

<p><b>OTTAWA</b>  <b>IBM P.C.</b>  <b>USERS' GROUP</b></p>	<p><b>NEWSLETTER</b></p>
--	--------------------------

August 15th, 1985 - Issue 85(4)

E X E C U T I V E

Position	Name	Res. Phone	Bus. Phone
President/Chairman	Harry Gross	713-7989	N/A
Past-President	Mike Luckham	832-3829	592-6500 x2034
Treasurer/Membership	Anne Moxley	592-4933	230-9096
Software Librarian	Mike Schupan	820-0293	N/A
Assistant Libr. #1	Michel Lemire	568-8429	993-5033
Assistant Libr. #2	Chris Taylor	727-5453	995-4987
Newsletter Editor	Gord Hopkins	828-3834	726-3590
Club Secretary	Eric Clyde	749-2387	993-3291
Publicity Officer	John Przybytek	231-4318	N/A
Meeting Facilities	Stu Moxley	592-4933	N/A

\*\*\*\*\* MEETING DATES \*\*\*\*\*  
 \*NEXT MEETING DATES ARE: Wednesday, Aug. 28th & Sept. 25th at 8:00 p.m. \*  
 \*  
 \* MEETING LOCATION IS: NRC AUDITORIUM, 100 Sussex Drive \*  
 \* (Gothic Building opposite Ottawa City Hall - Parking in Rear) \*  
 \*\*\*\*\*

Well, summer seems to have stimulated the creative juices in some of you and I actually have more material than I can fit into this issue. I would like to thank all those who contributed. I think you will agree that this issue is packed with useful and well written reviews, tips, news, and many other useful tidbits of information. Keep up the good work, and remember, I have a modem just waiting to capture your thoughts as fast as you can key them to the screen. I will also accept submissions in hard-copy form which can be sent to:

Gordon Hopkins  
 17-D Forester Crescent  
 Nepean, Ontario K2H 8Y1

SOFTWARE SIDE OF THE NEWS

In this month's disk, draw boxes with dB ASE, browse text files, create a disk cache to speed operations, a reverse polish notation calculator, control an Okidata printer, find out about the Xmodem communications protocol, set up a RAM disk, save space on your disk with Turbo Pascal, help for infocom games users, games and more.

At the next meeting, ask about a copy of the latest list of Specialty Disks.

## HINDSIGHT

Report on the PC **Users' Group Meeting, May 29th,**  
1985 by **Eric Clyde**

The first topic was revision of the Constitution and Bylaws, for which the proposed new text had been published in the May 12th issue of the Newsletter, Eric Clyde led the meeting through the text, clause by clause. Several modifications were introduced as a result, and the new text will be available for viewing at the August meeting. Attendance at the meeting was about 80.

The program part of the evening was a presentation on Cullinet's Goldengate, an "integrated group of decision support programs", including word processing, a database management system, graphics, document processing, and information management. Its features include common commands across all programs, and the ability to share files across each tool. Cullinet is looking towards integrated office automation and has signed joint agreements with Data General, Wang, and several other companies to develop joint projects.

Report on the PC Users' Group Meeting, June 26th, 1985 by Eric Clyde

It was announced that a Special Interest Group for AT users had been successfully started. The next meeting was to be held on July 10th. For further information contact Gord Hopkins. Attendance at the meeting was about 90.

The program part of the meeting focussed on the features of DOS, and was presented in four parts: Harry Gross spoke on directories and subdirectories; Mike Luckham on pipes, filters and i/o redirection; Mike Schupan on batch files; and Gord Hopkins on DOS 3.0.

## SUBMITTED ARTICLES

PC-DOS 3.0 Restore Utility Won't Restore to Different Directory by John Levine

The various versions of DOS backup and restore all record the full directory path from which each file was backed up. The restore program insists on putting the file back into the same directory from which it was backed up. If you try to restore into another directory, it'll notice that there aren't any files that were backed up from that directory and unhelpfully say "no files found to restore."

It will restore onto a different volume than the one from which it backed up, so if you really don't want to restore to your original directory, you might try restoring onto a scratch floppy and then copying the files to where you want them.

