/u/fortune

20A Prescott Street, Suite 28, Cambridge, MA 02138 617 876-4763

Report on first meeting

March 27, 1984

The first meeting of the Fortune User's Group of Boston took place on Thursday, February 8th. About 25 people came from Massachusetts, New Hampshire and Rhode Island to ask questions and mingle with other Fortune owners. There were lawyers, accountants, engineers, philosophers, businesspeople, software developers and a restaurant owner. In addition to these people, we have received responses from numerous other people that are as far away as Buffalo.

The software that people use was equally diverse. Almost everyone uses Fortune:Word and Multiplan (or at least owns them). Several people have the Fortune accounting packages, some have databases, and a few programmers use Fortran, C, Basic and the development utilities. When more of the questionaires are returned, we will compile the results and produce a more accurate list of who is using each software package. We would like to include people's names and phone numbers in order to foster our Fortune network. If you would rather not have your name included, please let us know.

This initial meeting was primarily for organizational purposes. However, there was some informative discussion. Nancy Olson, a regional representative of Fortune Systems, answered numerous questions about hardware, software, and the nature of the corporation. For a summary of her comments, see the News from Fortune section of this newsletter. Nancy will be our main contact point at Fortune. Their corporate office in California has assigned one of their managers to be their representative to user's groups which is a sign of their interest in us.

The Next Meeting

The next meeting will take place on Thursday, April 5 at 7:30 in Room 1305 of William James Hall at Harvard. Directions are enclosed.

Agenda:

7:15-7:30	Arrival, coffee.
7:30-8:15	An Introduction to UNIX by Guy Washburn of Walker Data Systems
8:15-8:30	Questions and answers, large group discussion
8:30-	Break down into sub-groups by application

Discussion: The Boston Computer Society has decided not to make us a recognized user's group at this time. Their reasons for turning us down are 3-fold: 1) We are not likely to be as large a group as their other user's groups; 2) They feel there may be a conflict of interest if the director of the group

is a consultant and 3) The BCS is currently in the process of establishing a user group council and setting guidelines for the inclusion of new groups. This last reason is perhaps the one that ultimately delayed the board from reaching a positive decision. In July, when the new council is established, we can reapply. We need to briefly discuss our options and the pros and cons of trying to work within the BCS.

This sort of agenda will be a model for future meetings. The presentations at the beginning of the meetings will be on specific software applications, hardware, etc. Any suggestions you have are welcome.

Directions to William James Hall

William James Hall is a large white building (about 15 stories) on Kirkland Street in Harvard Square.

Take Memorial Drive, Storrow Drive, or Mass Ave into Harvard Square.

At the northern end of the square (going towards Porter Square and Arlington) the road forks and the right lanes veer to the right and go through an tunnel. This leads towards Broadway, Cambridge Street and Kirkland Street.

When you emerge from the tunnel, stay to the left.

At the light (which comes almost immediately) take a left turn.

At the next light, take a right turn. This is Kirkland Street.

Take an immediate left down the dead end road and then the first right into a parking lot. The entrance to the building is on Kirkland Street around the corner from the parking lot.

Take the elevator to the 13th floor, take an immediate right. Room 1305 is down the hall on the right.

News from Fortune

Hardware:

The Fortune computer is now available in two basic models, the Professional System (or PS), and the Extended Performance (or XP). The differences between these two are that the PS uses a standard hard disk, and has fewer expansion possibilities (3 users, 512K max), while the XP uses a much faster voice coil hard disk and can be expanded to a full megabyte of RAM with up to 14 communications ports. If you purchased your machine before these distinctions were created, you probably have the expansion capacity of the XP with the slower hard disk used in the PS.

The 30-megabyte expansion cabinet is currently available for $5,995. The tape streamer backup is scheduled for release early this summer. (A tape streamer allows for a more efficient backup of a large hard disk than you get with floppies. Typically, one tape holds at least 20 megabytes as compared to a 790K floppy.)

Fortune has announced that it will offer a high quality dot-matrix printer starting April 23rd as a class 'B' product. Their choice is the GENICOM 3404 printer made by General Electric. This printer can run at speeds up to 400 CPS in data processing mode and up to 180 CPS in word processing mode. It's cost is $2,845.

Some third-party vendors are beginning to release hardware for the Fortune. For example, Envisioneering in Ohio has released a 40-megabyte drive and hopes to have a 70-megabyte drive out in three months. We will try to get more information on products like these.

Software:

What follows is a short list of software which may be of interest to you. Some items are current releases, some are brand new, and some are upgrades or re-releases. Please note that in many cases there will be a charge for upgrades.

Fortune:Word

Fortune:Word has three additional modules that can be purchased to add power to the system, each priced at $395:

1) Spelling Checker

An 90,000 word dictionary which can check for spelling mistakes and usage problems.

2) Records Processing

This module gives Fortune:Word some database capabilities which can be used for things such as mail merge. Individual names can be selected based on a search key and they can be merged with other documents in a manner which allows a great deal of flexibility.

3) Advanced Features

This module contains several enhancements:

- Table of Contents Generator
- Index Generator
- Windows
  Windows allow you to split your screen into as many as 4 windows and put separate documents in each window with full editing capabilities within each document. The windows also allow you to view different sections of the same document simultaneously.
- Multi-column
  Multiple column allows you to set up several discrete columns on a single page. Within each column, there is word-wrap. This allows you to leave space for artwork, such as a graph, within your document or to create documents that have summaries or notes in the left column paired with a corresponding paragraph in the right column.
- Advanced Glossary Features
  The advanced glossary features give you the opportunity to do some programming within your glossary entries. This adds substantial power. For instance, you can do math within a document, query for information, print out comments based on specific input, etc.

There is a new update available for Fortune:Word at no charge. It is basically identical to the earlier release, except that it allows you to use multiple bin sheet feeders and also allows you to use proportional spacing on your printer. This update is available free of charge from your dealer.

Document Conversion:

This package allows you to convert Fortune:Word files to Wang files and visce versa. It also allows you to send these files back and forth between the two machines via bisynchronous communications. You must have a Comm B board to do this. The price is $595.

Multiplan:

Fortune has released a new version of Multiplan which offers the following enhancements:

A menu interface to the print spooler similar to Fortune:Word's

An interface that allows you to tranfer VisiCalc files to Multiplan

The ability to convert a spreadsheet to a word processing document

If you own version 1.2 of Multiplan, an upgrade will be available within 30 days. **There will be a charge for this upgrade.**

Programming Languages:

Fortran, Basic and C have all been updated. The primary change is to allow fast floating point. The manuals for C and Fortran have also been updated. Within 30 days, upgrade disks will be available. **There will be a charge for this upgrade.** More information will be available at the meeting on these upgrades.

Language Development Tools:

A new release that improves and makes corrections to the previous software. Within 30 days, upgrade disks will be available. **There will be a charge for this upgrade.** More information will be available at the meeting on these upgrades.

3780 Data Communications Terminal Software:

This is for bi-synchronous transfer of data, generally with mainframe and mini computers. It is now available for $995.

For:pro Programmer's Manual

This is a new revised and expanded manual to accompany the Development utilities. The software is unchanged. The manual is available for $50.00

Other Software:

You will find a list of software available for the Fortune included with this mailing. More information will be available on any of the products at the next meeting. We hope to update this list, add prices and sort it by application in the near future.

Tips from User's

Communications:

With terminal emulator program, your Fortune can operate as a telex machine to send and receive messages around the world.

Multiplan:

Use the name function to name cells that contain formulas. If you then want to use those formulas elsewhere, use the Copy From command and just type in the name you have used. The formula(s) will be copied into the cell(s) that you have specified.

If you need to specify ranges over large areas of the spreadsheet, e.g. a sum function from row 1 to row 240, you can use the window command to split the sheet in half. Then put the top of the sheet in one window, and the bottom in the other window. When you are generating your formula, you can use the change window key (F8) to zip from one half to another. The relative reference that you normally can access just by moving the cursor will jump all the way from one end of the sheet to the other.

Fortune:Word

A tip for inexperienced users. One of the great assets of Fortune:Word is that the cursor defines the area that you want to delete, copy or move. When you press any of these keys, the system will say "Delete What?" (or move what, or copy what). At this point you can use the arrow keys to move the cursor. You can also hit any character for the cursor to search for. For instance if you want to delete a word, hit the space bar and it will pop to the first space following the word. If you want to remove a sentence, hit the period. For a paragraph hit RETURN. This will work with any character at all.

/u/fortune *news*. . .

Newsletter for Users of the Fortune 32:16 Computer ☛ **SPECIAL EDITION**

What is /u/fortune news?

/u/fortune *news* is a newsletter published specifically for users of Fortune computers. It began almost a year ago, and has been growing steadily, both in the size and quality of the newsletter and in the volume of the readership. Our intent is to address three areas:

1) Inform our readers of new developments in hardware and software, from Fortune and from third parties;

2) Educate our readers about the power of UNIX and provide tips for getting the most from their machines and programs; and

3) Provide a network for people to present common problems and questions, and hopefully furnish answers.

Traditionally in the computer field, information has been almost an oral tradition -- the best way to find out how to do things was to ask someone more knowledgeable. Everyone knows that really good documentation is hard to find. The only thing that is more scarce is users who are willing to read it. Our newsletter fills these voids. Like magazines about other computers, we try to record the knowledge that is floating around (both within Fortune and without) and share it in a written form. In addition, it has been our experience that people are much more likely to read **/u/fortune** *news* than a thick manual, and so it is a much more palatable way to present instructions.

We feel that /u/fortune news plays an important role. Directly and indirectly our publication is designed to enhance the usefulness of the Fortune's hardware and software. In doing so, everyone is benefitted. The users and owners of this machine learn to increase the value of their investment. This increases their confidence that their business needs will be met which, in turn, bolsters their impression of their computer.

Thus, we see ourselves working with all parties (i.e. Fortune Systems Corporation, Fortune Dealers, Software designers and the Fortune owner) in an attempt to make the Fortune 32:16 the best multi-user micro on the market.

The articles in **/u/fortune** *news* do not make assumptions about the sophistication of the reader -- we try to explain everything as completely as possible so that

See **fortune** *news*, page 2

A note on this issue. . .

This is a special issue of **/u/fortune** *news* aimed at providing information about our publication to dealers and software developers. If you would like to see what a real issue looks like, please write or call for a free copy. We can be reached at 617 876-4763.

A Readers' Profile

Who subscribes to **/u/fortune news**? We asked ourselves that question to understand who benefits from the publication's information. An answer would also inform new users and dealers about the value of a subscription.

> *"After two years of struggling to get any information beyond Fortune's manuals about my 32:16, I was delighted to receive your sample issue of /u/fortune news."*

> *"Your letter ... and sample newsletter arrived yesterday; it was as if a rescue note in a bottle had washed up on the beach of our lonely Fortune outback."*

The response to our subscription efforts across the country has been overwhelming. Requests for subscriptions to /u/fortune news, memberships to the /u/fortune user group, and requests for public domain software come in daily.

> *"Since there was no one to talk with about my Fortune, eventually I began to talk to it and late into the night to carry on witty and peculiar conversations in English and green symbols. Surely there is more than one Fortune user in this disturbed condition, and surely your newsletter will cure us all."*

See **Readers Profile**, page 4

fortune *news,* cont'd from page 1

even a novice can make use of our suggestions. At the same time, we hope that some of our ideas are original enough to be helpful to people with more experience.

Our subscribers are generally business people who make use of Fortune:Word, Multiplan, the BAS applications, and increasingly a database package of one kind or another. **/u/fortune** *news* contains articles about all of these areas in addition to our regular column, *The UNIX Directory*, which is dedicated to unraveling the mysteries of UNIX.

/u/fortune *news. . .*

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Contributor Karen Parrish

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Back issues are offered at the following prices:

Vol 1, Numbers 1-3	$1/each
Vol 1, Number 4	$.50/each
Vol 1, Number 5-8	$3/each

Although every attempt is made to insure that our contents are error-free and without risk, The Cambridge Consortium is not responsible for losses that occur due to correct or incorrect interpretation of **/u/fortune** *news.*

For more information about us, please call or write:

/u/fortune *news*, 20a Prescott Street, Suite 28, Cambridge, MA 02138. Telephone 617 876-4763.

The text for this newsletter was prepared using the **vi** editor and **Fortune:Word** on a FORTUNE 32:16 computer. It was then transferred using Kermit to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

Advertising in /u/fortune *news*

Placing an ad in **/u/fortune** *news* represents a unique and powerful opportunity for reaching the serious Fortune user. Our subscribers are business people in many areas of enterprise who have two very important things in common. First, they all own at least one advanced multi-user UNIX micro computer: the Fortune 32:16. Second, and perhaps most important, they are committed to making their Fortune perform for them. We know this is a fact because they subscribe to our newsletter, and because a large percentage of our subscribers are repeat customers, who want everything we offer them.

They want the most from their Fortune and they know **/u/fortune** *news* is working to help them get it.

/u/fortune *news* can work for you too, by being an effective, efficient and low cost method of reaching potential buyers. At only $400 per page of advertising, an ad in **/u/fortune** *news* represents an exceptional bargain. At present, your ad will reach over 1500 people but our mailing list grows every day and as it grows, advertising in **/u/fortune** *news* will become an even better bargain.

Let us help you reach an eager market.

Ads should be black and white and preferably camera-ready. The dimensions and costs for partial page ads are given on page 3.

For more information about advertising in **/u/fortune** *news*, contact us at:

/u/fortune *news*
The Cambridge Consortium, Inc.
20a Prescott Street
Suite 28
Cambridge, MA 02138
(617) 876-4763

DO YOU LIKE TO WRITE?

/u/fortune *news* will gladly accept articles written by our readers. If you have some expertise you would like to share, feel free to send us your thoughts. The subject matter can be wide-ranging, although every attempt should be made to make articles clear and concise. It is also best to make specific comments rather than broad generalizations. For instance, an article about the virtues of Multiplan should contain some examples of its power and perhaps provide some tips that readers can incorporate into their own work.

Although we will make every effort to include your work, we reserve the right to edit it or return it because of space limitations.

Quarter Page
$100

3 3/4" x 5 1/16"

Half Page
$200

7 1/2" x 5 1/16"
or
3 3/4" x 10 1/8"

Full Page
$400

7 1/2" x 10 1/8"

Readers' Profile, cont'd from page 1

A search of our files yielded a very interesting answer: after eight issues, the newsletter already reaches a range of users that's perhaps as broad as the group of Fortune 32:16 owners.

> *"Of all the tons of things I brought back from the UNIXEXPO this month, I have not read anything I have enjoyed more than the copy of your newsletter."*

Corporate subscribers thus far include law, marketing, financial services firms, insurance, real estate, and advertising firms.

> *"...your publication sounds like just what we needed and we will enthusiastically subscribe and also become a "member."*

Private industry, involved in all aspects of manufacturing, accounts for a large volume of subscriptions. To date, we have heard from oil and natural gas companies, chemical and dye producers, and manufacturers of steel products and plastics.

> *"KERMIT sounds like something I need."*

Transportation firms have also subscribed (as different as a national bus company, an ambulance company, a barge service, and an ocean transportation agency,), as have electricity and phone utilities.

A very large response has been generated from hospitals (usually on units working with children's disorders), community and women's groups, surgical, ocular and dental groups, and physicians' associations. Organizations which represent charitable groups and social service commissions have written us, as have a broad range of churches.

> *"I had all but given up hope that there was anybody who knew anything about how Fortune Computers worked."*

It has become clear that there are also quite a few Fortune users in academia and government. Local and state boards of education are now subscribers, as are individual schools. Most academic users write from various departments of colleges and universities: these include computer science, mathematics, economics, and bioengineering.

> *"You also mentioned the possibility of pulling user groups together...I...would be most appreciative of receiving such a list from you, if at all possible."*

State and local governments are also represented. Several town administrators have requested subscriptions, as have a city's Veteran's Administration, county fire and highway districts, and a county farm bureau. State boards of the attorney general and of agriculture and two U.S. Departments have contacted us as well.

> *"I want you to know that /u/fortune will be very welcome at this address."*

Interspersed among all of these have come a variety of more exotic subscribers: from a detective agency, record companies, a funeral directors' association, florists, members of the produce and beef industries, a bowling alley, vendors of mobile homes, and a company which sells concession supply equipment.

> *"This is the greatest!"*

/u/fortune has undoubtedly been useful to these and a large number of individual users. We have been virtually inundated with requests from people wanting information on other users, on the electronic bulletin board soon to be installed, and on local users groups. As our base of subscribers expands, we will be able to link more and more users with one another, supplying greater information on particular software packages available from individual vendors, and increasing the viability of the Fortune system for end users. To that end, **/u/fortune news** is committed to the Fortune community.

/u/fortune *news. . .*

Newsletter of the Boston Fortune 32:16 User's Group Volume 1 Number 2 May, 1984

Report on the last meeting

At last month's meeting, Guy Washburn of Walker Data Systems presented a short introduction to the UNIX operating system. He outlined the history of UNIX and then described some of the more useful commands available including the list (or directory) command "ls", the "more" command and the use of the Bourne shell. He also described how files, directories and pathnames work.

Rather than try to summarize this discussion, a new column about UNIX will be appearing monthly in these pages. Each column will describe two or three features of UNIX in enough detail to allow most people to experiment with their use.

As noted in the last newsletter, the Boston Computer Society has decided not to recognize **/u/fortune** at this time. At the last meeting, it was agreed that we will reapply to the BCS in July when they reorganize their user groups. A collection was made to pay for costs that have been incurred so far. In the event that we do not join the BCS in July, a membership fee for **/u/fortune** will be established to defray our expenses.

The Next Meeting

The next meeting will take place on Thursday, May 3rd at 7:30pm. *This meeting will be held at the TENACRE COUNTRY DAY SCHOOL.* Please note the new location. Directions are enclosed.

Agenda:

7:15-7:30 Arrival, coffee.

7:30-8:30 Further discussion of UNIX, particularly a look at programming the Bourne shell, by Guy Washburn of Walker Data Systems.

8:30-9:00 Questions and group discussion

9:00- Break down into sub-groups by application

Presentation: As noted, at the last meeting Guy Washburn presented an introduction to UNIX. As most of you may know, UNIX is the real brain of FORTUNE computers. The global menu is a very polished method for using some of UNIX's features. There is much more power that lies beneath the global menu. At this meeting he will continue with a more in-depth look at some of the more commonly used commands, and he'll show how these commands can be linked together with pipes and short shell scripts. In this way simple "programs" can be created which are extremely useful.

We will have a computer at the meeting with several displays, so that the presentation can be appropriately illustrated.

Free Software!!!!!

Initiating what we hope will be a ongoing feature, **/u/fortune** is now offering its first free software. The program is called KERMIT and is in the public domain.

Communications

KERMIT is a communications package somewhat similar to the Interactive Terminal Emulator offered by Fortune. You can use it to connect to other computers, and to transfer text files between your computer and other computers that also have KERMIT installed. We haven't tried it yet, but it should work to connect you as a terminal to *The Source*, etc. We have used it to transfer files between a FORTUNE and various DEC machines.

We have both the source code (in C) and a compiled version. If you would like a copy, bring a blank diskette to the next meeting, or send us a diskette and a check for $4.00 to cover handling.

Send your diskette to:

/u/fortune
20a Prescott Street
Suite 28
Cambridge, MA 02138

Please make checks payable to:
The Cambridge Consortium

News from Fortune Systems

Marketing Information Center

Fortune's Customer Service group has announced the Marketing Information Center as the newest addition to their Technical Support service. If you have questions about Fortune SystemsCorporation, any Fortune product or service, or need help finding a nearby dealer, call 415 592-5140 from 9:00am to 5:00pm PST.

Graphics Software

Fortune will demonstrate a pre-release version of their Graphics Software at this year's Comdex show in Atlanta. If you're in the area, the show will be from May 22-25th. They will also be at the National Computer Convention in Las Vegas from July 9-12th.

There are some other 3rd-party graphics packages now available -- more news on them in the next issue.

The Unix Directory

This issue will show you how to enter and exit UNIX, and how to use the **ls** or list command and the **who** command.

Entering UNIX from the Global Menu

In order to use UNIX directly, you must leave the Global Menu and enter the UNIX shell. To do this type either **!sh** or **.unix** in response to the "Enter Your Selection" prompt from the Global Menu. (Note: in these instructions things that you type will be in bold print. Things the computer types will appear in quotes. Certain keys, such as the RETURN key will be in all caps. Therefore, the instruction type **RETURN** means to simply press the RETURN key.) After typing **!sh** or **.unix**, you will get the UNIX prompt, which is usually a "$". If you are logged on as root or manager, the prompt is "#".

Leaving UNIX and returning to the Global Menu

Before we get any further, you should know how to leave UNIX. The CANCEL/DEL key will not work here. Instead, you need to know how to use the CTRL key, which stands for control. It works much like the SHIFT key to give the rest of the keys another function. Each key then can have three functions: unshifted, shifted and control. Use the CTRL key just like the SHIFT key -- press it *first* and hold it down, then simultaneously press the other key. To exit UNIX, type **CTRL d**. That's first the CTRL key, then simultaneously the letter d. Try it. Then re-enter UNIX and we'll get on with some UNIX commands.

The prompt tells you that the shell is waiting for instructions. Instructions are actually programs that are often called utilities. One of the easiest to use is the **who** command. Simply type **who** and then press **RETURN**. The computer will respond by telling you who is using the computer, which terminal they are using (the main terminal is the console) and how long they have been logged in. This is a typical response:

```
jal      console Apr 20 16:23
usrgrp   tty03   Apr 20 16:24
root     tty04   Apr 20 16:26
```

If you would like to know what files are in your directory, you can use the list command, **ls**.

Type **ls RETURN**.

All of your files will be listed on the screen. Note that your files are listed in alphabetical order in several columns. You should recognize some of the names. Files that you created with Fortune:Word will have companion files with ".dc" and ".fr" added to the end of the name. These files contain the information you get on the document summary screen and also data about all of your format lines. Files created by Multiplan all end in ".MP".

The **ls** command can work selectively. Let's say you just want to see if one particular file is in your directory.

You can type **ls filename RETURN**.

(Replace the word *filename* with the name of the file you are looking for. If the file exists, it will be printed out on the next line and then the prompt will reappear. If it doesn't exist, you will just get another prompt. You can also use the wildcard character "*" which stands for any character or characters.

If you type **ls * RETURN**, .

all of your files will be listed.

If you type **ls a* RETURN**, .

all of the files which begin with the letter a (followed by any other characters) will be listed. If you type **ls *.MP RETURN**, all files created by Multiplan that *end* in ".MP" will be listed because the "*" means they can *start* with any character or characters.

The **ls** command, like many other UNIX commands, can also take *arguments*. Arguments are special instructions that come after the command, and are almost always preceded by a hyphen. If you type **ls -r RETURN** all of your files will be listed, but they are now sorted in *reverse* alphabetical order. (Make sure to leave a space between the **ls** and the **-r**. If you don't, the computer will look for the program called ls-r which does not exist, and you will get a message "ls-r not found").

If you type **ls -l RETURN**, .

(that's the letter 'ell' not a number one), you will get a much more elaborate listing of your files, know as a *long* listing. The "-rw-rw-r-" that you see in the far left column will be disussed next time, the r's and w's are the permissions allowed for each file. A hint is that r and w stand for read and write. The next column is the name of the user that created the file -- in most cases this will be your account name. The next column is the size of the file in characters, or bytes. Next to the size is the date and time that the file was last modified, and lastly, on the far right, you will find the name of the file. Knowing the modification time is often very helpful in reminding you which file is the most recent version you have been working with. Note again that the files are listed alphabetically (Upper case files come before lower case files).

```
-rwxrwxr-x 1 jal     16710 Apr 20 16:50 budget-1.MP
-rw-rw-r-- 1 jal       753 Apr 20 16:46 letter
-rw-rw-r-- 1 jal       732 Apr 20 16:46 letter.dc
-rw-rw-r-- 1 jal        66 Apr 20 16:46 letter.fr
-rw-rw-r-- 1 jal         0 Apr 20 16:51 junk2
-rw-rw-r-- 1 jal      2905 Apr 20 16:48 report
-rw-rw-r-- 1 jal       732 Apr 20 16:48 report.dc
-rw-rw-r-- 1 jal        66 Apr 20 16:48 report.fr
```

Arguments can be combined -- you can type **ls -rl RETURN** and you will get the long listing sorted in reverse order. You can type **ls -rl *.MP RETURN** and you will get all the Multiplan files with long listings sorted in reverse order. One other argument you may want to try is the **-t** argument. Try it and see if you can see what it does. A complete description of the **ls** command can be found on pages 1-47 through 1-49 of the Fortune paperback volume **Introduction to For:Pro**.

The text for this newsletter was prepared using the **vi** editor on a FORTUNE 32:16 computer. It was then transferred using KERMIT to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

/u/fortune *news. . .* is published monthly by the Boston Area Fortune Systems User Group. For more information about us, call us at 617 876-4763 or write to: .

/u/fortune
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More News from Fortune Systems

Product Updates

Fortune has announced a Subscription Update Service for several of their software packages. If you subscribe to the service you will receive the following benefits:

> Notification of Fortune's new products as they are released;
>
> The latest enhancements to the software package;
>
> Tips on avoiding software problems before they arise.

The way it works is that you pay an annual charge for each piece of software that you want to include; you are then entitled to all of the above benefits. (If there isn't a software update within the year, your fee will be extended until an update is released.)

