

Microcomputer Newsletter

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The Fine Print:

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Microcomputer News

The Microcomputer Helpline is TOO BUSY...

If you have had occasion to call or visit the Microcomputer HelpLine you have probably noticed that things are almost invariably *way too busy*. It can be almost impossible to get through to us on the phone, and it is not uncommon to wait half an hour to talk to a consultant when you visit us in Shepherd Labs. Why is this happening?

A lot of the problem is that there are a couple more of you than there were a year ago. We *estimate* that there are over 5000 microcomputer users in the University community. We *know* the population of microcomputer users at the University has increased by 4000 in the last two years. The Microcomputer Systems Group has a limited staff, so we are spread a little thin. We endeavor to give you the best possible service, but there are limits to what we can do. Consider that the average phone call takes 3 to 5 minutes to answer (and we have two phone lines), and the average face-to-face consultation takes 5 to 10 minutes (and there are two consultants handling walk-in questions). Since we don't charge for answering questions, there is an almost limitless demand for answers. Given a limitless demand for answers and a very finite supply of consultants, the inevitable result is *sometimes you have to wait*.

Unfortunately we don't have any immediate solution to this problem. We plan to add two new positions to our staff, but even if we could *double* our staff, you still wouldn't see any immediate improvement because of the massive amount of training required by new consultants. If you stop to think about it, the consultant you talk to about a MacWrite problem, *also* has to answer questions about *all the other software* on the Macintosh, as well as all the software for IBM PCs (and compatibles), and all the Apple, IBM, Zenith, AT&T, Epson, and Hewlett-Packard hardware.

So... be patient with us. Unfortunately, the Microcomputer Group has its limits. If you have to wait, console yourself with the thought that we are doing everything we can to give you the best possible service.

Apple News

•LaserWriter Price Reduction

We seem to announce hardware price reductions every month; and at the risk of becoming repetitious, we have another price reduction to announce this month. Apple has lowered the University's price for the LaserWriter printer. Instead of paying \$4650, you can now buy an Apple LaserWriter at the BookCenter for \$3670.

•Apple 20MB Hard Disks Available

Apple is now shipping the 20MB hard disk for the Macintosh. The University price is \$1045. Limited quantities are available until January. By the time this newsletter reaches you, Apple should be shipping the hard disk in quantity. If you want to try the hard disk, visit the HelpLine.

Laser Printers in Folwell and Walter Labs

First, a warning. This article is being written on December 4, 1985, but you won't receive it until the first week of January. Things could change. Bearing in mind this caveat, we are pleased to announce that we plan to have both Hewlett-Packard and Apple laser printers available for use in the Folwell and Walter Library microcomputer labs in January. The Hewlett-Packard LaserJet printer will be connected to an IBM-PC, and you will be able to print both WordStar and WordPerfect documents on the LaserJet. You may have to make some minor changes in your documents so they print the way you want them to on the LaserJet. We have prepared a handout covering the kinds of formatting problems you may encounter. This handout is available in the Microcomputer HelpLine and at the Walter and Folwell Labs. *Please* take the time to read the handout before you spend money on lab cards.

The Apple LaserWriter will be available to Macintosh users. Because the fonts that the LaserWriter uses are different from the fonts used by the Imagewriter, you may have to make some changes in your documents to get them to print properly on the LaserWriter. You should pick up a copy of the LaserWriter fonts and the handout that explains potential formatting problems when moving a document from the ImageWriter to the LaserWriter. Both the fonts and the handout are available at the Microcomputer HelpLine. Again, please read the handout *before* you go to the labs to print.

Printing is *not quite* free. To use the laser printers in the Folwell and Walter labs, you must buy a Microcomputer Lab Access Card (\$20 at the Bursar). Lab Access Cards are good for one quarter and allow you to use the computers in the five Microcomputer Labs on campus. Printing on the laser printers costs 10 cents per page. You can purchase ACSS Laserprinter Access cards at the Bursar's Offices in \$1, \$2, and \$3 increments.

Once laser printer service is available in the Folwell and Walter labs, we will *discontinue* laser printing service at the Microcomputer HelpLine. The Microcomputer HelpLine's *raison d'etre* is to resolve technical questions about microcomputers, printers, workstations, and local area networks. The Folwell and Walter Library labs are intended to be places where you can do production work. We have offered limited access to printers at the Microcomputer HelpLine for public printing only because there were no other printers available. Since this is no longer the case, we will discontinue this service at the HelpLine.

Lotus 1-2-3 Training on Video Tape

The Microcomputer Group has purchased a video tape training package for beginning Lotus 1-2-3 users. If you are interested, you can check the tape out from the Microcomputer HelpLine. The tape is VHS format.

