D.A.U.G.

Newsletter

DuPage Apple Users Group

APRIL MEETING

When: 7:30 pm, April 9, 1985

Where: Faith United Methodist Church
        59th & Fairview, Downers Grove

Topic: Operating Systems

Other Dates to Remember

Apr   9: Regular meeting: What is an Operating System?
       17: Assembly Language Class (7 pm, Downers Grove Library)
       24: DAUG Board Meeting (7 pm, Downers Grove Library)
May   7: Applesoft SIG (Call 968-3897 for details)
      14: Regular meeting: Marketing Software
      22: DAUG Board Meeting (7 pm, Downers Grove Library)
June   4: Applesoft SIG (Call 968-3897 for details)
      11: Regular meeting
      26: DAUG Board Meeting (7 pm, Downers Grove Library)
July   2: Applesoft SIG (Call 968-3897 for details)
       9: Regular meeting
      24: DAUG Board Meeting (7 pm, Downers Grove Library)
Aug   6: Applesoft SIG (Call 968-3897 for details)
      13: Regular meeting
      28: DAUG Board meeting (7 pm, Downers Grove Library)

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OFFICERS

President:	Bob Konikow,	968-3897
VP/Membership:	Chuck Jonah,	985-5497
Secretary:	Ron Scharping,	968-0157
Treasurer:	Ed Danley,	969-4433
Librarian:	Priscilla Walling,	964-4894
Program Ch:	Ralph Stein,	985-7850
Editor:	Dave Dohmeier,	941-1645
Directors:	Dick Zacher,	986-0986
	Bruce Mansfield,	420-1608

Treasurers Report for	March
PREVIOUS BALANCE	1957.04
REVENUE	
MEMBERSHIP	282.00
MONTHLY DOM'S	148.00
AUCTION	78.50
TOTAL REVENUE	508.50
EXPENSES	
REFRESHMENTS	20.42
OPERATIONAL EXPENSES	11.70
NEWSLETTER+STAMPS	113.05
DISKETTES	92.95
IAC MEMBERSHIP	100.00
TOTAL EXPENSES	338.12
NET INCOME	170.38
ENDING BALANCE	2127.42

At the March meeting, a motion was made that D.A.U.G. be allowed to purchase an Apple //e computer with accessories including one (1) disk drive at a cost not to exceed $1000. The motion was made by Jim Gerry, seconded by Dick Zacher. The motion passed.
The treasurer's report specifically for the first annual D.A.U.G. auction is as follows:

  51 items were sold
  16 people sold items
  $1060.85 total auction sales
  $78.50 profit was made by the group

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1 Ed Danley

WHAT ABOUT ProDOS?

ProDOS is Apple's new Professional Disk Operating System for the Apple II class of personal computers. As a result of a presentation by Ken Nestle of Farnsworth Computer Center, a review of his comments and recent articles in various magazines, this overview has been put together. It is important to recognize that the philosophy of Apple is to offer two "families" of computers for the foreseeable future -- the II Family (which includes the Apple, Apple II, Apple II+, Apple IIe, and Apple IIc) and the Lisa Family (including MacIntosh and Lisa). In order to remain strong in all areas of the marketplace, Apple has decided to dedicate machines to various market segments, and to tie them together as much as practical. ProDOS is the first of many such "links." The "mouse" is another. "Mac" is a third.

It is equally important to recognize that ProDOS will not be for everyone. But just as DOS 3.2 is fading into our past, so too will DOS 3.3. The transition will take longer perhaps, but the ease of use and total power of the ProDOS approach will quickly catch on. It will be the appeal of a variety of new features that will turn the tide. These include the following:

1. Support for hard disk drives such as Apple's Profile (5 Meg, with a 10/15 Meg in the works). The "slot independence" of ProDOS will benefit the user irrespective of the drive configuration on the Apple. Ultimately, ProDOS will allow the user to interface with higher density drives and allow special drives to be configured to do specialty tasks.

2. Automatic time/date stamping of files through the use of a Thunderclock, Proclock, or through user-installed drivers for other clock/calendar cards. If the "display/set" time option is chosen and configured, then for the duration that ProDOS is active, it will allow you to date stamp a file without a clock.

3. ProDOS uses a hierarchical file structure. Spreading out like the branches of a tree, it allows 51 "directories" per disk (and allows for subdirectories below those!). This organizational structure is a major and significant difference between ProDOS and DOS 3.3. Whereas a disk initialized under 3.3 will have a volume number, ProDOS assigns a disk name. This name is the PATHNAME to the main directory of the disk. The use of PATHNAMES is a new and difficult subject to adjust to for the Apple II user. To an Apple III owner, it is quite similar to that unit's Sophisticated Operating System (SOS). If you are familiar with Pascal, the concept of PATHNAMES used by ProDOS is similar.

4. File sizes can range from one(1) byte to sixteen(16) megabytes. The user has the ability to type in a given request and ProDOS will search out and access any type of file from any drive connected to the system.