Alternatively, you may choose to only obtain the latest revision of your software package. Fortune has arranged for a special one-time upgrade. **This latter option will only be available until May 31, 1984.** The prices are as follows (at this time only the products with prices in the one- time Update column have new revisions available):

Program	Subscription	One-time Update
Multi-user	110	
Extended Fortune:Word	330	
Fortune:Word	220	
Records Processing	110	
Spelling Checker	110	
Advanced Features	110	
Multiplan	170	50
Business Basic	120	50
Business Applications	825	
Accounts Payable	140	
Accounts Receivable	140	
Fixed Assets	140	
General Ledger	170	
Order Processing	170	
Payroll	140	50
Purchase Orders	110	
Development Utilities	110	
C Compiler	280	75
Fortran Compiler	280	75
Pascal Compiler	280	75
Interactive Terminal Emulator	110	
Fortune-to-Fortune Copy	110	
3780 Data Communications	180	
Document Conversion	170	

Seminars

Fortune is holding training seminars for Multiplan, Fortune:Word and Business Applications and FOR:PRO in Chicago, Redwood City and Dallas. For more information, call Fortune training registrar at 415 595-8444 x432.

Future Meetings

All meetings of the **/u/fortune** will take place on the first Thursday of each month. We are looking for a regular meeting place -- please let us know if you have any suggestions. Each meeting will feature a special presentation followed by a general discussion before we divide into sub-groups.

At our June meeting Stephen Debler of the Data Language Corporation will present their new database/application generator called PROGRESS. This is a brand new product which is remarkably flexible and powerful. It is in the same league as Informix, Rubix, Unify etc., and the Data Language Corp would like to show us why it is the best of all of these packages. (editor's note: we have seen a demonstration of PROGRESS and it is *quite* intriguing.)

Some topics for future meetings will be:

> The Advanced Features of Fortune:Word
> Applications and Power of Multiplan
> Hardware Problems and Suggestions
> Presentations by various hardware and software developers

Directions to Tenacre Country Day School

Ten Acre Country Day School
78 Benvenue Street (off Grove)
Wellesley, MA

1. Get to Exit 54W on Route 128

   (From the Mass Pike, take 128 South, From Providence, take 128 North)

2. Get off of 128 at Exit 54W, Route 16 West/Wellesley

3. Take Route 16 going West. In about 1.5 miles you will cross over Route 9.

   After crossing Route 9, continue on Route 16 for another 1.5 miles. This will take you into Wellesley Center (Town Hall on right).

4. Just after the Town Hall, as the road veers to the left, you will take a sharp left onto Grove Street.

5. Continue on Grove Street for .7 of a mile. You will pass the Dana Hall School on your left. At the .7 mark, you will come to Benvenue Street.

   At the corner of Benvenue and Grove, you will see a sign for the Tenacre Country Day School.

6. Go left on Benvenue, as the sign instructs.

7. Go down Benvenue about 1/4 mile, and you will see the school on the left. Enter the parking lot on the left. We will be in the building closest to the road marked "Office".

/u/fortune *news. . .*

Newsletter of the Boston Fortune 32:16 User's Group Volume 1 Number 3 June, 1984

Database Presented at Next Meeting

☛ Progress Debuts!!!

The next meeting will take place on Thursday, June 7th at 7:30pm. *This meeting will be held at the TENACRE COUNTRY DAY SCHOOL.* Please note the location. Directions are enclosed.

At each of our meetings, we hope to have a special presentation or discussion. Hopefully these discussions will help you to fully utilize your Fortune. Sometimes the presentation will show how to get the most out of the programs that most of us already have--such as Fortune:Word and Multiplan. As frequently as possible we will also have outside software developers come and display their wares. We are happy to begin this tradition with the June meeting.

At this meeting, Stephen Debler of the Data Language Corporation will present their brand new product, PROGRESS. Although Progress can be used to solve the same kinds of problems that could be tackled with a traditional database programs such as INFORMIX or UNIFY, its designers claim it to be considerably more powerful. In fact, it is more of a application language than a database program. Perhaps the best way to describe it is to quote from DLC's promotional brochure:

> PROGRESS combines a powerful DBMS (database management system), application language, and advanced user interface into a single, easily mastered application development system.
>
> Unlike conventional relational DBMS's and application generators, PROGRESS is not inherently limited in its functionality or its efficiency. It isn't confined to simple retrieval functions and single-file updating, nor is it restricted to low-volume, relatively straightforward applications.
>
> PROGRESS moves across multiple files with ease, and has the versatility to meet the full range of application requirements--from the simplest query operations to the most complex multi-user, transaction-processing applications.
>
> What's more, PROGRESS provides this level of performance in a package that is uniquely easy to learn and use--by both programmers and end-users alike. PROGRESS takes you beyond the constraints of traditional programming languages and relational DBMS limitations to a totally integrated, highly productive application environment.

If you have used any of the database programs currently available, such as INFORMIX, that will make sense to you. If it doesn't, it is probably enough to say that PROGRESS is a very powerful, understandable and easy to use language that has the flexibility to deal with many database tasks.

If you already have database needs, you will be intrigued by what PROGRESS can do. If you don't think that you do have a database application, you probably will change your mind after this demonstration. It promises to be a fascinating meeting.

7:15-7:30	Arrival, coffee.
7:30-8:30	Presentation of PROGRESS, a brand new database application language by Stephen Debler of the Data Language Corporation.
8:30-9:00	Questions and group discussion
9:00-	Break down into sub-groups by application

News for Business Applications Users

Nancy Olson of our Boston Fortune office recently told us about a software house headed by a gentleman named John K. Harris. Mr. Harris' company specializes in Business Basic, IDOL and the Business Applications sold by Fortune.

They have developed some products that may be of use to people who are using any of the business applications. Their main product is a print spooler which allows you to stack print requests for the business applications the same way you can que documents from Fortune:Word or Multiplan. I don't believe that they will be intermingled with those documents, however. In addition to the queing capability, the program also provides the ability to print out of the printer port on any satellite workstation. This means that a printer can be attached to the workstation, regardless of where the CPU (main computer) is.

Their spooler also allows you to transfer data from the business applications or IDOL to Fortune:Word. The cost of the package is $195.00.

More information will be available at the meeting. If you can't make it, check with your dealer or you can contact Harris directly at:

John K. Harris & Associates
2401 Sunset Boulevard
Houston, TX 77005
(713) 520-0748

News *About* Fortune

A very thick weekly trade newspaper called *Computer Retail News* landed in our office last week and a front-page article entitled "Fortune's New Management Facing Many Challenges in Turnaround Bid" caught our collective eye.

The story, written by Ken Siegmann, is a very interesting description and analysis of Fortune System's current status. What follows is a summary of his words. All quotes are taken from his article.

Two years ago when Fortune Systems unveiled the Fortune 32:16 it was greeted with great excitement and enthusiasm. Gary Friedman's company was expected to be one of newest stars in the competitive computer market. Unfortunately, Fortune was not able to deliver everything they had promised. Their marketing was not well planned and they began to lose money. In the past six months, Gary Friedman has left the company and a new management team headed by President James S. Campbell has come aboard. They are confident that their problems are behind them now and that within the next six months they will be able to turn the company around.

See News *About* Fortune, page 5

What are Communications??

In the last newsletter we announced the availability of a communications package called KERMIT. In this issue, some of the differences between KERMIT, the Interactive Terminal Emulator (ITE) and Fortune-to-Fortune Copy (UUCP) will be discussed.

Communications packages in general allow you to communicate with another computer, or in some cases, to allow someone else to talk to your computer, usually via modems and the phone lines. The communications program is necessary to "introduce" your computer to the other machine--it tells your computer to send your words out on the wire and to expect the other computers response. Before describing each of these packages, it may be helpful provide some examples of why you might want to hook up to another machine.

Hooking up to another Fortune You may want to work on someone else's Fortune Computer, or share information between two or more machines. If you just want to use a sattelite workstation from a remote location, you don't need software like a terminal emulator, because your workstation is a terminal--it's not a computer pretending to be a terminal. The difference is that terminals don't have disk storage and don't need special instructions to send their information out the wire--that's all they're ever supposed to do. Please note that 1200 baud communication over the phone lines is not very satisfactory for Fortune:Word or Multiplan because the cursor has to write too many things for each character typed. You will find it very slow. If you want to do this over short distances, please read the notes on Short Haul Modems in the next column on hardware.

Outside Databases and Other Commercial Services There are many services that computer users can tap into in order to obtain information, send electronic mail and telexes, etc.. Some examples of these are The Source, MCI Mail, Dow Jones News/Retrieval and Compuserve. I have used MCI Mail, which allows you to send mail to anyone anywhere in the US, send and receive telexes worldwide, and to maintain an electronic mailbox. It also provides access to the Dow Jones service. Through Dow Jones, you can obtain current and historical stock quotes, stories from The Wall Street Journal, Barron's and the Dow Jones News Service, nationwide weather reports, movie reviews, airline schedules, encyclopedias, electronic shopping and more. There isn't any initiation fee or monthly charge -- you are billed only when you use the service. There are several other companies that provide similar services.

There are also specialized databases, such as Westlaw and Lexis for lawyers, BIONET for genetic engineers and so on. There are many online services that provide indices and abstracts for newspapers and journals, some geared to specific fields.

Ties to other computers, Mainframes to Micros It is possible to sign on to other computers with your Fortune. The simplest example of this would be to sign on to someone else's multiuser Fortune. When you do this, you are acting like any other terminal on their system, except that you are connected via modems and the phone line rather than a straight wire connection. This can be done with many other computers, whether or not they run on the UNIX operating system. Generally, acting as a terminal on another system is quite straightforward. However, exchanging information, i.e. trading files back and forth may be more complicated.

The files you want to exchange could be text (e.g. a Fortune:Word file), numbers from a BAS application or Multiplan, or a program itself. The actual information in these files--the characters and numbers--can be stored in basically two different ways, ASCII text and binary files. ASCII files are standard text files that are stored one character per byte, and are restricted to a certain limited character set. Fortune:Word documents are stored as ASCII text. Binary files are stored with fewer restrictions and are not legible on your screen. Multiplan files are typically stored as binary files. All programs are stored as binary files. Although Fortune:Word stores the main text as an ASCII file, the format lines are stored in a companion binary file. It is more difficult to transfer binary files from one machine to another because they are less structured than ASCII files.

You might think of ASCII files as the normal alphabet we are familiar with. It would be easy for you to read a file written in this alphabet. Binary files might be thought of as phonetic Chinese characters--if you knew the Chinese character sounds, you would be able to decode the words and come up with the same text. It would be easy to send the standard English file as a telegram--not so easy to send the Chinese version the same way. To send the Chinese file, you would need a sophisticated program at both ends to translate the Chinese into English characters on one end, then back into Chinese characters at the other end. This would be a complex exchange.

The method and sophistication used to exchange files between different machines is one of the main differences between KERMIT, ITE and Fortune-to-Fortune Copy.

ITE

The Interactive Terminal Emulator allows your Fortune to act as a dumb terminal on most other computers and most of the database services. (NOTE: some services, such as Lexis, require a special terminal, and may not work with the Fortune) In addition, it will allow you to send ASCII files from your computer to someone else's, and to receive files. When logged in to a commercial service, you can save your session (or mail) in a file or print it, or send a file out from your computer to the service (e.g. a text created with Fortune:Word which would have to be specially prepared). ITE does not have any error checking capabilities, so it can sometimes be unreliable, and you may end up with some garbled letters or numbers. For file transfer, it is more successful between Fortune or UNIX computers than with other machines.

KERMIT

Kermit also allows you to act as a dumb terminal on other systems. You can use it to log onto other computers or onto the commercial services. It does not have a tie-in with the Global Menu, so you would either need to use it through UNIX, or have it installed on your menu. (Information on how to do that will be forthcoming in a future newsletter).. With Kermit you can save your session in a file on your hard disk, or print it out as it is happening. You can't use it to send out a prepared file, because Kermit needs a partner Kermit running on the other machine. However, what Kermit does have that the ITE does not have is error checking. It will transmit and receive ASCII files more accurately than the ITE -- but both the sender and the receiver must have Kermit. Fortunately, this is not a problem because Kermit is quickly becoming a very popular program, and it is already available on a wide variety of computers, including IBM-PC's and all UNIX machines. One of our members recently pointed out the even the National Institute of Health has it on their mainframe. At this time, Kermit can only transmit and receive ASCII files, however it is rumored that a more sophisticated version will be available shortly. Kermit is a public domain program, and as such is available for free. (Kermit can be obtained from /u/fortune by sending a blank diskette to us, together with a check for $4.00 made out to "The Cambridge Consortium" to pay for shipping and handling. Our address is on page 6.)

See **Communications,** page 3

Communications, Cont'd from page 2

FORTUNE-TO-FORTUNE COPY

Fortune-To-Fortune Copy is completely different than ITE or KERMIT. It was created to allow UNIX networks to develop. It would not work for signing in on any of the commercial services or for acting as a terminal on another system -- it's primary purpose is to send and receive files as accurately as possible. With it you can copy either ASCII or binary files. It works between Fortune computers or other UNIX computers. Like KERMIT, it must be installed and running on both machines. (In UNIX talk, it is known as uucp.) Unlike either KERMIT or ITE, you do not really use it interactively -- you tell it you want a file (or files) copied, where you want it to end up, and then you start it running. It will call the other computer, sign in, give the password if necessary and if all of that is successful, copy the file(s).

Fortune-To-Fortune Copy will keep a log of what files were transferred, who they went to, and how long it took. When coupled with other programs, it can be set up to do all of this automatically during off-peak hours when phone rates are lower.

SUMMARY

If you want to act like a dumb terminal on another system, either ITE or KERMIT will work well. If you want to send and receive files from commercial electronic networks, ITE is more flexible. If you want to send and receive large amounts of text or numbers between two machines, KERMIT will probably be more accurate. And finally, if you need to copy both ASCII and binary files between two Fortunes and/or other UNIX computers, and you don't need to answer questions as this is happening. Fortune-To-Fortune Copy is the right program.

What About Communications Hardware??

Free software is all well and good you may say. But what hardware do you need to actually make it work? Probably not too much more than you already have.

First let's talk about you using your Fortune to sign onto other people's computers or onto the commercial networks. You need a port to funnel the information out of yours and into theirs -- for the three programs described in this issue, that port needs to be an RS-232 serial port. If you own a communications board, there are four RS-232 ports on each board. But even if you don't own this board, you have one RS-232 port -- the printer port. If you unplug the printer, you can plug in a modem and go right to work.

A modem is a device which allows you to hook your computer up to another computer via the phone lines. They start at about $50 and go up to $700+. One main reason for the difference in price is the BAUD rate that the modem is capable of, which is either 300 baud or 300/1200 baud. A 300 baud modem transmits data at 30 characters per second, or about a minute and a half for a page of text. A 1200 baud modem goes four times that fast at 120 cps.

Another reason for the difference in price is determined by the features on the modem. The primary bells and whistles are auto-answer and auto-dial. Some units remember frequently called numbers, and can even call certain numbers at certain times. The Hayes Smartmodem has become somewhat of a standard and lists for about $600 for the 1200 baud version. Anchor Automation has recently come out with a very modem very similar to the Hayes, which can be purchased for about $270 - 290. It doesn't have a speaker to let you hear the phone on the other end ringing, and it doesn't have quite as many indicator lights, but functionally it is quite similar, and it is software compatible with the Hayes. The following are the least expensive suppliers of the Anchor Automation Mark XII that we know of:

$269 **Conroy La Pointe**□PO 23068□Portland, OR 97223 □800-547-1289

$279 **Computers Wholesale**□Box 150□Brewerton, NY 13029 □315-472-3055

It is not too difficult to connect the modem to your Fortune, although the standard cable that connects your printer or workstation will not work. Follow the instructions that accompany the modem, or make up a cable with the following connections.

Fortune (Male DB-25)		Modem (Male or Female DB-25)
1	———	1
2	———	3
3	———	2
4	———	5
6	———	4
7	———	7
8	———	20
20	———	8

(If you buy the Mark XII described above, it comes with a cable, but you will need an adapter cable to use it with your Fortune. Make up a male (Fortune end) to Female (Modem end) cable wired as above.) The reason this specialcable is needed will be discussed in a future column about RS-232 ports.

If you want other people to be able to sign onto your computer, you must be running the multi-user upgrade of FOR:PRO. Again, you will need an RS-232 port, which can be the printer port, although you probably also have a communications board, with extra ports available. You have already configured your ports to run your extra terminals and your printer. The modem port is configured just like your other workstations except for the fact that the wire will be replaced by the two modems (one at each end) and a phone line. You must select one port, and configure it to be a terminal running at either 300 baud or 1200 baud, depending on your modem and the speed of the modem at the other end. If you want it be capable of running at *both* 300 *and* 1200 baud, there is a way to do it, but it needs to be done through UNIX rather than through the Global Menu. If you want instructions on how to do this, please write or call us. After defining the device connection, you will need to go through the shut-down and power up sequences.

SHORT HAUL MODEMS

Modems that operate over the phone lines are limited to 1200 baud, unless you spend much, much more money. However, it is possible to use what are called Short Haul Modems to go at speeds up to 19,200 baud for short distances. In order to do this, you have the phone company install 2 pairs of wires (4 altogether) between your location and the remote location. For best results, the distance between the two locations should not be more than about 10 miles. The installation may be costly, last time we checked it was $300. Once the wires are installed, you will have to pay a monthly rental for them which will probably be about $50/month. Short Haul Modems are relatively inexpensive, about $100 each. Since you have a dedicated line between the two locations, there is no need for auto-answer or auto-dial, you are always connected. This may be an economical way for someone to time share on your computer, and because of the high speeds possible, they can take full advantage of all of your programs.

The Unix Directory

This issue will explain the UNIX's directory system, and how to use the **pwd** or print working directory command and the **cd** or change directory command. The **mkdir** and **rmdir** commands will also be explained.

The Global Menu Shell vs. the UNIX Shell

One of Fortune's greatest accomplishments is the creation of the Global Menu. It is designed so that it is not necessary to know a lot about computers to take advantage of the power of the machine--you can accomplish a great deal by making selections from a variety of menus. In the language of UNIX, the Global Menu is called a shell--and what it does is to provide a means for accessing a multitude of functions, or commands. There is another shell which also runs on the Fortune called the Bourne shell, and in a sense it runs in parallel with the Menu shell. The Bourne shell is represented by the "$" or "#" prompt. All of the functions of the Global Menu can be accessed directly from the Bourne shell, although the language necessary to do it is much more cryptic. For everyday functions there is no need to know anything about the Bourne shell. However, if you start to master it you will find that you can unleash even greater performance from your computer. There are many things that cannot be done from the Global Menu that are easily done from the Bourne shell.

The purpose of this column is to gradually introduce you to that power. When we refer to UNIX or UNIX commands, we are generally referring to commands from the Bourne shell.

Entering UNIX from the Global Menu

In order to use UNIX directly, you must leave the Global Menu and enter the UNIX shell. To do this type either **!sh** or **.unix** in response to the "Enter Your Selection" prompt from the Global Menu. After typing **!sh** or **.unix**, you will get the UNIX prompt, which is usually a "$". If you are logged on as root or manager, the prompt is "#".

Leaving UNIX and returning to the Global Menu

The CANCEL/DEL key will not work here. To exit UNIX, type **CTRL d**. That's first the CTRL key, then simultaneously the letter d. Try it. Then re-enter UNIX and we'll get on with some UNIX commands.

If you have ever used a smaller computer than your FORTUNE, such as an IBM PC or Apple, you may have noticed that when you call for a directory of a disk, all of the files on that disk pour out onto the screen. As the disk fills up with files, it can get quite confusing to keep the names of all of the files straight. UNIX has tried to solve this organizational problem by allowing users to divide their files into separate segments, or directories. In this way, each user can have their own niche to store their files separately from everyone else's files.

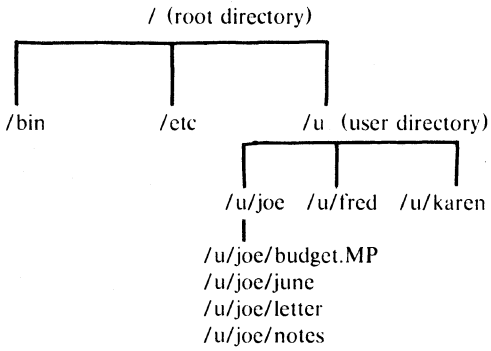
A useful analogy is a large desk with many drawers. Each user has their own drawer to keep their files in. Each drawer can be further subdivided into file folders, and each folder further divided into documents. This arrangement allows users (and UNIX itself) to organize the many files that reside on the hard disk.

The easiest way to see this is by entering UNIX and poking around through the directories. Follow the directions given above to get to the UNIX prompt $ or #.

pwd stands for "print working directory". Try typing **pwd RETURN** (When a key is listed in all capitals it represents a single key).

The computer will probably respond with something like "/u/joe" where your login name will be there instead of "joe". "/u" refers to the user directory. You may have noticed that while you are using Fortune:Word, the creation library (probably /u/joe) will be displayed on the main Fortune:Word menu. Libraries are another word for directories. All of the users on your system have a home directory of "/u/*name*." To explain that, we have to get back to the structure of UNIX for a moment.

In UNIX the metaphor of the desk is more often replaced with the concept of a tree which better represents a hierarchical directory system. The base of this system is simply the "/" directory, which is often called the root directory. Branching off of this directory are many subdirectories, one of which is a directory for users, which on the FORTUNE is called "u". In the "u" directory, there are directories for each of the users allowed to use your computer.



In this example, you can see that there are three directories branching off of /, or root directory (in fact, there are several other directories branching offof the / directory). One is *bin*, or binary, where many programs are stored. Another is *etc*, where many of the system commands are stored. The last is *u*, where the users are stored.

Whenever you log onto the computer, you land in your home directory. If you log in as root or manager your home directory is the "/" directory which is at the very top. Generally, if you log in as a regular user, you will land further down the tree in the /u/joe directory. That directory is called your *home* directory. Whatever directory you are sitting in (or whatever branch of the tree you are sitting on) is called your *current* directory. The name of the current directory is the one that is displayed with the **pwd** command.

If you type **ls RETURN** (the list files command described last time), you will see a list of all the files in your current working directory. What you actually seeing is the files listed by their short names. Their full names include the *pathname*, which is a a description of *exactly* where they reside. If you have a file called "notes", its real name is /u/joe/notes. It is a different file from a file called "notes" that Karen might have in her directory, because her file is actually /u/karen/notes. Although the end of the name is the same, the full pathname shows that the files are in two separate places.

If you ever use Multiplan or Fortune:Word to look at a file that someone else has created, you will get a message like "Cannot open John-letter", or "Document doesn't exist". This is because John-letter does not exist in the current directory. These programs will only look in the *current* directory for a file. If Karen created John-letter, and when asked for the name of the file you typed /u/karen/John-letter, the file would be found, because you had supplied it with its complete pathname, and the computer is now able to find it.

In UNIX, it's very easy to move from one directory to another to find your way around the system.

See **The Unix Directory,** page 5

Unix, Cont'd from page 4

Type **cd /u RETURN**. This is the change directory command.

Now type **pwd RETURN**. The computer will display that you are now in the /u directory.

Type **ls -l RETURN**. That's the letter "l", not the number "1". Always puta space between the name of the command (in this case **ls**) and its arguments (in this case **-l**). This will list out all of the files or sub-directories that are in the /u directory. You should recognize the listings as a list of all of your users who are allowed to use your system. Note that in the far left column of the -rw-rw-r's you will see a "d" before the first r. This indicates that this entry is a directory.

Type **cd /u/joe RETURN**, where joe is the name of one of the other users.

Now type **pwd RETURN** and you will see you are now sitting in someone else's directory. If you ask for a list of files now (**ls RETURN**), you will see a listing of their files. Before you start feeling omnipotent, you should know that it is perfectly possible with the UNIX system for anyone to prevent you from looking at their files or even viewing their directory. The way to do that involves changing the permission modes--the -rw-rw-r-'s that are listed next to the file names when you add the ell command to the **ls** command by typing **ls -l RETURN**. A detailed discussion of how to do this will appear in another issue.

You can now use the cd command and ls command to peruse your hard disk.

When you are done, just type **cd RETURN**, click your heels together 3 times, and you will return to your home directory--/u/joe. Try the **pwd** command to reassure yourself. When you use cd with no arguments (e.g. other directories to go to), it always returns you to your home directory.

The nice thing about this system is that it allows you to make sub-directories within your directory to keep your own files straight. You can have one sub-directory for the report on steel, one for coal, and one for milk. We have a separate sub-directory for each newsletter. You can create sub-directories from either Fortune:Word or Multiplan using the Supervisory Functions to make a new library. To make a new sub-directory in UNIX we need a new command, **mkdir**.

Be sure you are in your home directory (use **pwd**), and type **mkdir june RETURN**. This will create a new sub-directory called june within your directory. Use **ls -l june** to view the new listing. (Reminder: if you add a filename to the list command, only files that match the given name will be listed. If you don't narrow the search all of your files will be listed and the june directory may fly by your screen too quickly to see it.) Note the "d" in the far left column that indicates june is a directory. You could now use **cd june** to change to the "june" directory. If you do an **ls -l**, you will see that there are 0 files. This new directory would now be available for you to use with Fortune:Word or Multiplan.

The opposite of the **mkdir** command is the **rmdir** command. This is remove directory. It will only work if the directory does not have any files in it. To use it, type **cd RETURN** to return to your home directory, and then type **rmdir june RETURN**. The "june" directory is now removed.

These commands, unlike the list command discussed last time, do not let you do things that you can't do from the global menu. However, hopefully they will give you a greater understanding of how the UNIX directory system fits together.

