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A journal and exchange of Apple II discoveries

Personnel moves rock Apple

The past month's changes in Cupertino may not prove as momentous as those in Moscow and Cape Town, but they were certainly as unexpected. Apple, which has been organized into four major divisions—Apple U.S.A., Apple Europe, Apple Pacific, and Apple Products (Research & Development / Manufacturing / Product Marketing)—will soon have new people at the top of each division.

The changes started when Del Yocam, head of Apple Pacific, left the company in November as had been planned for over a year (see **A2-Central**, November 1988, page 4.73). Then, on January 29, two days before Apple's annual stockholder's meeting, John Sculley announced the resignation of Allan Z. Loren, head of Apple U.S.A. According to news reports, Loren was forced out because many of the Apple employees who reported to him were unsatisfied with his leadership and were prepared to use the stockholders meeting as a forum for their complaints.

Loren was replaced by Michael Spindler, who had been head of Apple Europe. Moreover, Spindler was named to the new position of chief operating officer and was given responsibility for Apple's worldwide product marketing and worldwide manufacturing, two business functions that had previously reported to Jean-Louis Gassee. Gassee was left with responsibility only for research and development. Within a week, newspapers such as the *Wall Street Journal* were reporting that Gassee had decided to resign as well.

The changes came after Apple's stock price had tumbled and analysts expressed concern over Apple's lack of a "low-end strategy", a lack Apple II users have been concerned about for many months. The Apple II provides Apple with a wonderful family of low-end products, but very few people inside the company believe that the Apple II is anything more than a cash cow on its last legs.

Meanwhile, *Electronic Learning* magazine devoted the cover of its February issue to "The Hardware Dilemma" facing schools. The article states that what educators want from Apple is a "baby Mac" with the following capabilities: large, color screen; run *HyperCard* or have hypermedia capabilities; run most, if not all, of the Apple II family software; cost between \$900 and \$1,400; be available in one to two years.

One wonders what log the editors of *Electronic Learning* have been sleeping under. Their description of a "baby Mac" is an Apple IIgs running *HyperStudio*, and it's available right now, not in a year or two. Couldn't Apple satisfy these guys simply by changing the name printed to the right of the multi-colored Apple on the IIgs box to "Macintosh" and putting *HyperStudio* in the box with new computers?

The only problem with the Apple II is that Apple itself doesn't believe in it. Have you ever heard Apple brag that of the three major personal computer platforms available today the Apple II is the leader in integrated software? That the Apple II has the best potential for hypermedia? Those are facts that could be used to put the sex appeal back in the Apple II by next Christmas.

But will it happen? We don't know. It could be argued that Michael Spindler killed the Apple II in Europe. On the other hand, it could also be argued that he's behind the Apple II's bright spot in France. Spindler's opinion of the Apple II's importance to the future of Apple isn't publicly known.

One rumor that hit our offices as we went to press had a ring of

truth to it, however, though it's totally unsubstantiated. The rumor goes that John Sculley called his new management team into his office and told them to stop selling low-cost Macintosh products that don't exist and to start selling the Apple IIgs. If that's true, we may be on the verge of an Apple II resurrection. If it's not true—well, things can't get much worse than they already are but we're still having fun with our Apple IIs—let's concentrate on our fun and leave Apple's fun to Apple.—TW

Miscellanea

Somak Software has announced TeleShare, a service that allows easier payment of registration fees to shareware authors via Visa or MasterCard using a touch tone phone. Somak takes 20% of the author's requested fee to cover its operating costs; Somak says it will lower the fee when it becomes possible to maintain the system at or near a break-even basis.

Authors interested in participating in the system should call Somak at 619-942-2556 and request a free application, or write to Somak Software, Inc., 535 Encinitas Blvd. Suite 113, Encinitas, Calif. 92024, Attn: TeleShare. Somak can also be reached by AppleLink (SOMAK), GEnie (R.EBERHARDT1), and Compuserve (76340,3610).

Virtual Realities is comarketing the revised VisionPlus in conjunction with Silicon and Software (see "Miscellanea" in last month's A2-Central), but will also be offering an upgrade exclusively.

The Visionary GS video digitizer retails for \$295. Improvements in the digitizer package include enhancements to the hardware and software to support GS/OS and fix earlier problems. Images can be saved



"WHAT'S MULTIMEDIA? WELL, FOR EXAMPLE, ON THIS APPLEII. THE STUDENT CAN RUN APPLEWORKS, DOWNLOAD AND TAKE A TEST, OR WATCH "THE MOVIE CHANNEL"."

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Virtual Realities is offering an upgrade to the new package from the AST *VisionPlus* if you return the original card (in working order); the upgrade is \$95 if the package is postmarked by February 28, \$145 thereafter. The expected average turnaround time is a week.

The Visionary GS requires an Apple IIgs with a minimum of 1 megabyte of DMA compatible memory and System Software 5.0 or higher. The address is Virtual Realities, Inc., 117 Blaine Street, Suite #12, Riverside, Calif. 92507, 714-788-0176.

The Bits and Pieces RocketChip and the Applied Engineering TransWarp II have been dealt a blow based on a patent awarded Zip Technology on the technology incorporated into the Zip Chip (patent number 4,794,523). Zip asserts that the court has enjoined Bits and Pieces from production of the RocketChip on the basis of the patent. Applied Engineering is replacing its IIe-compatible TransWarp II, which was reportedly designed using technology licensed from Bits and Pieces, with a redesigned TransWarp III. The TransWarp GS has been unaffected.

A new 8-bit Pascal compiler for the Apple II comes from On-Going Ideas, RD #1, Box 810, Starksboro, Vt. 05487, 802-453-4442. The ProDOS-based system (*OGI Pascal* Version 2.0b) is \$55 and requires a 128K enhanced IIe, a IIc, or a Ilgs. Currently, the system does not generate standalone (".SYSTEM") applications, but OGI expects to add the capability in a future upgrade. A new compiler that will support most of the Pascal language as described by Nicklaus Wirth is expected by March 1990, and will be available as a free upgrade for purchasers of the current Version 2.0b. Contact OGI for



Corrections and amplifications

Numbers shouldn't confuse me after playing with **GS Numerics**, but I did manage to get the price wrong. The correct price is \$139.95, not \$130 as quoted last month.

Also, there was a reference in "Ask Uncle DOS" to **A2-Central** having an older "ROM 02" machine ("No ROM 02?"). There is no such beast; that should have been "ROM 01".

In the "Corrections and amplifications" section last month, we mentioned that we carried **Talk Is Cheap** with **GEM** included in the price for \$40. Upon reviewing this, we realized it could be misconstrued to mean that the new versions of **TIC** automatically include **GEM**. We'd like to clarify that **GEM** is normally not included with **Talk Is Cheap**: This is a special **A2-Central** deal we put together—Don Elton's **Talk is Cheap** and Tom Hoover's **GEnie Master** are separate products.

