

### SEPT.DISKS

We are pleased to add two new 3EZ Pieces template disks to the Public Domain library this month. Both are also compatible with the Apple //'s AppleWorks program.

Disk **3ZAW.04** is called Mortgage Templates. As the name implies, you can use the templates on this disk to figure mortgage amortizations. They were originally developed by a now defunct company called Pacific Technology Systems.

On Side One you will find:

About.This.Disk	Some introductory notes.
Begin.Here	Information about what is on this disk side and what to expect.
Instructions.A	Instructions for Mortgage Table A.
Instructions.B	Instructions for Mortgage Analysis forms B1 and B2.
A...Table	A table for calculating monthly mortgage payments based on loan amount, interest rate, and term (in years).
B1..Analysis	A thirty year analysis of a mortgage, broken into two fifteen year halves to operate on an AppleWorks desktop of 55K.
B2..Analysis	
C..Analysis	A thirty year analysis of a mortgage as one large AppleWorks spreadsheet.
C...OTHER.SIDE	Scratch pad spreadsheet.

And On Side Two

Begin.Here	Information about what is on this disk side and what to expect.
Instructions.A	Instructions for Mortgage Table A. The MORTGAGE TABLE will calculate and display monthly payments (based on twelve payments per year) for five, ten fifteen, twenty, twenty-five and thirty year mortgages.
Instructions.C	Instructions for Mortgage Analysis form C Mortgage Amortization Form C will calculate Payment Number (#), Date,

Interest, Principal and Balance for each monthly payment on any amortized mortgage from one to thirty years.

A....Table

Mortgage template as described in Instructions.A

B....Other.Side

Scratch pad spreadsheet.

Disk **3ZAW-05** is called "Checkbook Manager and offers a series of checkbook templates.

On Side One

About.This.Disk

Some introductory notes.

Begin.Here

Information about what is on this disk side and what to expect.

Instructions: How to use the templates on this disk to set up a personal checkbook manager for home or office.

Check.Codes

One possible check coding system you can use.

Check.Printer

This data base will print the necessary information onto the appropriate place on a tractor feed check.

For.Deposit.Only

This word processor file will stamp your checks "FOR DEPOSIT ONLY".

A.00.1986...XXX

To set up your own checking system, place the file A.00.1986...XXX on the desktop, and start customizing it for your own needs. (Size 8K)

A.07.1986...JUL

A.08.1986...AUG

A.09.1986...SEP

A.10.1986...OCT

A.11.1986...NOV

A.12.1986...DEC

All above are blank checkbook templates for a particular month.

S.06.1986...JUN

A checkbook template that has been filled out so you can see how it's done.



On Side Two

A.00.1986...XXX

To set up your own checking system, place the file A.00.1986...XXX on the desktop, and start customizing it for your own needs. (Size 107K)

In future months, look for additional "Best of ATUNC" disks and a special surprise or two as well.

By David Ottalini  
WAP /// SIG Co-Chairman

## OCT.DISKS

We are happy to offer two PD disks this month. **3UTL-35**, "A3IBM" is another great utility from Dr. Al Bloom. This Pascal-based program is designed to make it easier for you to transfer files between the Apple /// and MS DOS worlds. Unfortunately, it is NOT fully documented. Side one has the actual self-booting program. Side two has the source code and an article by Dr. Bloom on ASCII transfers between SOS and MS DOS that may provide some additional help.

**3INF-25** is another in our series of "Best of ATUNC" disks, as put together by Robert Howe. This disk has a lot of great information about 3EZ Pieces, Apple /// Hardware, Other Apple /// Users, etc. Here's a complete listing:

Side One

### EZPIECES

EZP.512.UPGRADE	Will the 512K expansion board offered by OnThree be utilized by 3EZ Pieces or is it limited to the 256K ram?
EZP.ADVANTAGE	What is the advantage of buying 3EZ Pieces?
EZP.APPLEWORKS	Similarities and differences between 3EZPieces and AppleWorks
EZP.CALC.FIELD5	Mathematical properties of the 3EZP's Data Base Module.
EZP.CUST.PTR.2	How to set up a Custom Printer in 3EZ Pieces.
EZP.CUSTOM.PRNT	Getting the most out of the Printer Setup Utility.
EZP.DATA.IMPORT	Importing data into 3EZ Pieces.
EZP.DATABAS.BUG	3EZ Pieces "Erase a Format" bug and how to get around it.
EZP.DATE.FORMAT	Using the DATE and TIME formats under 3EZ Pieces.
EZP.DESKTOP.PUB	The Apple /// can't do "DTP", but it can do parts of it.
EZP.FINANCES	New FINANCES Checkbook templates in ATUNC PD Library.
EZP.GROUP.TOT	Group Totals in 3EZ Pieces.
EZP.LOCKUPS	Hints for dealing with lockups under 3EZ Pieces.
EZP.MAIL.MERGE	Mail Merge from 3 EZ Pieces to Word Juggler
EZP.PRINTR.CODE	Printer Control Codes in 3EZP word processor.
EZP.PSF.TRANSFR	Transfer PFS Files to 3EZPieces data base files.
EZP.PSF.TRANS2	PFS: File data transfers to 3EZ Pieces.
EZP.RECORDCOUNT	How to count the number of records in a particular report.
EZP.REVIEW	Positive review of 3EZ Pieces.
EZP.RIGHT.JUST	Right justification with the 3EZ Pieces word processor.
EZP.RIGHT.JUS2	3EZP will give you right justification by hitting Open Apple O, then JU. (May not work on all printers.)