WordPerfect Printer Support

Satellite Software International (SSI) has added support for the Epson LX-80 printer to WordPerfect. The new driver supports the LX-80's fonts and superscripts and subscripts. Registered owners of WordPerfect Version 4.0 can get a free copy of this Epson driver if they bring a formatted disk to the HelpLine.

Hewlett-Packard News

•HP Graphics Print Screen Utility

If you have an IBM PC or PC/XT with an IBM Color Graphics Board or with a Hercules High-Resolution Monochrome Board, or a Zenith microcomputer, and you use DOS 2.1, you may be able to use HP's Print Screen Utility. You cannot use this utility with an IBM AT. HP describes this utility as one which *will enable you to print the contents of your IBM PC or PC/XT display screen to either the HP LaserJet or ThinkJet printer*. We tried the utility on a Zenith Z-148 (with MS-DOS 2.1) and the HP LaserJet. We could use the utility on the Z-148 only after we copied the PC-DOS `mode.com` file onto our disk. (Currently, you can buy a copy of PC-DOS at the BookCenter only when you buy an IBM. The BookCenter is negotiating with Microsoft for single copies of PC-DOS.) You can copy this Print Screen Utility if you bring a formatted disk to the HelpLine.

•HP Portable 110 Price Reductions

The HP 110 is available for \$1045 (instead of \$1714) through January 1986. The HP 110 portable comes with MS-DOS 2.11, PAM, Lotus 1-2-3, MemoMaker, terminal emulation software, 272K memory, a built-in 300-baud modem, a serial interface, a 16-line by 80-column LCD display, and a full-size keyboard. The BookCenter also has three 110 demo units available for \$995.

•HP 12-Month Warranty

HP's 2-pen (7470) and 6-pen (7475) plotters, ThinkJet, LaserJet Professional, and LaserJet Plus printers are covered by a one-year warranty. Those products sold on or after September 1, 1985, and products still in warranty on September 1, will have the warranty automatically extended to one-year.

Review: Excel

In this review we look at Excel, Microsoft's new spreadsheet and charting program for the Macintosh. Excel combines the features of Microsoft's Multiplan and Chart programs, and has a number of additional features, notably macro commands.

We found Excel to be one of the most powerful spreadsheet programs available for *any* microcomputer.

Overview

Excel comes on two disks: one disk contains the Excel program and the other disk has the operating system and Excel Help File. Excel is copy protected (using Microsoft's usual key-disk scheme). Microsoft also provides you with a set of two backup disks. In addition to the disks, you get two manuals. The first manual is called the *user guide* and has a tutorial section, a

section describing how to use Excel, and a reference section. The second manual contains information on arrays, functions, and macros. We found both manuals easy to understand and well written.

To run Excel you must have a 512K Macintosh and an external disk drive (or a hard disk). Microsoft supplies a hard disk installation program so you can run Excel from a hard disk connected to your Macintosh. You can use the hard disk installation program to install Excel on a hard disk *twice*. If your hard disk fails or you need to reformat your hard disk, you could have a problem. You will only be able to reload Excel *once*. (You can load Excel once from the master disk and once from the backup disk.)

Spreadsheet

The Excel spreadsheet has 256 columns and 16,384 rows. This is a total of over *four million* cells. As with most spreadsheet programs, you cannot use all of the available cells because of limited memory in your microcomputer. There are several ways to move through the spreadsheet. You can scroll through the spreadsheet by using the scroll bars to move one cell or row at a time, a screen at a time, or to make much larger jumps. You can also use the *goto* facility to jump to a particular cell. More than one spreadsheet can be displayed on the screen at the same time, each in its own window. This makes it easy to move information back and forth between different spreadsheets by copying and pasting to and from the Clipboard.

Excel has a number of built-in functions you can use when creating spreadsheets: math, logical, statistical, and financial functions. You can also define your own functions with the *function macro* facility (described later).

With Excel you can link spreadsheets together. This is *very* useful when you need to prepare a spreadsheet that summarizes information contained in other spreadsheets. To prepare a summary you need to refer to the information contained in cells in different spreadsheets. You could type the information into the summary spreadsheet, but if you do this you must remember to update the summary spreadsheet whenever information in one of the other spreadsheets changes. Linking spreadsheets automates this updating process. To create the link, you activate both spreadsheets and insert an *external reference formula* (e.g., to link the information from cell A1 in a spreadsheet called **Budget** to the summary spreadsheet, you enter `=Budget!A1` in the proper cell of the summary spreadsheet). When information changes on the **Budget** spreadsheet, the change is automatically reflected in the summary spreadsheet. Linking spreadsheets with external reference formulae is a great way to combine 12 monthly spreadsheets into a single yearly report.