This last is a request from yours truly. Several months ago, I helped advise a lawyer who was converting his **AppleWriter**-driven legal system for use with an AppleShare network. It was successful, but I can't find his name and I have another legal office needing to do the same thing. If you're out there, please drop more information.

If you been looking for the AppleWorks newsletter The Works recently, it has changed its name to The AppleWorks Educator. The coverage has been expanded to 16 pages and is provided monthly over the school year from September to May with the exception of a combined December/January issue. The annual (8 issue) subscription is \$25 US (Canada and Mexico, \$28), and the new address (as of Jan. 1, 1990) is P. O. Box 2966, Charlottesville, VA 22902.

The AppleWorks Programmer's Association has a couple of new telephone numbers. The APA BBS number is 213-463-9289. The new voice number is 213-479-9916.—DJD

Review: The Macintosh Way

When I attended my first Apple Developers Conference in 1986, at the time of the introduction of the Apple IIgs, Guy Kawasaki was pointed out to me and identified as Apple's "Chief Evangelist in Charge of Self-Promotion". The comment was made with tongue in cheek, but Kawasaki's book about his management philosophy, *The Macintosh Way* (Scott, Foresman and Company; ISBN 0-673-46175-0 \$19.95 hardbound) makes it clear that Kawasaki believes very strongly in his approach; strongly enough to attempt to explain and justify it. He does an admirable job.

The book is done in what can only be termed an "irreverent" style; irreverent in comparison to stodgy books on management. The book

me a line so I can put the two offices in touch.-DJD

develop and CD-ROM

It was one of those remarkable coincidences that saw the February **A2-Central**, with your articles about CD-ROM for the Apple II and Apple's new *develop* magazine, arrive on the same day as the first, promotional issue of *develop*.

The magazine contained a CD-ROM disk which was reported to hold the contents of the magazine including all source code listings. As you noted, there was an article by Eric Soldan, of interest to Apple II developers, **if** they happen to do their programming on a Mac. Other than that, there were two pages of "question and answer" for the Apple II. A total of 10 pages out of 108 were of possible use to Apple II developers.

The instructions for using the CD-ROM disk did not even acknowledge the existence of CD-ROM for the Apple II. Needless to say, this Apple II user will not be spending US \$50 (the price to Canadians of 4 quarterly issues) to subscribe.

Recently Scientific American announced that their MEDICINE publication is now available on CD-ROM for MS-DOS computers. A Mac version is expected by year's end, but the reply to my letter inquiring about the possibility of a Ilgs version might be paraphrased, "don't think so, but we understand there may be software that allows the Apple II to run Mac programs..." Oh really? Are they talking about the yet-to-appear Macintosh FST for the GS, or possibly the much-numored *HyperCard QS*, which will be able to read Mac stacks?

This is exciting news. Being the infoholic that I am, I cannot wait to get my hands on *Scientific American* MEDICINE and a comprehensive encyclopedia on CD-ROM. More news, please.

Lorne Walton Maple Ridge, B.C. **develop** is a quarterly magazine, subscriptions are \$30 per year in the US. The first issue includes a specific address for subscription inquiries:

develop Apple Computer, Inc. 20 Box 3721 Escondido, Calif. 92025

develop is soliciting articles from sources outside of Apple, but it would seem that Apple could manage a little more Apple II support internally (let's clarify that: we believe Apple's upper management should facilitate it). It will be a couple of months until the next issue is due, but so far there is nothing here to inspire Apple II developers who don't also have a Macintosh. The CD-ROM supplied has no Apple II partition, but then the only Apple II article (as you mention) required the MPW environment.

But we hasten to add that Eric is also finishing a **Dynamo** version to work with APW, though some comparative differences in APW and MPW may cause some changes in functionality. Eric heard Apple II users voice concern over the MPW format of the system and elected to put additional effort into creating a native version for APW users.

With respect to CD-ROM, we're seeing a diluted implementation of "Information will always be supplied in least usable form". While not "least usable", supplying CD-ROM data in proprietary formats does not make it the most accessible. There is an interesting editorial in the February 13th issue of **PC Magazine** (p. 91) where Stephen Manes discusses the problem of getting manufacturers to use the "computer independent" ISO 9660 format to store CD-ROM data, and the subsequent problem of getting suppliers to agree on putting the data in some type of "generic"

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opens with a description of a disagreement between Kawasaki (as the one in charge of software published by Apple), some Apple representatives, and representatives of Ashton-Tate (the company behind dBASE); the disagreement was based in Kawasaki's presence at a presentation by Ashton-Tate regarding a proposed "*dBASE Mac*" at the time that Kawasaki was acting to acquire a competing database (*Silver Surfer*, which eventually became 4th Dimension) for Apple. As Kawasaki explains it, this lead to the formation of two competitors for Ashton-Tate in the Mac market: Claris (which Kawasaki explains as being created to reduce competition between Apple and its software developers) and ACIUS (a company that Kawasaki points out that the two companies people said he had problems working with were Ashton-Tate ("which couldn't finish *dBASE Mac*") and Microsoft ("which Apple would sue").

The rest of the book is primarily a treatise on the way Kawasaki believed a product like the Macintosh needed to be managed, with "Exercises" that actually serve as commentary on any "lessons" to be drawn from the ideas presented, and footnotes that often owe more to the style of Ambrose Bierce than Webster. A footnote example (page 65):

2. A crash is when your competitors' product dies. When your program dies, it is an "idiosyncrasy". Frequently, crashes are followed with a message like "ID 02." "ID" is an abbreviation for "idiosyncrasy" and the number that follows indicates how many more months of testing the product should have had. And part of my favorite Exercise (page 137):

A man went to a Hyundai dealership and bought a car. When he got home, he read his manual and found out that his \$8000 car had a 36,000 mile, 36-month warranty. Later, he went to an Apple dealer and hought a Macintosh II and a LaaerWriter NTX for \$10,000. When he got home, he read his manual and found out that his new computer equipment had a 90-day warranty. What can explain this?

The possible "answers" supplied to choose from don't leave any comfortable resolution to the question.

The book is mostly from a Macintosh evangelist's point of view, but it contains no explicit negativism about the Apple II. You won't learn anything about Apple IIs from it, but you may learn much about how Apple's marketing force thinks. The only section I found questionable was a chapter titled "How to Drive Your (MS-DOS) Competitors Crazy". Some of the suggestions there involve mind games (page 181: "Tell them that Apple is funding a competitor"), though some of the others (such as buying a competitor's product to see how customers are treated) are sound.

It pains me to recommend the book; I'm not happy with the fact that this "guerrilla management" seems to have been directed at other Apple products (the Apple II) as well as those of competitors. But the book is insightful about the personal computer business, and may give Apple II users some ideas for fighting back.—DJD

format that all computer types can access. If Apple wants to be on the forefront of CD-ROM technology, it should provide more leadership in this regard. Don't count on a "HyperCard GS" being the answer; the problem is more complex.

We're investigating another type of interactive media; laser videodiscs. We hope to have some details next month. —DJD

Which GS/OS?

I'm updating to System Software 5.0.2 from System 5.0. How can I tell what system I am using (if not marked on the disk)?