5. It will support four(4) levels of interrupts, through user-installed interrupt handlers.

6. ProDOS can access 256 different types of files, including a number of reserved user-defined types.

7. An assembly language tie-in (called a uniform machine language interface) will allow assembly language programmers easy access to all the ProDOS features. It should be noted that both a programming manual and an assembly language manual are available.

Some of the obvious features should be covered as well. First, ProDOS sells for $40. The ProDOS Users Kit consists of the system disk and a users manual. Included on the disk are programs called Filer and Convert. They are similar to FID and Muffin on the current DOS 3.3 System Master. The Technical Reference Manual will describe internal organization, machine language calls, organization of BASIC.SYSTEM, and how to interface additional device drivers and interrupt routines to the ProDOS system. Basic Programming with ProDOS will provide a tutorial and describe how to use ProDOS features and files from programs written in Applesoft Basic. It is expected that the programming and assembly language manuals will each cost another $25 to $30.

ProDOS will work only with Applesoft Basic resident on the motherboard. This means that the older Apples will have to be upgraded to Applesoft. Expected cost to convert will be about $80. Also, 64K will be required. Language cards these days are running in the neighborhood of $99. One interesting feature of ProDOS is that it will reside in your 16K card, leaving you with a full 48K on the motherboard. Another nifty feature for Apple IIe owners is that ProDOS will allow you to use your 80 column card in the auxiliary slot as a pseudo-disk to provide significantly faster access to files. (Cheer up Apple II+ owners, it's already being worked on!).

Speaking of speed, be aware that ProDOS is extremely sensitive to drive speed. One of the reasons it runs so fast is that they have sacrificed the triple checking feature that DOS 3.3 does (you can't have everything). It should be pointed out that pre-release copies, placed into the public domain, did not benefit from a revision which has helped ProDOS be less speed sensitive.

Although the programmers manual has not yet officially hit the street, a review of some of the literature points to the following areas as being significant and something to prepare ourselves for:

1. INIT does not work.

2. INT and FP have no function.

3. MON and NOMON will give a Syntax Error or simply be ignored.

4. MAXFILES has no usefulness and is not used.

5. File types are as follows:

   Applesoft program............BAS
   Binary.......................BIN
   Directory (new)..............DIR
   System file (new)............SYS
   Text file....................TXT
   Variables (new)..............VAR
   Integer BASIC program........INT

6. You can't run Integer basic files under ProDOS (although you can store them on disk).

7. RUN is improved. You can run a specific line number (e.g. RUN 100 or RUN BINGO (at) 100).

8. CHAIN lets you RUN consecutive programs without losing the variables in memory and you can CHAIN to a specific line number.

9. The DASH (-) symbol can be used to RUN any type of file (as anyone knows, to DASH is faster than to RUN!).

10. CAT gives you an abbreviated form of the directory. CATALOG shows you the file name, type, length, date created, date last handled, file length, record length on random access files, and starting address on binary files.

11. EXEC is a ProDOS command directing the Apple to take instructions from a text file on disk. A special "field" parameter ,F allows EXEC to skip a number of fields (a statement in a file) before commencing.

12. STORE and RESTORE tuck variables away and call them back (into a VAR-type file on disk).

13. Every command related to TEXT files has been changed or modified. A new command, FLUSH, does just that with old data.

14. You can now BLOAD and BSAVE any type of file. In addition to ,A and ,L they have added ,E in place of ,L to indicate the address of the last byte saved. Also a ,B command allows you to put the first byte you're saving somewhere downstream from the first byte in the file. ,T does something too.

15. Any PEEK, POKE, or CALL to "get into" the actual DOS won't work. ProDOS is a totally new code. The same thing holds true for JSR into DOS programs from assembly language. The ampersand (&) runs into a brick wall in the system master.

16. Programs that locate themselves up in DOS, or the Language card, or between DOS and its buffers probably won't work. GPLE, Big Mac.LC, and others will have to be modified.

17. VERIFY only checks to see if the PATHNAME exists. It will not check if the data can be read from the file.

18. PR# and IN# got a thorough working over. They can be used in the immediate mode and when preceded by a control D within a program. But in ProDOS when these are issued from inside a program without the control D, it will not disconnect ProDOS. In effect, ProDOS ignores it. Both of these commands can now be issued with the address of the special routine desired. Commands such as Control D;PR#"$300" are legal.

As one can tell, a great deal of adjustment needs to be made in order to "unlearn" DOS 3.3. In my view, for those of us who have spent even a little time with it, we will probably get to know DOS 3.3 a whole lot better so that we will be able to make the translations and take the steps necessary to use ProDOS.

Good news travels fast, and as such be aware that a new version of Beneath Apple DOS by Lechner and Worth(called Beneath Apple ProDOS) is in the works. Also, a "Universal Translator" to transfer files from DOS, Pascal, and CP/M to ProDOS is coming (called PROZAP). Others to follow.