You may be thinking that all of these directories make it easier to get organized, but what happens when you forget where you put a certain document or Multiplan file? Here, there is a UNIX command that you don't have access to on the global menu. It is called, appropriately, **find**. The find command is very powerful and has many options, which are listed in the Introduction to FOR:PRO manual. Using UNIX, it is possible to create a simpler command called **whereis**. To create it, follow these steps:

1. Login as root by typing **root RETURN** instead of your name. This logs you in as the superuser. If a password is needed, enter it.
2. Type **cat > whereis RETURN**. You will go to a new line and the prompt will not reappear.
3. Type **find / -name $1 -print RETURN**
4. Type **CTRL d** by first holding down the CTRL key and then gently pressing the d key. You should get your prompt back. If you hold the d key down for more than a single chirp, you will log yourself off. If this happens don't worry, just log in again as root.
5. Type **chmod +x whereis RETURN**.

That does it. You have now created the whereis command. Space limitations prevent us from explaining *what* you did just now, but it will be explained in the future.

The way you use **whereis** is by typing it followed by a space followed by the name of the file you are looking for.

Type **whereis whereis**. The lights will begin to flash and after a few moments (if your disk is quite full it may actually take a minute or two) the computer will printout "/whereis", which tells you that whereis is located in the home directory. Pick a Fortune:Word file that is in your directory and type **whereis yourfilename RETURN**. The computer will type back /u/joe/yourfilename. If you are looking for a Multiplan file, you will have to type ".MP" after the name, e.g. **budget.MP**. Hopefully you will find this command helpful.

News *About* Fortune, Cont'd from page 1

Retailers have noted that when they try to sell a Fortune, the question that comes up in the first five minutes is "Is Fortune a viable company?". In many ways it is easy to point out that it is--it has $47.7 million in cash and assets, $13.6 million in accounts receivable and $25.8 million in inventory. John Kiefer of Infocorp estimates that this is enough cash to keep them in business for 36 months, even if they don't turn the corner to profitability immediately. Profitability has been a problem in the last year--their last successful period was the 1st quarter of 1983 when they earned $3.3 million on sales of $20.7 million. In the 2nd and 3rd quarters of last year their sales fell--to a low of $9 million in the 3rd quarter. As a result, they began to lose money and ended 1983 with a loss of $15.4 million on total sales of $54.4 million.

Fortune has already begun to rebound from this low as their sales grow each period: $12.6 million in the 4th quarter 1983 and $15.1 million the 1st quarter of 1984. They are still posting a loss on these sales, but if their revenues continue to grow, their new vice president and chief financial officer, Leroy Cochran, predicts that they will show a profit by the 3rd quarter of this year. He expects sales of $18 million in the 2nd quarter, $20 million for the 3rd, and $24 million for the 4th quarter of 1984. According to this projection, Fortune will end the year in the black. Infocorp's Kiefer is almost equally optimistic, projecting earnings of $1.2 million in the 3rd quarter and $1.8 - 2 million in the 4th quarter.

See **News *About* Fortune,** page 6

News *About* Fortune, Cont'd from page 5

The key to this change is the new management--Campbell (formerly of Shugart), Cochran, and Robert Reubel, Senior Vice President in charge of marketing. "We've made major reorganization changes in the company in these four months", said Campbell. "We've reorganized development, marketing, sales, and finance and administration.

"We not only restructured marketing, we created marketing. Because, when you look at what was here before, we had no director of corporate communications. We had no product-marketing activities.

"I don't want to insult the prior people by saying [they had] no major marketing knowledge or effort," said Campbell, noting that Fortune has hired a new marketing vice president and created the posts of vice president of product marketing and director of corporate communications.

"In those cases, those three key executives were all adds in a crucial part of the business." However, he does feel that in its early days, the company lacked the marketing saavy that is necessary to run a successful company.

Their new marketing direction is evident in several areas. First of all, they have begun to place ads in prominent newspapers and periodicals, such as a recent half-page ad in the *Wall Street Journal.* Secondly, they are moving their computers out of the heavily competitive retail market into the arena of value-added resellers and office dealers. All agree that the system was not being sold successfully by the Computerlands, etc. because of its price and sophistication. Marketing V.P. Ruebel describes their new dealers this way: "For the moment, there emerges two kinds of profiles. One is the value-added reseller who is focused on typically more than one vertical market, where he is providing valued added in the form of software, training, support, consultancy. The second profile that emerges is an office dealer who is, by and large, selling those things that surround department-oriented systems like word processing, data base, spreadsheet and communications, where his market is more horizontal."

In addition to these very tangible steps, the company is also trying to reach out to market research firms, and other influential people in the business community to try to clarify their new goals and project a more positive image. A similar campaign is under way in the financial community to try to improve the reputation of Fortune stock. If the company is as successful as Cochran expects, he predicts that their stock should be selling for between $16 - $40/share by the year's end.

Most of us would agree that the Fortune computer is now a very capable and well functioning machine. The company is painfully aware of their earlier problems and seems to be on the road to recovery. Many industry analysts are expressing cautious optimism. We wish them luck.

Directions to Tenacre Country Day School

Ten Acre Country Day School
78 Benvenue Street (off Grove)
Wellesley, MA

1. Get to Exit 54W on Route 128

   (From the Mass Pike, take 128 South, From Providence, take 128 North)

2. Get off of 128 at Exit 54W, Route 16 West/Wellesley

3. Take Route 16 going West. In about 1.5 miles you will cross over Route 9.

   After crossing Route 9, continue on Route 16 for another 1.5 miles. This will take you into Wellesley Center (Town Hall on right).

4. Just after the Town Hall, as the road veers to the left, you will take a sharp left onto Grove Street.

5. Continue on Grove Street for .7 of a mile. You will pass the Dana Hall School on your left. At the .7 mark, you will come to Benvenue Street.

   At the corner of Benvenue and Grove, you will see a sign for the Tenacre Country Day School.

6. Go left on Benvenue, as the sign instructs.

7. Go down Benvenue about 1/4 mile, and you will see the school on the left. Enter the parking lot on the left. We will be in the building closest to the road marked "Office".

The text for this newsletter was prepared using the **vi** editor on a FORTUNE32:16 computer. It was then transferred using KERMIT to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

/u/fortune *news. . .* is published monthly by the Boston Area Fortune Systems User Group. It is edited by Josh Lobel. For more information about us, call usat 617 876-4763 or write to:

/u/fortune
20a Prescott Street
Suite 28
Cambridge, MA 02138

/u/fortune *news. . .*

Newsletter of the Boston Fortune 32:16 User's Group **Volume 1 Number 4 July, 1984**

Due to time constraints we are issuing an abridged edition of the July /u/fortune newsletter. One unusual undertaking this month was the preparation of a special newsletter for the Computer Showcase Expo held recently in Boston. Pioneer Applications, whose booth was almost entirely devoted to Fortune, graciously agreed to distribute it. There are two other reasons for this abbreviated format. First, we want to get the information concerning the July meeting to members early. Second, this newsletter will be going to many new people and we wanted to give them a flavor of what **/u/fortune** is all about. If you are a potential member, write us about KERMIT, a **FREE** communication package that allows you to connect to other computers and to transfer text files between your computer and other computers that also have KERMIT. If you are interested in this free software just write us! Finally, don't let the brevity of this issue of the /u/fortune newsletter deceive you -- we already have a full-length August issue underway.

THE NEXT MEETING

MCI Mail Presented

All meetings of the user group are held on the first Thursday of each month at 7:30 pm. Our next meeting, to be held on July 5th, will feature a demonstration of **MCI Mail**.

MCI Mail is a commercial database service that offers any computer user a variety of electronic conveniences such as the following:

- Electronic mail to any registered user -- *instantly!*
- Overnight and 4 hour delivery of mail to many US cities
- Access to the *Dow Jones News/Retrieval*
- Instant movie capsules, airline schedules, weather reports, etc.
- Ability to send and receive telexes throughout the world

This service can be used with either the Fortune ITE (Interactive Terminal Emulator, or with the free KERMIT program). There is no startup charge for MCI Mail -- you will be billed only for your actual use.

We invite you to attend this exciting demonstration and to partake in the discussions that will follow.

The meeting will be held at:

Ten Acre Country Day School
78 Benvenue Street (off Grove)
Wellesley, MA

1. Take Exit 54W off of Rt. 128, Route 16 West/Wellesley
2. Take Route 16 going West. In about 1.5 miles you will cross over Route 9. After crossing Route 9, continue on Route 16 for another 1.5 miles. This will take you into Wellesley Center (Town Hall on right).
3. Just after the Town Hall, as the road veers to the left, you will take a very sharp left onto Grove Street.
4. Continue on Grove Street for .7 of a mile. You will pass the Dana Hall School on your left. At the .7 mark, you will come to Benvenue Street. At the corner of Benvenue and Grove, you will see a sign for the Tenacre Country Day School.
5. Go left on Benvenue, as the sign instructs. Go down Benvenue about 1/4 mile, and you will see the school on the left. Enter the parking lot on the left. We will be in the building closest to the road marked "Office".

WHAT IS /u/fortune

/u/fortune is a user group that was recently established in order to aid owners, or interested persons, who wish to learn how to exploit the full potential of the **FORTUNE 32:16** computer.

To this end we publish a monthly newsletter which is full of helpful information on many aspects of the FORTUNE 32:16. In addition, we hold a monthly meeting which typically includes a presentation of new software products followed by small group discussions on various topics including how to get more out of Fortune:Word (the word processor) or Multiplan. Finally, and perhaps most importantly, the user group and its monthly meetings provide a forum for tapping the collective expertise of the members that can be utilized for solving individual problems. A lively atmosphere of comraderie accompanies innumerable discussions of "problems" and "fixes" to these problems. And, we will soon establish an electronic bulletin board to provide a central node for members to swap information and programs. (This could easily be accessed with the free KERMIT program offered in this issue).

So, if you are interested in joining the /u/fortune user group, or if you are just interested in more information, contact Mark Palmerino or Josh Lobel at:

/u/fortune
20a Prescott Street, Suite 20A
Cambridge, MA 02138
(617) 876-4763

FUTURE TOPICS

In the coming months we hope to present a variety of subjects including:

- The Advanced Features of **Fortune:Word** -- A detailed demonstration of what each add-on package does.
- Getting the Most from Multiplan -- Straightforward approaches to a variety of problems and a look at some simple shortcuts.
- A Demonstration of Graphics on the Fortune 32:16 -- Looking at existing programs that allow basic graphics and possibly also a preview of Fortune's new graphics terminal.
- Customizing Your Fortune -- An exploration of several unique applications that have been developed for our members' computers.
- Third-Party Software -- Demonstrations by a variety of vendors who have written software for Fortune machines.
- Extended UNIX -- What are the development utilities and how can they be helpful in programming and non-programming environments.
- Question and Answers with Fortune's Technical Staff -- we are hoping to set up a meeting to discuss the ins and outs of the Fortune 32:16.

These topics will evolve with **/u/fortune**. We hope that the topics will be responsive to our member's needs.

The text for this newsletter was prepared using the **vi** editor on a FORTUNE 32:16 computer. It was then transferred using KERMIT to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

/u/fortune *news. . .* is published monthly by the Boston Area Fortune Systems User Group. It is edited by Josh Lobel.

/u/fortune *news. . .*

Newsletter of the Boston Fortune 32:16 User's Group Volume 1 Number 5 August, 1984

The Next Meeting

Fortune:Word Extended Features Demo

The next meeting will take place on Thursday, August 2nd at 7:30pm at 241 Crescent Street in Waltham. **Please note the new location**. This is because the Ten Acre School is not available for our August meeting. Directions are enclosed.

At this meeting **Nancy Olson**, a Systems Engineering Manager from Fortune Systems will demonstrate the **Extended Features** of Fortune:Word. Since many of our readers already own Fortune:Word, you know that it is a very powerful word processor. With the addition of the Extended Features Packages, it becomes one of the most versatile word processors available. The Extended Features are available in 3 separate modules:

Spelling Checker
Records Processing
Advanced Features

See Fortune:Word Demo, page 8

Usenet -- A Nationwide Network

Usenet is a network that links together thousands of unix operated computers across the United States, primarily through academic institutions. As long as you have access to a computer that is part of the "net" (as it is fondly called) you can receive mail from any other person who has access to the net. The net also supports a news facility which allows you to post information to the network in such a way that makes this information available to anyone who reads the news. We utilized this service recently in order to spread the news that **/u/fortune** exists and have received some very interesting responses from Fortune owners all over the United States. (In a future issue of **/u/fortune** *news* we will describe in more detail the workings of the "net" and how people can gain access to it).

The Fortune owners that have responded to our usenet notice range from small businesses that have one Fortune system to software developers, members of faculties at universities, representatives of Southern Bell (which owns more than 400 Fortunes), and even employees at Fortune in California. Responses continue to come in daily.

In short, the extended family of **/u/fortune** is growing every day. We were struck by the spirit of co-operation that was evident in all the responses to our note. Everyone seemed excited about the existence of a Fortune-user community and about the possiblilities of sharing knowledge and expertise with others. Because of the nature of the Fortune machine, we are few in number and somewhat isolated. But that is precisely why **/u/fortune** can be of such a help to each of us. As more owners learn about **/u/fortune** and link themselves to it, we effectively increase the pool of solutions. This pool is then readily availiable for individuals who might encounter problems in their own work that we have already solved. In the process, we will overcome the sense of isolation and build a sense of community.

Featured In This Issue. . .

MORE FREE SOFTWARE

This month our free software is coming directly from Fortune. Nancy Olson has offerred us a copy of a program that converts a Fortune:Word file into standard ASCII. This is helpful for using Fortune:Word to create shell scripts, to send standard files to other computers, etc.

The second program is not really a program as such, it is a tutorial disk for using the Extended Features of Fortune:Word. If you own any of the advanced modules, this disk may help you learn how to use them better.

We also have on disk our shell script programs to date, which you can load onto your system rather than typing them in yourself.

We are also about to receive some more public domain software for the Fortune. More on this in the next issue.

To receive these programs, bring a blank diskette to a /u/fortune meeting, or mail one along with a check for $4.00 made out to The Cambridge Consortium to:

/u/fortune
20A Prescott Street
Suite 28
Cambridge, MA 02138

We mentioned it once earlier, but it bears repeating. Fortune came out with a free update for Fortune:Word which enables it to work with proportional spacing. In order to get it, you must contact your dealer.

MORE "FREE" SOFTWARE

Printing a Floppy Disk Directory

With this issue, we are beginning what we hope to be a useful service to our readers. In each issue of /u/fortune we will offer a shellscript (or shell scripts) of the month with the aim of making certain tasks easier for you.

What is a Shell Script?

We are all aware of the Fortune menu and most of us have heard of the Unix shell. The menu is a way of simplifying the use of various Unix commands. Shell scripts are another way of simplifying. Shell scripts can be seen as a way of abbreviating one command or a series of commands that already exist on the Unix shell. It allows you to do in a relatively few keystrokes what may have taken much more. This cuts down on time and reduces the possibility of error.

A shell script is, in its simplest sense, a collection of UNIX commands that can be executed quickly and easily. These commands are stored in a file. If you have ever spent any length of time at the keyboard issuing the same commands over and over again then you know why such a feature is important. Take, for example, the situation of locating a file that exists on one of your floppies. Suppose you had five floppy disks and you knew that an important file named Love_letters was on one of them but you didn't know which one. If you wanted to find out which one it was on you would have to put each floppy in the floppy drive, mount the floppy, list its contents and then unmount the floppy.

You would keep doing this until you located Love_letters. Tedious, indeed! The UNIX commands would look like this: (The placement of spaces is very important in these commands -- please be sure to include spaces between each chunk of the command line. Also, in these examples you do *not* type the "$", that is there to demonstrate the prompt. If you are logged in as root or manager, it will be a "#".)

$ mount /dev/fd02 /f
$ ls /f
$ umount /dev/fd02
(done with floppy 1)
$ mount /dev/fd02 /f
$ ls /f
$ umount /dev/fd02
(done with floppy 2)

.
.
.

$ mount /dev/fd02 /f
$ ls /f
$ umount /dev/fd02
(done with floppy 5)

Thus, using standard UNIX, you would type 15 commands if the file was on the fifth floppy. And, as we all know, things are never as easy as they should be. If you have ever tried typing "**mount /dev/fd02 /f**" 5 times in a row without making a mistake you know how difficult it can be. Thankfully, shell scripts can make things quite a bit easier. You can, for exlmple, creat an executable file (a file that is capable of executing instructions upon command - see this month's Unix Directory Column) so that when you type in the appropriate abbreviation you are in effect commanding the computer to execute the commands in the file. To demonstrate, let's execute the tedious task described above using shell scripts.

Before we start, we should digress and explain how to create files with UNIX.

The very simplest way is to use a command called **cat** which is short for concatonate. What **cat** does is to list a files contents out on your screen. Try typing:

cat /etc/login.help RETURN

You will see the contents of a file called login.help appear on your screen. (You may notice that this is the message that appears when you press the HELP key from the login message.) Using the UNIX powers of redirection, you can redirect the input or output of **cat**. What we will do is **cat** what we are typing in at the keyboard *into* a file. The ">" sign points into the file -- cat assumes the input is coming from the keyboard if a filename is not given before the ">" sign.

Now type this:

cat > ml RETURN
mount /dev/fd02 /f RETURN
ls RETURN
umount /dev/fd02 RETURN
CTRL-D (That's **CTRL** and **D** together)

That puts the 3 commands to mount the floppy, list its contents and umount it into a file call **ml**.

When you're using **cat** to create a file, you can't really edit it. If you want to make corrections, the easiest way is to use an editor called **sc** for screen. We won't explain how to use **sc** here, but if you type **sc ml RETURN**, you will probably be able to work it out. Alternatively, you can send to us for the program which converts Fortune:Word files to standard ASCII, and then you could use Fortune:Word to create these files.

Once you have created the file you must make that file executable. (If you've read the Unix Directory column in this issue you'll know how to make a file executable). Suppose you did put the above three commands into a file called "ml" for mount and list (short file names for shell scripts help to reduce work at the keyboard. You could have called the file mount_and_list_floppy, but then you might just as well have typed in the above three commands). To make the file called ml executable you would type:

$ chmod ugo+x ml RETURN

Now you've created your very own shell script (which will always be available when you need it). To use it, all you need to do is put a floppy into the floppy drive and type:

$ ml RETURN

Lights will flash, drives will hum and file names will be displayed on your screen, and all with the nimble touch of two fingers and the chirp of the return key.

But wait a minute, you say, those files whipped right past my eyes on the screen and now I have to do my new shell script again. Ok, ok. Let's modify our shell script a little so that it is a bit more "user-friendly." First let's add some commands that will tell the user exactly what we are doing. If we use the UNIX command "echo" we can write comments to the terminal. So now our shell script might look like this:

```
echo "Now mounting floppy...."
mount /dev/fd02 /f
echo "Here comes the listing..."
ls
echo "Now unmounting the floppy..."
umount /dev/fd02
echo "All done."
```

continued next page

Print Floppy Directory, Cont'd from page 2

These modifications make the shell script more talkative but we haven't yet stopped the files from speeding past our eyes. We can solve this problem by taking advantage of another UNIX command called "more" which takes any output and writes it to the screen in screen sized chunks. If the output is more than one screenfull it stops and waits for you to press the space bar. It then displays the next screen sized chunk. So, if we change the line in our file which contains the "ls" command to look like "ls | more" we will have an effective shell script which mounts a floppy, displays its contents in screen sized chunks, unmounts the floppy and all the while telling you exactly what it is doing. Well behaved, no?

If you want to master shell scripts and learn about their power you need to sit down in front of the terminal and wrestle with some examples. We recommend that you try the shell script presented here and try to modify it to do different things. For example, we presented in an earlier Unix Directory column the different commands and options associated with listing your directory. The "ls" command simply lists the name of files in your directory. How would you modify our "ml" shell script so that it also prints out the permissions associated with the file? (Hint: take a look at this month's Unix Directory)

In future issues, we will be presenting additional shell scripts all in the interest of making computing easier. However, you can help make this column even more useful by sending us ideas for shell scripts. What jobs do you continually do over and over again that you feel might lend itself to shell scripting? Also, if you have written any shell scripts which you might like to share with our readers, by all means, send them along. More than likely, there are other users out there which are struggling with something that you've already solved.

Complete listing to create a shell script to print out a list of the floppy files on your printer.

You Type:	Comments:
Login as root, you will get a # sign prompt. Type the following lines exactly as they appear here: (except all lines ending in RETURN should be typed on a single line.)	
cd /bin RETURN	Change to bin directory, that way everyone will be able to use program
	Before you get any further, if you don't want to call your command **ml**, you will need to check and be sure that the name you choose does not already exist. To do this you check the directory with **ls**.
ls FILENAME RETURN	Where FILENAME is the name you want to use instead of **ml**.
NOTE: the **cat** command at the top and the **CTRL D** command at the bottom will create the file. If you use an editor to create the file, eliminate those two lines.	The system should respond, FILENAME not found. **IMPORTANT: If it responds with anything else, you must choose a different name. If you don't, you may write over a command which is part of the system.** After choosing a new name, again type **ls FILENAME RETURN** to check the new name.
cat > ml RETURN **echo This will print the contents of your floppy. RETURN** **echo Please turn your printer on RETURN**	**ml** is the name of the program, you can call it any name you like. Note that once you type the **cat** command, you won't get the prompt again until you have typed in the whole shell script.
echo Please insert the floppy and press RETURN. RETURN ~~**read RETURN**~~ read x RETURN **mount /dev/fd02 /f RETURN** **echo Now reading floppy. . . RETURN**	The first RETURN, you type the letters, the 2nd one hit the RETURN key. Also, this whole command should go on one line.
ls -lR /f | lpr -h RETURN **echo Printer will start in a moment. . . RETURN**	The vertical bar here is a SHIFT backslash, located on grey key to left of keyboard.
umount /dev/fd02 RETURN **echo Please remove floppy disk, I am all done. RETURN**	NOTE: That's *umount* not *unmount*
CTRL D (together)	To close the file and return to the prompt type:
chmod ugo+x ml RETURN	Now all you will need to do is to make it executable. Type: If you didn't call it **ml**, you should substitute your name in this command.
ml RETURN That's it!	**Now try it by typing:**

/u/HELP!

In our short history, we have had many people contact us with questions about the **Fortune 32:16**. In some cases, we have been able to help them directly, but there are other times when we are stymied. In these cases, there is also the lurking feeling that someone out there probably has experience with just that problem and the answer could be close at hand.

This thinking has prompted this column, which will deal with your problems and hopefully their solutions.

I sometimes find it difficult to look at my Fortune Terminal for extended periods of time. Is there any way to alter the screen to alleviate this problem?

Some people find the display screen difficult to look at for long periods of time. There is a simple trick which may work for you, simply switching the power supply switch from 60 hz to 50 hz. What this does is make the letters a little sharper by removing some of the dots that compose them. If you have a satellite workstation, this is a simple matter of flipping the little "dip" switch which is on the back of the screen (near the power cord) to 50 hz. It is switch number 1 labelled 50/60 hz. To switch to 50 flip it up and turn the power on the terminal off and on.

If you want to change the setting on the main computer, you must do it through the configuration menus. That is somewhat more complicated, so you might want to check with your dealer before doing it.

I'd like to use a Centronics 351 printer with my Fortune, but it is not supported by Fortune:Word and doesn't seem to work correctly. Is there anyway to correct this?

If you have one of the printers directly supported by Fortune, you probably don't have any problems. However, there are many people like yourself who had other printers before buying the **32:16**, or have bought more economical printers. Sometimes these work fine, and other times there are problems. What follows is the *long* answer to your question.

First of all, we should divide the problems into two types: Hardware and Software. Hardware problems deal with the switch settings and cable necessary to attach the printer to the computer. If you are getting intelligble words out of the printer, you do not have hardware problems. Software problems are generally format problems where the text does not come out looking the way you wanted it to or as it appeared on the screen.

We will deal with software problems first.

Software Connections:

The **Fortune** is set up to "drive" a limited number of printers -- NEC, Diablo, Qume, IDS and Genicom. The Fortune computer, and particularly **Fortune:Word** need special information on each printer because for some reason printers have not been standardized -- telling one printer to print at 12 characters per inch requires different codes than another printer. For instance, there are Diablo-compatible printers the same way there are IBM-compatible computers. This means all of the control codes for both printers should be identical.

Some of us have printers that are neither supported nor compatible. It may be possible to get these printers to work by specifing them as either PLAIN 1 or PLAIN 2 printers from the **Change Device Connections** menu. If this works, you will not be able to use the pitch selections from the **Fortune:Word** or **Multiplan** printer controls.

One of the enhancements that **Fortune** has added to UNIX is a "printcap" file which specifies all of the control codes for the supported printers. By modifying this file, it is possible to make almost any printer work with the **Fortune**. Unfortunately it is not a simple matter to make these changes -- it takes patience, time and knowledge. Which brings us to the point of this column. If any of you have been able to connect any of the following printers to the **32:16**, please let us know -- several users have not been entirely successful in connecting them.

The troublesome printers are:

C-Itoh F-10 Starwriter
Okidata 92 or 93
Centronics 351

If you have altered the printcap file for these or any other non-supported printer, we would like to hear from you.

Printer Hardware

Hardware -- In order for a printer to hook up to the Fortune, it should have a serial, or RS-232 port. (If you have a printer with a parallel port, you will have to purchase a parallel port for your computer also.)