Hercules Graphics and DOS 3.1 by Dwight Kruger

The Herc graphics cards will not produce graphics under IBM DOS 3.1 without a software upgrade from Hercules themselves. I would like to warn any Herc users who are thinking of upgrading to DOS 3.1 to consider this.

# MACCOM SYSTEMS LTD.

SOFTWARE HARDWARE COMMUNICATIONS  
DISKETTES & SUPPLIES



749 - 1232

ADDISON-WESLEY ALPHA SOFTWARE  
AMOEK ANALYTICA APPLIED  
SOFTWARE ARCTIC DATA  
ASHTON-TATE A57 ASYST  
ATI-AMERICAN TRAINING INST.

BALCONES  
BASIC SOFTWARE (PUS)  
BERNOULLI  
BLUE CHIP  
BORLAND Sidekick  
TurboPascal, SuperKey  
BPI  
BRIGHTBILL Grafix  
BROOEABUND

CDE%  
CHANG  
CITIZEN Printers  
COHPUSERYE  
COMWAY Colour/Graphic Cards  
CONTINENTAL  
CORVUS  
COUNTERPOINT

DATA TRANSFORMS "Fontrix"  
DAYFIA  
DECISION RESOURCES  
DIGITAL RESEARCH  
DILITHIUM  
DOW JONES

EDU-WARE  
ELECTRONIC ARTS  
ENERTRONICS  
EPSON  
EYEREX Graphic cards

FLIP .FILE  
FOX & GELLER  
FUNK Sideways

HARVARD  
HAUPPAUGE  
HAYDEN  
HAYES Modems  
HERCULES

IMSI PC-Paintbrush  
INFOCOH  
IOMEGA Bernoulli  
IQ TECHNOLOGIES  
IUS-INFO UNLIMITED (BASIC)

KENSINGTON  
KEYTRONIC  
KNOWARE  
KOALA  
KRAFT

LATTICE "C"  
LIFETREE  
LINK  
LIVING VIDEOTEXT  
LOGITECH Mouse  
L07V5 1-2-J and Symphony

McGRAW-HILL  
MICRO DATA SYSTEMS  
MICROCOMPUTER ACCESSORIES  
MICROGRAPNX PC-Draw  
MICROPRO  
MICRORIM R Base & Clout  
MICROSOFT

MICROSTUF  
MOUSE SYSTEMS  
MULTIMATE

NEC Printers  
NORTHWEST  
NORTON

GKIDATA Printers  
OPEN SYSTEMS  
ORCHID

PARADISE  
PEACHTREE  
PEARISOFT  
PERFECT DATA  
PERSYST  
PETER NORTON Utilities  
PLANTRONICS  
PRENTICE-HALL  
PRINCETON  
PURE DATA

QUADRAM  
QUE Books  
QUME Disk Drives

RITEMAN Printers  
ROLLAND  
ROSESOFT Prokey

SAMS Books  
SANTA CLARA Hard disks  
SATELLITE - SSI  
SCARBOROUGH  
SMA-Syst.Mgt Templates  
BGFTCRAFT Fancy Font  
SOFTSTYLE Printworks  
SOFTWARE ARTS  
SOFTWARE PUBLISHING  
SOFTWARE RESEARCH  
SORCIM / IUS  
SOURCE  
SPINNAKER  
SSI Word Perfect  
STREET ELECTRONICS  
STS  
SUELOCPC  
SWITCHCOM Canadian Modems  
SYBEX  
SYDNEY DEVELOPMENT

T-MAKER  
TALLCRASS  
TA%AN  
TECMAR  
THE LEARNING COMPANY  
THORNE  
TSENG LABS

UNITED SOFTWARE IND.  
US ROBOTICS

VERBATIM Disk Analyzer  
YISICORP

Z-SOFT  
2ANTNE  
... and more ...  
\*\*\*\*\*

*Business or pleasure, we're your one-stop shopping center for any IBM PC product*

*Service the way you like it - It's standard with everything we sell.*

## DISKETTES

IBM-AT			SSDD 5 1/2"	DSDD 5 1/4"
	XIDEX	10	\$29.99	\$34.99
\$99.00	MEMOREX	10	\$24.95	\$32.95
	AXIOM	10	\$29.95	\$38.95
\$99.00	DYSAN	10	\$32.99	\$41.95
	VERBATIM	10	\$37.50	\$49.50
	MAXELL	10	\$39.50	\$52.50