Perhaps, without spending too much time, we should dwell on two aspects of ProDOS: PATHNAMES and the program on the ProDOS utility disk entitled BASIC.SYSTEM. As a brief overview, consider the following:

1. PATHNAMES are designed to make our lives easier (really). Probably the most difficult thing to understand about them will be this explanation. In actual use, it's going to seem quite natural. The first thing to know is that there is a new ProDOS command-PREFIX that allows you to abbreviate (when you desire to) and shorten the process of typing and either entering or looking up a given file. When you call up the directory by the CATALOG command, it will show the organized file structure that you have preselected (this is the power of subdirectories). After you select a subcategory you can then call it to the screen and repeat the process to as many levels of specific detail as you initially planned. Let's try an example (suppose I have created pricing for products my company manufactures):

a) If you type CAT/PRICEBOOK we find:
PRICEBOOK
TRANSFORMERS	DIR
SWITCHGEAR	DIR
METERS	DIR
INSTRUMENTS	DIR

b) If we then type CAT/PRICEBOOK/INSTRUMENTS we see:
INSTRUMENTS
HONEYWELL	TXT	1/24/84
LEEDS AND NORTHRUP	TXT	1/31/84
BARBER COLMAN	TXT	2/02/84
PARTLOW	TXT	3/01/84

c) If we now wanted to revise the pricing on the Honeywell instrument section we could access it with our word processing program by typing /PRICEBOOK/INSTRUMENTS/HONEYWELL.

Remember PREFIX? If we had picked PREFIX=PRICEBOOK/INSTRUMENTS then when we typed CAT we would have accessed the files in INSTRUMENTS directly. This would not only have saved time but still let us maintain our file structure so that information retrieval was fast and direct.

An interesting footnote to PATHNAMES is the fact that rather than dealing with physical disk tracks like DOS 3.3 does, PRODOS reads and writes in BLOCKS (1 BLOCK=512 Bytes). Since ProDOS simply supplies a block number to the disk driver, it is completely independent of the physical disk-sector sizes or the number of sectors per disk track. Formatting of a disk using ProDOS indicates that 14 Blocks are required -- that's about one track allocation.

The use of BASIC.SYSTEM is not altogether a new concept. This is how most of us will talk to ProDOS. We have outlined above some of the comparisons between it and DOS 3.3. One of the more interesting points not mentioned earlier was the flexibility of this structure -- the fact that you can add your own commands for special applications. By changing a pointer location in the global page, you can specify the address of an external command routine.

In conclusion, it is fair to say that the broad based support that DOS 3.3 has received over the years since its introduction will keep it around for a long time to come. ProDOS, I feel, will be better understood and accepted more rapidly into the family because of our past use of DOS 3.3. To me it is extremely comforting to know that Apple has given users of the Apple II systems a powerful extension of our present capability while still supporting the marketplace served by the Apple III. This philosophy will serve us well in the years to come.

With up to eight times the speed, and a usefulness to the business community, the future of ProDOS and Apple are bright.

Reference information furnished by:

1. 'Taking the "Pro" out of ProDOS' by G.W. Charpentier with D. Sparks, November 1983 Call-A.P.P.L.E.
2. 'ProDOS' by R. Moore, February 1984 BYTE
3. D.A.U.G. March 1984 meeting presentation by K. Nestle
4. 'A Technical Overview of ProDOS' by S. Mossberg, April 1984 Nibble

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Dan Herring

APPLEWRITER //e ERROR

Attention users of ProDOS APPLEWRITER //e! Beware when you are saving files to disk -- be ABSOLUTELY SURE THAT THE PATHNAME IS VALID. The APPLEWRITER program will NOT alert you to bad pathnames, will save a file to disk, and everything will APPEAR to be fine -- until you try to retrieve your file!

Here is an example of what I'm talking about. I was trying out my new version of APPLEWRITER, (the PRODOS version) and, relying on old (DOS 3.3) habits, I had saved a file named "fix replacement". Realizing immediately I had made a ProDOS blunder, I was surprised to see that everything worked out fine (or so I thought) -- the disk drive whirred the correct amount of time, the filename in the header stayed the same as before, and I went on my merry way (good thing I had not deleted my file from memory). Being suspicious by nature, I wanted to see how the APPLEWRITER program had cleaned up my ProDOS error... sure enough, the part of the pathname after the space character was deleted: the file saved was "FIX". I took a second look at the catalog entry, and noticed that the file "FIX" was only 1 block long ... very fishy, since the identical file was 4 blocks long just a minute ago. What irritated me, is that APPLEWRITER did not trap this error... and happily saved something to disk, seducing me into believing that my program had been saved, and then abandoning me when it came time to retrieve my data. Be careful when saving your file, if it's really important, double check the catalog after every SAVE, and look closely at the block count to make sure the length seems reasonable.