Given the correct port, there are 3 things you need to worry about:

Baud rate (transmission speed)
Handshaking (Since the computer can send information faster than most printers can print, the printer must tell the computer to stop sending data until it has caught up)
Cabling (The wire that connects the the computer to the printer)

Baud rate: Each character you see on the screen is actually made from 8 single **bits** which are either on or off. These bits make up a code which defines each character. With a serial port, these bits are sent over two wires, one after another. In order for the printer (or terminal or modem) to work properly, it must be set to receive those bits at the same speed the computer is sending them -- this is referred to as BAUD rate. To begin with, set the switches on the printer to make it run at the 300 baud and then go through the "Define Device Connections" options on the **S2 System Maintenance Menu** to tell the computer that the printer will run at 300 baud. It would be a good idea at this point to tell the computer that you are using a **Plain 1 Printer**. After doing this configuration, you should probably turn your printer on and off, but it is *not* necessary to shut your Fortune down and turn it back on. Once this is done, you should be able to print something out on the printer. If the printer is plugged into your usual printer port, try printing something from **Multiplan** or **Fortune:Word**. If nothing comes out, you may have the baud rate wrong, or your cable to the printer not be correct. Check the baud rate again. Check the printer que with the **Printer Control** selection on **Fortune:Word** or by typing **lpq** from the UNIX shell.

continued next page

Handshaking: Before you test handshaking, you should go through the above steps and make sure the printer prints at 300 baud. 300 baud is 30 characters per second, slow enough that most printers can keep up *without* handshaking. Once it works at 300 baud, reset the switches on the printer to 1200 baud and go through the Change Device Connections selection again to reset the computer. Try printing again. If the printer starts out alright, and then prints some garbage, or just leaves words out, it is not handshaking properly. Look through the printer manual and make sure the printer is set for XON/XOFF protocol. (XON/XOFF means that when the printer buffer is filled, it sends a CONTROL-S to the computer, and when it is able to accept data again, it sends a CONTROL-Q.) Sometimes it is necessary to contact the printer manufacturer to determine how to do this. Once the printer is setup with XON/XOFF it should be able to receive data at any speed.

Cabling: Most printers can use a cable like the one you may use to connect a satellite workstation. This is a standard 25-pin serial cable wired straight through -- pin 1 to pin 1, pin 2 to pin 2, etc. Some printers may require a modem-type cable, which has wires 2 and 3 swapped. The diagram for this type of cable is on page 3 of the June **/u/fortune** *news.*

Some of the problems encountered with the **Fortune** are the result of problems with the hardware or software we got from Fortune. Others are the result of trying to stretch our machines to their limits. We invite our readers to contact us about their experiences on either front.

Directions to 241 Crescent Street

STA Media
241 Crescent Street
Waltham, MA
(lost: call 876-4763)

From Route 128

1. Take Exit 49, Route 20 East, Waltham/Weston.
2. Bear right off of exit and get on Rt 20 Waltham/Boston.
3. Continue on Rt 20 for 1.1 miles and take a right on Prospect Street. This is at a light just after the CVS store on your right.
4. Go .5 mile on Prospect Street. Take a right at Crescent Street which has a light and an ARCO station on the far left corner.
5. On your right is a large brick complex, the old Waltham Watch Factory. 241 Crescent is at the far end of the complex on the right. You will see a parking lot on your left. Park there. Enter 241 and follow signs to STA Media, 2nd floor.

From Watertown Square

1. Take Rt 20 West out of Watertown Square.
2. Continue on Rt 20 for 2.8 miles into Waltham Center.
3. Take a left onto Moody Street. There's a light there, and a Waltham Savings Bank/Bay Banks on the left far corner.
4. Continue on Moody Street .6 mile and take a right on Maple street.
5. Go a very short way and take a left on Crescent Street (This is the 2nd light and you will see an ARCO station on your right)
6. Continue from #5 in 128 directions

More on Communications

If you currently own either **Fortune's Interactive Terminal Emulator** or are using **Kermit**, here is a hint which may be of use.

Many times while you are logged into a another computer you may wish that you could save all of the text that is flashing across your screen. There is an easy way to either save it in a file, or have it print out on your printer as you are seeing it on the screen. You will need to enter the UNIX shell in order to do this, so from the Global Menu type:

.unix RETURN.

(When you're done with UNIX, you will hold down the grey CTRL key and press the letter D at the same time.)

The first thing you need to know is which port you have your modem hooked up to -- the printer port is tty01, the others are tty02 - tty05. Next you need to know what speed, or BAUD rate you will be communicating at, most likely this will either be 300 or 1200 BAUD.

Let's say you are using **Kermit**. Ordinarily you would type

kermit clb /dev/tty?? Bxxx RETURN where you would subsitute the number of the port you had your modem connected to instead of the ??, and the BAUD rate of your modem instead of Bxxx, e.g. kermit clb /dev/tty05 1200.

If you want to send it somewhere else in addition to the printer, you use a command called **tee**, which works much like a plumbing tee, that is it sends its output to two places. In this case we will send it to the screen and the printer simultaneously. Type:

kermit clb /dev/tty?? Bxxx | tee /dev/lp RETURN

The verticle bar before the word **tee** is a SHIFT backslash on the middle grey key on the left side of the keyboard. Make the same substitutions for ?? and Bxxx that are described above. BE SURE THAT NO ONE IS USING THE PRINTER WHILE YOU DO THIS. While you are printing, no one else will be able to use the printer.

If you wanted to save your session on the modem into a file, you would type:

kermit clb /dev/tty?? Bxxx |tee /FILENAME RETURN where FILENAME is the full pathname of the file you want the session to be saved in, e.g. /u/joe/dowjones.

Use basically the same process with the **Interactive Terminal Emulator**. Type:

cu -s Bxxx /dev/tty?? -o | tee /dev/lp RETURN

again substituting your BAUD rate and port, e.g. cu -s 1200 -l /dev/tty05 -o.

Next month's newsletter will show you how to install commands like these on the Global Menu, so you won't have to go to the UNIX shell.

Unix Directory: File Permissions

what is the effect of something like -------rwx?

As an owner or user of the FORTUNE 32:16 computer, you are well acquainted with the notion of separate accounts and passwords for each potential user of the computer. An account is an area, so to speak, that is associated with one particular user. The password for that account is a protection scheme, however, whose main purpose is to prevent unauthorized people from accessing the computer as a whole. In other words, if the password were the only means of protection, once someone had a valid account and password for your computer that person would be able to, without much trouble, access any file on the system. If one were to liken the computer disk storage area to an office file cabinet then a password would be much like a key to that file cabinet. As long as someone possessed the key they would be able to look at, or worse, modify and/or destroy, any file contained in the cabinet. This would pose immense security problems. Thankfully this is not the case.

The FORTUNE computer, or more accurately the UNIX operating system, has built into it capabilities for protecting your individual files in many ways. It is possible to control very precisely who can look at your files and who can modify them. For instance, you can protect a file in such a way as to make it readable for others but not writeable. What this means is that others on the system could look at your file but not change it or delete it. Further, if you needed to, you could protect a file in such a way so as to make it completely unavailable. No one could even look at it. In this issue of /u/fortune's Unix Directory we will explore how to set file permissions.

(Editor's note: It is possible to set permissions for files through the Global Menu. The advantage of understanding it through UNIX is that it will clarify directory listings and may help you to quickly spot problems when you get messages like "Cannot open file", or "Cannot create tmp file", from Fortune:Word or Multiplan)

Probably the best way to learn about file permissions is to sit down in front of your FORTUNE and follow along with this article, performing the commands and observing the response of your system as we present them here. Also, if you don't understand something as it is explained, write it down and bring it up at the next meeting or send it to us at /u/fortune.

Ok. You are in front of your FORTUNE and have signed in and are staring at the familiar FORTUNE SYSTEMS MENU. The commands we want to perform, however, are better done at the "unix" or "shell" level. In order to do this, then, type **.unix RETURN** to the MENU prompt. The screen will clear and you will see a pound (#) sign or dollar ($) sign prompt. When you see the either prompt the computer is telling you that it is prepared to accept commands, so now it's time to tell the computer to do something. Let's first get a listing of the files in your directory. To do this type:

ls RETURN

your computer will then simply list out the names of the files in your directory which might look something like this:

```
2ndhalf        directions      last-mtg
adv-fw         dirjunk         lpr
communica      free-soft       name+addr
```

The information listed is simply the names of the files in your directory. For every file in the system there is stored quite a bit more information than just the name. If we want to see some other types of information (like the file permissions) we can ask the command ls to give it to us by typing

ls -l RETURN (this is an ell, not the number "1")

and we would see something like this:

```
-rw-rw-r-- 1 usergrp   19722 Jul 18 10:23 2ndhalf
-rw-rw-r-- 1 usergrp    2826 Jul 18 10:19 adv-fw
-rw-rw-r-- 1 usergrp    2509 Jul 18 07:34 communica
```

The string of r's and w's and dashes that precede each line is the information which controls the file permissions. By the time you finish this column you will know what these cryptic letters stand for and how to manipulate them.

What All of This Means

Let's begin at the beginning. First note that the file protection field is ten characters wide. This ten character field will be best understood as a 1 character field at the beginning followed by a three three character fields.

The first character codes whether the file is a directory (if that first character is a "d") or not (if that character is a dash "-"). Look at our example again and notice that each of the file protection fields begin with a dash (-). This means that none of the files listed is a directory. In general, this first position can only contain a "d" or a dash. (There are special exceptions to this which will not be discussed in this article).

The following nine characters can be any one of the following: r, w, x or dash. An "r" means the file is readable, a "w" means the file is writeable and an "x" means the file is executable (that is, it is a file which directs the computer to do something). But wait a minute, you protest, there are a confusing number of r's, w's, and sometimes x's, interspersed with dashes, in your example above. Why?

Remember I said that there were three fields of three characters. The three fields represent three categories of people who have accounts on the system. These three categories are 1) the user who owns the files, 2) those in his/her group (the UNIX file system supports logical groupings of users; the uses of groups will be addressed in a future column) and 3) all other users on the system. Thus, the three fields represent the user (u), the group (g) and others (o). The three characters within each field are place holders for r, w or x which I've explained above. The following diagram summarizes this setup.

```
r w x   r w x   r w x
- - -   - - -   - - -
user    group   other
```

As an example, if a file had the following permissions

(-rw-------) it would be readable and writeable ONLY by the owner of the file. This means that no one else on the system would be able to look at the file or modify it in any way (including deletion which is the ultimate modification). A file with the permissions -rw-rw-r-- would be readable and writeable by the owner and by members in the group but ONLY readable by others on the system. This is an effective way of making a file accessible to other users in a manner which prevents it from being accidently changed or deleted. If a file had these permissions,

----------, not even the you, the owner, would be able to look at it. We should note here that Fortune:Word does not look at the group permissions. In order to have everyone be able to look at a Fortune:Word file its permissions must be set to -rw-rw-rw along with the companion FILENAME.dc and

continued next page

Permissions, Cont'd from page 6

FILENAME.fr files. You may even have to change the permissions on the parent directory, e.g. /u/joe.

By now you have a feel for what the r's and w's mean. But what about x's? An "x" codes whether the file is executable or not. In the UNIX system a file can either be a text file (a file which just contains characters) or a file which the computer would interpret as commands, thus, an executable file. When you run Multiplan or Fortune:Word you are telling your computer to access a file which is executable. If you were to find these programs on your system and look at their file permissions you would see the following:

```
-rwxr-xr-x 1 manager      20 Jul  3 15:20 mp68
-rwxr-xr-x 1 bin         213 May 23  1983 wp2
```

If you just look at the r's and w's you should be able to figure out that these files are readable by everyone but only writeable by the owner. Thus, unless you own these programs there is no danger of you accidently damaging them. You will also notice that there are three x's, one each in the owner field, group field and other field. This means that anyone on the system would be allowed to run these programs. If you were to write a program that only you would be able to run, the file permissions might look like this:

-rwx------

If you had a program with these permissions,

---x------,

would you be able to run it? Why or Why not? Would others in your group be able run it? Would you be able to modify it?

How to Change File Permissions

Often you will want to change the permissions on a file (files start with a default set of permissions, we will discuss how to control these defaults in a future issue). Let's say you've just finished creating a Fortune:Word document that contains some information that you don't want anyone else on the system to be able to read. You do an **ls -l** on the file and find that it has these permissions: -rw-rw-r--. Since you've read this far you know that anyone on the system can read your file, that is, they could load it into Fortune:Word and look at its contents. But if that is not what you want, what can you do?

The "chmod" Command

The UNIX operating system provides a command which will change the file permissions on any file that you own. The word "chmod" stands for "change mode" where the "mode" of a file refers to its file permissions. It is often pronounced the way it looks, that is, a "ch" sound (as in the word chew) and then the word "mod". To use this command you should know what r,w, and x mean as well as what the three different fields are (i.e. user (u), group (g) and other (o)). To demonstrate how to use "chmod" to change the permissions on files let's go back to that Fortune:Word document that you didn't want anyone else to read. Furthermore, let's say that the name of the document was "Love_letters" and remember that its permissions are -rw-rw-r--.

What you want to do is make the permissions look like

-rw------- so that no one else will be able to read about your love life. In essence, you want to SUBTRACT from the file permissions the read permission from the other field and the read and write permission for the group field. Thus, you want to subtract three different permissions in all. The chmod commands for this would look like the following:

$ chmod o-r Love_letters
$ chmod g-r Love_letters
$ chmod g-w Love_letters

In the first command you subtracted from the other (o) field the read (r) permission, in the second command you subtracted from the group (g) field the read permission and in the last command you subtracted from group field the write (w) permission. Now if you were to perform an **ls -l** you would see that the permissions associated with the file "Love_letters" are:

-rw-------, just like you wanted. Now you can rest assured that your secrets are safe from everyone (everyone except the system manager, that is -- but that's another story).

You use chmod to ADD permissions in an analogous way. Suppose you are starting with a file with the these permissions,

-rw-------, and you want to make it readable to others in your group. You would type:

$ chmod g+r filename RETURN

The permissions on that file would then be -rw-r-----.

Using the information presented in this column you ought to be able to manipulate the permissions on any file you own. I have not presented the full complexity of the chmod program but you can look at the *Introduction to FOR:PRO* manual and find a brief discussion of this command on pages 3-1 to 3-5.

/u/fortune *news* Mini Survey

We're interested in your ideas. If you have a moment please fill this card out and mail it back to us.

Do you find **/u/fortune** *news* helpful?
☐ Yes ☐ No

Would you be interested in more articles on: (Check as many as apply)
☐ Hardware
Software
☐ Accounting Packages
☐ Database Programs
☐ Communications
☐ Other _____
☐ Reviews

Do you find the columns on UNIX helpful?
☐ Yes, very
☐ Yes, moderately
☐ No

Is the newsletter written at the right level?
☐ Too complicated
☐ Just right
☐ Too simple

If the meeting where held in a different location, would you be more likely to attend?
☐ no ☐ yes -- location:_____

Any other comments or suggestions for articles?
_____
_____
_____

NOTES ON THE LAST MEETING

At our last meeting Delia Walworth and Marsha Bradshaw of MCI Mail presented the MCI Mail system. MCI Mail was described in our last newsletter and so we won't go into great detail here. What we will say is that everyone was very impressed with the program that MCI has developed -- it is easy to use and when combined with Dow Jones News/Retrieval (which comes with MCI Mail) is extremely versatile. You can send electronic mail, or mail that is laser printed all around the country and delivered via the US Mail system or by courier. You can have your letterhead and signature stored with MCI so that they will appear on your letters. You can send telexes worldwide and get stock quotes. Best of all, you can register for free, and you will only be charged when you actually use it.

To register, call or write:

R. Delia Walworth
MCI Mail
50 Milk Street, Suite 1500
Boston, MA 02109
617 574-9085

or call 1 800 424-6677

/u/fortune
20A Prescott Street
Suite 20A
Cambridge, MA 02138

Fortune:Word Demo, Cont'd from page 1

Advanced Features provides Fortune:Word with a grab bag of special functions. If you are a heavy word processor, you will appreciate many of these capabilities. We will give a brief description of these here:

Table of Contents Generator
Index Generator
Windows, which can split your screen into as many as 4 windows and put a separate document into each one. You can also put separate parts of one document into each window and view them simultaneously. This greatly simplifies copying between separate documents.

Multi-Column, which allows you to create documents with more than one column. Within each column there is word-wrap, so changing things on one side of the page will not affect the other side. This function is almost unique among word processors. This is an example of what multi-column does:

I.	Profile of Corp	This is the beginning of something really exciting for the
	(general description of fax & mgmt)	Jones Computer Corp. Their new facility complete with state of the art climate controls and communications capabilities gives them a clear edge over their competition.

Advanced Glossary Features provide some very sophisticated glossary functions that virtually allow programming. They also include math functions within Fortune:Word.

The price for each module is $395. If you are new to Fortune:Word, you can purchase Fortune:Word with the three modules for $1,495.

As with many things, these features are best understood when they are seen. We are pleased to be able to present a demonstration of them at the coming meeting.

Names & Addresses:

Some of you have inquired about some of the vendors we have mentioned in past newsletters, in particular PROGRESS. Here is the address for Data Langauage Corp.

Data Language Corporation
5 Andover Road
Billerica, MA 01821
617 663-5000

Attn: Stephen Debler

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The text for this newsletter was prepared using the **vi** editor on a FORTUNE 32:16 computer. It was then transferred using KERMIT to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

/u/fortune *news. . .*

Newsletter for Users of the Fortune 32:16 Computer Volume 1 Number 6 September, 1984

The Next Meeting
Database Demo

The next meeting of /u/fortune will take place on Thursday, October 4th at 7:30pm. It will be held at the Ten Acre Country Day School in Wellesley. Directions to Ten Acre are elsewhere in this issue.

The presentation will be made by Robert Burns of Guardian Automated Systems of Buffalo. Guardian has produced several products including a comprehensive legal case management and accounting system as well as several office automation programs. One of the latter is a database package called Unicorn/DB which can be used to create mailing lists, phone directories, inventory, etc. Unicorn/DB can do the basic things one needs from a database -- enter data, sort it, print reports, etc. It does not have the power of Progress or Informix, but it is very reasonably priced at $295.00. It is written in C, so you don't need to have any program languages, such as BASIC, on your system for it to work. Many people with straight-forward database needs have found Unicorn/DB to suit their needs well.

Unicorn/DB will be the primary product that Mr. Burns demonstrates, because it has the most universal interest to our members. Questions about Guardian's other products can be answered after the demonstration.

News *From* Fortune
Power Supply Upgrade

If you have an older Fortune 32:16 (earlier than the Professional and Expanded Performance Systems), your computer is probably powered by a power supply made by Zenith. At the time these were installed, they were thought to be adequate, but Fortune has now found a much better supply made by Western Electric. They are making the new power supply available on a swap basis for $240.00. At present, this offer is good through the end of the year.

There are two reasons you should think seriously about this upgrade. The first is that the old supply is less reliable, and it is likely that down the road you will need to repair or replace it. This will be more costly than the upgrade. The second is that the Western Electric supply can supply more power and is more flexible. If you are thinking of upgrading your system in any way (bigger drives, more memory, more comm boards, etc.) it is strongly recommended that you replace your power supply.

You can get the new supply by sending your money to Fortune along with your request. Fortune then sends you a new power supply -- you then have 60 days to return your old supply. This means that there is no need for your system to be out of commission.

Check with your dealer for further information.

See News *From* Fortune, Page 4

/u/HELP!!!

This month we have several questions from our readers. We will try to organize them into subject areas.

Large Capacity Hard Disks:

Alan Polson of Martek, Ltd. in Rhode Island writes: "What are the sources for Winchesters for the Fortune with 100+ megabyte capacities and a tape dump.? What is the status of Fortune's 75 meg Winchester?

Fortune's next release on hard disks is a 45 megabyte disk. It is due out early this fall, and will go either in the main CPU cabinet or into Fortune's expansion cabinet. As yet, they haven't announced any plans for larger disks in the near future.

There are some vendors who do supply larger capacity disks for the Fortune and we contacted one called Pacific Computer in Beaverton, Oregon. They sell two Winchesters that are completely compatible with Fortune 32:16 systems -- the first is a 51 meg drive that gives you 43 megs once it is formatted, and the second is a 72 meg drive that results in 60 megabytes of formatted storage. As is the case with Fortune's drives, these drives will fit in either the main CPU box or an expansion cabinet. (If you are going to put it in your main cabinet, see the note on the Power Supply Upgrade elsewhere in this issue.) Dennis Kirk, the president of Pacific Computer, says that his drives have average access times of 30 milleseconds which is faster than Fortune's XP drives.

Pacific Computer will not sell these drives to end users. Their policy is to sell to dealers or value-added retailers so that local support can be established. If there is ever a problem with a drive, your drive can be shipped overnight to Oregon, and they will ship you your repaired drive or a replacement within 24 hours. Although we have no firsthand business experience with them, they seem like a very responsible firm.

See /u/help, Page 3

Formatting Chapters with Fortune:Word
by Pam Roth

ed note: Pam Roth is a writer who has been using her Fortune 32:16 for just over a year. On it she has written in her words "3 books, some articles, lots of proposals and zillions of letters". What follows are some of her techniques for dealing with chapters using Fortune:Word.

I use my Fortune (512K, multiuser, communications A board, Spinwriter printer with Quadram serial to parallel interface box) and Fortune:Word to write long documents including books and proposals. I begin by creating a sublibrary for a book. (I have a sublibrary that contains all proposals, too.) The sublibrary feature is nice because it allows me to separate information about a book or subject. That means there is nothing else in sight to distract me. I use a structure for each chapter, which I set up before I begin to write and

See Formatting, Page 5

The Unix Directory

Installing YOUR Programs on the Global Menu

Although we have been stressing the virtues of the unix shell, there is much to be said for the Fortune Global Menu. One of the nice things about it is that you can customize it by placing your own programs or shell scripts right on the menu. Any of the shell scripts given in **/u/fortune** *news* can be installed in this way. Then you can access them through the menu just by hitting B4 or E5 etc. For example, you could have one menu selection mount a floppy and print its directory, or another one to duplicate a floppy, or a third to find certain files on your system when you forget their directory. In short, it is possible to harness the power of unix without ever leaving Fortune's menu system.

Before the actual steps are explained, it is worth knowing something about how the global menu works. As you can see, each grid on the menu has 6 choices. Any option that has a name associated with it automatically runs a program when it is chosen. When you select Fortune:Word from the menu, a program called wp2 is executed. When Multiplan is picked, the program run is called master. (You can try running these programs directly from the UNIX shell. Just get into UNIX and respond to the prompt with **wp2 RETURN** or **master RETURN** and see what happens. As usual, you will end up leaving UNIX by hitting a CTRL-d). If the selection is not lit up, then a program called not_owned.mac is run and you are told to contact your friendly Fortune dealer.

If you have any items in the 6th choice in any grid you may notice that those work a little bit differently. When S6 is chosen for instance, you will get a sub-menu which may have up to 30 additional choices. So you could setup B6 to house all of your unix utility programs, or P6 to house a variety of canned Multiplan print formats. Because there is a sub-menu involved for these choices they are implemented differently than choices 1-5.

To summarize, the basic concept you need to understand is that each option on the Global Menu executes a program, and that program could just as easily be your program or shell script rather than Multiplan. This is how you do it.

Installing programs in selections 1-5 of the Global Menu.

1. Log onto your computer as manager. You cannot make these changes from any other account.

   When you get the Global Menu, choose the location you would like your program to appear in, e.g. P4. Make sure that there is nothing listed in that location already. If there is something in the location you choose, your selection will overwrite the previously existing one. For the time being, choose only numbers 1-5, option 6 in each box is discussed further below.

2. Enter the unix shell by typing **.unix RETURN** (as always, a word in all caps represents a single key, in this case it is the RETURN key.)

   Your computer will respond with a # sign.

3. For this example, let's assume that you would feel better about using UNIX if it were a selection right off the Global Menu. This will not save much time, and won't allow you to do something that is otherwise very difficult or impossible, but it is a good example. As alternatives you might have a single menu selection perform a backup of your system, find a lost file, copy a floppy, connect to your modem and tee your session with MCI Mail to the printer, etc.) Let's suppose you want UNIX to appear on the Global Menu as *Enter UNIX shell* in selection P4. The first thing you need to know is that the UNIX shell is a program called **sh** which is located in the **bin** directory, so its full pathname is **/bin/sh**. To install it on the menu, you would type the following commands exactly. If you are installing your own program, substitute whatever your menu selection is for P4. Substitute the words you would like to have appear on the Global Menu where it says Enter UNIX shell. Substitute your program name where it says /bin/sh. Note that if your program is not located in the / or root directory, you should list its full pathname, e.g. /bin/sh. Where it says EOF, type the capital letters "E" "O" "F". Last but not least, the letter after the word install is the letter ell, not one.

   /m/menu/bin/install -l user << \EOF RETURN
   /m/menu/control/:global:P4:': Enter UNIX shell:/bin/sh: RETURN
   EOF RETURN

   Be sure to leave a space after the colon before the menu label (In the example, *Enter UNIX sh*). The back apostrophe that follows the selection number is the top key in the cluster of three grey keys on the left of the keyboard. It's presence on this line tells the menu to display your program in bright letters.

   These first 3 lines actually do the installation onto the Global Menu, the next 3 lines install your program on the Product Maintenance Menu.

   /m/menu/bin/install -l user << \EOF RETURN
   /m/menu/control/:product:P4:': Enter UNIX sh:/bin/sh: RETURN
   EOF RETURN

4. Type a CTRL-d to exit from unix. (Use the CTRL key like a shift key and hold it down while you press the letter d.

If you later decided to delete your program from the menu, you would type the following commands:

/m/menu/bin/install -d -l user << \EOF RETURN
/m/menu/control/:product:P4:::: RETURN
EOF RETURN

/m/menu/bin/install -l user << \EOF RETURN
/m/menu/control/:global:P4:::/m/menu/bin/not_owned.mac: RETURN
EOF RETURN

If you find this cumbersome, this month's shell script allows you to easily add or delete programs to the Global Menu. You'll have the tedium of typing it in once, but then it will be there for you to use. As always, you can save yourself even this tedium by sending us a floppy and $4. We'll send you a mistake-free version of all of the shell scripts we have discussed to date.