> Harry Smith Columbia, Md,

As you boot the disk, press "Escape" to take you to the text screen that displays the system software's component version numbers. When the screen pauses, check the version number for the "ProDOS FST". It's "3.0" for System 5.0; "3.01" for System 5.0.2.—DJD

Techware responds

As mentioned in the February issue ("More hypermedia", p. 6.6c), Tutor-Tech does predate HyperCard on the Macintosh. It began shipping in January 1985, two years before HyperCard was announced. Since then, we have released 9 major upgrades, each adding more features for multimedia and graphics tools, and making Tutor-Tech more like HyperCard. Product and price comparisons: although HyperStudio, being a llgs only product, uses the llgs graphics and sound more fully, Tutor-Tech has advantages over both HyperStudio and HyperCard. First, it uses object-oriented drawing tools, so graphics can be fully edited, stretched, moved, etc. This also makes stacks much more compact, usually by a factor of 10 over HyperStudio or HyperCard! As you'd guess, this is essential on any 128K machine.

Secondly, Tutor.Tech supports far more videodisc player models than does HyperStudio, and Tutor.Tech alone supports VCRs, speech synthesizers, and tape recorders controlled by stacks. Lastly, the \$195 retail price (discounted significantly in catalogs) includes a license to use the stacks you create on up to fifty computers or a network; no extra charge. To do the same with *HyperStudio*, you'd need additional licensing for each computer, which far exceeds the *Tutor-Tech* price. Therefore, I suggest you get all the facts before concluding which is best for you.

> Dave Lampert Techware, Inc. Post Office Box 151085 Altamonte Springs, Fla. 32715-1085 (407) 695-9000 AppleLink: D0617 America Online: DLampert

Please note the corrected address and phone number for Techware. With Techware's assistance, we also included a demonstration of **Tutor-Tech** on the February 1990 monthly disk.—DJD

Serious errors

I'm using AppleWorks GS 1.0 and am experiencing some mysterious Serious System Errors. Particularly, with a 15-page letter that isn't finished yet. I've verified the file with *ProSel-16* and it says it's OK. I've had some strange System Errors before that, after some tracing, I concluded were caused by using font sizes other than those available in the Size menu, After that I changed the font sizes, but now this error message is appearing again. What can I do?

> Tero Sand Helsinki, Finland

Since upgrading to System 5.0 (and 5.0.2) I have been having a problem running 8-bit applications from the Finder. After some investigation, 1 found that if I reduced the number of NDAs so that their total size was 291 blocks or less, I could return to the Finder from an 8-bit application. It doesn't matter which or how

many NDAs are installed, as long as their total size doesn't exceed 291 blocks. I used the same NDAs with System 4.0 and never had this problem! In fact, I reloaded System 4.0 from a backup, copied in the NDAs, and everything worked just fine. Has anyone else experienced this problem, or better yet, has anyone experienced a solution?

Art Coughlin Trenton, N.J.

It's always helpful to know what applications you're having trouble running, but we'll take a guess and say it's probably a memory allocation problem.

AppleWorks GS's "serious system error" may indicate it is running out of memory (resizing a font to a size other than those the system has immediately available will use memory), or it may indicate another problem (without an error code, it's hard to tell). Claris does not certify version 1.0 to work correctly under System 5.0, so the upgrade to version 1.1 may be encouraged by that factor, and by 1.1's more efficient use of memory.

If the "8-bit" applications are actually programs using IIgs features that load under Pro-DOS 8, the likely conflict is the way applications themselves are trying to load. They may be assuming that specific areas of IIgs memory are available, when in fact GS/OS may have those areas reserved. They work when booting from ProDOS 8 because GS/OS isn't loaded.

The reason the size of the NDA's may be a factor is the location of the NDA's as they are loaded into memory; loading the critical size of NDA's you cite may either improve the chances of a "needed" block of memory being occupied. Or, because GS/OS also needs to reserve space for itself while ProDOS 8 programs are running, it may be that the combined size of the reserved memory for the NDA's plus GS/OS is leaving insufficient free

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memory for the application to run (System 5.0 is slightly larger than 4.0, so the amount of free memory probably fell).

The best solution would be for the application to be written to run under GS/OS if it is intended to use the Ilgs memory and features beyond the 128K Ile/IIc "emulation mode" of the Ilgs. Even so, the application needs to be written so as to not make assumptions about whether certain specific areas of memory are available, and to provide an error message if it finds the memory required for the programs's operation to be in use. If the program has been written with the latter concept, then adding memory to the system (or removing any "/RAM5" volume allocated from your Ilgs memory) may solve the problem.—DJD

AppleWorks GS time and date

What keyboard sequence can I use in a letter to time stamp or date stamp it as it prints in AppleWorks GS?

> Wendell W. Stream Woodward, Iowa

To insert the date, time, or page number in an **AppeWorks GS** word processor document's header or footer, select "View Header" or "View Footer" from the "Document" menu, move the insertion point to the position where you want the item, and then select the appropriate item ("Insert Page #", "Insert Time", "Insert Date") from the "Document" menu. These items are dimmed in the "Normal View", and we don't know of a way to insert them in the body of the document.—DJD

PaintWorks Gold upgrade

In regards to the letter from C. S. Buback about a *PaintWorks* upgrade, there is one available from:

Triton Products Company 3885 Bohannon Drive Menlo Park, Calif. 94205

The price of the upgrade is \$5.00.

Ramon P. Ratte Brownboro, AI.

ReportWriter day-of-week

I've been enjoying Beagle's *TimeOut ReportWriter* a lot, but naturally I've already sent them my wish list. I was going to wish for a day-of-the-week function, but instead I'll offer this tip for others in the same boat:

Day of the week = Julian + (@INT(-Julian/?)*?)

where "Julian" is the result of *ReportWriter's* @DAT2JUL function and "Day of the week" will be returned as a number from 0 to 6 with 0 being Sunday and 6 being Saturday. If you're using AppleWorks 3.0, a simple lookup table will return the correct text.

James L. Gibson Indigo, Calif.

ProDOS file sizes

Why does ProDOS give such unusual file size references?

When getting info on various folders on my hard drive (running under System 5.0.2) it is not unusual to see such things as "278K used, 365K on disk" or a real doozy like "366K used, 568K on disk". This really gets in the way when archiving data to 800K floppies. What is the Pro-DOS mechanism that produces this disparity? More importantly, if space is being wasted, is it recoverable? On the subject of space and archiving, I recently tried *ShrinklT* when backing up my hard drive. It doesn't merely compress files, it smashes them. I moved three folders containing over 2.6 megabytes of graphic data to **one** 800K floppy and had space left over. Instead of using up a stack of 3.5 disks to do the job, I used only 10 disks to store 12 megabytes of data and programs and I wasn't using all of the space on the disks. *ShrinklT* is one of the most useful programs I have found in years. Its author merits high praise.

Vern L. Mastel Mandan, N.D.