Most spreadsheets display the contents of the spreadsheet in one type face. With Excel you can display each cell in the spreadsheet in a different font and font size, and use special effects such as bold, italics, and underline on a cell-by-cell basis. This feature is very useful when creating spreadsheets to give to the boss. You can use different type styles to accentuate certain portions of your spreadsheet (e.g., a total, a column, or titles).

Excel can read Lotus 1-2-3, Multiplan, text, and SYLK files directly. There may be some conversion needed for 1-2-3 files

(some of the functions have different names in Excel and Lotus 1-2-3). When it cannot convert a formula or function, Excel will display a dialog box. This gives you a way to identify and fix differences in the new spreadsheet.

Unlike Multiplan, Excel has the ability to change the column heading labels to the Lotus 1-2-3 format (A, B, C ... AA, AB, AC ...). If you are familiar with 1-2-3, this format is less confusing than Multiplan's format. You can still choose to use the Multiplan format (R1C1, R1C2 etc). A formula to add two cells together in Lotus 1-2-3 format will look like this:

`=A2+B2`

If you use the Multiplan format the same formula would be:

`=RC[-2]+RC[-1]`.

Graphics

Excel provides several graphing options. Once you have selected a data range by dragging across it with the mouse, you can select a pie chart, bar chart, line graph, or area graph from the Chart menu. After the chart window is displayed, you can change the chart type, add legends, add titles and text, resize the chart, create overlay charts, and so on. Whenever you change the data in your spreadsheet, the changes are automatically reflected in the chart. You can print charts directly from Excel, or use the Clipboard and Scrapbook to move the chart to MacPaint or MacDraw (for further modification), or into a MacWrite document.

Data Base Functions

Excel can perform some simple data base functions on the information contained in the spreadsheet. After defining a range of cells as your data base, you can sort the range or have the program display, calculate, or extract information based on some criteria. Note that Excel is not really a data base package, since the amount of information that it can store is limited by the size of the Macintosh's memory. Real data base packages store the data base on disk and can work on huge amounts of information (assuming you have a hard disk).

Printing

Flexibility in formatting output is one of Excel's strongest features. You can choose to print an entire spreadsheet or only a selected range. You can print down (portrait) or across (landscape) the page. When you print your spreadsheet, you can choose to print or hide the grid lines that separate rows and columns. You can also enlarge or reduce the size of the graph or spreadsheet you are printing. The spreadsheet can be printed with or without page breaks, and the optional headers and footers allow you to add page numbers, time, date, and/or the name of the document at the beginning or end of each page. Excel works with both the Imagewriter and LaserWriter printers.

Excel has an optional *preview* feature that allows you to display on the screen an image of how a whole page will look when printed. There is also a *magnifying glass* that you can use to blow-up sections of the page for a closer look.

Macros

Command macros are a set of spreadsheet commands that can be combined into a single command. You can use macros to execute frequently used sets of commands. If you regularly change the format of a range of numbers to dollars, you may want to create

a command macro to automate this function. After you create the macro, you need only type a single keystroke to invoke the set of commands stored in the macro.

Function macros are also available in Excel. You can think of function macros as a way to define your own functions. This is convenient if you have a formula that you use frequently in your spreadsheet. Rather than entering the formula repeatedly, you can create a function macro. Once you have created a function macro you can use the function as if it were one of Excel's built in functions. *Function macros* are useful if you need to repeat a series of identical calculations on many sets of data (e.g., you may want to write a function macro that calculates the hourly labor charge based on the day of the week).

Speed

Excel is *fast*. Excel recalculates only those cells that rely on data that has been changed. Other spreadsheets (i.e., Jazz, Multiplan, and Lotus 1-2-3) recalculate every cell *whenever you change anything*. This slows down the spreadsheet. A typical large spreadsheet that takes 6 seconds to recalculate with Jazz, takes less than a second to recalculate with Excel. Part of Excel's speed is due to recalculating only what is necessary. That is only half the story, though. Excel *also* uses some very fast routines for its calculations. We set up spreadsheets on Lotus 1-2-3, Jazz, and Excel to compare speed of calculation. All three spreadsheets performed 1273 multiplication and division operations. On the Macintosh, Excel recalculated the spreadsheet in 4 seconds; Jazz took 7 seconds. Lotus 1-2-3 running on the IBM PC took 6 seconds to recalculate the spreadsheet. Excel is about 1/3 faster than Jazz and Lotus 1-2-3.