If the command you are executing lists anything on the screen, such as directory information, you will have to do one more thing to make it work when you access it from the Global Menu. The problems that occurs is that the listing prints out, and before you have a chance to even quickly peruse it, the screen goes blank and back pops the Menu. The way around this is to make a very short shell script as follows.

continued next page

Let's say the program you want to run is the UNIX list command, **ls -sail**. This command will list all of the files in your current directory. The shell script needs to contain that line, and then a way for the computer to pause and wait for you to signal it to return to the menu, This is done just by asking for input with the read statement. It doesn't matter what is read, you can hit any key, the important thing is that it stops. The shell script looks like this:

```
ls -sail
echo "Press any key to return to the Global Menu"
read x
```

That's the whole thing. First you need to create a program that contains those lines, let's say you call it **list**. (In the last issue we explained how to create a file -- you can use ed, cat, sc, etc. The easiest way to do a short one like the above is **cat > list RETURN**, the prompt disappears and you type in the three lines. When you have typed the whole thing, hit CTRL-d, and the prompt will return.) Next you would just make that little file executable using the chmod command described in the last issue (**chmod +x filename**, where filename is the name you have chosen for the shellscript above).

Now, as was mentioned before, if you want to really get fancy you can add your programs to the sub-menus in the number 6 slot in each box of the grid. This is not much more difficult -- it only involves one more step in the

/m/menu/bin/install -l user << \EOF RETURN
/m/menu/control/:global:T6:': Additional Choices:: RETURN
EOF RETURN

Naturally, you would substitute your selection number for T6, and its name for Additional Choices.

Next you want to add your choice onto the sub-menu. Let's say you wanted to add the program to mount and list a floppy directory as program 1. This program was given in the last issue and was stored as /bin/ml. You would issue the following commands:

/m/menu/bin/install -l user << \EOF RETURN
/m/menu/control/:tadd:1. :': List floppy dir:/bin/ml: RETURN
EOF RETURN

That's all there is to it. If you look at selection T6 on the Global Menu, you will get the sub-menu called Additional Choices. From there, you can use the cursor keys to select your choice, or just hit the program number

/u/help, Cont'd from Page 1

The retail cost of the 60 meg drive is $6,995. For more information, have your dealer contact:

Dennis Kirk, Pacific Computer, 7931 S.W. Cirrus Drive, Beaverton, OR 97005. Phone 503 644-2050.

On the east coast, there are two dealers that we know of:

R. Clay Kime, Datacomp, Suite 300, 984 Broken Land Parkway, Columbia, MD 21045.

Carey Higgins, Data Rentals/Sales, 2260F Northwest Parkway, Marietta, GA 30061.

See /u/HELP!!!, Page 4

UNIX Summary Chart

To help you to keep track of some of the concepts we have covered in /u/fortune, we will, on occasion, table the unix commands we have covered, along with the issue and page you can find them to review.

To enter unix from the Global Menu type:
.unix RETURN

To exit unix ($ or # prompt) type:
CTRL-d (Hold down grey CTRL key and press letter "d" at the same time.

unix command	function	reviewed in /u/fortune issue
cat *filename*	print the contents of filename	#5, p. 2
cd	change directory	#3, p. 5
chmod	change mode (change permissions)	#5, p. 6
chmod +x	make a file executable	#5, p. 6
ll	same as ls -l (shortcut)	#3, p. 5
ls	list current directory	#3, p. 6
ls *filename*	list only the named file(s)	#2, p. 2
ls -r	list directory in reverse alph. order	#2, p. 2
ls -l	list long (more info about directory)	#3, p. 5
mkdir	make a directory	#3, p. 5
more *filename*	list a file, pause each screen	#6, p. 7
pwd	print working directory	#3, p. 4
rmdir	remove a directory	#3, p. 5
who	list who is using computer	#2, p. 3

Note the "-r" and "-l" versions of the ls command. These are called options or arguments in the unix nomenclature. You may specify more than one. For example, the command ls -rl would print out the long form of the current directory in reverse alphabetical order.

We will also begin to build a list of shell scripts that we have shared in /u/fortune news. Once you have created a shell script file, the name of that file can be used as if it were a standard unix command. Thus, we can build a table of shell scripts in the same fashion as we have done for the unix commands above.

shell script	function	issue and page
ml	mount floppy and list its contents	#5, p. 2
whereis	find where a misplaced file resides	#3, p. 5

/u/HELP!!!, Cont'd from Page 3

Third-Party Software and Hardware Vendors

Edward DeAngelis of Climate Control in Huntingdon Valley, PA wrote with the following question, "*Does anyone provide a listing of outside vendors providing hardware/software for the Fortune systems?*"

The answer to that question is yes, no, and soon. Fortune dealers presently have a big book that contains listings of software products available for Fortunes. (Pardon the pun) However, it is our understanding that this book is not up to date and that they are currently in the process of revising it. When this happens, **/u/fortune** *news* will publish a list of products and vendors. Hopefully this will be a quarterly feature. In addition, we hope to gather information on what software and hardware is being used by our members, so that a reference network is established. This would take much of the guesswork out of purchasing new equipment.

The number of hardware vendors is more limited, and therefore more approachable. We will try to include this information in a coming issue also.

/u/fortune *news*. . .

Managing Editor Josh Lobel
Associate Editors Benzion Chanowitz, Mark Rhodes
Contributor Mark Palmerino.

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Although every attempt is made to insure that our contents are error-free and without risk, The Cambridge Consortium is not responsible for losses that occur due to correct or incorrect interpretation of **/u/fortune** *news*.

For more information about us, please call or write:

/u/fortune *news*, 20a Prescott Street, Suite 28, Cambridge, MA 02138. Telephone 617 876-4763.

The text for this newsletter was prepared using the **vi** and Fortune:Word editors on a FORTUNE 32:16 computer. It was then transferred using Kermit to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

News *from* Fortune, Cont'd from Page 1

Subscription Update Services

Several issues back we reported that Fortune Systems had begun a subscription update service for their software products. Each piece of software could be updated on a one-time update basis, or you could purchase an annual update subscription, which would include notification of Fortune's new products as they are released, the latest enhancements to the software package, and tips on avoiding problems before they arise. If the product you are covering isn't updated within the year, the service is extended until there is an update. As we stated before, the decision to get the one-time update vs. the subscription is largely personal.

Apparently when Fortune originally made this offer last spring, not many people were making the personal decision to buy the subscription service, which was quite costly. Now they have lowered those prices to be more competitive. What follows is the new price schedule. The one-time update charges provide a relative comparison to the subscrition costs. Please note that only the programs that are in boldface actually have current updates available, and that these updates are the same ones that were released last spring.

Program	Subscription	One-time Update
Single-user	175	120
Multi-user	110	75
Fortune:Word	110	75
Extended Fortune:Word	175	120
Records Processing	75	55
Spelling Checker	75	55
Advanced Features	75	55
Document Conversion	170	75
Multiplan	**110**	**75**
Business Applications	750	525
Accounts Payable	110	75
Accounts Receivable	110	75
Fixed Assets	110	75
General Ledger	110	75
Order Processing	110	75
Payroll	**110**	**75**
Purchase Orders	110	75
Development Utilities	110	75
Business Basic	**110**	**75**
C Compiler	**110**	**75**
Fortran Compiler	**110**	**75**
Pascal Compiler	**110**	**75**
Interactive Terminal Emulator	110	75
Fortune-to-Fortune Copy	110	75
3270 Data Communications	110	75
3780 Data Communications	110	75

This decision to lower the prices seems to be a reasonable step on Fortune's part. We think it would also be reasonable to extend the subscription service to people who have already paid almost the full subscription cost for the old one-time update cost, e.g. the old one-time update for a C Compiler was $100 and the subscription service is now $110. This suggestion will be forwarded to Fortune.

Formatting Cont'd from Page 1

then forget about. Setting up the structure includes the following steps:

- Creating a 0001 document
- Assigning chapter names with a common prefix that indicates the book and a unique suffix that represents the chapter.
- Setting up a glossary

The 0001 document is a format document in which I create the standard format line, header, and footer. The standard format line is nothing fancy -- I merely add a tab and pull the right margin in to 60. I create a header with five RETURNs to indicate that I want five blank lines at the top of each page. I then create a footer as follows:

- I press the RETURN key to leave a blank line between the bottom of the text and the first line of the footer. That makes sure that the text on the page never runs into the footer.
- Press the CENTER key
- Turn on the underline mode (MODE,)
- Type the name of the book, two asterisks, the copyright notice, and my name
- Turn off the underline mode (MODE,)
- Press the RETURN key and then the CENTER key
- Type the date and two asterisks
- Type "Chapter x" (I fill in the chapter number for each chapter later)
- Type two asterisks
- Type "Page #" (The pound [#] sign indicates I want automatic page numbering.)
- Type "of xx Pages" (Later I fill in the number of pages)
- Press the RETURN key

The result looks something like this:

Using Macintosh in Business**Copyright 1984 by Pamela J. Roth

12 August**Chapter xx**Page # of xx Pages

When I finish creating the 0001 document, I create one document file for each chapter with a document name that describes the chapter. I use a short name -- usually 5 or 6 characters. The first three characters represent the book, the fourth character is a period (.), and the last two characters are numbers. If the chapter is an appendix, then the last character is a letter.

The document names for Using Macintosh in Business, the book I am about to finish, are as follows: bus.00, bus.01, bus.02, bus.03, bus.04, bus.05, bus.06, bus.07, bus.08, bus.09, bus.10, bus.a, bus.b, bus.c, and bus.d. I place a zero in front of the chapter number if it is a single digit because the Fortune sorts bus.10 higher than bus.08, resulting in chapter 8 being listed before chapter 10 in the index. Chapter bus.00 contains the title page, preface, acknowledgements, introduction, and table of contents.

And, oh, yes, the document title of the index is simply index, which sorts at the end of the Fortune document file index. If the name of the chapters began with a letter after "i" so that the index would appear before the other chapter titles in the Fortune document file index, I would use the dot format. For example, if the prefix was "sys" the document name for the index would be sys.index.

continued next column

I regularly use four glossary entries in a book. (Note: I have only one glossary file in my entire system to save space and time in maintaining the glossary.) I also add words and phrases commonly used in the book. Those four entries I use most often appear in the glossary file as follows:

entry z
(indent "o" indent)

entry N
("NOTE:" indent)

entry h
("HINT:" indent)

entry F
("Figure 1.xx")

I use entry z to create indented lists with bullets. Entries N and h are used to add indented paragraphs that provide notes and hints. Entry F is used to add figure references and figure titles. I change the number in the glossary to reflect the chapter I am working on.

As soon as I have done all that I'm ready to go! While working in a document file, I often use page W(GOTO: What Page?: W, EXECUTE), which I imagine means "workspace" or work page" to store paragraphs and sentences that I like, but which don't quite fit where I originally placed them in the chapter. Other features that I use often are SUPERCOPY (SHIFT COPY) and SUPERMOVE (SHIFT MOVE). That is, the ability to copy or move text from another document file to the file you are using without having to close and open files repeatedly. These features are excellent for making sure that the structure of each chapter in a book is parallel with the others and for reorganizing chapters and the book as needed.

In short, Fortune:Word is a heavy duty word processor for producing heavy duty documents.

Notes on the August Meeting

At the August Meeting, Nancy Olson of Fortune Systems demonstrated the Fortune:Word Extended Features modules. The meeting was highly successful as many questions were answered and the phrase, "I didn't know I could do that", was often repeated.

As outlined in the last issue, the Extended Features are divided into 3 modules: Records Processing, Spelling Checker and Advanced Features. The first two are very straightforward in their application -- Records Processing provides some basic database management and is basically a mail-merge program to combine lists of information with standard form and the Spelling Checker is a fairly flexible and effective spelling checker. On the otherhand, the Advanced Features module provides a whole variety of functions. Since these were also outlined in the last issue, we won't detail the features here, however it would be fair to say that the people present were very impressed with the added power the Advanced Features provides. If you use Fortune:Word extensively, do alot of moving and copying between documents or within large documents or have need of Index or Contents generation, you should take a good look at the Advanced Features package -- rather than adding a single explicit function, it goes a long way in enhancing the power and ease of Fortune:Word.

The other standout at the meeting was the use of the Glossary features of Fortune:Word. Many people do not use glossaries because they are intimidated by their complexity. They are actually very easy to get started with. In a coming issue, we will explain the basics of glossary use.

Adding and Deleting YOUR Programs on the Global Menu

This shell script will allow you to easily add and delete your programs to or from the Global Menu. We suggest you call it **addglobal** and store it in /bin. It is probably easiest to create and test it in your home directory, and then use the **mv** command to move it to /bin, e.g. **mv /u/josh/addglobal /bin/addglobal RETURN**. To be able to move the program into /bin, you will have to log in as manager or as root.

All lines in the program should be typed on a single line. We have not put in the RETURN key at the end of each line, but you should press it after typing in each line. Do not use the EXECUTE key while in the UNIX shell -- it won't work.

You can create this script using **cat > addglobal**, the ed editor, or the **sc** or **screen** editor. We recommend using sc or screen. If you don't have it, we will be happy to send it to you. If you have a modem and kermit, we can send it to you on the phone line.

```
until
        echo
        echo 'Would you like to (a)dd or (d)elete a product?
        read answer
        test A$answer = Aa || test A$answer = Ad
```

This loop asks if you would like to add or delete a product, reads your response and stores it in a variable called answer. Two vertical bars before word "test" are 2 strokes of grey key in middle of cluster at far left of keyboard.

```
        do
        echo -n 'ˆGYou must enter an "a" or a "d" !!'
        done
```

Character at either end of echo line is apostrophe -- right next to RETURN key. ˆG is the single character CTRL-g, which sounds bell on terminal with message. It is cosmetic only.

```
if test A$answer != Ad
then
        while test A$OK != Ayes
        do
        echo 'Please enter the selection you wish to change (eg. E5) '
        read SELECT
        case $SELECT in
        [BCPTES][1-9]) OK=yes;;
        *) echo "ˆG'GˆG'ˆ\H $SELECT ˆ\I is invalid"
```

Open and closed brackets on either side of BCPTES and 1-9. This tests to be sure your response is valid selection number on Global Menu.

Again we have CTRL-g. The character following it is a CTRL backslash then the letter H. This will put the error message in boldface. If you are not using **sc** to enter this, leave ˆ\H and ˆ\I out. They are only there to make program jazzy.

```
        esac
        done
        echo -n 'Thankyou'
        echo '...Now please enter the product name'
        read NAME
        echo -n 'Ok'
        while test A$PGM = A
        do
        echo '...Now please enter the programs full pathname'
        read PGM
        done
        echo
        MENU1="/m/menu/control/:global:$SELECT:': $NAME:$PGM:"
```

After the word SELECT: is the back apostrophe, found in top left of 3 grey keys at left of keyboard. You must leave a space before $NAME.

```
        echo $MENU1
        echo "
        Depress <RETURN> to continue or <CANCEL/DELETE> to exit"
        read RETURN
        echo $MENU1 | /m/menu/bin/install -l user
```

Vertical bar after MENU1 (which is MENU and numeral 1) is vertical bar mentioned above. letter following install is the letter ell.

```
else
        while test A$OK != Ayes
        do
        echo 'Please enter the global menu selection number (eg. E5)'
        read SELECT
        case $SELECT in
        [BCPTES][1-5]) OK=yes;;
```

Again, brackets surround the group BCPTES and 1-5.

```
        *) echo "ˆG'GˆG'ˆ\H $SELECT ˆ\I is invalid"
        esac
        done
        echo 'Thankyou'
        MENU1="/m/menu/control/:global:$SELECT:_::/m/menu/bin/not_owned.mac:"
```

Again ˆ\H and ˆ\I are there for cosmetic reasons only. Leave them out if you are not using **sc**.

```
        echo
        echo $MENU1
        echo "
        Depress <RETURN> to continue or <CANCEL/DEL> to exit"
        read RETURN
        echo $MENU1 | /m/menu/bin/install -l user
```

In the last echo line, you again see the vertical bar after MENU1 and the letter ell following install.

```
fi
```

This is the letters "f" "i" which spells if backwards. This is the way the if loop started way above is ended.

Use **chmod +x addglobal RETURN** to make program executable. Good Luck.

Using the "SC" or Screen Editor

First of all a word about what the screen editor is and why you would ever need it.

The reason you would want to use **sc** is that with it you can edit shell scripts, programs and other system files. It is a very versatile and flexible editor for this sort of thing, and it is quite easy to use. Although you could use another of our free programs, WPSTRIP, which strips all of the special characters out of Fortune:Word files, most people find it simpler just to use **sc**.

It is important that you understand the notion of a file in order to appreciate sc. A file is simply a collection of electronic characters, or bytes. Each time you use Fortune:Word or Multiplan you create a file filled with information. In the case of Fortune:Word, you create a text file which is fairly standard, except for certain characters which control underlining, indenting, etc. It is possible to view these files without using Fortune:Word by using the **more** command -- just type **more filename**, where filename is the name of one of your Fortune:Word documents. The document will appear on your terminal, a screenful at a time, along with some special characters, such as \B\. You can "page" through the whole file by hitting the space bar after you are through reading each screen. (CANCEL/DEL will allow you to get back to the shell before you have seen the whole file.)

As you can see, once a file is created it does not "belong" to the program that was used to create the file. It can be used by that program, and by other programs. As an anology, a letter written with one pen can be edited and changed with a different pen, or perhaps even a pencil. We mention this because one of our associates thought that he could only access a Fortune:Word file with Fortune:Word, a file created with sc only through sc, etc. This is not so. The **sc** or **screen** program is another program used to create and edit text files. PLEASE NOTE THAT ALTHOUGH IT IS POSSIBLE, YOU SHOULD NEVER USE THE SC PROGRAM TO EDIT FORTUNE:WORD FILES. Although Fortune:Word files are stored in a straightforward manner, there are complications that will result if you change the file, and you will almost certainly lose the entire document. Our point is that once a file is created, there will be times when you want to modify it (like to correct the mistake in last month's shell script) and this is easily done with non-Fortune:Word files using **sc**.

Using Sc

Sc is fairly easy to use. To see if you already have it on your system, type **sc junk RETURN**. This tells the computer to edit (or create if it doesn't exist) a file called junk. If your system says "sc not found", you don't have it. Try **screen junk RETURN**, which is an alias for sc. If screen isn't found either, you'll have to send for your free copy.

If you do have it, you will notice a list of possible commands at the top of the screen. These are called in much the same way as Multiplan commands are called -- just by hitting the first letter of the command. You may be able to figure much of it out just by trial and error.

We have a tutorial written by Dimitri Rotow of Fortune Systems which documents all of sc's capabilities in a very comprehensive document. We can send you a written copy of this tutorial if you send us a $1 to cover postage and xeroxing. Alternatively, we will include it on any disk that you send us along with your free copy of the **sc** program. As with all free software, please send a check for $4.00 payable to The Cambridge Consortium along with a blank, formatted disk to /u/fortune.

Corrections and Clarifications

CORRECTION TO SHELLSCRIPT

It's true. We made a mistake. It happened in the last moments of paste-up before the last issue of **/u/fortune** *news* went to the printer.

On Page 3 about a third of the way up from the bottom of the page there is a line on the left side that says **read RETURN**. If you typed the shell script in as it appeared, it won't work. That line should have been: **read x RETURN**. If you have an editor (other than Fortune:Word) you can easily make that correction, otherwise you will need to retype it. We apologize for the mistake and hope it hasn't dampened any enthusiasm.

Clarification on Printer Cables

IMPORTANT NOTE!

In our HELP column in the last issue, we discussed cables for hooking up printers and said that you should use a "standard 25 pin serial cable wired straight through". Although this is correct, Guy Washburn of Walker Data Systems in Wellesley, MA called to alert us to a potentially serious problem with these instructions. You should never use a flat ribbon cable that has ALL 25 pins connected straight across. In rare, fluky situations, use of a cable that has pins 9 and 10 connected can result in damage to your motherboard. This problem would only occur with certain printers, but it is clearly best to avoid the possibility.

Directions to Tenacre Country Day School

Ten Acre Country Day School
78 Benvenue Street (off Grove)
Wellesley, MA

1. Get to Exit 54W on Route 128

   (From the Mass Pike, take 128 South, From Providence, take 128 North)

2. Get off of 128 at Exit 54W, Route 16 West/Wellesley

3. Take Route 16 going West. In about 1.5 miles you will cross over Route 9.

   After crossing Route 9, continue on Route 16 for another 1.5 miles. This will take you into Wellesley Center (Town Hall on right).

4. Just after the Town Hall, as the road veers to the left, you will take a sharp left onto Grove Street.

5. Continue on Grove Street for .7 of a mile. You will pass the Dana Hall School on your left. At the .7 mark, you will come to Benvenue Street.

   At the corner of Benvenue and Grove, you will see a sign for the Tenacre Country Day School.

6. Go left on Benvenue, as the sign instructs.

7. Go down Benvenue about 1/4 mile, and you will see the school on the left. Enter the parking lot on the left. We will be in the building closest to the road marked "Office".

More Free Software!!!!

This month we have added many new programs to our software library. There are two sources for these new programs. The first is the Capital Area Fortune Users' Group. Late this summer we contacted Carlton Haywood of CAFUG and although our friendship is new, it is clear that there is much for us to share. CAFUG has been in existence longer than /u/fortune and so they have alot of valuable experience to offer. They have also given us a whole disk full of programs including a backup routine for backing up your system, 2 versions of the screen editor, several games, a program that turns your terminal into a giant clock and more. Carlton Haywood has documented these programs and you should be able to put many of them to immediate use.

The second disk comes from Fortune and is used for marketing support. This disk is also quite full of useful programs. The standouts are two programs called cron and at, which can be used to automate your computer and have it execute specific tasks at specified times. These can be used to automate an alarm clock, call remote computers at night when the phone rates are cheap, etc. There are also several games and some very clever shell scripts which enable the ITE to automatically dial your phone (with a Hayes or compatible modem), etc. At present, these programs are not documented, so it is up to you to search through and find the ones that are useful to you.

If you would like either of these disks, please send us a blank formatted floppy(ies) and a check for $4.00 (per floppy) payable to the Cambridge Consortium, and we will copy on the programs and return them to you. Mail them to:

/u/fortune, 20A Prescott Street, Suite 28, Cambridge, MA 02138.

Equipment for Sale

Some of our members have contacted us to let us know they have Fortune hardware and software for sale. This may be a great time to upgrade your system!

Pam Roth of Roth Microsystems has a Fortune 32:16 for sale. It has 512K memory, a 10-megabyte hard disk, and 2 work stations. It is equipped with Fortune:Word and multi-user FOR:PRO. The machine has been in use since June 1983 and is in very good condition. For more information, please contact:

Pam Roth, Roth Microsystems, Box 252, North Andover, MA 01845, 617 689-9449.

Ron Barrett of Barrett and Associates has the following *new* equipment for sale:

	price	qty avail
256K memory boards	$900.00	30
Comm A boards	$500.00	6
C Language	$200.00	6
Development Tools	400.00	6
Multiplan	$200.00	12
Fortune:Word	$400.00	12
Records Processing	100.00	
Hayes Smartmodem	$400.00	6

This is all being sold COD or certified check. Please contact:

Ron Barrett, Barrett and Associates, 505 Washington Street, Point Richmond, CA 94801, 415 232-1441.

/u/fortune
20A Prescott Street
Suite 20A
Cambridge, MA 02138

/u/fortune *news*. . .

Newsletter for Users of the Fortune 32:16 Computer — Volume 1 Number 7 Oct/November, 1984

News From and About Fortune

Fortune lowers prices!

A trip to the UNIX Expo

NEW YORK. A large shipping terminal on Manhattan's West Side was the home of a UNIX Exposition from October 17th - 19th. Unlike many of the computer shows which cater primarily to the home user, this show featured the latest in office machines from AT&T, Motorola, Perkin-Elmer, IBM, *and* FORTUNE. In fact there were Fortune computers in 12 of the booths. Stacked against these other machines, the Fortune products still looked impressive, particularly because of the whole menu system for talking to the computer. However, it was evident that competition in the multi-user micro environment is beginning to heat up. Fortune is responding to this by announcing new products and by lowering their hardware prices. See the paragraph at the end of this article for more information on this.

At the Fortune booth (which was prominently located near the main entrance), they had the new XP-45 which has a 45 megabyte very fast (30 msec avg access) voice-coil hard disk and a half-height floppy drive. This configuration leaves space for a half-height tape drive to be installed in the main cabinet. The XP-45 is currently available for shipping. (At this time there isn't a half-height tape drive available.)

Fortune is also ready with their new 2 megabyte system. In order to install the extra megabyte of memory in your machine, you need to get a new motherboard. Although the list price on this board is $2,995, it should be possible to get a credit for your old board. Once you have the new motherboard, you can purchase the additional memory. A 512K board is priced at $1,895 and the 1 meg board is $3,495. Before these new boards are used, you must have 4 256K boards installed.

See **Expo**, page 4

Welcome to /u/fortune *news*

For many of you, this may be the first issue of **/u/fortune** *news* that you have seen. We are continually hearing from new people all over the country who are interested in subscribing to our newsletter and our rolls are constantly expanding. The enthusiastic response to our efforts has been overwhelming. We are also hearing from users' groups around the country who are pulling Fortune users together to share information. In a forthcoming issue we will list the groups we are aware of -- if you would like your group to be included, please write or call us right away.

If you haven't yet subscribed to **/u/fortune** *news*, you will find a subscription card enclosed. If you have, perhaps you know someone else who could benefit from our newsletter. We have enclosed a post card which you can use to send us their names.

Featured in this Issue. . .

Using Fortune:Word Glossaries

At one of our recent meetings, Nancy Olson demonstrated some of the Advanced Features of Fortune:Word. As the glossary functions were presented, it became evident that not very many people use them because they think they are too difficult to master. In fact, they function like a basic camera -- anyone can pick them up and use them effectively. However, if you wish, you can get quite fancy and sophisticated. In this article, the basic use of glossary entries will be covered.