No space is being wasted; Finder is just trying to keep track of how much disk space is actually being used. For the volume, Finder reports the "Free" and "Used" values to the nearest "K" (a "K" is shorthand for the value 1024, an increment often used in dealing with computer data) figure; these should total to the storage capacity of the volume. For a file, Finder reports the filesize in "bytes" according to the "ENDFILE" value of the file, and the amount of disk storage used "on disk" (to the nearest K) by totaling the number of blocks of storage the file uses on the disk. ProDOS files are organized as a series of 512-byte "blocks" of information on disk; ProDOS tracks the information in the file by keeping (for each file) a table of the blocks that belong to the file. For most files, the "on disk" figure should be the size in bytes rounded up to the nearest K.

One type of file that can add to the confusion is a "sparse" file, which uses **less** storage on disk than its ENDFILE value would seem to indicate. The ProDOS file structure allows data blocks made up entirely of zeros to be indicated by the omission of ProDOS's table entry for that block; by doing this, ProDOS only actually has to save room on the disk for blocks that contain non-zero data. Such a file can take up less room on disk than appears to be in the file if we would load it into memory and is called a "sparse" file.

Here's an example from ProDOS BASIC. If we BSAVE one byte of data to a new file, we create a one-block file (ProDOS keeps the location of the one block in the directory entry):

BSAVE TEST. SPARSE, A\$2000, L1

When you do a CATALOG (you'll need to use the long form of the CATalog command) of the directory containing the file, you'll see the "ENDFILE" value listed as "1". If we use the "B" parameter to move 10,000 bytes into the file (the 9999th position, since the first byte of the file is byte "0"), we can create a file with an "ENDFILE" of 10000:

BSAVE TEST. SPARSE, A\$2000, L1, B9999

But if you check the block count for the file, you'll see it's only "3". Compare this for the block count for BSAVEing 10,000 bytes of data:

BSAVE TEST. NORMAL, A\$2000, L10000

where we create a file that also has an END-FILE of 10000, but is 21 blocks in size.

The difference is this: in TEST.NORMAL we explicitely saved 10,000 bytes of data into a file; 10,000 divided by 512 (the number of bytes in a block) gives 20 blocks (we need 19 full blocks and part of a 20th to hold 10,000 bytes). We add one block for ProDOS to store the table of blocks used by the file; this gives a total of 21 blocks used by the file on disk. In

TEST.SPARSE we saved one byte at the start of the file, then moved 10,000 bytes into the file and saved another byte. We haven't saved any data in the intervening area, so ProDOS just saved the first block (with the first byte of data) and the last block (with the 10,000th byte of the file) onto the disk, and saved another block with the data table (full of "holes" for the "empty" blocks that aren't saved on disk); those are the three blocks belonging to the file. The TEST.SPARSE file will act as if we stored zeros into all the bytes other than the two we explicitely saved into the file.

Finally, if you select a subdirectory, Finder will tell you to click on the Calculator icon in the Get Info box to determine the size of the subdirectory. If you do so, Finder searches the subdirectory and adds up the sizes of all the files (and subdirectories) it finds and displays the totals for you.

The 'K' values determined by block usage ("on disk") should be suitable for judging how much data will fit on a disk when copying. You may even get a bonus, because Finder will make a file sparse during file copy operations if it contains suitably large blocks of consecutive '00' data bytes (Finder needs to do this for AppleShare).—DJD

Artistic plot

I have been doing abstract artistic drawings with my IIc and an *Apple Plotter* for more than a year. Last December I had an individual exhibition at our municipal art center. Each drawing corresponds to a unique simple Applesoft program. The response was good from the artistic community and from the technical public. I would like to contact other computer-plotter artists all over the world who are interested in an exchange of ideas.

Werner Kubelka Rua C, 396 Aldeia Itaipu 24350 Niteroi, R. J., Brazil

PFS: Update

There must be other computer professionals out there in Apple land who are "closet" users of *PFS:File*. Every computer operator where I work uses either ProDOS or MS-DOS versions of *PFS:File* or *Professional File*. I use AppleWorks 3.0 at home and am much happier with it than *PFS*, however, for the sake of compatibility and harmony at work I do all my assignments utilizing *PFS* products. Running two different filing programs would be easy if I didn't also use some of my data bases, such as a Rolodex type address folder, at home. I generally upgrade files at work, so periodically this information needs to be transferred into AppleWorks at home.

Magazines have abandoned reviewing, testing, and discussing the entire Apple *PFS* line. The annoying copy-protection makes it impossible to load on a hard disk without a keyed disk in slot 6, drive 1. Software Publishing has virtually deserted their former powerhouse series for 128K Apple computers, instead of upgrading the product to newer Apple standards (as they have done for the MS-DOS world).

Are you a *PFS:File* owner who would like to utilize the powerful environment of the Apple-Works desktop, but cannot endure the inconvenience of re-typing hundreds or thousands of records? The procedure outlined here allows the avoidance of re-typing information while permitting the conversion of up to 15 *PFS:File* fields and accompanying information into AppleWorks categories and data. The terms "field" employed by *PFS* and "category" used by AppleWorks will be utilized interchangeably in this presentation.

The size of records you are modifying dictates whether you need to use one or more disk drives (a hard disk is recommended when transferring large data files). If your *PFS* file contains more than 15 fields it is possible to create more than one AppleWorks data base, tying the multiple files together with Beagle Bros *Ultra-Macros*. The first 15 categories become page one of the converted file, the next 15 fields can be page two and so on.

Before you begin, back up your original *PFS:File* data onto a new disk and use the copy for this conversion!

Step I: Moving *PFS:File* fields to an appropriate layout for AppleWorks.

Boot the *PFS:File* program disk. At the Main Menu choose SELECT FILE (7). With your data disk in a drive set the PREFIX and FILENAME and press <RETURN> to exit. Pick DESIGN (1) at the MAIN MENU and ADD, DELETE, OR MOVE ITEMS (4) from the DESIGN MENU, then <RETURN> at the warning screen. Carefully retype your field names beginning in the top left corner, one field per line with a colon as the last character in each category. When done, press <OPEN-APPLE><RETURN>.

Verify that the data is correct and complete.

Step II: Removing the PFS:File field names from the data base.

Select DESIGN (1) from the *PFS:File* MAIN MENU, then CHANGE ITEM NAMES (3). At the warning screen press <RETURN> and erase all field names, replacing each with a colon against the left screen margin (HTAB 1). When done, press <OPEN-APPLE><RETURN> and the program will automatically re-design the form removing all field names, but not the information they contain.

Verify that the data is correct and complete.

Step III: Printing the *PFS:File* data base to an ASCII text file.

Pick out PRINT (5) from the MAIN MENU, then PRINT FORMS (1). Search for all forms by pressing <OPEN-APPLE><RETURN>. At the PRINT OPTIONS screen, <TAB> to PRINT ITEM NAMES and type "N". <TAB> to LINES PER PAGE and insert the number of categories to be included in the conversion. <TAB> to PRINT TO PRINT-ER/SCREEN/DOCUMENT (P/S/D) and type "D" to print the file as a document (ASCII text), then strike <RETURN>. With both source and destination disk(s) on-line, set the PREFIX and FILE-NAME to the text file and press <RETURN>. If you are writing the text file to your source disk, be sure to give it a different filename than your PFS data to avoid overwriting valid information. I always rename the destination to the same title as the source with a ".TXT" suffix to maintain continuity.