## Side Two

### EZPIECES

EZP.SPELLCHK	What can be used as a Spelling Checker with 3EZPieces?
EZP.SYS.FAIL.06	Another way to encounter a system failure in a 3EZP operation.
EZP.TEMPLATE	CheckAids 3EZ Pieces checkbook templates.
EZP.TEMPLATES	Application Templates for AppleWorks/3EZ Pieces.
EZP.W.CATALYST	Put 3 EZ Pieces on a hard disk under Catalyst.
EZP.WORD.JUGGLR	Problems loading Word Juggler files into 3EZ Pieces.
EZP.ROWS.INVERS	Switching columns and rows in the 3EZ Pieces spreadsheet.

### HARDWARE.MISC

BARCODE.READER	Cauzin Softstrip barcode reader for the Apple //.
CLOCK.MAKE.OWN	Where to find clock kits for your Apple ///
SERIAL.CABLE	Can I use the same cable with my serial printer that I use with my modem?

### SIDER.HARD.DISK

Sider 10/20 MB Hard Disks can work with the ///.

### HOW.I.USE.A3

HOW.I.USE.A3.BD	Barry Downes Explains How he uses his Apple ///s.
HOW.I.USE.A3.BS	Bill Stone Explains How he uses his Apple ///.
HOW.I.USE.A3.CK	Clyde Kirline Explains How he uses his Apple ///.
HOW.I.USE.A3.CS	Charles Sykora Explains How he uses his Apple ///.
HOW.I.USE.A3.GG	Gerald Glaser Explains How he uses his Apple ///.
HOW.I.USE.A3.3	Wendy Coleman, Kip Reiner and Ralph Dennard Explain How they use their Apple ///s.

### MAC.IMITATION

MACSTUF.N.FONT	Information about Font Generator ///.
MACSTUFF.DEMO	Description of demos for Font Generator and Macstuff.
MACSTUFF.PSCL	Product announcement for Font Generator and Macstuff.

### MICROSCI.DRIVE

A143.AND.CATLST	MicroSci A143 as the large storage device with Catalyst.
A143.DCB.INFO	The correct DCB values for a MicroSci A143 drive.
A143.DRV.ALIGN	How to align the A143 MicroSci Drive.

A143.INSTALL	Installing the MicroSci A-143 Driver
A143.MAINT.INFO	Maintaining and Repairing the MicroSci A-143 Drive.
A143.MAINT.PT2	Part 2 on Maintaining and Repairing the A-143 Drive.
MICROSCI.143	Repairing destroyed volumes on the MicroSci A-143.
MISC.A3.INFO	
A3.FOR.COLLEGE	The A/// as a college computer.
A3.FOREVER	Positive experiences after one year's ownership.
A3.IN.EUROPE	Experiences with the Apple /// by European users.
A3.MANIFESTO	Declaration of Apple /// Independence.
A3.PUBLIC.DOM	Apple Employee hands over Apple /// software to ATUNC.
A3.STORIES	Three Cheers for the Apple ///!
A3.TO.IBM.TRANS	Moving Data from an Apple /// to an IBM.
A3.USES	Is the Apple /// a good choice for WP/DB/SS/College?
GAMES.A3.MODE	Where to find games in native mode for the Apple ///.
HIFI.SOUND.ON3	How to get Hi-Fi Quality Sound from your ///.
MINIMUM.A3.SYS	The minimum Apple /// system.
MOST.USED.PGMS	What Apple /// programs do most people use?
WOZNIAK.ON.A3	Just what did Steve Wozniak say about the ///?
XMAS.FOR.A3ERS	Great Christmas Gifts for Apple ///ers.

By David Ottalini  
WAP /// SIG Co-Chairman

## NOV.DISKS

The PD coffers are full this November, /// SIGers so let's get right to the disks!

**3INF.29** is our long-promised "How Do I?" Disk. It contains a number of articles on how to do all kinds of things with your ///. The material comes from all over, but is on just one disk to provide as much help as possible. And if there's enough material, I'll consider doing another disk (drop me a note and let me know what you need.)

Please note this number leaves a three disk gap in our INF series. Those slots will be filled by the remaining "Best of ATUNC" disks. I continue working on them, but they take lots of time to format properly for our Menu.Maker program.