First of all, what is a glossary entry and why would you want to use one? Basically, glossary entries are sets of frequently used keystrokes which are stored in a special document known as a glossary. If your typing involves use of repeated words, phrases or even paragraphs, a glossary can save you a lot of time and insure accuracy by always typing it the same way. For instance, if you are typing a document and the word *Fortune:Word* appears frequently, you might want to store it in a glossary entry. In that way, you insure that it is not mispelled or capitalized inconsistently, and you also make your typing more efficient because you can produce the word just by hitting 2 keys instead of 12. The length of the entry is not limited to one word, so as mentioned before, you could just as easily store a phrase, paragraph or letter in one entry. Canned formats can be stored as well -- a memo format could include the *To: From:* and *Subject:* all in the correct format waiting for you to fill in the blanks. As Pam Roth mentioned in the last issue, you can use glossaries to store header and footer pages for all of the chapters of a report or book.

See **Glossaries**, page 2

/u/fortune *news* to accept advertising

Beginning with our January newsletter, **/u/fortune** *news* will accept advertising requests. We are distributed nationally to Fortune users. If you would like more information about this, please call us at 617 876-4763.

* * * *

A Note on this issue

This issue of **/u/fortune** *news* is larger than our past issues, and it also spans two months. Due to unavoidable difficulties we encountered in production, we have combined the October and November newsletters. The next **/u/fortune** *news* will be published in the very near future.

/u/fortune *news. . .*

Managing Editor Josh Lobel
Associate Editors Benzion Chanowitz, Mark Rhodes
Contributor Mark Palmerino.

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The text for this newsletter was prepared using the **vi** editor and **Fortune:Word** on a FORTUNE 32:16 computer. It was then transferred using Kermit to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

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Glossaries, Cont'd from page 1

We should note that basic Fortune:Word comes with a glossary capability which will do all of the above. If you have the Advanced Features module of Fortune:Word, the glossary features are greatly enhanced, allowing you to do math within a document along with some fairly sophisticated programming. The advanced glossary features will be discussed in a future issue.

Probably the best way to learn how to use the glossary would be to sit at your computer and follow the examples given here. We will demonstrate how to create a glossary entry *by example.* This term will be clarified later in this article.

Sign in as you usually do and get to the Fortune:Word menu. The first thing you must do is to create an empty glossary. To do this you choose **Glossary Functions**. You will then be faced with a new menu that looks like this:

Glossary Functions

Please select next activity

Edit Old Glossary	**--egl**
Create New Glossary	**--cgl**
Verify glossary	**--vgl**
Attach glossary	**--agl**
Detach glossary	**--dgl**

Creation library is /u/newsletter

Choose **Create New Glossary**. (You need to create an empty glossary before you can attach it and fill it with glossary entries.) When you press EXECUTE you will get the same kind of screens you normally get when creating any other Fortune:Word document. For our example, call the glossary **gloss1**. In practice, you can name it anything you'd like. Hit EXECUTE again so that you see a blank page on the screen, and then leave the document with the usual CANCEL/DEL EXECUTE combination. At this point, note the *verifying* message at the bottom of the screen, and also the message *Attaching empty glossary.* Once you are back at the main menu, you have created and attached a glossary. We'll talk about what it means to attach a glossary in just a moment.

Now go into a regular document -- you can create a new one for this demonstration or use an old one. Once you've gotten there, we'll create a glossary entry *by example. By example* means that we will tell the computer to create a glossary entry by simply storing the exact keystrokes you make. In this example, we'll store the word **Fortune:Word.**

Press the mode key and you will see the message *What mode?.* Next press the **LF/GL** key (the blue key next to the RETURN key). Once you press the **LF/GL** key you will see *glossary entry* blinking at the bottom of the screen. From this moment on, ANY key that you hit will become part of the glossary entry. So just type the word **Fortune:Word** . Once you've done that hit the **MODE** key and once again you'll get the *What Mode?* message, and when you next hit the **LF/GL** key, the message will change to *Which entry?* Now it's time to make a decision. Your glossary entries are all stored with a one-key label, e. g. any one of the letters or numbers on the keyboard. You should pick a label you can remember, in this case we'll choose the letter **f**. The word Fortune:Word. So after hitting the **LF/GL** key, press the letter **f** followed by **EXECUTE**. Congratulations, you have just created a glossary entry!

See **Glossaries**, page 3

Glossaries, Cont'd from page 2

If you'd like to try out your glossary entry, read on -- it's really quite simple from here out. Just hit the **LF/GL** key, and you'll see the message *Which entry?* appear at the top right along with a beep. Respond by hitting the letter **f**. The word **Fortune:Word** appears wherever you are. Just like magic. Let's try something a little more complicated. Suppose you want to store the closing for your letters as a glossary entry.

Hit the **MODE** key followed by the **LF/GL** key. Now type:
Best wishes,

Josh Lobel
Chief Glossary User

JL:ng

That is the whole entry. Let's store it under the letter **c** and then **EXECUTE**. All messages again disappear. Now go to the end of your text and hit **LF/GL c** and your text will appear. Note that it is not necessary to hit **EXECUTE** after the letter **c**.

Let's review the steps needed to create a glossary *by example.*

1. If you do not already have a glossary, you must create one using the **create glossary** selection of the Glossary Functions menu. Create it just as you would any other document.

2. Edit your document as you normally would.

3. Once in the document, press **MODE LF/GL.**

4. Type in the text you wish to save.

5. Press **MODE LF/GL** and then press the key that you would like to use as the label for the entry, e.g. the letters c or f in the examples above.

6. Press **EXECUTE.**

Let's talk for a moment about attaching glossaries. When you created **glossl** earlier, it was automatically attached during the act of creation. When you attach a glossary, you make all of its entries available for your use for the duration of your Fortune:Word session. While it is attached, you can use it with any document you edit. It will remain attached until you detach it, attach a new glossary, or leave Fortune:Word. There are three ways to attach a glossary. The first is to use the **Glossary Functions** menu and choose the **attach glossary** function. The second is to use the command shortcut from within any Fortune:Word document by typing **COMMAND agl**. The third way is often the most convenient, and the only way to attach a glossary while you are actually editing a document. To do this just press **COMMAND LF/GL**, give the glossary name and press **RETURN.**

You can have many glossaries on your system and use one for each kind of document -- one for letters, one for memos, and one for that report on photovoltaics and the use of solar cells to produce high yield of alternating current. You might want to have the system manager create a glossary in the root directory, e.g. **glossl**. Then all the users could access the common glossary without typing in a very long pathname such as /u/newsletter/vol7/glossl in response to the **Which glossary?** question -- you would only need to type **/glossl** from whatevery directory you were working in. If you decide to do this, be sure to change the permissions on this file so that everyone can access it. You can do this through the **System Utilities** Selection on the Global Menu, but the easier way may be for the manager to enter the UNIX shell and type **chmod 777 /glossl* RETURN** where **glossl** is the name of the glossary. By attaching the asterisk at the end, you will insure that the companion files to glossl -- glossl.dc, glossl.fr and glossl.gl are all changed.

As you can see, creating glossary entries *by example* is fairly simple and useful. There are some limitations with this method though. The first is that any mistakes you make will be recorded as keystrokes in the glossary entry. In other words, if you backspace to correct a typo, when you recall the glossary entry, it will make the mistake, backspace and correct it. The second is that a glossary entry by example is limited to 512 keystrokes, which is only about 10 lines of text. The third is that if you only had access to this method, there wouldn't be any way to examine your glossary entries, or produce a list of what all of your codes stood for. Because of these limitations, glossary entries *by example* are best suited to short, simple entries. Try using them and you'll find that even with these limitations the glossary function is quite powerful.

Once you are comfortable with this procedure, you can learn how to edit your glossary directly which overcomes the restrictions listed above. This will be taken up in detail in a future issue, but you will get some idea of how it works by using the normal **Edit Old Document** function and selecting the name of your glossary, e.g. glossl. What you will see is your entry, with all of the *key words* spelled out. For example, every time you hit the RETURN key, the word RETURN appears in the glossary. You can try editing the glossary as you would any other document to remove unwanted characters and keywords. It is important to maintain the format of the entry with the appropriate quotation marks and braces. If you break any rules, when you go to save the glossary (with the normal **CANCEL/DEL EXECUTE** sequence), the glossary will be verified. If there are any problems, they will be noted on the workpage of your glossary. More on this nextime.

Expo, Cont'd from page 1

They also had a prototype of their new graphics controller which turns the console into a bit-mapped terminal capable of displaying high resolution monochrome graphics. The final release of this product is still somewhat off in the distance, as the software is still being created. The controller will only work with the main console. It seems that Fortune is counting on a new terminal to handle graphics. As I understand it, this terminal will accommodate an 8088 processor which will give it the capacity to run IBM-PC programs locally. The terminal will also be able to take advantage of the graphics capabilities of that processor and associated memory. In a sense, it is similar to having an IBM-PC functioning as a terminal on your system. In addition, the terminal has room for another board which will give it the power to run UNIX utilities locally, lessening the demands on the central microprocessor housed in the main computer box. This terminal is do out in the first quarter of 1985. There will be a more detailed description of it in the next newsletter.

Also present was the latest release of Fortune:Word. Fortune says that the new release has increased program speed by 200 percent. In addition, they have greatly enhanced the pagination and hyphenation routines, giving the user more flexibility -- for example, the ability to paginate without hyphenating. For users who have the spelling checker module, the new release adds some interesting new dimensions, like providing possible correct spellings for misspelled words, doing spelling checking in the "background" so that you can continue with other work while the computer is whirring, etc. The new release will be shipped in November, and is available for the upgrade costs outlined in the last newsletter. One-time upgrades for Fortune:Word and the Spelling Checker are $75 and $55 respectively, the Subscription Update Service charges are $110 and $75.

An upgrade to FOR:PRO was also announced which incorporates changes to the floppy disk driver and to 3270 communications capabilities. With the new release, if you try to a mount a floppy with the door open, you won't get the same peculiar response you are now getting. This upgrade costs $175 or $120, depending upon whether you want the Subscription Service or One-time upgrade. Many of the people we have talked to recommend getting the subscription service for FOR:PRO because they expect there to be at least 2 upgrades for the operating system within the next year, and any upgrades within a 1-year period are included in the price of the subscription. The next upgrade will allow your system to run as a "consoleless system" -- you will be able to assign any terminal the function of the console to receive system messages such as POWER FAILURE, etc. The main purpose of this is to free up the expansion slot currently occupied by the console video controller which currently sits inside the main CPU cabinet. This extra slot can be used to house an extra COMM board so the system can be expanded to 13 users.

As mentioned earlier, Fortune's presence was seen at other booths around the rest of the expo as well. Most of these exhibitors were using Fortunes to demonstrate their software. Here is a brief rundown of some of the exhibits that caught our collective eye:

Handshake, by SST Inc. of Milwaukee, WI. Handshake is a communications program which serves the same function as the Fortune's ITE, but according to SST it is far superior. In terms of flexibility, it allows you to control parity, which the ITE does not. Because of its flexibility, SST feels it will work better than the ITE on non-UNIX based systems. From what I saw at the show, it is certainly much easier to use -- it is all menu driven and features auto-dial and auto-login functions as well. Until December 15th, 1984, SST will sell you Handshake for $75.00 (regular price about $350) if you send them your original ITE disk and documentation. We suggest you contact your dealer for more information. (If your dealer is not aware of HANDSHAKE, SST can be reached directly in Milwaukee, WI at 414 355-6990.) Handshake is actually just one of the communication products from SST. They also have products for communicating with a variety of mainframes. In addition, they have a very nice package for sending and receiving telexes, which automatically sends your telex, checks your mailbox, etc. You can use Fortune:Word to create the telex, and the whole product is menu driven. It lists at $795.

Accounting. There were two vendors selling accounting packages for the Fortune. **Tyme Systems Ltd.** of Montreal, Canada has designed a complete accounting package using the PROGRESS database. Our accounting knowledge is not very broad, so we can't comment on the packages, although we are very fond of PROGRESS. In addition, **Conetic Systems Inc.** of Portland Oregon, showed their accounting package which uses their own database. Again we cannot comment on the quality, although it is nice to know that there are alternatives to the BAS applications. Both of these products are more expensive than the BASIC business packages, but they are much more flexible.

Training: There were several booths which had training materials for UNIX and C. Many of these packages are expensive and are aimed at larger companies. For small companies, there was one solution that appeared to be a good one. **User Training Corporation** of Cambell, CA has a combined audio-cassette/online program for UNIX, C, and Multiplan. The cassette player is attached to a satellite workstation (this will not work with the console) and as the voice is speaking, the examples appear on your screen, just as they would if you were online. They do this by combining the digital computer signals along with the audio instruction on a single cassette. When you want to try out their examples, you switch back to your own system and give it a whirl. In order to use their system, you must rent the cassettes and their special player. Each package is about $300 per month for both. You can rent their starter pack (which includes many packages) for less than $1,000. By combining with other companies, you get training at your own pace for a very reasonable sum. They can be reached at 408 370-9710.

Hardware Prices Cut!!

With the introduction of the 45 meg machine, Fortune has rolled back prices on much of its hardware line. The 45 meg systems are priced at $14,995, which used to be the price for the 30 meg systems. The XP-30's have been reduced to $12,995. And the starting price for a PS-10 with 512K RAM has been reduced to $5,995. The other two most striking changes are in memory and terminal costs. A 256K memory board used to cost $1,495 -- the new price is $995. Intelligent workstations have been reduced from $1,495 to $1,195. Other changes are less dramatic but welcome nonetheless. Software pricing has not changed.

/u/HELP!!

Randy Eckstein of Traycor Xray in Mountain View California writes: *Our company recently purchased a Diablo dual-bin sheet feeder for our Diablo 630 printer. Unfortunately, this feeder is not supported by Fortune and it does not work properly with our programs. Can you help?*

Well, yes and no. As we discussed in the last issue, what you need to do is to modify the /etc/printcap file which houses printer characteristics. We don't have the proper printcap entry for this feeder, although we can give you some information you may not have. In *Introduction to FOR:PRO*, the FOR:PRO 1.7 small silver book, there is a discussion of printcap, but it is not complete. In the large silver notebook which comes with the development utilities, there is a more complete listing of the different codes which are used in the printcap entries. If you send us a check for $1.00 to cover xerox and postage costs, we will mail you a xerox of this information. Please make your check payable to The Cambridge Consortium.

Alan Polson of Martek Corp in Barrington, RI wrote to us about a problem with his Genicom printer:

We set the Genicom to Microdraft, then printed Multiplan sheets at 15 cpi. Then we printed basic (a disc directory) in microdraft and it was OK. Then we changed Genicom via the printer program keys to Normal Draft 10 cpi. At that point we find that printing in Basic screws up. It still prints in microdraft and compresses the type, and it continues to compress further each next time a basic file is printed. Then we must reset Genicom to factory controls, before we can get the printer to print a basic program at 10 cpi, 6 lpi, and 66 lpp. Why?

There's an easy answer to this one provided by Nancy Olson of Fortune. What follows is straightforward, but it will probably only make sense to Genicom owners. The configuration strap settings given in the initial instructions are incorrect. What you need to do is change the setting for Printer Strap A item 15 from 0 to 1. It should look as follows:

8. Printer Control Straps:

Printer Straps A:			
0	1	2	3
123456789	0123456789	0123456789	012
100000001	0110010000	0000000000	000
Printer Straps B:			
0	1	2	3
123456789	0123456789	0123456789	012
000001010	0001000000	0000000000	000

When these changes are made, the printer should work properly.

Lee Feldman in New Jersey called us with a problem he had after trying to install his programs on the Global Menu:

I followed your instructions for installing my program on the Global Menu and it worked fine. However, I just tried it again, and now I can't sign onto my system -- each time the login screen returns and I never get the menu. What happened?

Whoops. When you follow our instructions for installing your programs, it is very important that you do it exactly as it is listed. The easiest things to miss are the back apostrophe before the label for your program, and the space which must directly procede that label. If either of these are left out, you may end up with a faulty Global Menu. Fortunately it is not too difficult to undo the damage. Guy Washburn of Walker Data Systems in Needham MA had this advice:

The first thing you should do is to make backups of the files that are involved. The easiest way to do this is as follows:

Login as root and then type:

```
cp -t /m/menu/control/global.mnu  /m/menu/control/global.bkp

cp -t /m/menu/control/menu.file  /m/menu/control/menu.bkp
```

Once you have made backups, you can work with less risk. Use an editor such as **sc** or **screen** to edit the file called global.mnu. You will probably notice that the selection you altered is different from the other ones -- e.g. there is a missing space before the program name. Edit the file so that your selection is the same as the others. Save it. That will probably fix your problem. If you feel anxious about this, please call us and we'll help you over the phone.

David Vantine, of Vantine Computer Services, Inc. in Sudbury MA recently contacted us with the following advice:

I wanted to let your readers know about a problem that has been discovered in the Multiplan 1.4 update. The update includes a printer set-up feature which allows single sheet printing. The problem is that there is no way to issue a paper feed command from Multiplan once you have placed the paper in the printer and you are ready to print. The solution, at the present time, is to send the Multiplan document to the printer, as you normally would. Then you must exit Multiplan and go into Fortune:Word. Next, select Printer Control and when your screen shows "suspended" at the top right of it, press the function key F16 and the printer will begin printing. Continue with the last step until all the pages are printed.

Although this is less than satisfactory it will at least allow a work around solution for the time being. Please pass this information on to any other users who need to know.

HARDWARE HAZARDS

Vantine goes on to cite some potential hardware problems you should avoid. . .

Another issue is fire extinguishers. It's a good idea to have them around. However, you should be aware of some potential problems:

- *Chemical extinguishers can crystalize on hot chips and transistors thus ruining your system.*
- *CO2 extinguishers can crack hot chips and transistors because of the cold propellant.*

If you wish to have an extinguisher, I recommend a Halogen type extinguisher.

The final point that I would like to make concerns the Central Processing Unit (CPU). Manuals, notebooks, and other heavy objects stacked on top of the CPU can short circuit the power supply. The weight of the books causes the cover of the CPU to bend into the power supply, thereby shorting it out. This situation is an important one to be aware of since it is probably not covered by your Maintenance Agreement.

John Hume, of Associates and John Hume in Westport CT wrote with an important warning:

I recently heard of someone who discovered that he could save time by just shutting their Fortune 32:16 off without going

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The Unix Directory

The passwd file

Most users will be familiar with the log-on procedure for their Fortune. You type in your username and then your password, if you have one. If you've typed in everything correctly you will automatically see the Fortune Menu. As with most capabilities of the Fortune, there is a file which controls the log-on procedure -- it knows your account name, your password, and that when you log in you should get the Global Menu. This file is the passwd file (full path name is /etc/passwd) and if you know what it does you can modify, customize and solve problems for you system. For example, the following problems and customizing can be accomplished easily with minor modifications to the passwd file. Suppose:

- Someone forgets their password.
- Your system is sluggish because you have too many people using it at one time.
- You'd like to limit someone's access to the system (for example, you want someone just to be able to use FOR:WORD).
- You find it bothersome to go all the way through the log-on procedure and then through various levels of the menu just to leave a message for another user.

Knowing how the passwd file works and how it is structured will give you the ability to keep your system humming properly, so let's get on to a description.

The passwd file structure

The passwd file resides in the /etc directory. There is one line in this file for each user and each line contains 7 fields. These fields are separated by colons (:). The following is an example of a line from a passwd file:

steve:mb9vxQ:103:100:prototype account:/u/steve:/bin/menu

The first field (in this case "steve") is the user name. The colon immediately following marks the end of the first field. The next field (which in our example above looks like random characters) is an encrypted version of the password for this particular user. (The user's actual passwd is not displayed in this file because it would make it very easy for anyone to find out anybody's password. The actual program that controls log-ons will take take this encrypted version, decode it and compare it to the password the user types in.) The next two fields are, respectively, the user id and the group id. (These fields will not be discussed further in this article - a future Unix Directory will discuss how this information is used by the system). The fifth field is simply a comment field. The sixth field is the home directory for this particular user. Finally, the last field specifies a program which automatically begins running when the user logs in. In the case above it is the Fortune Menu.

The menu program is, for all intents and purposes, the default program for most users of the Fortune. However, there are times when one wishes to access the shell. One can get to the shell from the menu by typing **!sh** or **.unix**. But suppose you find yourself doing something routinely which requires you to go to the shell. In this case it would be nice to log on to the Fortune and be put right into the shell. This is quite easily accomplished by modifying the passwd file. To do this you would have to use an editor (We suggest using **sc**. If you don't have sc you can get it by sending us a formatted floppy along with $4. You can also use **ed**). Also, because the passwd file is protected (see the Unix Directory in issue #5 for more information on file protections) you'll have to log in as root or manager to change the passwd file. Now, let's say we want to modify steve's account so that he will automatically get the shell instead of the menu. To do this we

1) sign in as root
2) change directory to /etc (cd /etc)
3) open passwd file with sc (sc passwd)
4) then modify the line that looks like:

   steve:mb9vxQ:103:100:prototype account:/u/steve:/bin/menu

   to look like this:

   steve:mb9vxQ:103:100:prototype account:/u/steve:/bin/sh

   that is, change the word **menu** to **sh**.

5) exit and save the file.

The next time steve logs in he will automatically be put in the shell. This could be very useful if steve frequently logs into the computer using a modem. Anyone who has done this knows it takes a long time just to have the Global Menu print on the screen. If they immediately get the shell, the $ prompt appears in an instant.

There is another reason one might wish to be put in the shell right away rather than the menu. The shell is less than half the size of the menu in terms of how much internal memory is needed to run it. This means that if there are 3 or 4 people using the system there is this relatively large program (the menu) using up space. The more internal space that is used the more often other programs must be swapped in and out and the more swapping that is done the slower the system appears. We can expect, then, that by reducing the amount of internal memory used up (by replacing the menu with the shell) we can improve the speed of the system. Some of our members have replaced the Global Menu with a simple shell script that presents the user with a simpler menu which can be used to access any program. (David Forrester of the South Carolina Fortune Users Group has sent us a sample of the menus he uses, and we are including these with the D.C. Grab Bag floppy. These programs are included on Revision 1.1 or greater of this floppy.)

Now suppose steve forgot his password. This problem is easily solved by editing the passwd file and deleting the second field in the line for steve, in other words making the following line:

steve:mb9vxQ:103:100:prototype account:/u/steve:/bin/sh

look like this:

steve::103:100:prototype account:/u/steve:/bin/sh

The next time steve logs in he will not be prompted for a password. If he wants another password he can type the word "passwd" to the prompt and will be asked for a new password.

Customizing your system is easy because you can set up accounts that do special things. This is done by creating lines in the passwd file that end with a program of your choosing.

See **Passwd,** next page

Passwd, Cont'd from page 6

Examples of accounts like this already exist in the passwd file. When you shut down the Fortune you type shutdown to the log-in prompt. This starts the program /etc/shutdown and if you look in the passwd file you'll find a line like this:

shutdown::100:100:shut down computer:/:/etc/shutdown

Notice that this account has no passwd. This means that anyone can shut down the system. If you would like to provide security against accidental, or malicious, shutdowns of the system you could sign in as root and edit the passwd file and put the encrypted version of an already known passwd in between the two colons.

Look through your passwd file and try to find the line that looks like the following:

@::100:100:help to login:/:/etc/login.help

Can you figure out what this does and why it works? (Hint: When the HELP key is depressed it generates a ctrl-A, then a "@" and finally a return).

We've used the passwd file to facilitate certain record keeping. We have programs that keep track of long distance phone calls and xerox costs and it is inefficient to go through a long log in procedure just to record 100 xeroxes. So what we've done is created an account called xerox which just runs the xerox program. Also, we have one for long distance calls. The beauty of this set up is that all we have to do is type "xerox" to the familiar Fortune sign in message and we are immediately put into the xerox program. This type of modification can make your system more useful and easy to use. Try to understand the passwd file and experiment with it. If you have any questions or comments, please call or drop us a line and if you've modified your passwd file in interesting ways we'd be happy to hear about it.

/u/HELP!, Cont'd from page 6

through the proper shutdown procedure, and then when he turned the machine back on, he would just hold down the CANCEL DEL key when he got the message "Checking your files". THIS IS NOT A GOOD IDEA. When the system goes through the shutdown procedure it straightens up any loose ends and insures that the files are in good order. When you turn the machine on, it runs a file system check, and again cleans up any problems, or notifies you that the problems should be taken care of before you do further damage. Bypassing either of these procedures could leave you with a very serious problems, including lost data and costly repairs for your system.

We appreciate their advice and welcome any suggestions from other members.

Beyond /u/fortune *news*

The Unix Programming Environment by Brian W. Kernighan and Rob Pike Prentice Hall, 1984.

Many of you who are interested in unix have asked what other publications we could recommend on the topic. *The Unix Programming Environment* by Kernighan and Pike is a fascinating book for those who want to delve further into unix than we do in The Unix Directory. This book is written by Rob Pike and by Brian Kernighan, who along with Dennis Ritchie wrote the classic reference book on the C programming language. Both authors are from Bell Labs, the creators of unix.

These qualifications do not necessarily produce good writing. However this book is indeed very easy to read and filled with helpful information and some very clever ideas. It is not targeted for people with a casual interest in unix who just want to know how to print a directory. It is for beginners and experts who want to really understand and use unix -- beginners should not be afraid that they won't be able to follow, and experts should not feel they won't learn something. There is something here for everyone.

The first chapter is an introduction to unix with a review of some of the more common commands. The second chapter is a detailed description of the unix file system, which is the foundation for the whole system. The remainder of the book is an in-depth examination of the Bourne shell and some very useful guides to programming in it.