*Knowledgeable  
Experienced  
Sales-Staff*

\*\*\*\*\*  
\* MAINTENANCE \*  
\* We now repair IBMs \*  
\* We even make house-calls \*  
\*\*\*\*\*  
We also have products for

MACINTOSH APPLE COMMODORE

And diskettes for

WORD-PROCESSOR Systems

HOW TO  
SHOP AT

MACCOM

749-1232

BY PHONE

*Diskettes Software Accessories  
NOW IN STOCK  
43 William St.  
749-1332*

PC-WRITE: **A Review**  
**by Gordon A.**  
**Webster**

Word processing is a lot like marriage. A spouse or a program that, nags you, forces you to do everything their way or else, generally abuses you and then leaves his or her underwear lying all over the place, will soon be looking for a new home. If you are considering a 'divorce', or just feel that something is missing in your current 'relationship', then you should take a serious look at PC-Write from Quicksoft.

To access PC-Write you enter the command ED at the DOS prompt followed by the name and extension of the file you wish to edit or create. Unlike In-Scribe, for example, you must specify a file when you invoke the processor. If you do not specify a file, PC-Write uses a file call WORK.DOC. Press Return. Up comes the copyright information on PC-Write (more on this later), a notation of the number of bits of memory available then a prompt which gives you the option of creating a back-up (if it is an existing file) or entering the file without creating a back-up. With a new file your options are to create the file or to cancel.

Once into the program a status line will be displayed at the top of the screen. This one line, highlighted and underlined, tells you that F1 will provide help, whether you are in the push (insert) or overwrite mode, whether or not it will display control codes, status of justification, how much memory remains, how far 'thru' a file you are and finally whether you are editing or reading "filename". The rest of the screen is yours to play with. If you press F1, the help files appear on the screen. You are presented with a menu followed by the 'quick summary' file. There are eight other help files to choose from. Pressing F1 (or Return) again returns you to your text and cancels the help.

Margins are controlled in a unique way with PC-Write. They are set in a ruler file using the filename RULER and the extension common to your files. If you use a variety of formats in your writing you will appreciate this feature. For example, if your letters are set up with different margins than your other text files, rather than have to change the margins each time you want to write a letter, the program will do it for you. What you would do is create a ruler file with the same extension as your letters. Thus when you edit or create a file MOM.LET, PC-Write 'reads' the file RULER.LET to determined the margin settings. When you finish the letter and return to work on your novel it will read the file RULER.N09 with its own margins.

While we're on the topic of margins it is worth noting that PC-Write seems to have no limit to its right margin. The ruler file can be made to have a width of 160 columns. I could not find an end to the possible width of a line of text. And I went past column 700!!! So if you need wide files, have I got a deal for you.

One of the features of the ruler file I particularly enjoy is the P. On the ruler line you set your left margin with an L, tabs with a T and right margins with an R. The P sets paragraph tabs so that when you hit the RETURN key the cursor goes to the beginning of the new paragraph without me having to search for the tab key. You can even have a bell to warn you that the computer is about to word wrap. I tried it. Three lines later I turned it off.

How often have you been editing a file and found something like "hte importnat point of conisdre seems to em"? Place the cursor on the "h" in "hte", press shift-esc and voila, you have "the". Now move the cursor to the "n". Whoops, you

overshot and stopped at the "a". No problem, just press shift-rubout and there you have "important". Ain't technology grand?

What about the big stuff? Well PC-Write allows you to handle two files on the screen at the same time. Move the cursor to the place on the screen where you wish the split to occur and press F2. This will display the ruler line. Press F1 (help) and you will see that F6 is 'switchfile'. Press F6 and you are prompted with the line 'Name of file to switch to (or cancel with Esc) "d:filename"'. Type in the drive and file you want. Press return. PC-Write will save the file you were working on and then the help screen will disappear and you will see the first file above the ruler line with the new one below the line. The cursor will be in the lower file. You may now proceed to edit or add to the new file just as you would with only one file on screen. When it comes time to go back to the first file you simply press Shift-Up Arrow. The cursor will move to the top of the screen, file two will be saved, file one will be read from diskette and you can now continue in the first file. The process takes longer to describe than to execute.