Here's what's on **3INF.29**:

### SIDE ONE

USE.A.MOUSE	Information on using a //e Mouse on a ///.
APPLE.TO.IBM	Converting files from SOS to MS-DOS.
BATTERY.BACKUP	How to build a battery backup for your ///.
CURSOR.MOD	How to modify your Cursor /// Joystick to play // games.
DELETE.KEY	One way to add a delete key to your Apple ///.
DRIVER.CONFIG	Configuring your SOS.Driver file.
TURN.IT.ON	What happens after you boot your ///.
CLEAN.DRIVES	Cleaning your Disk Drives.
ALIGN.A143	How to align a MicroSci A-143 Disk Drive.
RAM.TEST	Testing your ///'s RAM.
UPGRADING.SOS	Upgrading to 1.3 version of SOS.
DESTRUCT.KEY	Another way to add a delete (destruct) key for your ///.

### SIDE TWO

A3.INFO	Basic Information about the ///.
CLOCK.KIT	Add a clock to your ///.
EMULATION.TIPS	Modify your Emulation Disk to reset to Monitor.
FILE.RECOVERY	Recovering damaged files.
HARD.DISKS	How to take apart a Profile Hard Disk.
LASER.PRINTERS	How to use a Laser Printer with your ///.
MAC.N.BAK	Transferring files from the Mac to the /// and back.
POWER.SUPPLY	Trouble-shooting Power Supply problems.

SERIAL.CABLE	How to make a serial cable for your ///.
SOS.DRIVER.FILE	Al Bloom's tutorial on working with the SOS.Driver file.
SOS.DRIVERS	More on modifying your SOS.Driver file.
TELECOM.INFO	Everything you need to know to get into telecommunications.
UPGRADE.256K	How to upgrade from 128 to 256k.
UTILITIES	Little known utilities in System Utilities.
VIDEO.HELPS	Getting Composite Color from the ///.

We also are offering SIX new Pascal disks this month. Please note that all require extensive knowledge of Pascal to use.

**3PCL-10** and **11** are two double-sided disks that provide the source code for Daryl Anderson's Power Keys DM+ (Disk **3UTL-17**). If you use this great background utility and ever wished you could modify it, here's your chance!

**3PCL-12** is called MacStuff. It is a Pascal Intrinsic unit designed to give your /// more of a Graphical User Interface. Former /// SIG CO-Chairman Tom Bartkiewitz worked with this one-time commercial offering a bit and came away somewhat unimpressed. But take a look and see what you think. There is currently NO documentation on disk, but I am looking for a volunteer willing to transcribe the manual to disk.

Finally, disks **3PCL-13**, **14** and **15** are some of the nuggets we got from a recent donation by Joe Dobrowolski (of Apple Users Group International) in Guam. I call them "David Craig Disks 1,2 and 3" since the material on these disks were all placed into the PD by (yes, that's right....) ///er David Craig. He wrote to Joe back in 1988 to say that:

*I hope the files that I have sent can be of some use to other members... Most of the files are Pascal programs with a smattering of assembly here and there. The best program, in my opinion, is PPrint (PrettyPrint), a pretty printer aimed at producing professional listings of Pascal programs. For Pascal enthusiasts this program can be very useful. For your benefit a description of the major files follows:*

#### DISK 3PCL-13

##### SIDE ONE

MUSIC	Music playing code from the Apple ][ Programmer's Aid # 1 collection
MUSIC.TEST	Tests the MUSIC routine by playing several scales
SOS.STATE	Returns SOS's internal status
SOS.HEART	Tests SOS.STATE
STR2REAL	Simple program for converting string numbers to REAL values and is very good at testing the string for validity

##### SIDE TWO

ASMFORMAT	Formats assembler listing files so that all back-patches are correctly patched. Nice utility for the /// assembly people.
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FILEDIV Divides large Pascal text files into smaller files.

NINE2ONE Interesting number game whose purpose is to arrange a sequence of the first 9 digits (1 to 9) into a pattern which when processed generates a desired value.

TIMER Digital clock for the ///. Great for the /// owner whose watch has broken.

WEEKDAY Day of the week calculator given any date.

#### **DISK 3PCL-14**

SIDE ONE

PPRINT Pascal source code pretty printer utility that supports highlighting of Pascal's reserved words. Allows the user the ability to define words which are also highlighted.

SIDE TWO

UTS Pascal token search unit which is used by PPRINT. Useful for parsing any Pascal program.

#### **DISK 3PCL-15**

SIDE ONE

EMUL.ROM Disassembled source code listing for the Apple ][ Emulation ROM for the ///.

SAVAGE Floating point benchmark program which tests the accuracy of the transcendental functions.

UDEBUG Runtime debugger which uses an external terminal. Used by most of my programs since I rarely write a program which runs correctly the first time.