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Bruce Mansfield

FUTURE MEETINGS

MAY (Tentative) Marketing Software. Suppose you have created a program that you believe others may be interested in purchasing. How do you go about finding potential buyers? Talks by those experienced in selling software are intended. Your suggestions would be helpful. Election of new officers will take place this month.

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FIX YOUR REPLACEMENT; an APPLEWRITER //e fix

FOR: Applewriter users who have the extended 80 column card, and are operating under DOS 3.3 (NOT ProDOS).

Have you been frustrated trying to use the REPLACE mode ([R) when editing your documents? Perhaps you grew tired of poking in [R every time you skipped around the page with the arrow keys. If you're like me, you gave up on this frilly option when you discovered that any arrow key or control code would knock you out of the replacement mode, back into the good old insert mode (see page 35 of your manual).

If only there was a way to move around a page, and stay in the REPLACEMENT mode... until you decide to leave it by poking in another [R command. With the fix described below, the [R command operates as a true toggle: hit it once and it's on, hit it again and it's off, and only a [R command affects the toggle operation. If you're still reading this article, you'd probably like to add this fix to your "Applewriter //e" program (i.e., "Applewriter //, For the //e only, DOS 3.3 based, program).

This fix will only work if you have an extended 80 column card installed in your machine. There are two APPLEWRITER programs on your master disk -- one for 64K of RAM (OBJ.APWRT[E), and one for 128K of RAM (OBJ.APWRT[F). We will be working only with the latter version (the one ending with an "F").

INSTRUCTIONS
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1) First, use COPYA or whatever you wish, to copy OBJ.APWRT[F onto a fresh blank disk.

2) Very carefully, RENAME the OBJ.APWRT[F program on your master disk to something different, by entering " RENAME OBJ.APWRT[F,VERSION F ORIGINAL".

3) Boot DOS and enter "BLOAD OBJ.APWRT[F,A$2300 (Return)". Be sure to include the address delimiter (,A$2300) as shown.

4) Enter the MONITOR by typing "CALL -151 (Return)". You should get the "*" prompt.

5) Verify that your program is the one you're looking for, by typing "3171.3172 (Return)"

6) Did the APPLE respond with: "3171 - 84 F5"? If so, proceed. If not check to make sure you've BLOADed the correct program, OBJ.APWRT[F, at the right address "A$2300". DO NOT PROCEED IF THE APPLE DOES NOT RESPOND AS NOTED ABOVE -- YOUR PROGRAM CANNOT BE PATCHED USING THE FOLLOWING FIX.

7) Once you've made sure that you've got the right program, it's time to patch the offending instruction... very carefully, enter "3171:EA EA (Return)"

8) Double check to see that you've indeed changed the program, by entering "3171.3172 (Return)"... the APPLE should respond with "3171 - EA EA"

Now it's time to save the modified program.

9) Load your APPLEWRITER master disk in the drive, and enter "BSAVE OBJ.APWRT[F (Return)".

Boot your Applewriter disk, and try out the [R functions. If you don't like what you see, insert your master disk, and enter the DOS command "RENAME VERSION F ORIGINAL,OBJ.APWRT[F" to put your original program back into operation.

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Bruce R. Mansfield

AppleWorks-Compatible Utilities:
Now You Can Have What Apple Left Out
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At least nine utility software packages have been issued in recent months which add capabilities to AppleWorks (See Table 1). Some are specifically designed as AppleWorks utilities. Some are merely AppleWorks-compatible, and will work with other ProDOS software. But even those in this latter group have AppleWorks-specific modes and features, and appear likely to find their most common use with this premiere integrated package.

Nine AppleWorks-Compatible Utility Programs

Name of Utility	Publisher	Type	Price
HabaMerge	Haba Systems	Mail	69.95
AppleWorks Mailing	Intl Apple Core	Mail	30.00
MegaWorks	MegaHaus	Mail/Spell	125.00
Sensible Speller*	Sensible Solutions	Spell	125.00
ASCII Express*	United Software	Comm	150.00
Apple Access //	Apple Computer	Comm	75.00
AppleWorks Expander	Applied Engineering	Memory Use	29.00
GraphWorks	PBI Software	Graphics	79.95
HabaTemplates	Haba Systems	Templates	29.95

*New ProDOS Version

- Table 1 -

According to Don Field, who manages AppleWorks for Apple, the company has encouraged the add-ons, even though it is contemplating adding some of the same features to AppleWorks at some unspecified future time. Field says Apple regards AppleWorks as a sort of basic user environment, and thus third-party utilities are a natural development.

In this review, I will discuss and compare five of the nine AppleWorks-compatible utilities: AppleWorks Desktop Expander, a utility that works with an extra RAM card to roughly double AppleWorks' desktop; MegaWorks, a combined mail merge and spelling checker program; Sensible Speller/ProDOS, an AppleWorks-oriented version of the well-known spelling checker; ASCII Express (ProDOS), a powerful communications package that

can handle AppleWorks files; Apple Access //, a more modest communications package geared to AppleWorks. The views expressed below, positive and negative, are my own, and don't reflect any official position of CompuServe or Micronet Apple Users Group.