(One thing you will notice is that PO-Write is very fast. If you can't wait the five seconds (I timed it) it takes to change files from diskette, use your C: drive. The only delay in C: is the time it takes for the cursor to move from the top of the screen to the bottom of the screen. This is another of the things I like about PCWrite. Unlike some of the big name word processors, PC-Write holds the entire file in memory. This means that moving from the beginning of a file to the end is as fast as moving from the top of the screen to the bottom.)

When you have finished with the second file simply press F2 again and the file your cursor is not in will disappear. If instead, you want to bring in a different file all you do is press F1, F6 and type in the name of the file you want. Presto, the original file is saved to diskette, the second is on screen and a third file is being created and/or edited.

If you wish to move portions of one file to another this can also be done easily with PC-Write. To accomplish this, you first mark the block of text to be transferred using the F6 then Shift F6. Continue pressing Shift F6 to the end of the block to be defined. Press F3 and you will be prompted, 'File to copy to: "mark.doc"'. Simply change the filename to the one you want (don't forget the drive) and press return. If the file does not exist, it will be created and saved, and you will be free to continue. However, if you are copying to an existing file, the command line will read "File found: Esc to cancel, F1 to replace, F2 to append to end". Choose the appropriate key and you have completed tae transfer.

The one drawback I see to PC-Write is the lack of an ability to get a directory of a diskette. However, this is not as much of a liability as it first appears. If you are running DOS 2.XX or higher you can create a new DOS shell. Here you have all the DOS commands at your disposal, can ask for a directory or even run another program. PC-Write and your text are held in memory. To return to where you left off in your text simply use the DOS 2.XX command EXIT and you're back where you were. It is only in DOS 1.25 that you totally lack the directory facility. I suppose it's just because I'm used to 1.25 that I always seem to end up there and find myself wishing I did not have to exit the program to check a directory. Oh well.

The second part of the PC-Write program is the printer control, PR.EXE. This works with imbedded commands, a full listing of which are found on the last help screen. These commands include: headers and footer, page numbering, line spacing and various

fonts. Compressed, double wide, bold, italics, sub and superscript are only a few of the available fonts. Printer commands are placed in the text as separate lines of text preceded by a dot. Fonts are entered with Alt and the appropriate letter code. The control codes can be displayed or not as you wish by using Alt-Space. No 'underwear' left lying around. I hate finding my text unreadable because of control codes scattered all over the place.

Complete documentation comes on diskette with the program. It is stored in a 'compressed' form on the diskette but has an 'expand' utility in a batch file which will print the manual. The manual is 105 pages long and, with the exception of the section on ruler files seems quite straight forward. I'm sure that someone with more knowledge of computers than I would find it easy to understand. (You understand it! Good. See me after class. I'm having an awful time with my printer ruler file. A non-standard printer? Yes, why?).

A short tutorial is included in the manual which will guide the novice in the use of the program. Though quite basic, it is simply written and easy to follow. Technical Jargon is kept to a minimum.

PC-Write is distributed under a concept called 'Shareware'. The diskette with the programs and manual may be freely copied and shared. In fact this is encouraged. Also encouraged is that you register with Quicksoft. A form for this purpose is included on the diskette. Registration costs US\$75.00 and gives you your own registration number, a printed manual in binder, telephone support, source files for the programs as well as a copy of the next distribution diskette. Furthermore, if someone, using a copy of your registered PC-Write, registers, you receive US\$25.00. If you distributed the program to enough honest people, it could ultimately pay for those expensive word processing programs you have stopped using. It certainly wouldn't take much to pay for your copy of PC-Write.

Whether it is called 'Shareware' or 'Freeware', I feel this is a concept which deserves our support. As we are all aware, software is very expensive. Often, a much touted program does not suit our personal requirements. For example, I loathe Wordstar. Yet it is one of the most popular word processors on the market. Had I been able to use it for a month and compare it with other available software before I paid out any money, I would probably not own a copy of Wordstar. One of the many advantages of the 'Shareware' concept is that you get to use the program for as long as you wish before deciding if you are willing to shell out for it. Quality software at reasonable prices is something I think we are all after. If you decide you like and will use PC-Write, please register it.