USINCOS Nice Pascal unit for generating the sine and cosine values very quickly.

*By Paul Campbell*

The Apple /// was born into the world as a "state of the art" micro-computer that many hoped would be an answer to the Apple ]['s limitations and IBM's un-friendly and often difficult operating system. However, initial impressions are hard to shake, and Apple had quite a task ahead of them after the first batch of Apple ///s greeted the public with severe reliability problems due to chips coming loose during shipping or after initial warm-up. Imagine spending thousands of dollars on a new system, and then having it fail after a few hours... this is not the way to impress your friends!

The Apple ///'s circuitry was apparently designed with serviceability as one of its more subtle features and this meant that parts, including memory and logic chips, could be easily swapped for trouble shooting and replacement. The problem for Apple was not the chip-in-a-socket design alone, but also heat buildup.

All materials have thermal expansion properties, which means that as a part or object heats up, it also expands. Thus, in order to keep removable parts in place they must either be retained by a holding device, or the temperature fluctuations must be kept to a minimum. This is the reason that the Apple /// was equipped with a massive aluminum heat sink for a chassis. It makes the computer so heavy that, unless you have strong legs, the Apple /// would not make a good laptop computer!

Heat sinks work by absorbing heat from a device, then passing that heat to the air with a greater surface-to-air exposure than the device alone would have, but when a heat sink has little or no air circulation, the air around it heats up to the point where less and less heat transfer to the air takes place, and the result is a temperature rise of the component. In the Apple ///, this is what most frequently causes chips to work themselves loose from their sockets and it also causes components in the power supply to break down.

I've worked on systems that had gotten so hot that the memory board was discolored or burned from the heat. One Apple /// I purchased was in such a condition. When it was opened the memory board was almost charred from the intense heat buildup. I was amazed it still worked and upon calling the previous owner it was discovered that the computer was installed, turned on and it remained on...for six years. That's one way to reduce the hot/cold cycle that is the cause of so many problems!

### **Apple /// Heat Build Up: A Quiet, Permanent Solution**

Perhaps you have tried different ways to keep your Apple /// cool in the summer months, some don't mind their computer getting hot, and others do not keep theirs on long enough to be concerned. Some people who just can't leave well enough alone (like me!) have tried putting a fan on the back which, despite the noise, did a good job.

My fan worked fine until I needed to use a few more slots, then things got tough! My current system runs with all the slots full and 512k of memory along with three printers, three floppy drives, a modem, an RGB color monitor, a D7T (Turbo Sider), and a Profile for back-up, needless to say it generated a little heat.



The solution is not obvious, but the results are. My system now is used seven days a week, sometimes for more than 16 hours, and even after being on for days at a time it remains almost cool to the touch. If you look in back you will not see a fan and there is none in the slot area. There also is no on/off switch for a fan. But if you listen you can hear something a little quieter than the D7T that sits on the right side of the desk.

### **The Execution**

If you have ever removed the power supply from your Apple ///, you have probably noticed that the cavity is much larger than the power supply it contains. It could have been designed to make better use of the available space (a couple of extra expansion slots would have been nice!). But I found the extra vertical space is just enough to mount an internal 3.5 inch fan in the back of the cavity.

In order to accomplish this task, the fan must be tilted upward towards the back of the computer to allow enough space for the power supply itself, and the back of the cavity must be slotted for the fan's exhaust. These seven vertical slots are only about 2.5 inches long and are made between the present cooling fins in order to retain the Apple ///'s original appearance, and one internal horizontal slot between the power supply cavity and the expansion slot bay is needed for memory cooling. This should be about 3 inches by 1/4 inch. The fan is powered by connecting the fan leads to the incoming 110 volt AC, so there is NO extra load on the computer itself.

The fan can be mounted by drilling two small holes above the fan in the top of the cavity. Now run a stiff wire through the bottom mounting holes of the fan and up through the small holes in the chassis. I realize that this is an operation that many will hesitate to consider. But since its completion I have not had to even think about the fan itself.

I can go to bed at night with the indoor temperature in the 90s and the Apple /// cruising happily along on a massive print job without even getting warm. And I can't even remember the last time I had a loose chip or connector. If you would like this modification done, but don't want to do it yourself, you can contact me about doing it for you, or I will have step by step instructions available soon.

### **About the Author**

*Paul Campbell is a purchasing assistant in the medical field who also does side work as a computer service/setup tech. An avid Apple /// fan for about two years, he has set up several new Apple /// users in the Detroit area including three businesses. All are pleased with their systems. Paul is currently attempting to recruit programmers for SARA because he feels that software is where the /// falls short in comparison to the less powerful Apple ][.*

*By Timothy Swenson*

Most of the people I run into consider computer collecting rather odd. Most ask me how I can use that many computers or comment how obsolete the computers I collect are and wonder how I can tolerate using them.