Step IV: Loading the PFS:File ASCII data onto AppleWorks.

Boot AppleWorks and at the MAIN MENU choose ADD FILES TO THE DESKTOP (1). Select MAKE A NEW FILE FOR THE DATA BASE (4), then pick MAKE A NEW FILE FROM A TEXT (ASCII) FILE (2). Fill in the number of categories being transferred (1-15), hit <RETURN>, type the pathname of the ASCII file created in step III, push <RETURN>, then wait. Type a name for this new file and after a short interval your converted data will appear on-screen. Verify that the data is correct and complete!

Step V: Adding category names to the AppleWorks data base.

With the new AppleWorks data base onscreen, press <OPEN-APPLE> "N" to change the category names, then <ESC>. Save this file onto an AppleWorks data disk and the conversion is finished.

Step VI: Loading the AppleWorks data base into AppleWorks GS.

This data file can now be loaded directly into *AppleWorks GS* and saved as a graphics-oriented data base.

Optional: The following are Beagle Bros *UltraMacros* specifically designed to eliminate the two blank spaces in each line, carried forward, when the text file was converted to Apple-Works. You must have *UltraMacros* installed to use them. The macro <BOTH-APPLES> "Y" should have ba-X repeated as many times as there are categories within your file. The toplevel procedure is <BOTH-APPLES> "Z" which should have ba-Y repeated "N" times, where N= (total number of files)/17.

- <BOTH-APPLES> X Eliminate spaces in one line of AppleWorks DB
- (BOTH-APPLES> Y Loop 17 times (ba-Y) to format the spacing of fifteen fields (ba-X) in file (BOTH-APPLES> Z Toplevel procedure for eliminating spaces in entire DB (ba-X): (all><right right del del rtn>! (ba-Y): (all>
ba-X ba-X ba-Y ba-Y
 - ba-Y ba-Y ba-Y ba-Y ba-Y ba-Y>! Donald A. Lipman

Newburgh, N.Y.

Another transfer method

I have had to transfer some PFS files in the past to MS-DOS type databases and since I could not find any other means (I investigated the use of a card called the Apple Turnover which is a slot-based Apple II clone similar to the Trackstar) what I did was just to configure the PFS program to print through a serial printer card. The help of a communication program in the MS-DOS machine allowed me to capture the records as ASCII data. (It's easy to strip the report header to leave me just the records.) I would think that the same method could be used to transfer Mac-based files to AppleWorks with the help of a program such as Point to Point. Incidentally, I use a Daynafile at work, and I can recommend this product for working in both the Mac and MS-DOS world. Also, if you work in the three environments like I do, investigate the device called Rapport (from Kennect Technologies) which allows a Mac Plus to read/write MS-DOS/ProDOS disks (it's essentially an Apple HDFD work-alike)

> A. Hadiwidjaja Ashfield, N.S.W.

Too hard a question?

I've found the answer to the problem with AppleWorks 3.0 and my Brother *HR 20* printer that I wrote you about.

Somewhere along the way in the process of trying to get the software to work, the daisy wheel jumped from its proper setting and printed garbage. When the wheel was put back in correctly the troubles were over. I had tried the self test on more than one occasion but did not come back to check it when the print changed in the middle of the exercise. All of my advisers, including you and the dealer repairman (who was not a Brother-oriented type) kept saying "software".

So now, I am wiser. When it won't work right, go to the self-test. Also I received good pointers on how to assure the wheel was dropped in correctly that the manual did not show.

Keep this in your memory bank. I sure had a lot of help to miss out on such a minor detail.

Byron T. Cook Perry, Ga.

Ahem...we always warn people that it's very hard to solve problems long-distance. Often, to keep things brief, we neglect to ask the basic questions ("Is it plugged in?" might not be too obvious to ask!).

Thanks for reminding us. We probably won't remember when we most need to, but then that's the nature of the problem. isn't it?—DJD

Accursed cursor

Does anyone know the PEEKs to read the position of the cursor? I am trying to write a routine that reads the position of the cursor after it has been moved to the desired location and then prints stuff at that location.

I tried the stuff on the Beagle Bros PEEKs and POKEs chart but it doesn't work right. I issue a CALL-958 to clear the screen from a certain point and then print some stuff and then tell the user to position the cursor where they want the item printed. I issue a CALL-678 which waits for a Return keypress. The cursor can be moved around the screen. Then, when they hit return it is supposed to PEEK in the appropriate locations to get the HTAB and VTAB values and assign them to the item for later printing at that location. I have tried PEEKing 1403 and 37 for horizontal and vertical respectively, I think it is, anyway, it doesn't work. It seems to put the item anywhere it wants to. Generally over about an inch and sometimes one line up from where it should be.

I tried clearing the location first by poking a zero there before the call to read the locations but can't get it to work.

Surely there is a way to read the position of the cursor both horizontally and vertically.

Bill Maslen Kansas City, Mo,

Applesoft's HTAB and VTAB commands and their use of the zero page cursor locations CH (36) and CV (37) were written with the original Apple II 40-column screen in mind, but you can also use them to reclaim the 80-column cursor position:

1190 REM — get cursor position — 1200 CH = PEEK (36): REM horiz. 0-79 1210 CV = PEEK (37): REM vert. 0-23

Moving the cursor is a bit trickier. When the 80-column firmware is enabled, sometimes Applesoft isn't paying immediate attention if the cursor has been repositioned vertically. Printing a carriage return (as suggested in the Magic Menu program that Bruce Tognazzini wrote for The Applesoft Tutorial) is one way

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to force the cursor to recognize the vertical position, but that's unsuitable in many circumstances. A more practical solution is to POKE the horizontal and vertical cursor positions into the zero page locations and then call the monitor routine VTAB (\$FC22) that updates the cursor position:

1240 REM - set cursor to CE, CV -

1250 POKE 36, CH: POKE 37, CV

1260 CALL - 990: REM use (monitor) VTAB to force cursor move

I am not sure if this procedure will work on an unenhanced Ile, since we no longer have one around to test with.—DJD

AppleWorks GS installation

Recently, as I received *AppleWorks GS* (version 1.1), I tried to install it on my hard disk. The installation was no problem with the script, but after this I was never able to make the software work normally. I launch *AppleWorks GS* from the Finder and there is no problem up to the main menu. From this point, if I try to load the Word Processing or Communication module I receive a "fatal System Error" message. Sometimes the Database module crashes also, but without a message.

If I launch *AppleWorks GS* from a 3.5 disk (a backup of the program disk) in the same conditions I have no problem. In either case I have booted from my hard disk with System 5.0.2; if I boot the system from a 3.5 disk I have the same results.