It seems that it's the little things in life that delight or annoy us. For me this seems especially true with software. Almost any word processing package can handle the big things, block movement, formatting, justification, fonts, etc. What becomes important is how comfortably and quickly it does these things. The little extras provided will determine the degree of joy or frustration experienced in working with a program. PC-Write is a very capable word processor I find to be a joy to use. I think you will too.

Did I tell you about the bookmark feature and the programmable keys?

HINT: If you don't have any fancy search programs and you can't remember which subdirectory it is in, use this to find it:

```
CHKDSK /V |FIND "filename"
```



Now comes the fun part. There are two menu selections which are what BOBCAT is all about. These are "F - Find filename, disk numbers or keywords" and "P - Print report". It is through these two choices that you find out where files are located.

If you choose F, you then elect to search by filenames, disk number or keyword. If you choose filenames, you then input the filename to search for. Standard wildcards and ? are allowed. If you choose disk number, you then input the disk numbers you want to search for separated by commas. If you want a range, such as disks 24 to 31, you can input "24..31". If you choose keywords, BOBCAT prompts for up to 20 characters to search for in the file titles. In each case, BOBCAT searches the catalog and extracts the information selected. The output is sorted alphabetically by file name.

After making your choice above, BOBCAT presents a menu of output choices. There are a total of 8 different formats available to cover almost every need. They are as follows:

- 1) Wide Listing with Titles (lists disk number, file name, size, title)
- 2,3,4 or 5) Wide listings (lists disk number, file name, size )
- 6) File Name and Summary (lists each file name and the disk numbers they're on)
- 7) Disk Status Summary (list disk number, remaining space, each subdirectory name with number of files and disk title)
- 8) File Name/Path Listing (lists disk number, path, file name, size and title)

The output may be sent to the screen, printer or a disk file, If sending to the printer, control codes may be sent as well (eg. to put printer in compressed mode for a 5 wide listing).

The P option from the main menu acts the same as the F option, except that the entire catalog is selected rather than a subset.

There is a setup program which allows many parameters to be changed.

The date may be formatted as YY/MM/DD, DD/MM/YY, MM/DD/YY, or YYYY/MM/DD. A "stale date" of 1 to 255 days may be selected. Any disk not updated within this period will be flagged when the catalog is selected.

Up to 15 file extensions may be selected. Standard DOS wildcards are allowed. Any files matching these extensions will be searched for file titles. BOBCAT looks for a double period ".." in the first Iia\_e of a file. Up to 65 characters following the periods is considered the file title. Manual requests for file titles is also possible if BOBCAT doesn't find a double period.

Page length may be set from 24 to 127 lines and a printer margin may be specified.

Now for my gripes. There are several layers of menus you must pass through before getting down to business. These include a stop to set the date. BOBCAT does pick up the system date automatically, and if set correctly, you only have to respond with a "Y". I would have preferred a setup choice that would bypass this menu for those who know the clock is set to the correct date,

There are several other places where answers are required where I always answer the same way. One example is whether or not I want a sorted listing printed out for use on the diskette jacket. I never do, and I would just as soon not answer this question every time I enter a new disk.

An extra menu would be useful in the case of sending codes to the printer. As it is, you have to remember the ASCII code for the function you want. An extra step in the setup menu would be nice where you could specify at one or two printer codes that could be sent from a menu in the main part of the program.

I must say that my complaints are minor. The author is very open to suggestions and one idea I had for improving the program has already been implemented.

My main use of BOBCAT is to keep fairly current printed listings of all my files. I keep separate catalogs for my data disks, program disks and user group disks. I keep a complete listing of each catalog and every now and then I make listings of BAS files, DOC files, COM files and so forth.