For me, computer collecting has nothing to do with the use or power of the computer. It is based on an interest in all computers and a wonder about how they all work. Each computer design tackles the same problems with different approaches. It's interesting to see how the designers decided to solve each problem.

Plus, there is the historical importance of a computer. It is fun to own a computer that I have spent many years reading about. Instead of just seeing a picture of the computer, I can hold it in my hands and delve into its guts.

As we strive for faster and more powerful computers, we forget that at one time, each computer was considered "State of the Art." I can remember when 64K was a lot of memory. Then it went to 640K. When I worked on an XT back in 1983, most XT users wondered how they could even come close to using all 640K.

### THE START

After 7 years as a computer hobbyist, I started reading books on the history of the personal/home computer industry. I had read about some computers that I had played with, but did not know they were important milestones in their day.

At that time, I had about four computers. I have upgraded over the years and kept my old systems around. I remembered how a neighbor's daughter had an "old" Mattel Aquarius computer that she did not use. I figured I could get it cheap and see how it worked. After I bought the computer for \$10.00, I caught the collecting bug. Over the past three years, I have gone from just a few computers to over 30. All are "orphaned" systems and were bought fairly cheap.

Being an original Sinclair user, I specialized in the Sinclair line, but will buy almost any computer system as long as it is cheap. My main limit in a system is its physical size. I only have so much room in the "computer closet." I really enjoy the smaller home computers that spewed forth on the market. These odd-ball computers are fun to collect. It's fun to have the odd and unusual.

### WHERE TO BUY

There are two key items to know in computer collecting: Where to buy and how much to pay.

The most obvious place to start looking is the local classifieds. Most papers will have computers under a separate section or in the "Metro Market" section with the rest of the general items. Don't expect to find any great bargains here. These ads cost the seller money to place, so they must make some money

in the deal. Local "freebie" classified newspapers are the same as general newspapers. You might find a few good computers in either one.

Any local Bulletin Boards (the old index card and thumb tack type) are good places to look. The Pentagon has these boards on the Concourse. I have bought a few computers there. There are some computer BBS's that specialize in reselling computers, but they usually don't cover the odd and unusual. Similar to BBS's is Usenet, the World-Wide Unix-to-Unix BBS system. If you have access to a computer on the Internet, you might have Usenet access.

The best place to buy computers is any Ham Fest. Ham radio clubs sponsor local Ham shows. Since most Hams are into computers, computers are becoming more and more prevalent. About half of the booths sell computer-related goods. You can find almost any system at a Ham Fest at almost any price. I picked up a PDP-11/05 for nothing. The "seller" was told by his better half not to bring the "box" home.

A large number of sellers are the same people you would find at a regular flea market. They are just there to get rid of a few computers that they have around the house. Most will allow you to haggle them down. I've bought systems from an ASR-33 Teletype machine to an Apple ///. Here is where your best deals are found.

Regular flea markets are not as good as Ham Fests. You might find a computer there, but you have to sift through a lot of old clothes and brick-a-brack. If you have limited time on the weekends, focus on the Ham Fests.

### WHAT TO PAY

For me, cost is important. I have set a limit of \$50.00 per computer. If a computer costs more, I really have to think about it. Remember, I'm aiming for quantity not usability.

As you look for computers through these various sources, note how much people are asking. This will give you an idea of what systems cost. Granted there will be a few who will try to get as much as they can for a system, but there are also those just trying to empty out the closet and make a few dollars to boot.

The best thing to do is set your limit on what you would spend for a computer. Most computers are fairly common, so if you do not get a good deal today, one will come around again. There are a few systems that are a little more rare and you might have to grab them when they come around. Then it's a matter of how much you want that computer.

I've been looking for two computers for a while now; a Sinclair ZX-80 (the first Sinclair) and a black Bell and Howell Apple II. I was lucky enough to find both at low cost. The ZX-80 was \$5.00 and the B&H Apple was \$15.00. Now I am aiming for a few British systems that either never made it to the American market or failed miserably. Ones like Dragon, BBC Acorn, Jupiter Ace (built-in Forth instead of Basic) and SpectraVideo to name a few.

A good way to become familiar with what computer systems were made years ago is to visit your local library. Most of their computer books are a few years old and will cover these "golden oldies." Try reading a book like "Fire in the Valley" about the early PC industry. There are some good buyer's guide

books that cover what were then the latest and greatest.

Half of the fun is getting to know about a number of older computers and the history surrounding them. The when's, why's and how's about its manufacture. What made this computer special? It's all there to learn.

Most of all, it gives me a better perspective on newer computer systems. Once I know computer history, I can see why computers were designed as they were and the reasons behind certain features. And, of course, it's fun.

So, happy collecting and, from my programmer's view point, happy hacking!

*By Unknown*

The Desktop Manager by On Three, Inc., is the ultimate desk accessory. It's a collection of desk accessories and utilities that will increase your productivity, enhance the way you use your Apple //GS and can be used with virtually any ProDOS program. The Apple /// version has been out for some time. The //GS version was added to On Three's line of products in late 1987.