Mail Merge

As the first truly integrated Apple // package, with a file-handling buffer shared by both word processor and database, AppleWorks was a natural for mail merging, the automatic combining of an address list and boilerplate letter text to produce "personalized" form letters. But Apple left it out. Three of the utilities work with AppleWorks database and word processing files to produce such form letters: HabaMerge, AppleWorks Mailing Program, and the program reviewed here -- MegaWorks. (MegaWorks actually combines both a mail merge module and a spelling checker. The spelling function is discussed separately in the next section of this review).

The MegaWorks mail merge function is quick, simple and powerful. First, you create on AppleWorks both the text of your letter and your database of names, addresses, and special text inserts. Then, move the database file into the word processor and save as a word processor file. Leaving the data disk with these files in Drive 2, remove AppleWorks from Drive 1, and boot up MegaWorks. The program looks like AppleWorks on-screen, displaying the familiar file-folder image. You select the mail merge function, tell the program which address and letter files you wish to merge, and it quickly creates and saves on disk a new AppleWorks word processor file containing the resulting multiple form letters. You then reboot AppleWorks, call up this new file, and print out the letters.

The only major drawback is that MegaWorks won't recognize just any old database address list, or form letter. Your database MUST have the symbol "$$" before each field (i.e. name, address, salutation) you wish inserted in a letter. And your letter must use the same "$$" symbol at each spot where you desire a customized insert. This is easy for the form letter, but may require redoing or altering existing database lists.

All in all, however, MegaWorks' mail merge function is a satisfying addition to AppleWorks.

Spelling Checkers

Unfortunately, MegaWorks' Spelling Check function is a clumsy, slow, limited-capability feature that appears to have been thrown into the package as an afterthought. It is so tedious to use that it is suitable only for the shortest, cleanest documents, in my opinion. No serious writer could prefer it to the powerful, speedy and elegant ProDOS version of Sensible Speller, which costs the same as the MegaWorks package (but lacks the mail merge function).

Both these spelling checkers will scan AppleWorks word processor files for errors. Both first load the document into memory, then use a separate dictionary disk to match your words against correct spelling. Both then tell you what "suspect words" they found, and give you a chance to correct misspellings, and update the dictionary. But there the similarity ends.

There are two fundamental differences. First, MegaWorks turns up vastly more words which really aren't misspelled, but are merely unfamiliar to its dictionary. Sensible Speller's main dictionary considers many fewer correctly-spelled words "suspect"

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and thus turns up fewer. What's more, the Sensible Speller has a
second dictionary disk to further refine the search, and it can
be programmed to ignore certain words the dictionary isn't likely
to have, like acronyms.

The second big difference is that, unlike The Sensible
Speller, MegaWorks must ingest long documents in several
time-consuming passes and do a new scan on each pass.

A benchmark test I ran shows that these differences add up
to an enormous speed advantage -- with no less accuracy -- for
Sensible Speller, especially on long documents. Table 2 shows how
the two spelling checkers performed on two documents -- one a
300-word letter with no spelling errors and the second a
3600-word article on foreign policy with many unfamiliar names
and terms but few misspelled words. Both programs correctly
analyzed the spelling of the documents. But MegaWorks ground its
way through many more "suspect" words. The result was that
MegaWorks took 50% longer on the short letter and more than twice
as long on the long article, where it needed half an hour to spot
the 3 real errors: Afghhanistan, unilatreral, & peacekeepinbg.

Benchmark Test of Spelling Checkers for AppleWorks

	MegaWorks 1 Dict.	Sensible 1 Dict.	Sensible 2 Dicts.
	---------	--------	--------
Long File			
Actual Errors	3	3	3
Suspect Words	283	88	47
Total Time (Mins)	30.3	13.9	11.5
Short File			
Actual Errors	0	0	
Suspect Words	29	9	
Total Time (Mins)	.4.5	3.0	

- Table 2 -

Note that even the time required to insert a second
dictionary to refine the Speller's checking was more than offset
by the time saved through paring the list of suspect words nearly
in half. And the benchmark results would have been even more
lopsided on a customized version of The Speller which would
ignore acronyms, etc.

The Sensible Speller also has several other nice features
missing in MegaWorks. For instance, it automatically suggests the
correct spelling, allows you to browse the dictionary for
similarly-spelled words, and specify the program's way of
handling words beginning or ending in specific characters. The
Speller's manual is also far superior.

MegaWorks' spelling checker does have two points of
superiority: its screen displays look like AppleWorks and it
shows suspect words in a 9-line section of the original text,
compared to 3 lines on The Sensible Speller.