Program Specifications:	R&L MicroServices Inc.
Maximum 999 disks	P.O. Box 15955, Station F
Maximum 65,535 files per catalog.	Ottawa, Ont. K2C 3S8
Requires: DOS 2.xx	Lorne or Bob Bowerman
128K or more RAM	225-7904

Price: \$50.00 (Regular price)  
\$25.00 (Members of User Groups)

### **How to Draw Nice Boxes (in Lotus 1-2-3) by Andrew Ling**

Are you tired of tables and boxes that are made up of dashes, vertical bars and plus signs?

When flipping through a recent issue of PC magazine, I noticed that some commercial 1-2-3 add ons take advantage of the graphic character set of the IBM PC. Wondering why I have not been doing the same, I brought up 1-2-3 and started to experiment...

Alas, the Lotus keyboard driver apparently doesn't know the <Alt> key from the <Ctrl> key. Like any true hacker, my reflex was to bring up DEBUG and start modifying the worksheet file.

Following is a step-by-step procedure that allows you to use all 255 IBM PC characters when using Lotus 1-2-3.

1. Run Lotus 1-2-3 and fill the range A1..A255 with the character "?". Name the range A1..A255 as "CHARS". Save the worksheet as "CHARS".

```
A> 123 <enter> <enter>
? <enter>
/Copy A1 <enter> A2..A255 <enter>
/File Save CHARS <enter>
```

2. Run the following BASIC program.

```
100 'CHARS.BAS - replaces ith occurrences of the string
110 '           ""?" With the string """+CHR$(i)
120 '
```

```
130 CLOSE:DEFINT A-Z
140 OPEN "CHARS.WKS" AS #1 LEN=1
150 FIELD 1, 1 AS C$
160 L$="'"?"
170 I=1
180 R=1:RMAX=LOF(1)
190 GET #1,R:A$=C$
200 WHILE R<=RMAX
210 LSET C$=A$:PUT #1,R:R=R+1
220 GET #1,R:B$=C$
230 IF A$+B$<>L$ THEN A$=B$ ELSE A$=CHR$(I):I=I+1
240 WEND
250 CLOSE:END
```

3. The worksheet "CHARS" now contains a complete PC character set in range "CHARS". Whenever you want to make use of the characters, be it line drawing characters or Greek symbols, just move the cursor to some empty column (eg: A1) and type:

```
/File Combine Copy NamedRange CHARS <enter> CHARS
<enter> and then /Copy and Edit away.
```

Example:

Suppose you put the characters in A1. A255, and you want to draw a solid line in cell D4, just /Copy A196 <enter> D4 <enter> and change the label prefix of cell D4 from "" to "N"

Hope this is useful to someone.

Review of Backup Programs by  
Tim Boreham (Amarok Systems)

Backing up hard disks is not an exciting task (!), and the tools IBM provides (COPY, BACKUP), while doing the job, provide very little information on the progress of the task. COPY copies a file "as is", but cannot copy files larger than a single diskette. BACKUP can copy files of any size, and can back up to multiple diskettes, but stores the files in a special format which means they must be restored before use, and cannot be restarted if there is an error in the middle of a large backup.

A number of companies have recently announced products to address these problems. Most of these products replace IBM's BACKUP utility; a couple provide assistance in using BACKUP or COPY. This article discusses briefly some alternatives in the information used here comes primarily from advertisements, so remember to take it with a pinch of salt!

The product that seems to provide the most functionality at the lowest price is Filemaster, \$49.95 U.S. from Grand Max Software (full addresses at the end of this article) -not to be confused with another product called fileMASTER from J.L.Schuller Associates, which is a disk utility. Filemaster includes 7 file utilities, including fast backup, file compression, directory of archived files, and a number of other functions. DSBackup, from Design Solutions, also \$49.95 U.S., provides the fast backup capabilities, and estimates the number of floppies

required, It also has onscreen help with windows. Crossave, \$99.00 U.S. from Award Software Inc., backs up files larger than a single floppy, and compresses files as it saves them. BAKUP, from Software Integration Inc., claims a speed of 30 minutes for a full backup of a LOMB diskette, with subsequent daily backups taking about 5 minutes. It also provides a list of the archived files, and calculates the number of floppies required. BAKUP does not compress files. It costs \$179.95 U.S.