I had the pleasure of seeing The Desktop Manager demonstrated by Bob Consorti and Tim Harrington (two of the three Desktop Manager authors) at the Phase /// Conference (in Wheaton, Illinois, October, 1987). I was overwhelmed by its ability to be called from within any program on the Apple //GS and do things I thought were only possible on the Macintosh.

Included in the basic The Desktop Manager package are these accessories: Accessory Manager, Appointment Calendar, Calculator, Clipboard Tools, Note Pad, Printer Manager, Envelope Labeler, Text/Graphic Screen Saver and ASCII Chart. An Automatic Installation Program is also included. A few simple key presses will easily install TDM on any of your applications. No need for clumsy patch programs, it's all automatic.

The Appointment Calendar not only keeps track of your daily appointments, but also interrupts any program you are using when it's time for an appointment. I have found this to be one of the handiest features found with TDM. You no longer miss appointments when you get involved in computing. The Appointment Calendar can also display or print a week's worth of appointments, so you can schedule your time accordingly.

The Calculator is not just your basic calculator, but a real, full-function electronic workhorse. It includes keys for M+, M-, RM, Sin, Cos, Tan, Bin, Dec, Hex, Rad, Deg, Sqrt, Log, Ln, x^y, Pi, and e. The Calculator can have a tape on the screen or on your printer or both. When used in conjunction with the text pickup and paste tools, the Calculator can read and print to the screen. As an example, if you have a column of numbers (could be in a word processor, data base, or spreadsheet, it doesn't matter), just pick up the column with the text pickup tool, access the Calculator and paste them in. When you are finished calculating and want the result entered into your document, just press on key, quit the Calculator and the result is now where you want it, in your document.

With the Clipboard, you can easily move text between programs. ProDos 8, 16 or GS/OS as long as it has a text screen. As an example, you might want to copy some information from AppleWorks (including menus, title bars or documents) to GraphicWriter II for further print enhancements. Just use TDM's Text pickup tool to copy the desired information, quit AppleWorks, start up GraphicWriter II and paste the information. If you have more than one screen or information to copy, use TDM's Note Pad accessory to store all your information.

The Note Pad accessory enables you (or your spouse) to keep "Honey do" lists, copy new information to be used in updating your data base files, or jot down phone numbers of new clients to call. The Note Pad automatically saves your notes to disk, so they don't get lost. Multiple pages per note, plus the sophisticated features of word-wrap, automatic re-pagination, printing, copying and more gives you the

power of a word processor from whatever program you are using. On-line help screens make it easier than many other word processors.

The Printer Manager allows you to easily control a variety of printers, interface cards, and printing cards. It lets you quickly send special controlling codes to your printer from a series of menus. If your favorite accounting package only lets you print in 10 characters per inch and you would rather have 12, just a few key presses and it's done. Also, the Printer Manager allows you to directly connect to your printer as if it's an intelligent typewriter.

The ASCII Chart is a list of the entire ASCII character set and the key press equivalents for those characters. A great tool when you're trying to find the key press that your printer needs to switch into a certain mode.

The Envelope Labeler lets you use your //GS for printing envelope labels with control on a line by line basis of the positioning of the label. Up to 99 copies and variable line spacing provide the ultimate in flexibility.

The Text/Graphics Screen Saver is built into TDM and has the ability to save whatever text or graphics screen capable of being displayed (text, Hi-Res, Double Hi-Res or Super Hi-Res) via a single keystroke. An automatic text screen dump is also provided.

TDM is designed to be expandable. Other accessories can be added easily by using the Accessory Manager. Additional accessories now are The Disk Manager (similar to Filer) and The Communications Manager.

The Disk Manager accessory gives you the most useful features of the Apple System Utilities program from within almost any application. Running as an accessory under TDM, you can list files to screen, printer or disk file; copy files between disks, to the screen or to a printer; delete, rename, and lock/unlock files; list disk volumes; copy disks; rename and verify disks; and even create subdirectories at any time you want. The best part about the Disk Manager is that it's always there when you need it.

The Communications Manager accessory for TDM gives you powerful communications within almost any application. You can use TCM to talk to other computers and services at any time you want. Complete VT-52 terminal emulation makes the program as powerful as most other //GS communications packages. Record incoming text to a printer or a disk file for later viewing and even transmit standard ASCII files automatically.

TCM has almost every feature of telecommunications packages, including virtually error free transmission of files via the popular XMODEM and Binary II transfer protocols. TCM also supports Turbo Downloading for ultra-fast XMODEM and Binary II downloads. Turbo Downloading doubles the downloading performance of most communication services. You can be inside AppleWorks or Paintworks Gold and send a spreadsheet, data base or an image directly.