After many tests (per example: having only the System Software and AppleWorks GS on the hard disk, changing the interleave of the hard disk, taking out my internal modem card, etc.) and nights of work without result, I finally found a solution. I replace the two SCSI drivers from System 5.0.2 (SCSI.Manager and SCSIHD.Driver) with the SCSI driver from System 4.0 (SCSI.Driver). With this system I make the copy of the AppleWorks GS file to the hard disk and the software works normally. After this I reinstall the original SCSI drivers from the System 5.0.2 disk on my hard disk and the software always works normally. Can I conclude that there is a problem with the SCSI drivers from System 5.0.2?

Jean-Claude Riedinger Lipsheim, France

Dr. John Mitchell called from Williams Lake, British Columbia, with the same experience. It would seem that the conclusion that there is something odd with the 5.0.2 SCSI driver would be reasonable, but it apparently only affects very large files. It is **not** recommended that you use the System 4.0 SCSI.Driver with System 5.0, but if it allows you to complete the installation, it's worth a try. Just don't run with that configuration other than to do the installation.—DJD

Sensible Speller

My wife uses the llc to write her papers for work and school and because of her profession we are in the market for a medical dictionary that will work along with our present spell checker, or at least one that works with the llc.

Richard H. Dale Peoria Heights, Ill.

Sensible Software, Inc., (335 E. Big Beaver, Suite 207, Troy, Mich. 48083, 313-528-1950) has Steadman's Medical Dictionary, Black's Law Dictionary, and a Technical Dictionary available for \$39.95 each to use with their stand-alone spell checker, **Sensible Speller** (\$125). The spell checking program should have been updated to recognize AppleWorks 3.0 files by the time you see this. **Sensible-Grammar** (\$99.95) already recognizes Apple-Works 3.0 files.

A GEnie subscriber has uploaded a "custom dictionary" with medical terms for use with **TimeOut Quickspeli** (file **MED.DICT.BXY**; number 9381 in the A2 RT Library). —DJD

WordPerfect GS help

I am using WordPerfect GS with the Alphabet Translation in the Control Panel set to "Standard". I was confronted, as Ross Barrell was, with confused keyboard equivalents (KBE's). But a nice option of WordPerfect GS is that you can redefine each keyboard command in "Help" under the Apple menu, then save the Defaults again so you have the new KBE's always at hand.

This new feature of GS/OS was supported since the beginning for Macintoshes and Word-Perfect knows what to do with it: let the user get foreign characters on the screen and on the paper. The Mac does this in a better way with the LaserWriter, I suppose, than the Ilgs; my tryouts with WordPerfect GS on that were very disappointing; the WordPerfect fonts for the Ilgs support the ASCII set only to 132, which is a pity.

Macros can't be redefined in the way KBEs can, of course. What one can do is rename the macro in the FileManagement section. One tip: make a subdirectory, called "MACRO", then change prefix number 4 from FileManagement to "/diskname/pathname/MACRO" then leave FileManagement and save the new Defaults. Standard WordPerfect GS regards each macro as a separate file in the main directory, which can get crowded.

Jurgen Wöretschofer Maastricht, The Netherlands

Backup only

Help! I am using a Chinook 20 megabyte hard disk and Apple SCSI card with my Ilgs. Are there any backup/restore utilities available without purchasing full-blown program selectors such as *ProSel* and *EasyDrive*? The *SCSI Utilities* bundled with Apple's card can't seem to handle GS/OS; it backs up, apparently OK, until the final "updating directories" at which time it reports an I/O error and quits.

> Nigel Harrison Singapore

Even if **Backup II** seems to be handling the backup "OK", it will not properly back up or restore the GS/OS extended files.

Before you discount **ProSel-16** completely, please observe that the price of the entire package is \$60, and includes many utilities other than the program selector.

Prosel-16 to **ProSel-16** updates are currently US \$10 (add \$5 for foreign postage and handling); the same pricing applies to **ProSel-8** to **ProSel-8** updates (**ProSel-8** to **ProSel-16** updates are \$20) from Glen E. Bredon, 521 State Road, Princeton, N.J. 08540.

The **ProSel-16** backup utility is file-oriented, and backs up only to 3.5 disks (using one or two drives). A configuration is available to allow the backup to work with only 400K of available memory for the backup image versus the optimal 800K; the 400K option is usually

necessary for a llgs with "limited" memory (in our experience, 1.25 megabytes is not enough to use the 800K option). Backup methods supported are for all files, incremental (only those files indicated as "changed" by their backup bit settings), or modification date (later than a specified date). A complete volume or a single subdirectory can be entered as the backup pathname, or you can create a "script" containing a mixture of the names of specific files and subdirectories that you want archived and ask ProSel to use the script's contents as the backup specification. You can also configure ProSel to skip certain filetypes or "hidden" files (those with the ProDOS "invisibility bit" set, such as the Finder's data files) during a backup.

ProSel-16's backup program is essentially menu driven; the user is asked what type of backup/restore operation is to be performed, the name of the directory or backup script to use for backup, and what mode the backup is to be performed in. **The ProSel-16** documentation indicates a representative speed for backup is about 2/3 of a megabyte per minute, a respectable figure.

ProSel-16 also incorporates data compression (scrunching the data so that fewer backup disks will be needed) and a configurable error correction option; the error-correction adds about 10% to the backup storage requirements with the corresponding increase in the time required to generate the backup, but you may feel the added security justifies that small increase. There is a configurable option to force the formatting of all data disks used during the backup; this again will slow down the backup operation (over re-using disks that have been previously formatted), but you have the added security of knowing the disks have been recently formatted (and survived). You can also elect to have ProSel verify the data after writing it.

ProSet-16 will skip read-disabled files, and certain files that do not contain valid ProDOS data such as "bad block" files and Pascal areas. You are notified of any excepted files as the backup operation proceeds.

Later, you can restore either the full contents of the backup disks to a volume (even erasing the volume's previous contents if desired), or selected files, or add the files that have changed or are not already present on the target device. If you want to find specific files before committing to restoring them, a "directory" option allows you to display and print a listing for the contents of each backup disk.

We've used the **ProSel-16** backup program for several months and feel it is a strong argument for buying **ProSel-16**. But we'd like to reiterate that even if you don't care for the backup utility, that the other utilities for volume repair, disk optimization, file maintenance, and so on comprising **ProSel** are more than sufficient justification for owning it. We continue to recommend it strongly to anyone with a hard disk.

Salvation (\$49.95 13909 Amar Road, Suite 2, La Puente, Calif. 91746, 818-813-1270 and 800-777.7344) is a brand new stand-alone utility for GS/OS that will back up complete volumes, subdirectories, or selected files to either 3.5 or 5.25 media, or to a pathname on a

ProDOS volume. The major difference most users will notice is that **Salvation's** user interface is designed around the Apple Desktop metaphor; it sports the pull-down menus and mouse-driven interface of graphics-based ligs applications.