Two alternatives are Copydate, from PC Extensions Inc. (\$10.00 U.S.) and Dirsize from Amarok Systems (\$10 contribution suggested). Both use IBM's utilities (COPY or BACKUP) to do the actual backup by producing batch files. This allows you to selectively backup files, by deleting the backup statements from the batch files. Copydate produces a batch file with copy statements for each file created or modified after a certain date. Dirsize also produces backup statements, and prints the sizes of the files and directories to be backed up. It can also be used to find the size of all files in a directory.

It is not possible to cover all the issues in an article of this length (!), so please **excuse** my omissions. I .could be happy to answer any questions - please lea,- your name at 238-4159, and I'll get back to you the next day!

Summary:

Dirsize	Amarok Systems Inc.	(613) 238-4159
\$10 (Opt)	502 O'Connor Street, Ottawa, Ont, K1S 3P7	
	(Dirsize is expected to be on the September Diskette)	
Copydate	PC Extensions Inc.	(214) 750-6226
\$10.00	PO Box 214505, Dallas TX 75221	
Filemaster	Grand Max Software Corp.	(503) 635-8295
\$49.95	68 Leonard St., Lake Oswego, OR 97034	
DSBackup	Design Solutions	(312) 510-0500
\$49.95	855 W. Prairie Ave., Wheaton IL 60187	
Crossave	Award Software Inc.	(408) 395-2773
\$99.00	236 N. Santa Cruz Ave, Los Gatos, CA 95030	
BAKUP(tm)	Software Integration Inc.,	(415) 969-6600
\$179.95	990 Bay Street, Mountain View, CA 94040	

Lotus 1-2-3 and IBM DOS 3.1 by Dwight Kruger

DOS 3.1 cannot be placed on the LOTUS 1-2-3 system/boot disk. The copy protection mechanism used by LOTUS prevents the two boot files from being larger than some fixed size. If you want to install DOS 3.1 on any copies of LOTUS you have, I suggest that you install DOS on the OTHER three disks, and not on the system disk.

Also, LOTUS 1-2-3 upgrades will be available from full LOTUS dealers in the summer/fall. For about \$40 you will receive a package containing a form and a disk mailer which you are to complete and mail your system disks to LOTUS USA. The dealer will not have the updates in their store.

Source of 256K Memory Chips (I. C. Express)  
by Drew Anderson

We at CMU use Microprocessors Unlimited for all of our memory purchases (chips.) They currently list the 41256 chips for \$3.25 each. I think that you will be pleased with their service. Their phone is (918)267-4961. We have ordered probably more than a thousand chips from them with no bad ones.

COM vs. EXE  
Files by John  
Levine

[The question at hand is what the difference is between .COM and .EXE files.]

A .COM file is merely a sequence of bytes. MS-DOS runs it by loading the whole thing into memory and starting it at the beginning. If your program doesn't fit into one segment, .COM files make life hard for you because there is no provision for relocating segment numbers within the loaded file to agree with where the program is actually loaded in memory. Practically speaking, this means that .COM programs are limited to 64K of code and 64K of static data. (Most C compilers are happy to let you make .COM files of their object code. I have done it myself with Lattice and Wizard, and have heard it's easy with most other compilers.)

An .EXE file has a somewhat more complicated format, with a header that tells how large the code is and how the various segment registers should be set up when the program starts. It also has provision for relocating addresses in the program, which means that the program can be as large as all of memory.

Traditional folklore claimed that .COM files are better than .EXE files, because they loaded faster or something. Since DOS 2.1, at least, that hasn't been true and making your programs into .COM files is of negligible value (except possibly for size, Ed.).

LATE NEWS FLASH » » »

Just a couple of final comments. I had a call from Peter Kemball who would like to contact other members of the club who are using Framework. He thought some of you Framework users should share the aggravation and/or delight of using this software, If anyone is interested in such an exchange, Peter can be reached at 749-9418.

The August meeting will feature an extended look at DOS utilities and how they can ease your life. For September, we have scheduled some people from the University to come and tell us what all the "hoopla" is about Expert Systems, what they can do, and where they fit in with respect to microcomputers.

That's all for now!!!  
HAPPY COMPUTING

Gordon Hopkins  
Editor