

PolyLetter

Issue #4

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** POLYMORPHIC HAS NEW PRESIDENT **

We have received word that Richard P. Eastman is the new President and Chief Executive Officer of PolyMorphic Systems. Mr. Eastman has an MBA and a BS in marketing, and an extensive background in both management and marketing, having founded and managed several companies successfully. He is 42 years old, single and in excellent health. Also, he has received a dozen or more awards as an author and lecturer, and is an active pilot.

Don Gallant will continue as Chairman.

*** NEW WORDMASTER ***

Poly has released a new menu-driven WordMaster II. It includes an expanded Editor and Formatter, and is accessed through a menu system that makes it simple to use.

Some of the features are:

Formatter: Supports bold print, subscripts, multi-line headers and footers. You can use the default features so that many documents won't require formatting commands in the text file.

Editor: User-defined keys are automatically loaded when you edit a file. You can create your own "libraries" of escape key sequences. Interaction with the user is much improved, with messages such as "all of the file is not yet in memory." Many helpful hints are provided to assist in use of the global search and other advanced features.

The new WordMaster requires at least 48K, although some of the features may be used on a smaller system.

*** CP/M - AT LAST ***

In the first issue of PolyLetter we told you that Lifeboat Associates was about to drop the project of adapting CP/M for the PolyMorphic. (CP/M is a trademark of Digital Research, Inc.) In the second issue we confirmed our fears. This time we have some good news!!! PolyMorphic will soon release their own CP/M compatible operating system (maybe by the time you read this). Though incomplete, this is the information we have:

1) A kit will have to be installed by you or your dealer. Once the kit is installed, an 8813 will run either CP/M or the regular Poly operating system.

2) You will need at least 56K, part of which needs to be the new Poly 8K board.

3) The CPU and VTI board will need to be adapted (some re-wiring).

4) If you have DSDD drives then an additional kit will be needed to allow reading of SSSD disks.

5) Northstar CP/M disks and software can be read.

6) Nobody knows what the cost will be.

PolyMorphic told me that the package will be released within a week, but don't hold your breath. A week to Poly sometimes means a year or more. (as in the case of their BASIC, WordMaster, and new operating system. All due to be released FEB 1980). To purchase the kit, check with your dealer. If they don't have it PolyLetter will be stocking it. --Mark Sutherland

PolyLetter



Issue #5

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*** CP/M IS NOW AVAILABLE! ***

Poly has finally released CP/M, an operating system which will give Poly owners access to SCADS of software. The cost of adding CP/M to Poly is extremely reasonable, too!

On a new Poly, factory-installed CP/M will start at \$200. (It will be an option, not something every new Poly will have from now on.) Kits to upgrade your present system to CP/M will be available from dealers, who will do the hardware modifications for you. It involves several changes, and we can't say what the dealers will want for this service. If you don't have a dealer handy, Poly says you can send them your system and they will upgrade it for you. That will cost \$250 and up, depending on your system. Contact Poly for details: (805) 967-0468.

Poly CP/M will require an 8K memory card (one of Poly's new ones which is especially designed for CP/M), plus a 5" SSSD drive and controller to read North Star CP/M disks.

The price you pay for CP/M will include the necessary disks, the seven (7) CP/M manuals, Poly's CP/M manual, and the software license. (CP/M is a trademark of Digital Research, Inc.)

*** MEGABYTES AND MEGABYTES ***

Poly expects to release a Hard Disk unit in mid-November. It will look much like the MS, with one of the 8" floppies replaced by an 8" Winchester drive. The unit will include a single 8" floppy for backup, and it will be able to read your present 8" disks. Price has not been released. We have a picture of it on this issue's photo page.

*** POLYLETTER WANTS PROGRAMS ***

Do you write programs?

PolyLetter is looking for two types of programs: Short ones for the Disk-Of-The-Month, and full-blown packages for sale through PolyLetter.

The Disk-Of-The-Month contains short, handy or fun programs for distribution to other Poly People at low cost. No royalties are paid to the writer for programs used on the Disk-Of-The-Month, but you can put your company name all over the documentation if you like!

We are also looking for other program packages, such as accounting programs, sorts, inventory control, or other sophisticated applications programs. These will be sold thru PolyLetter, and arrangements will be made with the individual programmer for royalties. PolyLetter will act as an advertising and distribution medium.

Sounds good? Contact PolyLetter for details. We can swap programs by phone if you are equipped with a modem.

This issue is our biggest one yet! We hope you enjoy it, and that you will forgive us for delaying our next issue until January. We're going to start publishing on the "normal" bi-monthly schedule, so our next issue will be January-February, 1981. Your subscriptions are still good for the full number of issues you paid for.

In our next edition, look for: Murphy's Laws of computer programming; update on Hard Disks; the workings of Command Files; details of Exec/90 and BASIC C02; Index of PolyLetter/1980; and whatever YOU decide to send us!