Two other accessories include The Macro Manager and a tool kit for developing your own custom accessories. There are also two accessories available on CompuServe, which are Freeware: Area Codes/Time Zones and Find File. Area Codes/Time Zones is a list giving time zones and area codes for most major cities. Also have you ever lost a file on your hard disk? Just enter any part of the file name

(wild cards are not necessary or even available) and Find File will find it.

On Three's technical support is one of the best. A case in point was a small freeware program used to sort messages on CompuServe. It didn't use the ProDOS interrupts correctly. Because TDM thrives on ProDOS's interrupts, both programs couldn't be run at the same time. Bob Consorti and Tim Harrington got a copy of the program, studied it and came up with a patch program to fix it. Now that's what I call support!

The list prices are:

TDM:

TDMGR:

TCM:

On Three's order line is: 1-206-334-8001 They accept credit cards.

*By Paul Campbell*

The first Apple /// I ever saw sat on a cart in the back of the storeroom where I worked, equipped with only 128k of memory and two floppy drives, it was waiting to be sent to the warehouse for storage and then disposal. At the time I was only interested in it because I needed something at home to fool around with, and it was so different from the scores of MS-DOS machines that seemed to be everywhere.

I bought the computer after it sat around for a while, was given one piece of software and sent happily on my way. My next job, after getting more familiar with the system, was a shopping trip to load up on software and supplies. At the time I only had the one application, QuickFile, and was using it for everything, even forcing it to do word processing (a two-field data base, with one field for text and the other for line numbers, yes... I was desperate!).

I recall the following visit to my local area computer store. When I was greeted by a salesperson who asked what type of system the items were being purchased for, he immediately burst out in laughter and suggested that I get a "real" computer. Being the new Apple /// owner back then, I was a little discouraged by the statement, how could anyone compare a little 128k computer with nothing but floppy drives, to one of the ominous MS-DOS monsters sitting in the showroom?

But things change, and with that first Apple /// no longer a bare bones computer, the shoe can often find itself on the other foot, imagine a salesperson stepping defensively in front of a 286 computer after hearing what an Apple /// can do, and claiming the comparison unfair!

This actually happened and I was told by the manager that I should go to another store to continue my comparison with the "Top of the Line" model, which I did. For some reason, most people have a perception of the Apple /// as a useless computer that is best used as a door stop, so let's have a look at some real world comparisons.

***Something old, Something new,  
Something borrowed, Something Blue....***

I'm sure most of you have seen the ads that tout Tandy's Deskmate as the Friendly Face in the crowd, being both easy to use and powerful. All this is true and Deskmate has received good reviews in such publications as Home Office Computing, but what about a face to face confrontation against a similarly equipped Apple /// with its Desktop Manager - /// E-Z Pieces environment?

As I sat down with my notebook at the Radio Shack Computer Center, it was rather ironic that the very helpful and friendly person who assisted me remarked that Deskmate was Tandy's "answer" to AppleWorks. I smiled and proceeded to put Deskmate through its paces.

Deskmate's graphics are nice and you can paste an image into a document for printing, which is something that you must use a separate utility for on the Apple ///. But the battle goes downhill from there for the IBM compatible Tandy as the Apple /// reveals itself to be faster, more powerful, and



easier to use on virtually all counts.

Spreadsheet capability is where the most glaring differences occur. A person who has used /// E-Z Pieces will find Deskmate's numbered columns and rows much more difficult and complicated to use. If you like large spreadsheets, /// E-Z Pieces has 126,873 empty cells, 16,400 of which can be filled with formulas at the same time. Running your Apple /// under a program switching utility and The Desktop Manager at the same time decreases the number of filled cells to 13,066. Deskmate has 9,801 cells, period.

You must also tell Deskmate that you are entering a formula or it will not recognize it as such. The Apple /// automatically recognizes formulas, values, and labels as you enter them, and formats each cell according to the Standard Values which can be set differently for each spreadsheet if desired. You can also change the format of individual cells.

In some cases the shortcomings of Deskmate seem like oversights, like the lack of global search or record copying in databases and no spreadsheet sorting - functions which I use frequently in my business, and when you ask for help... it makes a good time to get a cup of coffee.

It should be mentioned that these tests were run against the best computer offered by Tandy. It should also be mentioned that the Apple /// was equipped with an old 5 Megabyte Profile with a 180ms access time. There are new SCSI drives made for the Apple /// that are well over 100 Megabytes in size and faster than hard drives found in brand-new 486 machines. On Three Inc. will even build a custom SCSI drive for you.

I adore the Apple ][. I've owned both a ][+ and a ][e, but SARA (code name for the Apple ///) is nearly twice as fast and has eight times the power. Having only four expansion slots in the Apple /// is not quite the disaster that some believe it to be, it would take no fewer than ten slots on an Apple ][ to match the Apple /// system that I'm typing this article on right now, and what would ProDos8, which can only recognize two hard drive partitions, do with the five hard drive partitions currently in use?