Users interested in checking spelling of their AppleWorks
documents will find The Sensible Speller their best choice by
far. Users mainly interested in mail merge, but who could use a
spelling checker for limited, occasional use on small documents,
may prefer MEGAWORKS.

TeleCommunications Software

AppleWorks owners who want to transmit AppleWorks files via
modem can choose from several ProDOS packages, including the two
reviewed here -- Apple's own Access //, and a new ProDOS version
of United Software's venerable ASCII Express, for years the most
powerful and flexible communications package in DOS 3.3 (This
package was formerly called ASCII Express The Professional).

Access //, often sold now to novice buyers as THE
communications package for Apples, is simply not in the same
league as ASCII Express. Feature-for-feature, it pales by
comparison. But that's not what makes Access // one of the worst
products Apple has ever offered, in my opinion. The real black
mark against the program, I believe, is that it has been designed
so it won't work at all with the vast majority of modem-equipped
Apple //e's now in existence. Not only that, but this fundamental
incompatibility isn't revealed on the outside of the package, or
in the tutorial program. It is first mentioned more than 20 pages
into the manual, and must come as a bitter surprise to many. It's
as if Apple was ashamed of the limitation, deep down.

Access // will work with all //c's, but it will ONLY work on
//e's which are using modems connected to a Super Serial Card,
and then only if the card is in Slot 2. That means it works fine
with the new line of Apple-brand modems (made by an outside
vendor), which require a super serial card, as well as with other
modems which hook up that way. But it won't work with much more
popular and numerous modems, including Hayes' Micromodems, which
have dominated the Apple II market for years.

Thus, Apple's first major communications software package
appears to have been designed to help push its branded modems,
but it simply isn't available to most of the two million Apple II
owners (it won't run at all on ('s and [+'s, though ProDOS will).
Can this be the same computer company which recently set up an
800 phone number that plays tape-recorded "thanks" to Apple II
owners?

For users who can somehow swallow this compatibility
problem, Access // still falls short. While both Access // and
ASCII Express can handle AppleWorks documents, ASCII Express also
has its own powerful built-in ProDOS text editor, so you don't
have to boot up AppleWorks each time you want to compose a
two-paragraph Electronic Mail response or bulletin board message.

Both have memory buffers to capture text being downloaded
from remote systems, such as CompuServe or Dow Jones. But Access
// can take in just 3K before having to dump to disk,
interrupting the flow. ASCII Express has a huge 28K buffer. ASCII
Express has literally scores of customization choices, so you can
tailor it to your needs and your style. Access // is much less
customizable.

ASCII Express has a "remote" mode so you can leave your
computer on and control it by phone from another terminal across
town or across the country. Not Access //. ASCII Express supports
dozens of modems, printers and other computer features and has
specific emulation options for 11 commercial terminal types. Not
Access //.

Access // does have a few things going for it. Like ASCII
Express, it features a special built-in programming language for
constructing macros that can automatically dial and log onto

remote systems, and instantly issue commands. Its manual is easier to read than that of ASCII Express. And it looks on screen like AppleWorks.

Access //'s list price is also half that of ASCII Express. But mail order discounters narrow the difference considerably, offering ASCII Express for $80 or $90, versus a discount price of $65 for Access //.

For most Apple owners, ASCII Express offers much, much more -- starting with the ability to use it with the modems most people own.

Using Extra RAM

The last utility program of the five reviewed will have a much more limited audience -- those people interested in more than 128K of memory for their //e's, who want to use it in AppleWorks.

The program, The AppleWorks Desktop Expander, performs a permanent, one-time modification to your AppleWorks Startup Disk. Once this change is made, AppleWorks' desktop will swell from 55K to 101K in the presence of Applied Engineering's MemoryMaster //e 80-col card. The MemoryMaster, which sells for about $175 discounted, is a clone of Apple's own extended 80-col card that has 128K onboard as opposed to 64K for the Apple card.

The 101K desktop allows more and/or longer files to reside simultaneously in AppleWorks' active memory, so they can be consulted, combined, or compared. The 12-file limit still applies, as do the individual file length limits. But, especially with long spreadsheets or text files, the 101K desktop allows much easier file handling.

The Desktop Expander Software apparently will also work with Applied's new RAMWORKS series of cards as well. But I haven't any idea if it will recognize the extra memory on cards made by other firms.

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Ron Consentino

Noises that come from the Disk Drive
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When I first got my Apple, I worried about some of the strange sounds that come from the disk drive. After nearly five years I still worry about strange sounds that come from the disks; now however, most of the sounds are not strange, but are well-known acquaintances (I was going to write friends but decided I really didn't like them all that well). What I am going to tell you is pretty much independent of the operating system that you are using - in all the operating systems the method of reading and writing is constant.