Drawbacks

Excel uses a lot of disk space. The program itself takes up almost an entire disk. The operating system and Excel Help File take up over half of the other disk. This leaves little room for your data files. You will need to save any large files on a third disk. You can free up about 75K of disk space by removing the Excel Help file.

Conclusions

Excel is the fastest spreadsheet we know of for the Macintosh, and Excel recalculates faster than Lotus 1-2-3 on the IBM PC. The flexibility you have in customizing printed output is one of Excel's strong points. This flexibility allows you to prepare attractive spreadsheet printouts using Excel. Excel's graphics output is very good, and there are many different types of charts available. The charts are easy to create and modify, and it is possible to design and produce a chart in a very short time. Excel's on-line Help facility is complete and informative.

Excel is a very complete and powerful spreadsheet package. There are few programs on *any* microcomputer that can compete with Excel.

We have a copy of Excel at the Microcomputer HelpLine if you would like to try the program. Excel is available at the Minnesota BookCenter for \$205.

Review: Switcher

As you become a more sophisticated Macintosh user you may find yourself using several different programs to get your work done. For example, you might use MacWrite to create reports, Microsoft Chart to make graphs, and a Microsoft Multiplan spreadsheet for budgeting. In the process of creating a report that incorporates a graph from Chart and budgeting information from Multiplan you will need to run MacWrite (for editing the report), Chart (to create a graph) and MultiPlan (to work with numbers). Switcher is a program that lets you go quickly from running one program to running another.

Switcher is really a *context switcher*; you can halt the execution of one program (for example, MacWrite) and start execution of another program. When you are ready to return to MacWrite, execution of the second program is halted, and MacWrite picks up where it left off. Switcher works by letting you load several programs into the Macintosh's memory, so that when you move from one program to another, there is only a very slight delay.

Beyond the convenience of moving between programs quickly, Switcher makes it easy to move information from one program to another. Switcher can connect the Clipboard that is in use when you run MacPaint to the Clipboard used when you are running MacWrite. We sometimes use Switcher to move pictures from MacPaint to MacWrite (by copying the picture into the Clipboard, switching to MacWrite, and pasting the contents of the Clipboard into the MacWrite document). This is more convenient than having to exit MacPaint and launch MacWrite, which is how you would move a picture from MacPaint to MacWrite without Switcher.

Hardware and Software Requirements

To use Switcher on your Macintosh, you need at least 512K of memory and, for best results, an external disk drive. Most software designed for the 128K Macintosh will work with Switcher. Programs designed specifically for the 512K Mac may not run with Switcher if the program really uses *all* 512K of memory. Many programs written for the 512K Macintosh *do not* use all 512K and so they can be used with Switcher.

Using Switcher

Switcher works best when all the programs you are accessing through Switcher are always available on the disk. Think of how confused a program could get if it was halted, and then found that the files it was using had *disappeared* (because the disk was no longer available) when it resumed execution.

With a two disk system, one disk can hold the System Folder, Switcher, and some applications programs. The second disk is used to hold other applications programs and files created by them. The applications you access using Switcher can all be selected when you start Switcher, or you can add and remove applications as needed. When you start Switcher it presents you with four *slots* where you can *install* applications. To install an application, double click an empty slot. Switcher presents you with a list of applications and you select the application you want to install.

As each application is installed, Switcher divides the Macintosh's memory and allocates a specific amount of memory to each application's *slot*. The application can use only the amount of memory allocated even if there is additional unused memory. In most cases, Switcher automatically allocates 128K of memory for each application. Each application works as if it were running on a 128K Macintosh. The *Configure and Install* command can be used to allocate a different amount of memory to an application prior to its installation. Many applications may not run if any amount of memory other than 128K is assigned. For example, if more than 128K is allocated the application may assume that it is running on a 512K Macintosh and expect to be able to use *all* 512K of memory. Experimenting with installing each application will help you decide on the amount of memory you may allocate for them.

Once you have installed the applications you want to use, you can work with any of your applications as you normally would and move to another application any time. When Switcher is running there is an arrow on the extreme right side of the menu bar. Clicking the arrow moves you to the next application installed in Switcher. To exit Switcher, you must exit each application individually and then exit Switcher.

Creating a Switcher Document

A *Switcher Document* allows you to automate the installation procedure. After you have installed the applications you want to use together, you can save this group of applications in a Switcher Document. Each time you need to use this application combination, you can open the appropriate Switcher Document.