I've spent many hours doing benchmark tests with both machines side by side using almost identical programs and the Apple /// just walks away from the ][e in every test, no exceptions.

The Commodore 64 has only 38K of memory left for program space and files after booting, compared to over 400K on most Apple /// applications, and yet there is a vast world of software available for the Commodore 64, even in some department stores. This gives us a clue to the reason why software companies would create programs for some smaller computers and ignore the Apple ///, the answer is money. Commodore 64 and Apple ][ owners buy new products, a lot of Apple /// owners don't.

### **The Case of the Hungry Hardware.**

To encourage you when considering the purchase of something new for your computer, it may help to know that a 512K Apple /// computer still commands a higher price than an IBM PC, IBM XT, or even an IBM AT. There already are some great applications out there, for example the Graphics Manager for the Apple ][ has been called the best printing utility ever, and the /// version is even better, but nobody is going to continue making the truly neat software for us if nobody is going to buy it. On the other side of the coin, new software products will increase interest... and buyers.

Take a look at the limited emulation modes on SARA. What is their sole purpose? To run software that is not otherwise available to us in the natural Apple /// environment. It would be nice to have a word processor with graphics capability if not an entire desktop publishing program (if Apple ][e hardware can do it, SARA can do it better!). Even nicer would be if someone like Claris Software (nudge nudge) would modify versions of AppleWorks 3.0 and other programs to run in the native Apple /// mode, it would open a whole new marketing niche with just a few modifications to already existing software.

In closing, we can support what is available for our computer and look forward to renewed interest, some new products and maybe even a few full blown applications that really use some of the advantages of the Apple ///, or we can let one of the best computers made by Apple die a slow death in basements and closets around the world while lesser systems live on. From this Apple /// users standpoint, remember that, although the "Meek shall inherit the earth"... the weak shall not inherit my computing tasks!

*By Irving Tessel*

The Desktop Manager Macros (On Three, Inc.) is a very powerful program. In addition to saving keystrokes, it can be used to control files. This article will describe how to use macros to control files.

Let me first describe my Apple /// Computer. The system runs on 512 K ram, one (1) external drive, a 5 MG. Profile, a 65C02 Microprocessor, and a Titan /// + 2 Board. Everything is printed on a Fortis DM1310 Printer (Apple Imagewriter II compatible).

Major programs are /// E-Z Pieces, Stem Speller, Side Print, Habba Merge, Advanced VisiCalc, BPI Accounting Systems, Backup ///, Business Graphics, and Business Basic.

The whole System is kept together by Selector /// (On Three, Inc.) and Desktop Manager.

The first Macro Map is for Accessing Programs and /// E-Z Pieces Subdirectories. Advanced Visicalc, BPI, Business Graphics, /// E-Z Pieces, and Business Basic have individual Macro Maps to use when running these programs.

My main program is /// E-Z Pieces. However it does not contain the advanced financial formulas such as @PMT, Present Value and Future Value. For these applications Advanced Visicalc comes to the rescue.

After working with /// E-Z Pieces, locating Advanced VisiCalc files became frustrating. This is how I solved this dilemma. I created a Program Index (shown below) as a Advanced Visicalc File.

#### FILE INDEX

To use these programs, set macro map for Advanced Visicalc and press SOLID APPLE for the desired program.

FILE	MACRO
COUNT.DAYS	SOLID APPLE H
FUTURE.VALUE	SOLID APPLE I
LEASE.PURCHASE	SOLID APPLE J
LOAN.AMORTIZATION	SOLID APPLE K
NEW FILE	SOLID APPLE L

With two (2) keystrokes, The Desktop Manager Macros Program gets to the file that I need. Pressing SOLID APPLE in Program Macros accesses the Advanced VisiCalc Index. By following the index instructions, I can go directly to an existing file or set up a new file.

Shown below is a file that computes Future Value (*Your Best Interest* by Tom Weishaar of A2 Central). Note the instructions that guide me through the maze of data.

```
FUTURE VALUE
=====A=====B=====C=====D=====E=====F=====
 3|To clear Row 10, use macro SOLID APPLE A

 4|To use another program, use macro SOLID APPLE G
 5|To leave Advanced Visicalc, set Macro Map to Start Program Macros
 6|-----
 7|present      remittance  pct          years        compound-    remit-
 8|value        amount      interest     years        ings/year   tances/yr
 9|
10|?           ?           ?            ?            ?           ?
11|
12|           ?=error   ?=error     ?=error
13|question window
=====A=====B=====C=====D=====E=====F=====
45|answer window
46|
47|present      remittance  pct          years        compound-    remit-
48|value        amount      interest     years        ings/year   tances/yr
49|
50|          ERROR      ERROR          0           ERROR          0           0
-----
```

The instruction on row 4 brings you back to the File Index and you are ready to move ahead to another file. Row 5's instruction allows the user to leave Advanced Visicalc.