The first strange noise you hear is the buzzing noise when you boot a disk. To give the noise a technical name, it is when the disk head is recalibrated. In essence what that means is that the disk head, the piece that does the reading must figure out how far out it is on the disk. The simplest way is to move the disk head all the way to the end and call that position track 0. But since the computer doesn't know where the head is, it doesn't

Know how far it should move the disk head so that the head is at the edge (maybe you just turned the computer on and so the disk head would be where it was when you turned the machine off) so it moves it about twice as far as the maximum distance necessary to get to the edge. Better safe than sorry. Thus the noise is the head hitting the edge and slippling on the head driving screw.

What happens now if I try to read again? The computer has kept in its memory what track, what distance in from the edge, the disk head should be on. If for instance, the computer last read from track 13 and now should read from track 17, the computer knows that track 17 is 4 tracks in from track 13 and so will move the head 4 tracks (in fact it actually moves 8 half tracks). What happens though if we are trying to read disk 2, and this is the first time that disk 2 has been read? The head could be anywhere, and if the computer is freshly turned on, the computer will think that the head is on track 0. So if we wish to read track 17 (which we almost certainly will) and if the disk head is at track 20, the head will move to track 37, off the end of the diskette. The computer will be unable to read anything and will register an error. The Apple handles all errors in the same way - recalibrate the head, move the head all the way to the outside, giving a nasty buzz again and then try again. Under normal circumstances it will recalibrate the head twice before giving up and giving you an error. This kind of an error will occur either on reading or writing because the disk routines always read to make sure they are writing in the correct place. That's why we get two buzzing noises before the dreaded I/O error. By the correct place I mean the track and position on the track where they have been told to read. The Apple isn't omniscient so it only does what it is told.

Before a diskette can be used to store data, special characters must be written on the diskette. This operation is called formatting (in DOS 3.3, the formatting procedure is part of the INIT command). As always, we want to make certain where on the disk we are so the disk head is recalibrated. After all, if this isn't done right there is no hope of ever reading it. Thus we hear our familiar buzzing noise. After this is done you will hear a quiet tick as the disk head moves from track to track. Normally you can't hear it because the disk head may move several tracks in reading but while formatting and with nothing else to do, the click becomes obvious. Another perfectly normal noise of the disk drive.This discussion is fairly simple. Much more detail could be given about disks and their data but not this month.

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Chuck Jonah

********* W A N T E D *********
The DAUG Librarian needs a person to review the EAMON disks. The EAMON series is a collection of text-only adventure games. This person would be responsible for determining if the diskette will load properly, if the game plays or not, and if it has any quirks. Anyone who is high school age or older and who will volunteer his time should contact Priscilla Walling at the meeting.

HOW TO SUBMIT NEWSLETTER ARTICLES

Articles for publication in the DAUG Newsletter can be given to any of the officers at the regular monthly meeting. They can also be mailed directly to the Newsletter Editor at the following address:

> Dave Dohmeier
> 443 Niagara
> Elmhurst, IL 60126

The deadline for submission of these articles is the date of the board meeting (see the schedule on page 1). Remember, the Newsletter is for you and by you. As an added incentive for you to submit an article, you will be entitled to a free DOM during each month you submit an article. We can use articles from newspapers and magazines (except Nibble) and your own creations are especially welcomed. Reviews of hardware and software are particularly useful to the entire membership.

Please have each submission consist of the following:
1) a printed copy of your article
2) a diskette containing your article
3) the word processor used to create your article
4) your name and telephone number

Your cooperation is needed and appreciated.

THE MARCH MEETING

That was our first DAUG auction. I have the distinct impression that it was a success in spite of the worrying and fussing of your program chairman. Items auctioned off ran the gamut from an Apple II+ in excellent condition to ancient printed circuit boards of dubious origins but impressive appearance. There were books, magazines, disk drives, extra RAM boards, printers, programs and more. I expect future DAUG auctions as a yearly event like our Xmas program and our "What Do You Do With Your Apple" session. Thanks to all who assisted and participated.

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H E L P   L I N E

The following members have volunteered to answer questions by phone on the subjects listed. Please be considerate when calling for help. Think through your question; collect all the information; and don't call later than 10 p.m. If you'd like to help, let us know.

Applesoft:	Chuck Jonah,	985-5497
DOS:	Chuck Jonah,	985-5497
General:	Earl Allen,	837-9259
Interface:	Rufus Teesdale,	469-8836
Mach Lang:	Chuck Jonah,	985-5497
Modems:	Rufus Teesdale,	469-8836

UTILITY DISK FOR APPLEWRITER II
DAUG DOM #45 (IAC DISK #41)

This month's DOM, IAC disk #41, is an impressive collection of tutorials for Applewriter II (and IIe) and the WPL (word processing language) that makes Applewriter II more useful. There are also Glossary files and matching instructions especially written for the Epson (MX-80 series) and C. Itoh Prowriter printers. Users with other printer systems should also find this information useful, even though they may need to alter the Glossary file to match their printer codes in some cases.

The material ranges from introductions for beginner users to advanced applications in use of footnotes and on-screen formating.