Conclusion

We installed MacWrite, MacPaint, and the Finder with the Switcher. The installation procedure was easy and clearly explained in the manual. The programs ran as they would outside the Switcher environment, and switching between them was *fast*.

Switcher worked with RAM Disk software and on a Tecmar hard disk system. Switcher also works with the Apple LaserWriter. Most Macintosh software (except MacWrite) can print with 128K of allocated memory. To print on the LaserWriter with MacWrite, you need to install MacWrite with at least 144K memory. The manual that comes with Switcher is reasonably well written and contains some useful hints for memory settings to use with various combinations of programs.

As part of the process of testing Switcher, Apple put some early versions of the program on public electronic bulletin boards and the program was widely circulated. (Consider the magnitude of the testing problem: Switcher should be tried with *every combination* of programs available for the Macintosh, but this test requires a *very large* number of people to accomplish.)

Although early versions of Switcher were available on some bulletin boards it is worth the money to buy the final version; Switcher is without question the most reasonably priced software at the BookCenter. For \$8 you get the final (non-bug-infested) version of Switcher and a manual.

Review: Word Processing on IBM and Compatibles

Of all the things people want to do with a microcomputer, word processing is probably the most common. To fill that need, there are over 200 word processing programs available today, any one of them more efficient than a typewriter, all promising wonderful feats, and ranging in price from \$25 to several hundred dollars. How do you choose one?

The first step is to look at your needs. Are you going to write letters or manuscripts or books? Do you *really* need to be compatible with the word processor at your office? Are you going to use the program often enough to remember how it works, or must you relearn it each time?

Word processing programs can be compared based on four criteria: 1) How easy is it to learn? 2) Once you have learned it, how easy is it to use? 3) How powerful is it? What can it do? 4) How much does it cost? The first three of these categories are interrelated. It is often the case that a program is easy to learn because it cannot do very much. If a program has many functions, it is going to take you a while to learn how to use them all. A program may be easy to learn because you are simply responding to prompts on the screen; you don't have to memorize anything. Once you have learned the program and don't need the prompts anymore, they can get in your way and make the program cumbersome to use. These three features usually trade-off. You trade power for ease of learning and ease of learning for ease of use.

In previous issues of this newsletter we have reviewed two top-of-the-line word processors for IBM and IBM-compatible microcomputers: WordStar 2000+ (April, 1985) and WordPerfect (July, 1985). These programs (along with others such as WordStar and Microsoft Word) provide heavy-duty word processing with lots of features including footnotes, headers, spelling checkers, temporary margins, indexing, and mail merging. The top-of-the-line programs require a commitment to learn, and regular and varied use to make it worthwhile to learn everything they can do. Do you really need this much power? If you don't foresee writing scholarly books with footnotes and indices or financial documents with complicated tables, do you really want to spend the time and money on one of these major word processing packages? Most of these packages take several days or weeks to learn, require many more hours to become proficient, and cost over \$200. What are your alternatives?

Recently, several smaller-scale and less expensive word processing packages for the IBM and IBM-compatibles have become available. In this article we review two of them: EASY and My Word! Two others, Personal WordPerfect and pfs:write Version C, will be reviewed as we receive them.

EASY

EASY is the recent entry from MicroPro, the publishers of WordStar. MicroPro has made EASY and WordStar completely compatible. Files created in WordStar can be edited in EASY;

files created in EASY can be edited in WordStar (and hence WordStar 2000).

EASY is indeed an easy program to learn. Everything you need to know is displayed on the screen at all times. The *F1* key gives you context-sensitive help. *F2* displays a menu of possible editing commands, and *ESC* cancels a command. If you want to highlight a section of text in bold face, you can type *F2* to display the edit menu, move the cursor down the menu to *Boldface* and hit the *ENTER* key. You are then presented with a window which tells you what to do next: move the cursor to the beginning of the text to be in bold and hit the *ENTER* key, then move the cursor to the end of the text to be bold and hit the *ENTER* key again. When you are more familiar with this command, you can move the cursor to the beginning of the text, type *F2 - B - ENTER*, move the cursor to the end of the text and type *ENTER* again. The menu will still appear, but the program doesn't wait for it. It begins processing your command right away. When you have learned the commands you need, you can even turn the menu off. Thus, the aid is there if you want it, but doesn't get in your way when you no longer need it.

Despite its simple format, EASY can perform all the basic word processing tasks: inserting, editing, and deleting text; paragraph reforming; moving and copying blocks of text; printing enhancements (bold, underline, superscripts, etc.); finding specific text in the file, and replacing it if requested; flexible page layout (left and right margins, tabs, centering, etc.).