To initiate a backup operation, you select "New" from the "File" menu and Salvation opens a window and displays the names of any on-line mass storage devices (floppy drives aren't included in this list, since the assumption is that they are archived by other means). When you select a volume, you can elect to backup the whole volume, or you can click a "Show folders" button in the window to display all the subdirectories on the volume in a structured list. You can then mark the displayed folders to add them selectively to the backup request; each time you mark a folder, a list of all files it contains is displayed in a second window, and you can also selectively mark those files. (The addition or removal of the indicated files is controlled by use of "Select" and "UnSelect" buttons in the window.)

When you are finished, click the "Okay" button to proceed. You can then elect to backup to a 3.5 or 5.25 floppy device, or to a GS/OS pathname. Or you can save the backup request list to a "macro" file; pre-configured. backup macros can be launched from a **Salvation** menu without repeating the selection process. You can also request that **Salvation** print a report on the backup operation as it proceeds. For a backup to floppies, when the backup is complete **Salvation** writes a "catalog file" to a disk; the manual indicates that this file is used to hold the descriptive information **Salvation** needs regarding the backup.

When you ask **Salvation** to restore the information later, it will ask for the catalog disk (or, to restore from a file, you'll have to show **Salvation** where the file is) first. Again, you are presented with windows where you can select the files (from the backup) that you want to restore (or you can elect to restore everything) and the destination volume.

Salvation has a few unique capabilities. A "Pause" button displayed during the backup operation allows the user to interrupt a backup and resume at a later time; we're not sure we would use this feature ourselves except in the rare circumstance when we start a backup and then find we don't have time (or haven't allowed time) to complete it in one session (it would seem prudent that if a backup is needed, you should complete it as expeditiously as possible). If Salvation encounters an existing file with the same pathname when trying to restore a backup, you will be asked if you want to replace the file, rename the file, or replace all files where a conflict occurs. Salvation also has an option to allow you to print a series of time- and date-stamped labels for your backup disks with a short descriptive name for the backup.

Salvation does support write-verification of disks backed up to an **Apple 3.5** (but not **Uni-Disk 3.5**) drive. Salvation only formats the number of tracks it needs on a disk, if the disk has not been previously formatted. (You should be aware of this in case you try and use the disk for another purpose.)

If you are backing up a large device to a file on another large device, **Salvation** will create a second file if the volume being archived forces creation of a backup file larger than 16 megabytes on the second device. **Salvation** does assume a maximum volume size of 32 megabytes; the same limitation as the ProDOS FST. **Salvation** indicates it can back up data at the rate of 1 megabyte a minute, but cautions that such a rate assumes that you have "top of the line" features in your ligs system. The instructions for both **Salvation** and **ProSel** sagely caution that the most important feature of a backup program is reliability, and make points in that regard (such as advising users to avoid re-using backup operation).

Although this is not a consideration for most users, neither of these utilities will recognize an AppleShare volume for backup.—DJD

Newsletter generation

What do you print this newsletter up with? Bruce G. Freeman APO New York, N. Y.

The text is entered using classic AppleWorks on a Ilgs. When we get ready to produce the newsletter, we print the text to an AppleShare file server volume. The text is then loaded into **Quark XPress**, a desktop publishing program that runs on our (shhhhh...) Macintosh SE. We then lay out the pages; test copies are printed on our LaserWriter II NT. When finished, we take a copy of the **Quark XPress** file and a hardcopy of the cartoon to a company that phototypesets the newsletter at 1200 dots per inch (much sharper that the 300 DPI of the LaserWriter). The phototypeset sheets are taken to a commercial printer.

Mac-only users may wonder why we enter the text into AppleWorks first rather than typing directly into **XPress.** The reason is that lethargic graphics-based Macintosh word processors make us very cranky —DJD

Faster access

What is the optimum sequence of files/subdirectories in the System folder for system disk 5.0.2 and subsequent?

> David A. Kopanski Rockford, Ill.

The order of the files and folders won't make a significant difference in the access speed. If you're looking for faster booting, you either need to make the hardware faster or reduce the amount of data you're trying to load.

To make the hardware faster, you can go to a faster drive (hard disk or RAM disk), or to a disk controller that uses direct memory access, caching, or both.

Direct memory access (DMA) is a method of transferring data to and from the computer's memory without requiring the computer's processor to do the work. The Ohio Kache System's **MultiKache** controller currently supports this, as does an optional controller available from First Class Peripherals for their **Sider** drives.

Caching uses a set-aside region of memory to retain data that may be accessed again; the exact method of deciding what data may be needed again is part of the software (and hardware) design for the cache support scheme. Software-based caching programs such as **Diversi-Cache** reserve memory within the Ilgs itself to use as the cache area. The **MultiKache** uses its own on-board memory and intelligent disk controller to automatically cache data from supported disk devices, thereby removing that burden from the Apple processor. To reduce the amount of data loaded, you can remove unused drivers, desk accessories, "init" files, and so on.—DJD

No more control-I grappling

I would like to respond to D. G. Chapman's letter ("Grappling with control-I", Jan. 1990) concerning the Grappler+ printer interface control-I problem. I contacted Orange Micro earlier this year and asked about the ROM upgrade information they had sent to me. I was told by a technician the upgrade to the Grappler+ is for the ligs and that it allows a transparent mode so that you can output a control-I without the card intercepting the code for itself. **A2-Central** is great, please keep up the great work!

> Ron Malloy Blue Island, Ill.

Educating Apple down under

Normally, the loudest praise I offer a magazine is the sound of the subscription cheque sliding into the envelope, but I have to admit I wish I'd had your little journal earlier.

Despite working in electronics before becoming a teacher I entered the micro-computer revolution late, and as a user rather than as a technician, having worked up from a manual typewriter to a Brother WP-600 dedicated word processor before I bought my first computer, a cheap VZ-300.

My early "Apple" experience was very negative because the clones I had access to frequently would not run programs properly, if at all. "This program requires an Apple IIe or IIc computer" (or words to that effect) was a far too common message, and my anger at Apple for closing out compatibles in this way was such that I determined never to purchase an Apple myself.

I had also found the little Brother word-processor extremely useful in my studies because of its portability and virtually instantaneous readiness for use. I could use it in the college library, jot notes or revisions in the middle of the night without forgetting the latest brilliant idea while I went through a lengthy booting process, or sit down at my desk and work solid on my assignments with it. Desktop computers, on the other hands, forced me to take my work to them instead of allowing me to take them to my work.

Consequently, my choice would have been to buy an MS-DOS laptop, but compromises are often necessary when it comes to real decision making, and after completing my upgrading studies I found myself working in an education system that used mainly Apple II computers. This gave me the option of purchasing an Apple IIc and AppleWorks for around \$1500 or an MS-DOS laptop and equivalent software for about \$1000 more (in mid 1987 when I was buying). The price difference convinced me that it would be easier to carry disks between school and home than to carry a laptop.