PolyLetter



July/August

This month's news from Poly is quite encouraging. Ken Gudis, PolyMorphic's Marketing Manager, says sales have been increasing steadily over the past several months, and Poly is now showing a profit again.

Ken attributes much of this success to the two most recent Poly innovations, the Hard Disk and CP/M. The CP/M offering has caused many people to take a more serious look at Poly. And the fact that you can run either Poly's operating system or CP/M makes it even more attractive... converting to CP/M does not mean you lose the use of your current Poly programs. Conversion to CP/M is a simple process, which can be done either by a dealer or at the factory. (Ken says most of the conversions so far have been done at Poly's factory.)

Poly's CP/M package includes the CP/M editor, assembler, the standard CP/M utilities (including PIP, SUBMIT, DDT and others), and PCOPY (a program to transfer files from CP/M to Poly format and vice versa). A CP/M version of BASIC is not included, but many software vendors offer CP/M BASIC.

The cost is \$250 for the CP/M royalties, manuals, and disks. Add \$50 for the hardware conversion costs, if Poly does it for you (it involves changes to the CPU, video, and memory cards). And, since CP/M requires 56K, you may have to add another \$300 (approximately) for a memory card if your system doesn't have enough memory already. You must also have one or more 5" SSSD drives. Total cost for adding CP/M capability: \$300 and up.

Many CP/M systems run 8" disks, but Ken Gudis says that Poly's 5" CP/M has been well received. 5" disks are used by several other CP/M systems, including North Star and Osborne. Ken admits that the 16 x 64 video screen has been a slight drawback since many CP/M systems use a 24 x 80 screen.

PolyLetter continues to grow! This issue we are happy to welcome the first of our overseas subscribers: 1999 Business Systems Ltd. and Biswanger Enterprises Ltd., both in Alberta, Canada; and ELKA-TV and Poly-Data, both in Denmark. We are happy to have you among us.

I've been asked to write a little about the people who read PolyLetter. We currently have about 170 paid subscribers. 70% list a business name on their subscription, and most of the readers I've talked to use their Poly in conjunction with their businesses. The renewal rate has been very satisfying: nearly all of the renewal notices we've sent out have been answered, most with glowing letters about how PolyLetter is a big help. And, we're gaining new subscribers as people find out about us. We get about 5 to 10 new subscribers each month. PolyMorphic has helped us in this regard, by recommending us when their customers ask about user groups.

This month's feature article is by Russ Nobbs, exploring the mysteries of the Front Panel. In future issues, look for more assembly tutorials by Ralph Kenyon, as well as articles by many of our other regular contributors. We try to provide information for the beginning Poly user, as well as the advanced systems programmer. If you have a Poly-related question, pass it on to PolyLetter and we'll try to answer it in an upcoming issue.

Bob Bybee

Looking toward the future, Poly is considering an operating system called OASIS. This operating system would bring many of the same benefits that CP/M has, such as compatibility with other systems and a wide range of software available. It could also turn the Poly into a multi-user system, beyond the present TwinSystem capability. However, OASIS or a similar

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system would not be available anytime soon. For compatibility with other hardware and software, CP/M is the way to go for the near future.

Poly's Hard Disk is also selling well. With its 10 megabyte capacity, the 88/HD is appealing to dealers who are currently selling large applications programs. A larger capacity 88/HD is expected within a few months, with storage of 35 megabytes.

The 88/HD runs with Exec/94, which includes Volume Manager. Lew Gaiter is the new Applications Software Manager at Poly, and he described some of the abilities of Volume Manager: "With Exec/93 and earlier, you're locked into device numbers. Each drive number from 1 to 7 refers to a specific, fixed, device. Volume Manager lets you change these numbers, by associating a 'logical device' number with a 'physical device' number, or volume number. The 'physical devices' are the old disk drive numbers, 1 to 7, plus the HD. The 'logical devices' are numbers you pick, from 1 to 7, and you decide which number goes to which device. For example, if you had a command file which copied files from drive 1 to drive 2, you could tell the system that these drive numbers correspond to 5" drives, MS drives, or volumes of the Hard Disk.

"Also important, the Volume Manager lets you disconnect a device when you're done with it. Under Exec/94, a single-user system can access up to 7 devices, and a Twin can access up to 9. Volume Manager lets you connect any device number to any drive, use it, and release it after you're through. In this way, a system with floppies and a HD can use just the devices it needs for a particular job."

Lew says the Volume Manager is described in detail in the new System Programmer's Guide, and this information will be incorporated into the regular User's Manual as soon as possible.

Poly's advertising is currently being directed toward small trade journals, aimed at customers for specific applications packages. Ken Gudis explained that "this approach produces more serious inquiries, and more sales, than the broad-range kind of advertising found in larger magazines such as Business Week." The vertical market software packages we mentioned in

*** SUPERPILOT ***

by Tim Scully

Mendocino Microcomputers, Inc.

SUPERPILOT, an extended version of the language PILOT, is available for the Poly 8813. This language is designed to work with string variables and is excellent for creating instructional programs in which the computer teaches the user how to operate the system. It is easy for non-programmers to write instructional software in SUPERPILOT.