Advantages

EASY includes a spelling checker with a 65,000 word dictionary. If EASY finds a word that is not in its dictionary, it suggests an alternative spelling. You can also create your own personal dictionary with words such as proper names or technical terms that don't appear in the main dictionary.

One of EASY's strengths is its printer support. The printer installation menu includes 126 printers. The manual has an appendix of printer information which includes information covering optional line heights, fonts (pitch), colors/styles, and super- or sub-scripts for each printer. Once you have installed EASY for your printer, you can define up to three fonts and four styles from which you can select as you create your document.

The EASY manual is short, clear, and well layed-out. There is a brief tutorial with a tutorial disk, followed by the *Alphaguide*. The *Alphaguide* is the reference section with all commands and topics organized in alphabetical order. With a program so simple, this style works well; I had no difficulty looking up anything I wanted. Another nice feature of EASY is that printing enhancements like bold and underlining are displayed on the screen, not just on the printed document.

EASY provides a good deal of on-screen help. Typing the *F1* key will give you context-sensitive help. For example, if you select *Boldface* from the editing menu and then type *F1*, you will get a screen of information explaining boldfacing. You can also get a menu of help topics from the opening menu and read about whatever you want.

Limitations

EASY is a very large program that comes on four jam-packed disks. The program is not copy protected, but it is so large you cannot copy it onto a disk containing DOS. EASY requires either two floppy disk drives or a hard disk. If you have a two-drive system, you must first start the machine with a DOS disk, then put the EASY Program disk in drive A and your files' disk in drive B. If you have a hard disk system, you can put everything on the hard disk.

There are things EASY will not do that more expensive packages will do. EASY has no mail-merging facility. You cannot format your text in columns. Blocks of text that EASY can handle are rather small: 750 characters, or 8-9 lines. If you want to move or copy more text than this, you must do it in stages. Also, EASY will not write a block of text to a file. This means that you cannot easily copy a block of text from one file to another.

Summary

EASY is a word processing package that is very easy to learn and very easy to use. It provides all the features most people will ever want at an attractive price. It is a good choice for novice computer users, those who want to be compatible with WordStar, and those who won't be using their word processor on a daily basis. If you out-grow EASY, you can move on to WordStar without losing any of your files. You won't even have to convert your files into WordStar format; just edit them directly. (Switching to WordStar will, however, involve learning a completely new set of commands.) EASY is available for trial at the Microcomputer HelpLine and can be obtained through the Minnesota BookCenter for \$90.

My Word!

My Word! is one of those remarkable programs you must see to believe. My Word! emulates WordStar by doing 95% of what WordStar can do, has several nice features of its own, and costs \$25. My Word! is not copy protected. If you want to use multiple copies, as in a computer lab or office, you can buy additional manuals for only \$11 each. For an additional \$25 you can purchase the source code and customize the program to suit your tastes.

You can use My Word! to perform all the basic functions listed under EASY plus the following: mail-merging, writing a block of text to a disk file, sorting a block of text, adding numbers in rows or columns, providing a calculator function, defining keyboard macros (up to ten), customizing the program for your printer.

My Word! has a large subset of the WordStar commands. My Word! uses WordStar commands for the same functions (e.g., ^PB for bold, ^OR for setting the right margin), and the same dot commands (e.g., .HE to set a heading, .OP to omit page numbers). My Word! also includes commands that WordStar does not have, for a total of over 100 options. Luckily, you don't need to know all the commands to get started. About 20 commands will allow you to do most of your word processing; the rest are for speed, efficiency, and enhancements.

My Word! is a small program. Put it on a disk with DOS and you still have 203K of disk space for your files. Because My Word! is so compact, it will run efficiently on a one disk drive system.

My Word! emphasizes speed above all else. Both the program and the entire document are resident in main memory. This makes the program extremely fast since it requires no disk accessing, either for program overlays or to retrieve sections of your document. Because everything is in memory your documents can be no longer than about 14 pages of single-spaced text. To make up for this limitation, My Word! allows you to link files when you print them. To link files type `.LF` and the name of the file you want to have appended at the bottom of each file. The second file will start printing exactly where the first file finished; it will not start on a new page unless you request it.

A real problem with WordStar (and some other packages) occurs when you create or edit a large document and find you cannot save it because your "DISK IS FULL." Because both My Word! and your data file are in main memory, you can put in a new disk and tell My Word! to save again.

For the sake of speed, printing features such as bold, underline, and compressed are not displayed on the screen except as embedded commands. Also, right justification is not displayed on the screen. These options affect the printed version of your file.