One word of warning: many of the book's examples include functions that are not part of the basic FOR:PRO operating system. These programs are sold with the Development Utilities package. If you do not have them, you will still learn a great deal from this book. If you do have them, your imagination will be unleashed.

Amber Screens Available

John Hume of Associates and John Hume in Westport, Connecticut recently wrote to say that he has installed amber crt's in his Fortune monitors and is very pleased with the results. As many of our members have inquired about this in the past, it comes as welcome information that this is possible. He has used a screen supplied by Langley-Sinclair and is very pleased with it. This screen is a medium decay amber and comes with anti-glare and costs $99.95. Quantity discounts are available. Installation is fairly straightforward -- although if you would prefer to have someone else do it, your dealer should be able to accommodate you. If you are in the Connecticut area, John Hume will sell you the crt and install it for $195.00. For more information, contact Langley Sinclair or John Hume.

Langley Sinclair, 132 West 24th Street, New York, NY 10011. 800-221-7070. **Associates & John Hume**, P.O. Box 2687, Westport, CT 06880. 203-355-2024.

Shell Scripts of the Month

(A note to our new readers: Shell scripts are programs that you can use to customize your system. Although they can be quite simple, they can also be quite powerful. There is more information about them in the August and September newsletters. In order to use them, you will need to type the scripts into a file, using **sc**, **screen** or **ed**. If you have either of the first two, it will be much easier. They are available for free from our software library. After you have typed them in, you will need to make them executable. Instructions to do that are given at the end of this introduction. Good luck.)

This month, in keeping with the larger size of this issue, we have two shell scripts to present. The first is from Alan Polson in Rhode Island. It can be used to produce a "screen dump" off of a satellite workstation. A screen dump is a printed version of exactly what appears on the TV screen of your terminal. The program takes advantage of the printer port on the back of the workstation. Note that it is not possible to do this with the console. You may find it useful for producing written explanations of how your system works, supplemented by actual printouts of what the screen looks like at various times.

The second shell script is based on some programs sent to us by David Forrester in South Carolina. This shell script is a menu program that can be used in place of the Global Menu. It could also be used as a sub-menu off of the Global Menu for Games, or Unix commands or whatever. If you want to use it instead of the Global Menu, you will need to modify your /etc/passwd file as described in the Unix Directory column.

You will notice that there are 8 choices presented in the menu. If you look at the bottom half of the program, you will see that there are 8 programs that will be run if the corresponding number of the selection is chosen. For instance, if you enter the number 2 in response to "Enter Selection:", the program **/bin/wp2** will be run. This program is **Fortune:Word**. It is possible to alter the menu and the commands that are executed. All you have to do is to change the text in the menu section of the program, and then change the pathname of the program you want to run in the case section of the program. For example, you could change Adventure to Shutdown just by exchanging those two words, and then down below where it says **/usr/games/advent** put **/etc/shutdown**. The program for mounting and listing the directory of a floppy was given in our August issue. Note that for this menu program to work, the last line must correspond to the name you are giving the menu -- in our case we have called it /bin/newmenu. Lastly, after typing the programs in, you need to make them executable by typing: **chmod +x /bin/newmenu**. (Substitute the name of your program for /bin/newmenu if you have given a different name.)

You may notice that the type for these programs differs from the rest of the newsletter. That is because it is easier to format the double column output with Fortune:Word than with the typesetter. We have taken advantage of the proportional spacing capabilities of Fortune:Word and have printed the output on a Qume Sprint V printer. We are very pleased with the results. In order to use proportional spacing, you have to specify the printwheel as lp (that's the number 1) on the Fortune:Word Print Menu. If you have questions on how to do this, give us a call.

This program produces a screen dump from a satellite worksation to a printer connected to either the auxiliary port or the printer port on the back of the terminal. You may be able to use a standard printer cable for this connection, or you may have to modify a cable for thisfunction. At the terminal end, pins 4 and 5 should be connected together. At the printer end, pin 5 should be disconnected. Pin 20 from the computer should go to pin 4 on the printer.

You also will have to set this file up for the port # of the terminal -- this programs is set up for port 2 (/dev/tty02). You also should check the BAUD rate. This program is set up to run your printer at 9600 baud. If your printer is running at a different speed, substitute the letter Q in all of the command lines for the appropriate number from the chart below:

Baud	Mark Parity	Odd Parity	Space Parity	
300	F	V	f	
600	E	U	e	
1200	D	T	d	
2400	C	S	c	
4800	B	R	b	
9600	A	Q	a	Note: Letter Q is 9600 Odd
19200	@	P	`	

```
stty -ctlecho     > /dev/tty02      turns off echo on terminal
echo -n "BPQ"    > /dev/tty02      sets baud for printer, Change "Q" if needed
echo -n "PPB"    > /dev/tty02      (Note: here we use " instead of apostrophe, either will work)
echo -n "BAQ"    > /dev/tty02      sets baud for auxilliary, Change Q if needed
echo -n "PAB"    > /dev/tty02
echo -n "SP"     > /dev/tty02      command for screen dump
echo -n "DP"     > /dev/tty02      command for printer diversion so ^L produces a form
echo -n "^L"     > /dev/tty02      feed on the printer
echo -n "DC"     > /dev/tty02      returns control of terminal to keyboard
stty ctlecho      > /dev/tty02      turns on terminal echo
```

```
echo ^L

/usr/games/fortune
echo
echo
echo
```

The caret L is actually a a single character, CTRL L, which is achieved by pressing both keys together. This clears the screen. /usr/games/fortune displays a fortune if you have installed this game from our floppy.

```
echo 'Press RETURN to continue'
read x
```

This line pauses the action so you can read the fortune. **read x** tells the program to wait for your input before going on. If you do not have **fortune** on your system, you can start your menu program with the next line.

```
echo '^L          Fortune Systems Menu          '
echo -n '
                Please Enter Your Selection

          1  Multiplan                5  Adventure

          2  Word Processing          6  Blob

          3  Communications           7  Hangman

          4  Enter Unix Shell         8  Mount and List Floppy


          Enter Selection:'
```

Now begins the actual display of your menu. The CTRL L clears the screen. Note the apostrophes. **echo** will put everything between the apostrophes onto the screen.

All of the options displayed here are part of the **echo -n** command just above. The -n means that echo should not put a RETURN when it is done. That way the cursor will stay at the end of the Enter Selection: line rather than going down to the next line. (Don't forget to include the apostrophes!)

```
read num
case $num in
     1) /usr/bin/master
     ;;
     2) /bin/wp2
     ;;
     3) /bin/cu -s1200 -l /dev/tty05 -o    (note: letter "l")
     ;;
     4) /bin/sh
     ;;
     5) /usr/games/advent
     ;;
     6) /usr/games/blob
     ;;
     7) /usr/games/hangman
     ;;
     8) /bin/ml
     ;;
     *) echo 'Selection ' $num ' is not a valid selection.
           You must now start again.
           Press RETURN to continue'

read x
```

The command **read num** tells the program to read from the keyboard and put the result into a variable called num. When we said **read x** up above, we put the input into a variable called x, which is just a dummy variable. All that we wanted was to wait for the RETURN.

The **case** command tests to see if **$num** is **in** the set of options that follows. When assigning something to a variable, we used **read num.** Now we want to look at the contents of num. That's why the $ is used. If you choose Selection 3, then $num would equal the number 3.

Whatever precedes the **)** is what case is trying to match. If it does match, the specified programs is run. Note the last option is the ***.** If it gets this far and nothing has matched, the message is echoed.

```
esac
```

esac is case spelled backwards. This signals that we are at the end of the case test.

```
/bin/newmenu
```

After any any of the programs are run newmenu runs itself again until you hit CANCEL to stop it.

Some KERMIT Basics

In an ongoing effort to underline our enthusiasm for KERMIT, we would like to clarify instructions for its use. The instructions included on the KERMIT disk are accurate, but perhaps less straightforward then they might be. It's really very easy to use.

Configuring your ports

Ports must be configured correctly before any communications package will function. There are two types of ports that can exist on your system: those that are used for sending information out of your computer to printers, other computers, etc.; and those that are used for other people to log onto your system. If you are a single-user system, then you will only have the first type of port. These ports are defined through the "Change Device Connections" selection from the Global Menu.

When defining the port, you are defining the *device* that will be attached to that port. If you are connecting a terminal to your system, the port should be defined as "Terminal". Using the same logic, if another computer is going to sign onto your system, it is actually acting as a terminal, and should also be defined "Terminal". If you will be using your computer to sign onto a remote computer, then you will be attaching a "Host" computer to your system, and the port should be defined as "Host". Follow steps to set baud rate, etc. When you have defined a device as "Terminal", you will need to reboot your system before the changes will take effect. If you have defined a "Host" or "Printer", it is not necessary to reboot to incorporate the changes.

Using Kermit

Kermit can take six different arguments:

c **connect**, connect to remote computer
r **receive**, receive file from remote to you
s **send**, send file from you to remote
l **line**, port to be used, e.g. /dev/tty05
b **baud**, baud rate to use, e.g. 1200
i **image**, for sending binary files

In the following examples, it will be assumed that the port being used is /dev/tty05 and that the baud rate is 1200. You should substitute the appropriate port and baud rate for your system. If you only have a single port which you use for the printer, you can use that port which is /dev/tty01.

Connecting to remote system:

Enter unix shell as instructed in The Unix Directory.

Type **kermit clb /dev/tty05 1200 RETURN**

The system will respond "kermit: connected". You are now connected to either your modem or whatever is attached to the specified port. Follow instructions for modem to dial up remote system. Once connection is established, hit the RETURN key and you should get the login prompt of the remote system. If not, check to be sure your port and baud are specified correctly and that all wires are attached. (To attach a modem to the Fortune Computer, you need a special cable, or adapter, which is different than the workstation cable. The correct wiring diagram was given in **/u/fortune** *news* #3, page 3.)

To EXIT kermit, type ^c, which is done by typing a SHIFT-6 followed by the letter c.

Sending a file to a remote system

First connect to remote system as explained above. Log on to remote system and get to unix shell. (If you are connecting to a computer that does not use the UNIX system, you will need to check the appropriate commands for that system.) Then you must start kermit in the receive mode on the remote system.

Type **kermit r RETURN**

The prompt will disappear and the system will just sit there. Stop your connect kermit by typing **SHIFT-6 c**, as explained above. You should then get message, "kermit: disconnected" and your computer's prompt will reappear. Now you must start kermit in the send mode on your system. Let's say you want to send a file called "report1". Type:

kermit slb /dev/tty05 1200 report1 RETURN

Computer will pause, and should respond, "Sending file REPORT1". File will be transmitted. When it is completed, you will get the message, "kermit done". NOTE: once kermit is done, you will be sitting back at your own computer. You are still logged in at the remote site. Using the **kermit clb** option outlined above, reconned to the remote computer, log out and hang up the phone line.

Receiving a file from a remote system

Again connect to remote system. Then start kermit in send mode on remote system. Type:

kermit s report2 RETURN

The system will respond by displaying about 10 characters of garbage. Again exit from your connect kermit with **SHIFT-6 c**. Then start kermit in receive mode on your system. Type:

kermit rlb /dev/tty05 1200 RETURN

System will respond, "Receiving file REPORT2", and when it's all there, "kermit done".

Sending and Receiving binary files

The procedure for this is the same as above -- just insert the letter i in the command line on both the receive and the send side.

To receive a binary file you would first connect as usual. Then when you start the remote kermit sending, type:

kermit si report3 RETURN SHIFT-6 c RETURN

and then on your system, type:

kermit / rilb / /dev/tty05 / 1200 / RETURN

That's all there is to it.

Summary and closing hints

Only specify file that is being sent when using s argument, never when using r argument.

Only specify lb (line and baud) on your own computer, never on the remote computer. Line and baud should always be specified on your computer.

See **Kermit**, page 11

Kermit, Cont'd from page 10

If you have more than one file to send, you can list them all on the command line at once, e.g. **kermit slb /dev/tty05 1200 report1 report2 report3**, etc. You can also use the * to specify them all, e.g. **kermit slb /dev/tty05 1200 report*** which will send all files that begin report.

If the prompt is the same on both systems and you are confused about where you are, you can change the prompt on either system by typing while in that system as follows:

Type **PS1="remote$ " RETURN**

The quotes are needed so that a space will be left after prompt. You can use any words you'd like besides remote$. This is a temporary change -- it will only be altered while you are logged on -- once you log out, the changed prompt disappears.

3rd Quarter Report

Fortune Systems' financial statement for the quarter ending September 30 (as reported in the New York Times) brings both good news and bad news. The bad news is that for this quarter Fortune suffered a net loss of $3.7 million on revenues of $16.8 million. The totals for the nine-month period ending September 30 are a net loss of $7 million on revenues of $52 million. The good news is that these figures compare favorably with the figures for 1983 when revenues were smaller and losses were larger. In the same quarter last year, net loss was $9.1 million dollars on revenues of $9.1 million while the nine-month totals were a net loss of $8.3 million and revenues of $41.8 million. The company hoped to turn the corner during this quarter in terms of reporting a profit. Despite the actual shortfall, the numbers are moving in the right direction. Hopefully, this will engender confidence in the company's viability and the new management's corporate strategy.

Fortune Tightens Belt

Fortune Systems recently reshuffled its marketing direction which resulted in 46 people being laid off, including Nancy Olson of the Boston Fortune office. The affected employees were involved in direct sales -- Fortune's present feeling is that the more successful marketing directions are through Valued Added Resellers (VAR's) or very large corporate accounts. Although it would be easy to view these layoffs as a sign of gloom, Fortune insists that it is wise business management. In a story in **InfoWorld**, they point out that while they have reduced their overall work force by 30% since last January, their financial position and output has increased. The numbers seem to support that claim, as outlined in a story elsewhere in this issue.

Unfortunately, many of the people involved served dual roles, both in sales and support. Their departure will leave the remaining support people with a greatly increased load. In particular, we are very sorry to see Nancy Olson leave the company. Since we began, she has been extremely helpful, knowledgeable, and one of our strongest allies. We wish her well in her new endeavors.

Multiplan Extras
Link BAS/IDOL/BASIC to Multiplan

David Kloes of Uni-Komp in Houston wrote us recently with several product announcements. One of them that looked very useful is called Multiplan Link and it allows data to be passed between Multiplan and Basic files. For example, you could take your accounting information and plug it into a Multiplan cash projection. The link can work both ways and has some other bells and whistles also. It costs $295.00. You can contact him at:

Uni-Komp, 10110 Forum Park, Suite 151, Houston, TX 77036. 713-981-8713.

Here at the Cambridge Consortium we are working on a program which will allow you to store printing information with each of your spreadsheets, rather than having to reset the parameters for pitch, etc. each time you print a special sheet. It also allows you to put the current date on the printed output, and to put page breaks at irregular intervals. We will have more information about this in the next newsletter.

If you need to transfer Multiplan spreadsheets to another kind of computer, such as an IBM, you can do it using the SYLK format when you save the spreadsheet. The SYLK format is a symbolic representation of the sheet and it contains only ASCII codes. Once it is saved this way, you can transfer it over a phone line and load it as a Symbolic file on the other computer.

To save a file in the SYLK format, go to the Transfer Options selection within Multiplan, and choose Symbolic. Then when you save your file, it will be saved in the SYLK format. The Fortune is smart enough to know which files are saved this way by sticking the suffix ".SL" on the end of your file, e.g. **cashflow.SL**. Normal Multiplan files are stored with a ".MP" suffix e.g. **cashflow.MP**. When transferring the file to the other computer, specify the cashflow.SL version.

On the other computer you will also need to use the Transfer Options selection and choose Symbolic. Then load your sheet as normal. This may take longer than you expect -- when transferring files to an IBM-pc, a large spreadsheet may take 5 minutes or more. The lines will count off at the bottom of the screen and finally the spreadsheet will appear. Once this has happened, choose the Transfer Options again and select Normal. Transfer and Save your sheet with a new name, and from then on it will load as quickly as you'd expect.

One thing you must be sure of before doing this is that the Multiplan program on the target computer can accommodate a spreadsheet as large as the one you are transferring. One way to get an idea of this is to choose Options from the menu and then hit EXECUTE (or RETURN on an IBM). When you do this, the total bytes available to the program will be displayed in the lower right corner of the screen. On your Fortune it will say 56,092 bytes available. If it says less on the other computer, you may be able to increase it by adding more memory (RAM) to the system. Unfortunately, no matter how much RAM is installed, Multiplan cannot access more than 56,000 bytes.

Free Software Directory

/u/fortune currently has 3 disks in our software library. The first has a "tutorial" for Fortune:Word, including the advanced features and other modules. This tutorial is really a demonstration of the features using several demonstration documents. It is well written and should prove helpful. The second disk has a variety of marketing utilities that were given to us by Fortune. These programs are not supported by Fortune, but many of them are self explanatory and they seem to work well. The last disk we call the D.C. Grab Bag because it originally came to us from the Washington D.C. Users' Group -- however, we are constantly adding new programs to this disk as our members send them in. If you would like any of these disks, send us a fomatted floppy and check for $4 (payable to the Cambridge Consortium) for each disk you would like. If you have programs you think would be helpful to our other members, we welcome your contributions.

For Sale

Mike Opauski in Washington is selling his two-year old Fortune System 5 computer. It is equipped with 256K memory, Basic, Multiplan, Accounts Payable and General Ledger, Fortune:Word, C Language and the single-user version of FOR:PRO. He can be reached at 202 651-5328.

Coming in Future Issues. . .

Backup Power Supplies -- a discussion of power line problems and some possible solutions.

A Review of PCWorks -- this program turns your IBM computer into a Fortune terminal.

Fortune announces new terminal -- The Fortune 1000 is a new terminal that will run IBM programs as well as UNIX. It's an exciting new development that we will detail.

Electronic Appointment Calendar -- At and Cron are among our free software library. We'll explain how to use them for a reminder system.

Review of PROGRESS -- this new "database" package unleashes many new uses for computers.

Software listing -- A list of software available for Fortune computers, including 3rd party products

Support for more types of printers -- We will be getting the information that is necessary to connect a number of new printers to your Fortune.

Plus more free software, more help with problems, and always more information. . .

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/u/fortune *news. . .*

Newsletter for Users of the Fortune 32:16 Computer **Volume 1 Number Eight**

The Biggest News From Fortune

A look at the FIS 1000

(Editor's note: This article is based on information supplied from Fortune Systems Corp and from a firsthand observation of some of the equipment discussed, including the basic FIS1000 terminal, the PC compatible equipment and the FOR:PRO card. It is not intended to be an in-depth evaluation -- rather a pre-release look at what appears to be an exciting addition to the Fortune line).

At the end of the first quarter of 1985, Fortune Systems Corp. is planning to release their latest product, the FIS 1000. Actually, the FIS 1000 is more of a product line than a single piece of equipment. It is designed in a modular fashion so that you can buy as little as you need, and add power later on as your needs grow. These products introduce Fortune to a whole new market. At its minimum, the FIS 1000 is a high-quality, low-cost terminal. At its most, it is an IBM-PC compatible that has a hard disk and the capacity to run FOR:PRO locally. This may sound complicated. It is actually quite simple.

Let's start at the beginning. The minimum configuration you can buy to have a usable terminal is the keyboard and screen. This configuration will cost about $795, $300 less than the present workstations (as you are about to read, if you just want to buy the keyboard and hook it up to an IBM-PC you can do that for $150). The screen is a 14" amber or green monitor that has a very crisp image, with the same tilt and swivel capabilities as the old terminals. There are brightness and contrast controls on the front of the unit.

The keyboard is very similar to the familiar Fortune keyboard, with a few changes. It is a low-profile keyboard, which basically means it is sleeker and presumably more comfortable to work on. The positions of some keys have been changed, most notably the {} and [] characters, and several more keys have been added. The additional keys, such as the ALT key, make the keyboard IBM compatible. This, in itself, is very exciting news. In theory, anyone with an IBM-PC and its inferior keyboard will be able to use the Fortune keyboard as a substitute for about $150. This is quite a competitive price -- the Keytronics keyboards cost over $200. It is possible that this keyboard will not work with all IBM software, but it should work with most of it. Once it is released, these details will be clarified.

Together the keyboard and screen make up the new FIS 1000 terminal. There are several improvements in its operation also. The most significant enhancement is the addition of a *soft setup mode.* This facility exists on other terminals, but until now it has been absent from Fortune equipment. With the soft setup you can adjust baud rate, parity, handshaking, etc. by making choices on a menu (no little confusing switches in the back). Even more convenient is the ability to select several display attributes, such as scrolling, 80 or 132 columns, reverse video or normal, blinking, underline or block cursor, the sound level of the bell and key clicks, and linefeed and wraparound. The terminal also has a screen-saver mode where the display gets dim when it hasn't been used for more than 10 minutes and automatically brightens

See **FIS1000**, page 2

Featured in this Issue. . .

PCworks -- IBM Meets Fortune

Many readers have inquired about the possibility of connecting other computers to their Fortunes. With the advent of *PCworks* it is now quite easy to connect an IBM-PC or an IBM compatible machine to a Fortune. This means that if you have a Multiuser Fortune computer you can use your IBM as a terminal on the Fortune if you buy the *PCworks* program for the IBM ($195). (It will also be possible to connect an Apple Macintosh to a Fortune in the near future). In order to connect an IBM computer, you need special software, in this case the *PCworks* program.

PCworks includes four separate functions:

1) Terminal Emulator. Lets IBM-PC emulate either a VT-100 or Fortune terminal. IBM-PC can be used just like a Fortune workstation on the Fortune computer.
2) UNIX Mail/File Network. Between PC and UNIX system allows transfer of files, capability for creating, sending and receiving electronic mail, and the ability to print reports on the UNIX system printer.
3) Menu for UNIX programs. Provides menu for up to five UNIX commands.
4) Menu for DOS programs. Provides menu for up to five DOS commands.

In order to review this program, it is necessary to understand some of the issues involved.

The Background

In theory, if you have a Multiuser Fortune computer it is possible to attach any other terminal or computer that has a serial port (RS-232) to it. Let's go over each of the key words in that sentence:

See **PCworks**, page 6

From the Editor's Desk

If you have any ideas for topics that should be covered in future issues or if you like to write an article for /u/fortune news, please let us know. We will identify and credit any articles written by our readers. As we mentioned in the last issue, we are planning to publish a list of Fortune user groups. If you are out there and we don't know about you, please let us know. Everyone will benefit from a large network of users who can help each other. Last but not least, we will soon be forwarding a survey questionnaire to you. Please give this your careful attention. We would like to get a profile of the ways in which the Fortune machine is used so that we can appropriately respond to readers' needs. In addition, you will be asked whether or not you would like to have your name on a mailing list. We have already received requests from vendors for our mailing list but we want to give you the opportunity to say "No" before releasing your name. In any case, the release of names will be strictly monitored.

/u/fortune *news. . .*

Managing Editor Josh Lobel
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Although every attempt is made to insure that our contents are error-free and without risk, The Cambridge Consortium is not responsible for losses that occur due to correct or incorrect interpretation of **/u/fortune** *news.*

For more information about us, please call or write:

/u/fortune *news*, 20a Prescott Street, Suite 28, Cambridge, MA 02138. Telephone 617 876-4763.

The text for this newsletter was prepared using the **vi** editor and **Fortune:Word** on a FORTUNE 32:16 computer. It was then transferred using Kermit to a PDP 11/44 computer running UNIX and prepared for typesetting with the **troff** program.

FIS1000, Cont'd from page 1

when a key is hit. This prolongs the life of the display tube. If you don't understand the significance of any of these options, here's an example: with the 80/132 column display choice, you can choose 132 columns to be displayed on the screen. This will make the letters smaller, but it will also allow you to fit a much wider spreadsheet on the screen all at once. It is quite easy to toggle back and forth between any of these modes.

For people using their terminals on other systems, Fortune expects to build VT-100 emulation into the terminal as well. In this mode, the terminal will look just like a DEC VT-100 terminal to the host computer.

The combination of all of these features makes the terminal a very attractive new development -- but wait!!! don't send your money yet!!!

For approximately another $2000 you can turn this terminal into an IBM compatible computer! This is done by adding a system unit which is basically an expansion box with a power supply and fan, but no electronics. A board, with an 8088 CPU is added along with optional floppy disks or hard disks. Once you've done this, you have in essence an IBM computer with a Fortune keyboard, and the capability to easily link up with a Fortune computer. One nice byproduct of this arrangement is that you can now use the 8088 chip to drive all of your graphics, making it much easier to develop graphics software that runs on the Fortune. Both monochrome and color graphics will be available.

One disadvantage of linking the "IBM" computer with the Fortune, is that at present you are limited to fairly slow speeds for transferring data from one to the other, making it impractical to store spreadsheets and large quantities of information on the Fortune disk and download to the terminal/computer. In the third quarter of 1985, Fortune Systems Corp. expects to solve this problem by introducing networking hardware which will allow the user to connect 255 devices (computers, printers, modems, etc.) in a network and transmit information at 2.5 megabytes per second. When this is implemented, the Fortune can essentially become a file server for many computers and peripherals.

At present, you could only run MS-DOS applications from this one FIS 1000. With a little more software, it might be possible to have other terminals on the Fortune "call up" the FIS 1000 and run the MS-DOS program from a remote terminal. Although the FIS 1000 or an IBM-PC are not multiuser systems, it is possible to redirect the control of the computer from the console to a serial port. However since we are not IBM experts, this is only conjecture on our part.

The crowning glory of the system is a FOR:PRO card that contains a 68010 CPU chip (similar to the chip that drives your present Fortune), and 512K of memory. This card is tentatively priced at $1,995. With it installed, your IBM-PC look-alike becomes a single user Fortune computer which can run any Fortune software. On a single machine, you could run both MS-DOS and UNIX applications. When you are not running FOR:PRO, MS-DOS can take advantage of the extra 512K of memory. In a networked setup, processes (e.g. programs) could be shifted from one computer to another in order to maintain efficiency. This kind of arrangement is obviously not for the small user, but it offers some very interesting possibilities for large companies.