SUPERPILOT allows you to call subroutines, jump to labels, read and write disk files, manipulate string variables (whose names can be any length), accept user input and match it against a set of data, do conditional tests, and perform limited numerical computations. If you already have instructional material on disk as a text file, it wouldn't be hard to convert your file into a PILOT program.

Other applications for SUPERPILOT would include tests, questionnaires, and general educational uses.

Here is a sample PILOT program using a few of the core instructions: T: (type), A: (accept), M: (match), \$NAME (a string variable name), E: (end), and J: (jump).

```
T:Hi. What's your name?
A:$NAME
T:Glad to meet you, $NAME. Would
  you like to learn about PILOT?
A:
M:yes,ok,sure,fine
TY:I'm happy to hear that, $NAME.
  I think you'll enjoy PILOT.
JY:*mainprogram
TN:Well, $NAME, it was nice meeting
  you anyway. Bye.
E:
*mainprogram T: PILOT is... (etc.)
```

For more information on SUPERPILOT, write to Mendocino Microcomputers Inc., 32191 Albion Ridge Road, Albion, CA 95410 or call (707) 937-5001.

our last issue are still under development, and Ken says that questionnaires will be going out to dealers soon as part of this effort. Ken commented that Poly's dealers are doing a good job, and mentioned that the foreign dealers are especially aggressive.

CP/M CORNER

Now that Poly CP/M is in the field, we plan to present a series of articles on how it works and what it can do for you. This month's article is by Tim Scully, of Mendocino Microcomputers.

The Poly disk operating system expects RAM to begin at address 2000 hex. Most new Polys are now shipped with 56K of RAM from 2000 to FFFF hex, split into two memory boards: a 48K board from 2000 to DFFF, and an 8K board from E000 to FFFF. The address space from 0000 to 1000 is used by the CPU board ROMs (0000-0BFF) and a little RAM (0C00-0FFF). The addresses from 1000 to 2000 are used by the video board and the newer disk controllers.

CP/M expects RAM starting at address 0. The hardware changes made to a Poly which allow it to run CP/M are all designed to accomplish this by "phantoming" all the normal Poly devices below 2000H, and moving the top 8K of RAM from E000 down to 0000. Pin 16 on the S-100 bus becomes "CP/M-", and controls the "phantoming" process. (Phantoming allows two different devices to share the same address, but not at the same time. This new control line on the bus decides which device is being accessed, and which one is a "phantom": not really there.) Executing an IN instruction from port 8 turns CP/M modifications off. An IN from port 12 turns on the CP/M devices. This is done automatically by the routines which operate CP/M.

Since CP/M turns off the Poly video board and the disk controller's dual port memory, CP/M must also turn these things back on every time one of these devices needs to be accessed. This is done each time CP/M sends a character in or out.

Poly CP/M is quite slow in disk accesses. Don Moe said that this is because Poly reads and writes to a disk 1024 bytes at a time, but CP/M only moves 128 bytes at a time. Thus, Poly spends 8 times as much time doing disk accesses as it really should. (This problem may have been corrected by the time you read this.)

As shipped, Poly CP/M is a 44K system. The remaining 12K of RAM are used by CP/M. Poly's CP/M uses more RAM than some other versions of CP/M. If you have 8K of additional RAM, you can reassemble CP/M to give yourself a 52K system.

BOOK REVIEW

By Charles W. Gross

HOME COMPUTERS CAN MAKE YOU RICH, by Joe Weisbecker. Hayden Book Co., Rochelle Park, New Jersey, 119 pages, paperback, \$5.95, 1980.

This book takes the position of a person who wants to make money from his hobby. It is dominated by suggestions that one write articles, books, or programs, about subjects suggested by the author. He advises that any money earned should be reinvested in the hobby/business.

Several good ideas are presented about selecting a name for one's business, the stationery used, and selecting hardware. Mr. Weisbecker presents many subjects one could write about, but he leaves it up to the reader to develop the idea and build a story (or program). He suggests that as soon as one has read a couple of books on BASIC, one can sit down and write any kind of program. Well, maybe Mr. Weisbecker can, but I can't.

The author does present several rules which, if followed, would assist in creating a successful business. There are chapters on: Writing For Money, Creating And Selling Programs, Service For Sale, Invent Your Way To Success, and Making Your Money Grow. A chapter on "imagination" addresses the arts, crafts, and novelties that may spring from an interest in computers. The author asks, who will be the one to invent the Pet Rock of the computer age?

Weisbecker covers a great deal of ground. This is a book well worth reading, especially by those of us who would like to earn extra money with our computers.

A POLY DICTIONARY

Interactive System Services announces a dictionary for the Poly 8813. It has over 3000 words and is expandable. The program will automatically check a file, displaying any words not found in its dictionary. It will let you perform corrections as it proceeds through the file. "SISS.RL" is available for single or twin systems, priced from \$350. Contact ISS at (805) 964-0062.