The files My Word! creates are plain text (ASCII) files. With My Word! you get utility programs that convert ASCII files into WordStar files, WordStar files into ASCII files, split long files into shorter ones My Word! can handle, count the number of words in a document, and customize the program. Most printers will work with My Word!'s initial (default) settings. You also get a table that shows you how to set the codes for boldface, double-strike, underline, italics, superscript, subscript, strikeout, proportional printing, and other features on your printer.

Advantages

My Word! is loaded with features and does everything many major word processing packages do except provide a built-in spelling checker. In addition, My Word! gives you sorting, mail-merging, and mathematical capabilities. And does it all very, very fast. You get all this for \$25!

Reservations

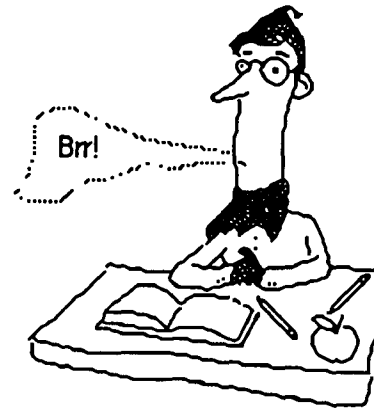
My Word! is a command-driven program. There are no menus to prompt you. The manual includes a training guide with a sample document on a disk that covers all the commands you need to get started. But there are no screen prompts or keyboard overlays. It's just you and the manual. Fortunately, the manual is easy to understand. It was created with My Word! and doesn't have the slick, professional look; but it is thorough and well organized. The *Table of Contents* and *Index* allow you to find information quickly.

Summary

My Word! is a package that is very powerful, extraordinarily cheap (\$25), but not the easiest to learn (back to that trade-off again). We have a copy at the HelpLine if you would like to

look at it. You can purchase My Word! directly from the vendor: TNT SOFTWARE, 34069 Hainesville Road, Round Lake, IL 60073; phone (312)223-8595.

ADVICE: Ask Dr. Micro



Q: I have an Apple Lisa and find that the LisaCalc spreadsheet is a little slow. Is Apple going to release a new version anytime soon?

A: When Apple announced it was discontinuing production of the Lisa (also known as Macintosh XL), they announced that there wouldn't be any new releases of the Lisa 7/7 software, so I don't think you can expect an improved version of LisaCalc *ever*.

What you *can* do is start migrating to MacWorks XL (the software that makes a Lisa act like a Macintosh) and run some of the excellent software written for the Macintosh. I *strongly recommend* that you migrate to Macintosh software as soon as possible. Apple has just released a *Migration Kit* to ease the transition from Lisa software to the Macintosh world. The Migration Kit includes conversion tools to allow you to convert:

- LisaWrite files to MacWrite and Microsoft Word
- LisaDraw files to MacDraw
- LisaCalc files to Lotus Jazz and Microsoft Excel.

The basic Migration Kit consists of three disks and a manual. In addition to the basic Migration Kit you can also order the Macintosh software to which you are migrating. Here are the configurations that are available:

- Migration Kit: \$30
- Migration Kit and Lotus Jazz: \$450
- Migration Kit, Microsoft Word, Microsoft File, Microsoft Excel, and MacTerminal: \$450.

The Migration Kit must be ordered directly from Apple, and the offer is available only until May 31, 1986. To order your Migration Kit, send your system disk 2, a list of what you want, and a check or money order to:



Apple Computer Processing Center
Attn: Migration Kit
P.O. Box 7003
San Francisco, CA 94120

Winter Quarter 1986: Microcomputer Short Courses

IBM

IBM and Compatibles: Enrollment limited to 10 Per Class

MAC

Apple Macintosh: Enrollment limited to 20 Per Class

Introduction to Microcomputers - DOS. Fees*: \$25, \$35, \$60.

A 5-hour introduction to microcomputers for new users. This course includes background information on hardware and software for microcomputers as well as a practical (hands-on) introduction to basic MS-DOS and PC-DOS operating systems.

Introduction to Microcomputers or equivalent knowledge is required for the IBM courses below.

Introduction to dBASE II and III. Fees*: \$40, \$50, \$80.

This 5-hour hands-on course will cover basic concepts of data base management. You will create several data bases and learn how to enter data, modify it, retrieve it, and print reports.

Introduction to WordPerfect. Fees*: \$25, \$35, \$60.

This 2.5-hour hands-on course is for the new WordPerfect user. You will learn to use simple line and page formatting commands, how to handle blocks of text, use search and replace, change initial (default) values, and how to install a printer.

Beginning Lotus 1-2-3. Fees*: \$25, \$35, \$60.