Users with Apple IIc's may be interested in the "Applewriter IIe Patch" that will overcome the problem of a trashed status line at the top of the screen.

This disk should be in the library of anyone who owns Applewriter II.

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Harlan Andersen

SHOE
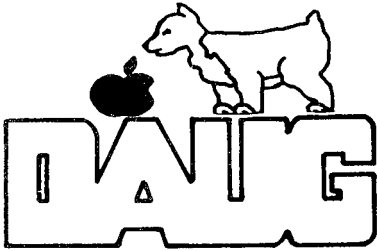
DUPAGE APPLE USERS GROUP
DISK OF THE MONTH
VOLUME 45, APRIL 1985
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INTERNATIONAL APPLE CORP
DISK #41
APPLEWRITER II UTILITY DISK

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*A 005 HELLO
        Use this Hello program to
        direct instructions to screen
        or printer, and display
        catalog.
*T 016 HELLO NOTES
        Text file with instructions
        and names of programmers who
        contributed to this disk.

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        (EPSON PRINTER CODED)

*T 017 APPLEWRITER II GLOSSARY INTRO
        Tutorial for this and the
        twelve files that follow.
*T 006 EPSON HELP
        Help file that can be dis-
        played without destroying
        your document. It is a WPL
        program with a menu from
        which you can select any
        of the following files.
*T 005 EPSON1
*T 006 TYPESTYLES :PART OF EPSON HELP
*T 005 SPACING   :PART OF EPSON HELP
*T 004 FORMS   :PART OF EPSON HELP
*T 006 SYMBOLS   :PART OF EPSON HELP
*T 004 DEFAULTS   :PART OF EPSON HELP
*T 005 INTRO PART1:PART OF EPSON HELP
*T 005 INTRO PART2:PART OF EPSON HELP
*T 005 INTRO PART3:PART OF EPSON HELP
*T 006 INTRO PART4:PART OF EPSON HELP
*T 003 EPSON PRINTER SAMPLER
        Will print out an example
        of each printer feature made
        available from the Glossary.

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        (PROWRITER PRINTER CODED)
        (Use descriptions above)
*T 018 PROWRITER GLOSSARY INTRO
*T 005 PROWRITER HELP
*T 005 PROWRITER1
*T 004 TYPESTYLES :CITOH HELP
*T 004 SPACING   :CITOH HELP
*T 004 FORMS   :CITOH HELP
*T 004 SYMBOLS   :CITOH HELP
*T 004 DEFAULTS   :CITOH HELP
*T 005 INTRO PART1:PART OF CITOH HELP
*T 005 INTRO PART2:PART OF CITOH HELP
*T 005 INTRO PART3:PART OF CITOH HELP
*T 005 INTRO PART4:PART OF CITOH HELP

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        AW II TUTORIAL

*T 039 APWRITE2 PART1
        Introduction to Applewriter II
*T 031 APWRITE2 PART2
        Continuation of above tutorial
*T 021 APWRITE2 PART3
        Tutorial for Word Rocessing
        Language (WPL).

        AW II NOTES

*T 011 AWII NOTES
        Examples of embedding control
        characters in document text.
*T 036 MORE NOTES
        Instructions for writing foot-
        notes, and printing more than
        80/40 columns.
*T 032 WPL INTRO
        Description of a low cost, no-
        feature data base using Apple
        writer II WPL.
*T 007 FIND   Part of WPL Intro.
*T 009 PRINT   Part of WPL Intro.
*T 017 WPL MULTIPRINT
        WPL program providing option
        for making multiple prints
        of any Applewriter II file.
*T 003 MULTIPRINT part of above.

        APPLE IIc FIX

*A 007 APPLEWRITER IIe PATCH
        A program for apple IIc
        owners to correct the status
        line display at the top of
        the screen.
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VISIT OUR FRIENDS!

A number of local computer stores support our activity by offering the discounts listed below to those who show their membership cards. Stores that sell merchandise to everybody at a discount are not included.

    Byte Shop of Darien, 8105 S Cass Av, Darien (960-1422) -- 10%
    Computer Grove, 1121 Warren Av, Downers Grove (968-0330) -- 10%
    Computer Junction, St. Charles Rd and Route 83, Elmhurst (530-1125) -- 15%
    Computer Junction, 7 S LaGrange Rd, LaGrange (352-4800) -- 15%
    Computer Workshop, 1626 W Ogden Av, Downers Grove (971-0004) -- 10% on
        training and rentals; none on consulting or programming
    ComputerLand, 136 Ogden Av, Downers Grove (964-7762) -- 5%
    Farnsworth Computer Center, 1891 N Farnsworth Av, Aurora (851-3888) -- 15%
    Farnsworth Computer Center, 383 E North Av, Villa Park (833-7100) -- 15%

Frequently a smaller discount is offered if a credit card is used. If a store would like to be included in this listing, please write the editor and give us your discount schedule for Apple-User Group members.

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