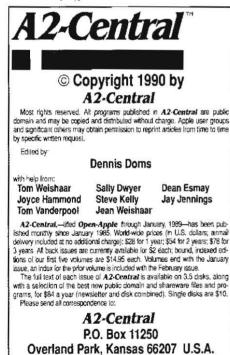
However AppleWorks on a real Apple proved to be good enough that I gave the Brother word processor to my mother recently because it had sat in the cupboard so long. I had almost forgotten how to use it, and have too much on Apple-Works disks now anyway, not to mention enjoying the convenience of having a spreadsheet and database also available in AppleWorks, plus access to various other applications in my disk

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library, even though I rarely use them. Nonetheless, despite my pleasant surprise at how powerful and easy to use a real Apple II could be, I could not say I'm totally satisfied—far from it.

Firstly, it is very difficult (here in the Northern Territory anyway) to get information about the Apple II. To his credit, my dealer does seem to have tried hard to satisfy my various queries, but when your article on AppleWorks 3.0 appeared I was still trying to discover whether it was worth the cost of upgrading to AppleWorks 2.1 from AppleWorks 2.0 ("We estimate it will cost about \$100 for the upgrade but aren't able to tell you what you'll be getting for the money"). Not long before that the dealer didn't even know there was an AppleWorks 2.1. In an information age, and from a company supposedly in the forefront of information technology, that kind of delay in disseminating information is inexcusable. I did try an interstate user group once but the response didn't help much, so in general I have found it frustratingly difficult to become informed on matters pertaining to the Apple II (hence my cheque to your journal as soon as I'd seen my first trial issue).

Then there's the attitude of the Apple people, including the dealer's sales representatives. You'd think the profit on the Apple II wasn't enough for it to be worth selling them except when it is absolutely impossible to shift the customer across to a Mac. I even know of a school official who was talked into buying Mac's instead of Apple IIs because of "the Apple II's lack of laser printer support" (if that's true, the *Publish-Iti* people and a few others look like



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ISSN 0685-4017 GEnie mail: A2-CENTRAL Voice: 913-469-6502 Printed in the U.S.A. Fax: 913-469-6507 they'll be in trouble soon). For my money, I'd much rather have two or three students actually working on Apple IIs than others watching or waiting while one works on a Mac, and if the school settled for an ImageWriter instead of a laser printer the number of users per dollar spent could be increased further (and colour output would also be available) with print quality quite adequate for school use. However, Apple Computer seems to take advantage of the general lack of knowledge of computer capabilities to push the Mac wherever possible, even where its capabilities would be totally wasted and the Apple II would actually be better for the job to be done, not merely more cost effective. This negative attitude of Apple towards the Apple II isn't encouraging for those of us with an investment in it. (But it would be interesting to see the results if Apple IIs and Macs were sold by different, i.e. competing, dealers.)

Another problem here is the lack of thirdparty support. I would have liked to install Checkmate's MultiRam CX in my IIc but the inconvenience of purchasing by international mail order seemed too much, so I now use the standard Apple RAM (it's good, but I would have liked some of the features of Checkmate's AppleWorks expansion software). I have since ordered a bundle of products from another American company because several that I wanted are totally unavailable here, and over 12 weeks after mailing my order I still haven't received the goods, so it seems my earlier assessment was correct, though there are two exceptions: "The Public Domain Exchange" has provided remarkably rapid service both times I've ordered from them, and A2-Central was almost as good. Nonetheless, it is highly frustrating to see in the overseas magazines (when they filter through) what should be available but is not because of the inconvenience of getting it here, or the cost if it has somehow found its way in.

Finally, even my llc is only semi-portable. Being tied to the main power isn't too great a problem most of the time (though it would be nice to be able to keep working through the thunderstorms and power cuts), but you don't carry around a computer, monitor and stand, power supply, extension power lead and double adapter, interconnecting cables, and disks, because you might need it or because the school computers could be in use when you happen to be free. Even when you no longer have an at-work computer available at all, as is my case at present, you need a fairly compelling reason to start carrying a IIc around. The result: I'm back to taking work to the computer, and to scribbling notes in the middle of the night and when I'm in the office, and to working into the night because I didn't have the computer accessible when I had a few minutes available at various times during the day. It's a pain.

In summary: in me, Apple got a customer they should have missed out on, but what is Apple Australia, or Apple in general, doing to try to keep me? Precious little it seems, because they won't switch me to a Mac unless they market a Mac laptop that runs AppleWorks (as distinct from merely reading AppleWorks (as distinct from merely reading AppleWorks files) and is priced and configured to be competitive with the bottom of the range MS-DOS laptops currently taking over the personal computer market. I don't want to wait around while a Mac tediously prints out in graphics mode; the improvement in print quality isn't worth the delay for most of my work (and I have PublishIt! on order for those occasions when it is). I don't want to learn another system either, but if I am forced to switch systems I will be looking for convenience far more than for "bells and whistles". The Mac is a beautiful computer if you need that kind of thing, but I don't. I could buy an MS-DOS laptop now, with 512K of memory, for about the same as I paid for my 128K IIC just over two years ago, well under the cost of my 640K IIC. Unless Apple can offer a truly competitive deal when I'm next buying (which may be sooner than I'd like; I'm getting sick of being lied to one desk) I will be switching systems, but not to a Mac.

On the other hand, in the IIc with Apple-Works, Apple Computer has the potential for a great laptop computer.

Re-design the case to provide a proper builtin screen like the others, make 640K (or higher) the minimum configuration, increase the speed to minimize waiting around for spreadsheet recalculations, add a mouse and a numeric keypad on curly-cord extenders with appropriate stowage positions built into the case, and incorporate a plug-in rechargeable battery that, if it does get run-down, can be replaced with flashlight cells without data being lost during the change-over (charging should be automatically disabled with standard batteries installed). In that you'd have a machine to compete easily with current bottom of the range laptops, provided it was priced right. If the provision was made for extras like a plug-in modem, or plug-in ROM ports for AppleWorks or other programs, then so much the better, provided they are useraccessible so that you need only buy the chip or module and don't have to pay to have it installed.

Finally, thanks for sending my back issues of **Open-Apple**, which arrived a few days ago. I spent most of the weekend engrossed in them. I've still got a long way to go but I've already discovered a lot of interesting things, and lost a few through not noting where to find them again. Perhaps I'll end up a customer for Fastdata Pro and back issues on disk after all.

Peter Schaper Kalkaringi School PMB 41 Katherine, N.T. 0852 AUSTRALIA

Obviously, the statement about laser printers was not accurate. **Publish-It!** 2.0 even includes **PostScript** support.

We try hard to facilitate overseas customers. Like other companies, sometimes we have trouble dealing with the intervening distance (postal rates and slow surface delivery) and governmental barriers (customs forms and duties and currrency exchanges).

There are products appearing that help make the llc portable. Ingenuity, Inc. (formerly Applied Ingenuity), 14922M Romona Blvd., Baldwin Park, Calif. 91706, 818-960-1485, has announced both an internal hard disk (**cDrive**) and a multifunction card that includes batterybacked RAM (**cKeeper**) for the llc. The problem would seem to be finding the appropriate battery unit and screen; maybe readers have ideas they can also supply.—DJD