See **FIS1000**, page 3

FIS1000,

Cont'd from page 2

The last exciting piece of news is that all of this hardware is interchangeable with any IBM computer and, presumably, most IBM compatibles. For instance, you can take the FOR:PRO card and plug it into the IBM computer you already have. If you have an IBM compatible, you can already use it as a terminal for your system by buying the PCWorks program discussed elsewhere in this issue. In designing these products, Fortune Systems Corp. is taking the philosophy that "If you can't beat 'em, join 'em". Obviously this is helpful for all of us. In a coming issue, we will discuss the new software that can be used to hook a Fortune computer up to the newly announced AppleBus. This will allow you to connect a Macintosh computer to the Fortune.

Tentatitve Price List

Display (for use as terminal only)	645
Monitor (for use w/ system unit)	295
Keyboard	150
System Unit	1,595
Bus Expansion Unit	495
10 MB Fixed Disk Drive	2,595
20 MB Fixed Disk Drive	TBD
LAN Card (Networking)	495
FOR:PRO Card	1,995
Monochrome Graphics Card	700
Color Graphics Card	TBD
Color Monitor	TBD
First Double-Sided Disk Drive	395
Second Double-Sided Disk Drive	335
PCworks	195
MS-DOS	60

Sample configurations:

Basic Workstation	795
MS-DOS Workstation	2,790
Monochrome Graphics Workstation	2,995
MS-DOS/UNIX Workstation	4,590

The FIS 1000 line is due out at the end of the first quarter of 1985. Some components may not be released until later in the year.

Josh Lobel

Please see UNIX directory on page 4 for discussion of at and cron

In the UNIX directory this month, we explain how to use **at** and **cron.** Follow the instructions given here to install them on your system. Please note that cron wakes up every minute to see if anything needs to be done. This requires a very small percentage of your system resources, but if you have a heavily loaded system, you may find that installing cron slows you down. It can be easily removed by typing **rm /m/rc/cron.rc** and rebooting your system.

You Type (all caps is single key, e.g. RETURN)	Comments
root RETURN	Login onto your system as root
	Insert Fortune's Utilities diskette into drive and close door.
mount /dev/fd02 /f RETURN	Mounts floppy disk
cp –toV /f/etc/cron /etc RETURN	Copies **cron** into /etc directory
echo "0,10,20,30,40,50 * * * * /usr/lib/atrun" | cat > /usr/lib/crontab RETURN	Creates **crontab** file with command to run atrun every 10 minutes. Both lines should be typed on a single line. The vertical line at the end of the first line is a pipe symbol found on a grey key on the left side of your keyboard.
cp –tVos /f/m/rc/cron.rc /m/rc/cron.rc RETURN	Copies **cron.rc** onto system. This automatically starts **cron** running everytime you boot your system.
cp –tVos /f/usr/lib/atrun /usr/lib/atrun RETURN	Copies **atrun** onto system. This is the command that does the real work for **at.**
cp –tVos /f/bin/at* /bin RETURN	Copies **at, ats, atrm** into /bin
mkdir /usr/spool/at RETURN	Creates a spool directory for at, where pending jobs will be stored
echo "" | cat > /usr/spool/at/lasttimedone RETURN	Creates a file called lasttimedone with nothing in it (""). **at** will put the time it last executed in this file.
mkdir /usr/spool/at/past RETURN **chmod 777 /usr/spool/at/past** RETURN	Creates a subdirectory called past which is needed for at to execute commands.
umount /dev/fd02 RETURN	Unmounts floppy. Remove from drive.

The UNIX Directory -- At and Cron

(Editor's Note: The UNIX Directory this month discusses two programs called **at** *and* **cron**. *These programs do not come with your Fortune computer. However, they are on the Fortune Utilities software diskette that is available free from us. This diskette is the same as the Fortune Marketing Support Utilities diskette which some of you may already have. To get the disk from us, follow the instructions given in the Free Software* column.)

This month we are going to explore how the UNIX can be used system to run commands automatically at prespecified times. There are various reasons for running commands at times other than the exact moment that you are sitting in front of your computer. Next month we will spend some time talking about one such reason in depth: an electronic appointment calendar/reminder system. This month we will describe these commands and provide some shell scripts for installing them from the floppy diskette mentioned in the editor's note above.

An electronic appointment calendar is one reason for learning how to use certain UNIX commands that provide the ability to run commands at prespecified times. But there are other reasons. One somewhat silly example might be to flash the message "Coffee Truck coming in 5 minutes!" on everyone's terminals. Another possibility would be "Don't forget the meter" once an hour. There are other possibilities as well. Suppose you have some "cpu intensive" job (such as a large sort, or perhaps some end of the month accounting programs that cycle through a large data base, etc) that will swamp the system when it is running. Wouldn't it be nice to start that job at 2 a.m. when no one else is on the system?

Another possible application would involve the automation of information collection from your favorite electronic data base. Suppose, for example, you track certain stock prices on DowJones. As you know, using the telephone during certain hours can be expensive. But who wants to wait around until after 9 pm just to call DowJones? With the programs we describe here you can use your Fortune system to place the call for you at some wee hour of the morning and you could have the stock quotes sitting on your printer waiting for you when you get to the office!

(The following examples assume you are in the UNIX shell on your computer and not in the Menu. To get into the shell from the Global Menu type .UNIX or ! followed by a RETURN. Once at and cron have been installed, you do not need to be logged on as root or manager. To install at and cron on your system, see the shell script at the end of this article. One of the other shell scripts this month allows you to use **at** directly from the Global Menu)

The UNIX system has two different commands that can be used to run programs automatically. They are **at** and **cron**. As you will see later, both at and cron may have to be installed on your system before you can use the at command and, though both can be used to run other commands automatically, each of the two commands is tailored to run different sorts of programs conveniently. "At" is perhaps the simpler of the two to learn and to use.

Let's just say you have a big job (called bigjob) which you want to run overnight. In order to do that you would type the following:

$ at 2am	$ is shell prompt
bigjob	Note no $ this line
CTRL-D	Press CTRL key and d key together
$	$ prompt returns

If you had two big jobs (of course called bigjob1 and bigjob2) you would type:

$ at 2am
bigjob1
bigjob2
CTRL-D

This would start the jobs running at 2 a.m. on your system. Times can be written as "3am", or "9pm" or times can be written using the 24-hour style as 2130 or 0200. Times can also include references to months and days like "at 2am jan 24" which would run the job at that time. Another example is "at 3pm fri" which would run on the next friday at 3 in the afternoon. If it were Thursday when you typed in the previous command the job would run tomorrow. However, if you typed "at 3pm fri week" it would run a week from friday. The main point of this discussion is to illustrate how flexible the **at** command is with respect to accepting times. (See the manual page for "at" for a more precise description of syntactically correct ways of specifying times. A manual page for "at" is included on the Fortune Utilities software diskette described at the beginning of this article.)

One very popular use of **at** is as an informal way of reminding yourself of something you must do later in the day. Let's say it is 9am. You sit down in front of your faithful Fortune and sign in. You think about all the work you've got to do and then the phone rings. It's a colleague who reminds you of a meeting at 11:30 am (that you almost forgot about). What do you do? Well, one thing you could do is trust your memory and hope you'll remember the meeting when 11:15 rolls around. Another thing you could do is type the following on your terminal (substitute terminal number for ? in 2nd line /dev/tty0?, e.g. /dev/tty05):

at 1115
echo "Meeting at 11:30^G" > /dev/tty0?
CTRL-D

What this does is schedule the echo command to run at 11:15 am. When it runs, it will print out everything between the double quotes on your terminal. (Note: The last character in the string, a ^G, is a CTRL-G, which will ring the bell on your terminal). Thus, you can go about your work knowing that at 11:15 your terminal will beep at you and print out a message that will remind you of your meeting.

Once you have set up a job to be run in the future, you can test to see if it's actually there by typing **ats RETURN**. This command will list out all jobs currently in your "at" que. Future commands can be removed from the que by typing **atrm TIME RETURN**, where you substitute the time the command is to be run for the word TIME, e.g. atrm 3pm Tuesday RETURN.

Basically, the way **at** works is that when you schedule some job for the future it makes a copy of that command along with a copy of the current characteristics of your UNIX environment and puts that into a special directory (/usr/spool/at). In order for this command to be run, however, requires the periodic running of another command, called atrun. Atrun looks at the /usr/spool/at directory, checks the current time and then checks the times of the commands sitting in the /usr/spool/at directory and if the times match (or if the current time is greater than the time associated with a command) it tries to run your prescheduled command. But now you might wonder, how do I get this "atrun" command to run automatically and periodically?

UNIX generally provides another system for running jobs at prespecified times. Cron provides the capability of doing just this type of program scheduling.

Cron is really quite simple to understand. It is a program that is always running in the background -- you might think of it as hibernating off on its own -- it doesn't need any attention from you. What it does is wake itself up every minute and look at a file called **crontab**. Crontab is an ascii file that is in the /usr/lib directory that contains lines which specify a time and the name of a file to run. Every time **cron** wakes up it looks through **crontab** comparing the current time to the times in the **crontab** file and if they match **cron** starts the corresponding program in crontab.

Each line in the **crontab** file has six fields (separated by spaces or tabs). The first five fields specify the minute (0-59), hour (0-23), day of the month (1-31), month of the year (1-12) and day of the week (1-7 with 1 = monday). The sixth field specifies the job to be run. This can be any program or command. Each of the first five fields can contain a number in the range specified above. In addition they can specify times in the following way:

1) two numbers separated by a dash indicating an inclusive range
2) a list of numbers separated by commas indicating all the numbers mentioned
3) or an asterisk indicating all legal values.

For example, the **crontab** entry to run bigjob every night at 2am would look like:

0 2 * * * bigjob

This can be translated as something like: start bigjob running on the 0th minute of the second hour of every day of the month of every month and every day of the week. As another example, the following line would start bigjob running every monday night at 3:15 am:

15 3 * * 1 bigjob

To have a job run every week night at 3:15 am you would add the following line to **crontab**:

15 3 * * 1-5 bigjob

And the **crontab** entry to run a job at 3:15 on Monday, Wednesday and Friday would look like:

15 3 * * 1,3,5 bigjob

Now, remember the problem of getting the program "atrun" to run automatically and periodically? One simple way of doing that is to add a line to the **crontab** file that looks like this:

*** * * * * /usr/lib/atrun**

This will cause atrun to run every minute. Each minute, then, it will take a look in the /usr/spool/at directory and see if there are any jobs scheduled to run. If there are, it will run them. Many UNIX systems have atrun running, but not every minute. It is quite common to run atrun every five or ten minutes. The main reason for this is to keep the overall performance of the system from degrading too much. (Running **cron** will add a very slight burden to your computer. The more frequently atrun is run, the greater the burden on your system. You can experiment to see what is the best interval for your system.) Thus, the line in the **crontab** file might look like this:

0,10,20,30,40,50 * * * * /usr/lib/atrun

which would have the effect of running "atrun" every 10 minutes. If you have atrun running every ten minutes it doesn't make much sense to use the "at" command to run a job at 11:15. Do you know why? If you typed the following:

at 1315
bigjob
CTRL-d

at what time would bigjob run?

In Summary

Ok, let's take a moment to sum up what we've learned about the two commands "at" and "**cron**".

At is a UNIX command that allows the user to schedule a job, or series of jobs, to run at some time in the future. It requires that a companion program, called "atrun", be running automatically at somewhat frequent intervals.

Cron is a program that runs continually. It is started once and always runs in the background. In essence, it puts itself to "sleep" for at most 59 seconds and when it wakes up, on every minute, it looks at a special file called **crontab** and looks through it for times that match the current time. If there is a match it runs that command. Generally, the system manager puts a line in this **crontab** file that causes the "atrun" program to run every five or ten minutes.

In your daily, routine use of the computer, you should use the "at" command for running jobs automatically. Cron, crontab, and atrun are things for the system operator and they are there to allow for the efficient use of various other commands.

There is one important thing to note about the relationship between **cron** and at. As we've said, **cron** is always running in the background, waking up, going to sleep, waking up, going to sleep...that is, its always running as long as the system is running! (In a future article we will talk about the significance of the background). If the system crashes or you shut your system down for any reason **cron** dies. The point is, that when you reboot your Fortune you must remember to start **cron** running in the background again. This means you must log into the manager account and type

cron &

and then log out. As long as the system stays up, **cron** tirelessly wakes up, goes to sleep, wakes up, goes to sleep...

Now, if you're like me you'll think it is a pain to have to remember to start **cron** running every time there is a power failure or you shut your system down. It should come as no surprise, then, to find out that there is a way to automate this. There is a special shellscript in the /m/rc directory, called "cron.rc", that gets executed everytime the system is rebooted. All that is included in this file is one command line that says "cron &". (The "&" tells UNIX to keep the **cron** command in the background) That way, **cron** will be automatically started in the background each time the system is rebooted.

INSTALLATION OF AT AND CRON

We've described how **at** and **cron** work in this month's UNIX Directory but there are special files, directories, and programs that need to be installed in the proper places for **at** and **cron** to work properly. What follows are the instructions for installing **at** and **cron** on your system.

Mark Palmerino

See page 3 for instructions

PCworks, Cont'd from page 1

Multiuser -- the key to being multiuser is having the Multiuser version of For:Pro on your machine. This allows you to have "enabled" ports on your machine, which basically means that other people can get the login message and will be able to sign onto the computer. Most people who have Multiuser For:Pro also have a Comm-A board which gives you additional ports on the back of the machine. If you only have the 1 printer port available, it would be inconvenient, but possible, to use that as a multiuser port. Lastly it is necessary to go through the System Management option from the Global Menu and reconfigure the necessary ports. If someone is going to sign onto your computer, the port should be set up for a *terminal.* In Fortune logic, the word *host* or *terminal* depends on what you are plugging *into* the port.

Terminal -- A terminal can be thought of typically as a keyboard and screen, with some electronics thrown in. The most familiar one is the Fortune Intelligent Workstation. There are many different types of terminals, and unfortunately, there is very little standardization. Although it probably seems that all the terminal is doing is displaying letters on the screen, each terminal requires special hidden codes to tell it when to print in boldface, or reverse video, or how to show an underline. UNIX takes this into consideration and can adjust to work with many kinds of terminals. However, the Global Menu and Fortune:Word *will only work with a Fortune terminal.* Multiplan can work with almost any terminal. Business Basic can use some terminals other than the Fortune, such as a Televideo 950, Basic IV 7250, and the IBM 3101. Other programs may or may not work with other terminals -- it depends on how they were written.

Serial Port (RS-232) -- A port is used to send data in and out of a computer. Data is made of bits and bytes. A byte can be considerd to be a single character, e.g. the letter a. Each byte, or character, is made up of 8 bits -- on/off binary switches that comprise the information necessary to identify the character. With a parallel port, there are 8 wires with all of the bits going out simultaneously. With a serial port, the 8 bits are sent out one after another at a specified BAUD rate. Since the Fortune has serial ports, the other computer must also have a serial port. Most standard modems also use serial ports. Bisynchronous communications are a special case, and will not be discussed here.

Computer -- For the sake of our discussion, we will consider anything that has a CPU (Central Processing Unit), keyboard and screen, and a storage system to be a computer. In short, anything that you can use to run programs is a computer. Normally, with such a device, when you type on the keyboard, the letters appear on the screen. When you connect two computers up to each other, you want what you type on the keyboard of the first machine to go out the port of that machine into the port on the other. This is called **terminal emulation** and is what a communications program does. It makes your computer behave like a terminal. In order to use an IBM computer as a terminal for the Fortune, there must be a program that redirects what you type out the port on the computer into a modem. At the Fortune end you would also have a modem attached to a port configured as a **terminal**. If the two machines are in the same office, you can connect them directly with a wire (just as you would connect a regular Fortune terminal). If the other computer is a Fortune, the communications program might be the ITE (Interactive Terminal Emulator) or Kermit, on an IBM-PC it might be PC-Talk or the program we're writing about, PCworks. Often times these programs will also let you transfer files from one computer to the other.

So What is PCworks?

Now that you know the general background of communications between computers, we can discuss each of the PCworks capabilities that were outlined at the start of this article.

Terminal Emulation: PCworks is a communications program that can be used on an IBM-PC or IBM-compatible to hook it up to a Fortune (or any other UNIX machine). But not only does it make the computer act like a terminal (like PC-Talk would do), it also makes the IBM look like a Fortune terminal. This is its greatest asset. With PCworks, you can use that clunky old IBM-PC on your Fortune and use Fortune:Word or Multiplan or whatever. The only difference in operation is the function keys which have a different layout on the IBM keyboard. (Note: if you buy one of the new Fortune keyboards for your PC, you wouldn't even have that problem.) We have tried PCworks on an IBM-PC and also a Leading Edge PC, and both seemed to work very well. One minor annoyance is that if you type very quickly it is possible to type slightly ahead of the comuter because of the filtering that is going on. Nothing that you type will be lost. The computer will catch up when you stop typing. If you are thinking about connecting your IBM to your Fortune over a phone line, make sure to read through to the end of this article -- there are some real problems with this. PCworks will work best with a direct wire connecting the IBM to the Fortune.

UNIX Mail/File Network: If you purchase the UNIX file server module for PCworks ($295), you can then use the pair of programs to transfer files back and forth between the IBM and your Fortune. Because there is a program running on both computers, PCworks can transfer ASCII (text) and binary files (programs, data, spreadsheets) between the two machines and ensure error-free transmissions. In addition to transferring files, the programs provide two specific applications as well -- remote printing and electronic mail. With the remote printing function, users of the IBM-PC(s) can send their files to the Fortune and have them printed out on the Fortune's printer. This is not totally automated, however. In order to send a Lotus spreadsheet printout, for example, you would first have to print it to a file, and then send the output file to the Fortune for printing.

The electronic mail interface uses the UNIX **mail** command which comes with the Development Utilities package from Fortune. Without this command, PCworks does not have electronic mail capabilities. If you do have it, PCworks provides an easy-to-use front end for sending and receiving electronic mail between the users of the system. The author has not actually seen electronic mail or remote printing in action -- this information is from the manual and discussions with people at Touchstone (creators of PCworks) and Fortune. G1\BXMenu for UNIX and DOS programs: PCworks provides a "Global Menu" type menu system for the IBM. Half of the positions on it are taken up with the various communications and electronic mail options, and the other positions can be filled in with your favorite UNIX and DOS programs. These can then be selected from the menu by pressing a couple of keys. For instance, if you wanted to access Lotus, all you would have to do is to press the letter "L" followed by a return. Besides reducing keystrokes, the menu system makes options clearer to inexperienced users. The menu can be easily configured for your system and is quite useful.

See **PCworks**, page 7

PCworks, Cont'd from page 6

Talking to your Fortune over a phone line: Many people would like to be able to access their Fortune using a 1200 baud modem from a terminal (or an IBM PC) at home or on the road. This is not difficult to do, although it sometimes takes some playing around with the modems and wiring. *However, if you want to use Multiplan or Fortune:Word in this manner, you will not be pleased.* 1200 baud means that roughly 120 characters per second get passed over the phone line. This is certainly faster than the rate at which most users type. However, for every character you type with Fortune:Word, at least three and sometimes four characters are written onto the screen -- the Pos number and ruler crossbar at the top of the page, sometimes the Line number, and lastly the character itself. This severely reduces the response time, making it very easy to get ahead of the computer. Unless you are a very slow typist, it's difficult not to get ahead. For most applications, it is unacceptably slow. Basically the same problems exist with Multiplan, although the problem in this case has more to do with the difficulty in rewriting the whole screen when you recalculate or move around the spreadsheet. For other applications like screen or vi, 1200 baud is perfectly adequate. If you want to test out what 1200 baud does to Fortune:Word and Multiplan, reset your terminal to 1200 baud and try it out. (To reset a workstation the very easiest method is to use the program called SWITCH which we distribute on the Fortune Utilities diskette. The second method is cumbersome but effective -- manually change the baud setting with the dip switches on the back of the terminal and reconfigure the port using the System Maintenance selection on the Global Menu. Then power both your computer and workstation off and on to actually reset them. There are other easier (but more complicated) methods for doing this also. If you would like to know them, give /u/fortune news a call.)

PCworks is now a Fortune Systems 5-Star Product, and must be purchased from Fortune. Contact your dealer for more information.

Josh Lobel

For Sale

There are three more Fortune 32:16's for sale this month. The first one is a one-and-a-half year old System 10 with a 10 meg drive and 512K of memory. It has Fortune:Word, Business Basic and the latest releases of single user For:Pro and Multiplan. If it makes the system more attractive, there is also an IDS 132 printer and a US Robotics 300/1200 Password modem. If you're interested, write or call Rick Berkowitz, 1120 Montrose Avenue, St. Louis, MO 63104. Home: 314 567-7661. Work: 314 772-4700.

The second one is a two-year-old System 10 with a 10 meg drive and 512K of memory. It has a 4-port Comm A board along with Multiuser For:Pro (Version 1.5 -- can be upgraded to 1.7 for no charge). It has Fortune:Word, Business Basic and compiled Basic and the ITE package installed. The person to contact for this one is Mr. M.B. Motwani, 2741 Binbrooke, Troy, MI 48084. His phone number is 313 645-5927.

And the third one is a multi-user System 20 with a 20 meg drive and 512K of memory. It is a two user system including the console and a workstation running off of a 4-port Comm A board. It has Extended Fortune:Word with Spelling Checker, Records Processing and Advanced Features, Multiplan and the Handshake ITE. All software is at the latest revision level and the power supply is the new Western Electric. Contact on this system is Bob Peek, Rt. #111, P.O. Box 430, Windham, NH 03087. His phone number is 603 893-5371.

Fortune's Worldwide Software Vendor's Conference

Fortune is planning to host a conference for software vendors, dealers and any interested owners of the Fortune 32:16. The conference is set for March 14, 15 and 16 at the Dunfy Hotel in San Mateo. Since Fortune is inviting more than 200 software vendors and more than 200 dealers this promises to be a unique opportunity for software vendors, dealers and end users of the Fortune computer to become acquainted with software presently available for the Fortune, software that is being planned and many other topics of interest. We intend to attend the conference and we will report on its procedings in a subsequent issue. Four workshops and 7 seminars will be offered on the following topics:

WORKSHOPS

1) Software Updates
   Procedures for RMA's
   Support Issues

2) Implementing the Menu installscript

3) The Operating System

4) Our Competitors

SEMINARS

1) Sales Training

2-5) Four 5-Star developers will speak on:
   a) Their product
   b) Marketing their product
   c) Uses for their product

6) New Extended Fortune:Word

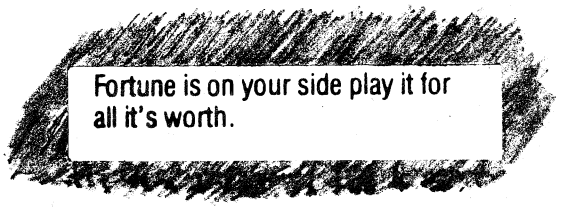
7) Vertical Market Program

A registration fee of $100 will entitle a company or individual to attend all the workshops and seminars in addition to the following:

1) A kick-off party Wednesday evening March 13
2) A Luncheon on Thursday
3) "A Night in the City" - A trip to San Francisco
4) Manufacturing Tours

If you are interested in more information about this conference you can contact Karen Davis at Fortune Systems at the following toll free number: 1-800-541-7777.

After a recent bowl of hot and sour soup we received the following Fortune:



Free Software

"It may be free, but what is it?!" That's a good question. As we have announced in the past, we presently have 3 disks of free software and are just about to start a fourth. Although it can certainly be said that there is more on these disks than you could ever use or want, it could also be said that there is likely to be something very useful or entertaining for everyone. So, for those of you who haven't yet placed your order, we will try to give a summary of what you're missing.

The first disk is the **Fortune Utilities** disk. This disk is also known as the Marketing Support Utilities and is from Fortune Systems Corp., although *it is not supported by Fortune Systems.* As is the case with a lot of free software, these programs were developed to be used by a certain group of people, and hence you may want to tailor them to your situation. These little goodies are very useful -- but please don't call Fortune with questions about them. Here's a brief run down of the **Fortune Utilities** Disk:

Function key programs

These programs give meaning to the function keys when you're in the UNIX shell. For example, by pressing **F1** you would automatically mount a floppy disk. Other keys format disks, copy disks, etc.

at & cron

These two programs are used for executing programs at predetermined times. They can be used to remind you of things or to automate your system.

sc

This is the program **screen**, which is very powerful (but easy-to-use) editor which is very helpful for writing shell scripts and general system maintenance.

hexed

This is similar to **sc**, except it edits in hex format. ASCII on left, hex on right. This is very handy for analyzing data, and can even be used to edit the strings in binary programs.

autodial

If you have the Fortune ITE or kermit, this group of programs will give you some ideas about how you can make your modem autodial telephone numbers for you.

SWITCH

SWITCH will change the baud rate of a workstation once you are already logged in. (Make sure you change it back to normal before you log off, or you'll get some garbage. If you forget, just turn the terminal off and on again.)

electronic mail

Fortune uses Fortune-to-Fortune copy (uucp) and cron to create an automated electronic mail exchange. This is customized for their needs, but can be altered for yours.

games

banner, breakout, fortune cookie, othello, pacman twinkle, and the crowd-pleaser blob are all included.

In the next issue, we will describe the two other disks. To obtain your copies of this software, send us $4 and a formatted floppy for each disk that you desire. Please make checks payable to **The Cambrdige Consortium, Inc.**.

/u/fortune *news*
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