This 2.5-hour hands-on course will familiarize users with basic Lotus 1-2-3 spreadsheet concepts. Beginning-level commands will be introduced by entering a sample spreadsheet. You will set-up your own spreadsheet, enter data, formulae, use spreadsheet commands, functions, formats, etc., and create several charts.

Advanced Lotus 1-2-3. Fees*: \$25, \$35, \$60.

This 2.5-hours hands-on workshop covers three of the more advanced features of Lotus 1-2-3: data base queries, look-up tables, and macros. We assume you already have working knowledge of Lotus 1-2-3.

Intermediate WordPerfect for Authors. Fees*: \$25, \$35, \$60.

This 2.5-hour hands-on course is for writers, and covers macro use and simple Outline, Index and other writer-oriented features.

Intermediate WordPerfect for Office Applications.

Fees*: \$25, \$35, \$60.

This 2.5-hour hands-on course covers features including form letters, macros, math, and other office-oriented applications.

Prior working knowledge of the Apple Macintosh is assumed for all the classes below.

Overview: Beginning MacDraw, MacDraft.

Fees*: \$15, \$25, \$40.

This 2-hour course consists of a descriptive discussion and demonstration. The course will outline the features of each object-oriented drawing program and compare and contrast them. Prior working knowledge of MacWrite and MacPaint is assumed.

Overview: Microsoft Word.

Fees*: \$15, \$25, \$40.

This 1-hour and 45-minute course will include a discussion and demonstration of the basic features of the MS Word word processing program and of how these features work together.

Overview: Microsoft Excel.

Fees*: \$15, \$25, \$40.

This 1-hour and 45-minute course consists of discussion and demonstration of Excel's spreadsheet, chart, and data base features and of how these features work together.

Overview: Statistical Programs.

Fees*: \$15, \$25, \$40.

This 2.5-hour demonstration/lecture outlines the features of several statistical packages for the Macintosh. Knowledge of statistics assumed.

Overview: Preparing Brochures and Newsletters.

Fees*: \$15, \$25, \$40.

This 2-hour course consists of descriptive discussion, demonstration and comparison of page layout software including Aldus PageMaker, ReadySetGo, and MacPublisher. Prior working knowledge of MacWrite and MacPaint is assumed.

*Fees are printed in order for the following groups: 1) University students, 2) University faculty and staff, and 3) non-University persons. Course fees may be paid by cash, check, or with a signed University Journal Voucher. *No* refunds will be made after the class has begun.

Registration is located at the ACSS (Academic Computing Services and Systems, formerly UCC) Reference Room in 128A Lind Hall during these hours: Monday-Friday, 8 a.m. to 4:30 p.m. Mail registrations will be accepted. Deadline for registering is 4:15 p.m. on the last working day *before* the class begins.

More Information: If you need more information on short courses, call Jerry Stearns at 376-8806.

Winter Quarter 1986: Microcomputer Short Courses

Key: IBM and Compatibles

Macintosh

Monday

Tuesday

Wednesday

Thursday

Friday

January

13

14

9:30-noon
Intro: WordPerf

1:30-4:00
Intro: MS-DOS
day 1 of 2

15

16

1:30-4:00
Intro: MS-DOS
day 2 of 2

17

20

21

1:30-4:00
Intro: MS-DOS
day 1 of 2

22

2:15-4:00
Overview:
MS Word

23

1:30-4:00
Intro: MS-DOS
day 2 of 2

24

27

1:30-4:00
Intro: MS-DOS
day 1 of 2

28

1:30-4:00
Intro: dBASE
day 1 of 2

29

1:30-4:00
Intro: MS-DOS
day 2 of 2

30

1:30-4:00
Intro: dBASE
day 2 of 2

31

February

3

4

1:30-4:00
Begin: Lotus 123

5

1:30-4:00
Intro: WordPerf

6

7

10

11

12

9:30-noon
Begin: Lotus 123

13

1:30-4:00
Intermediate
WordPer/Office

14

10:00-noon
Overview:
MacDraw/Draft

17

9:15-11:00
Overview:
Excel

18

9:30-noon
Advanced
Lotus 123

19

20

21

24

1:30-4:00
Intro: MS-DOS
day 1 of 2

25

2:15-4:00
Overview:
Statistics

26

1:30-4:00
Intro: MS-DOS
day 2 of 2

27

28

9:30-noon
Intro:
WordPerfect

March

3

4

9:30-noon
Intro: dBASE
day 1 of 2

5

2:00-4:00
Overview:
Newsletters

6

9:30-noon
Intro: dBASE
day 2 of 2

7

9:30-noon
Intermediate
WordPer/Authors

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