

NEW-AGE 99

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#6 PAGE PRO - PART 1

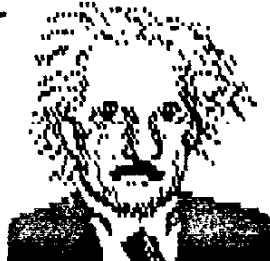
BY JACK SUGHRUE
Box 459
E DOUGLAS MA 01516

2+3=?
HMMMM!



DESKTOP PUBLISHING FINALLY ARRIVED FOR OUR 99. THERE ARE MATURE COMMERCIAL AND FAIRWARE AND PUBLIC DOMAIN GOODIES ALL OVER THE PLACE. THERE ARE SO MANY, IN FACT, THAT IT IS QUITE IMPOSSIBLE TO KEEP UP WITH THEM.

BESIDES TI-ARTIST-PLUS, WHICH WILL BE REVIEWED SOME OTHER TIME, THERE ARE PILES OF INNOVATIVE PRODUCTS FROM COMPRODINE WHICH I'VE READ AND HEARD ABOUT BUT HAVE NOT YET EXPERIENCED. THERE ARE CSGD'S GREAT PROGRAMS AND NUMEROUS PUBLIC DOMAIN AND FAIRWARE PROGRAMS FOR BANNERS, LETTERHEADS, LABELS, AND SO ON.



YOU HAVE TO BE

TO FIGURE OUT SOME OF THESE PROGRAMS.

MANY OF THEM ARE SEVERELY LIMITED (THOUGH SOME LIKE GRAPHIC LABELER DO EXACTLY WHAT THEY'RE SUPPOSED TO IN A FANTASTIC WAY).



NOW THERE ARE A PAIR OF WONDERFUL TREASURES FOR ALL 99ERS WITH DISKDRIVES AND PRINTERS:

TIPS

(TI PRINT SHOP - PUBLIC DOMAIN PROGRAMS WITH A HUGE COLLECTION OF PIX)

& PAGEPRO

(FROM ASGARD, THE BEST PAGE MAKER AVAILABLE FOR THE 99 AND GENEVE)

RON WOLCOTT, WITH ABLE HELP FROM BARRY TRAVER AND OTHERS, HAS GIVEN TIPS TO THE TI WORLD FREE OF CHARGE (SEE YOUR USER GROUP OR CONTACT JIM PETERSON FOR THIS AND OTHER PD AND FAIRWARE GRAPHICS PROGRAMS). TIPS LETS YOU MAKE BANNERS, LETTERHEADS, LABELS, GREETING CARDS, AND MORE. WRITTEN IN XB, TIPS TENDS TO BE SLOW AND A BIT CUMBERSOME. YOU MUST PRINT OUT THE DOCS AND FOLLOW THEM CLOSELY TO USE THE PROGRAMS SUCCESSFULLY!



BUT IT TAKES A LITTLE TIME TO MASTER AND TO PRINT.

ONE OF THE MOST IMPORTANT ASPECTS OF TIPS IS ITS COLLECTION OF GRAPHIC ART FROM THE BIG BLUE WORLD. THERE ARE ABOUT 5,000 PIX NOW A PART OF THIS PACKAGE, WHICH INCLUDES PROGRAMS TO CONVERT TO TI-ARTIST AND PAGEPRO, AMONG OTHER ITEMS.

THIS REVIEW USES ALL TIPS PICTURES WITHIN THE SUPERB FRAMEWORK OF PAGEPRO.

WHICH, OF COURSE, BRINGS ME BACK TO THE TOPIC OF THIS REVIEW. THE DAY I GOT THE ORIGINAL PAGEPRO I WAS UP TO THE VERY WEE HOURS PLAYING WITH IT IN ALL KINDS OF INGENIOUS WAYS. WITH PP YOU CAN PUT ANY GRAPHICS (OVER 5,000 IF YOU HAVE TIPS) ANYPLACE ON YOUR PAGE. YOU CAN TYPE OVER OR INTO THESE PIX (AS IN THE TOP AND MOON PIX). THE ORIGINAL PERMITTED 28 PIX PER PAGE. VERSION 1.5 ALLOWS UNLIMITED GRAPHICS BY SAVING PAGES FULL AT A TIME, ALONG WITH ALL TEXT.



Because of this saving method, PAGEPRO also permits an unlimited number of fonts per page:

Gothic 2 Sample, Script 1 Sample, TULO SAMPLE, etc.

If you've written your text on FUNNELWEB or any DV/80 textfile maker, you can easily import that text into your PAGEPRO pages, though personally, I find it just as easy to type right onto my pages and place the graphics (TIPS) and borders and fonts (PAGEPRO) just where I want as I'm going along.

PAGEPRO is extremely user friendly. Of all the various pagemakers and semi-pagemakers I've used for the TI (and for some other computers), I've found PAGEPRO by far the easiest to use. The commands are mostly single keypress and FAST! If you have any kind of RAM capacity, the whole activity is almost instantaneous.

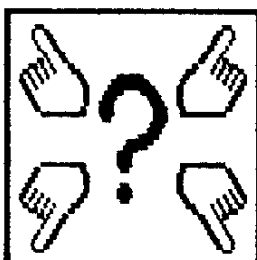


It's not one of those programs where you'll stop often for tea breaks while the program churns and mopes along.

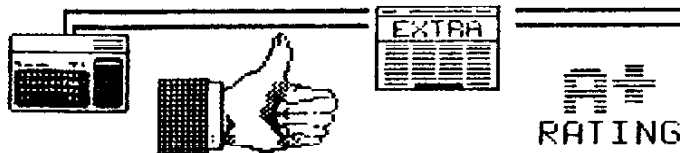
The latest PAGEPRO also has some great improvements, such as cataloging from any cursor. For me, this was a... **LARGE** improvement.

The columnizer that is part of PAGEPRO has been improved to auto indent and auto page number; two nice features.

Y
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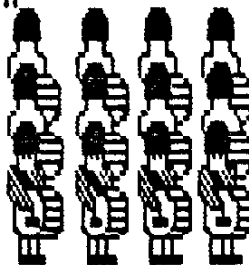


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r e r n
e a r v
c n r e
t y e n
i o t l e
n i m c
e e e



Typing in any direction let's you make quick borders, boxes, whatever, as well as puzzles and text patterns.

There are other neat changes in 1.5 regarding importing/exporting text, printing a page, and so on. But, basically, a great program was made even better.



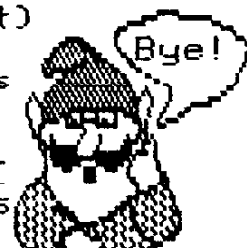
So while the band's playing let me add that PAGEPRO does not stand alone.

Asgard also has PAGEPRO PICS of all kinds of pictures done in neat, thematic packages.

There is also PIXPRO which converts GRAPHX, TI ARTIST PIX & INSTANCES, RLE, PICASSO, MACPAINT, & PAGEPRO into most of the above formats. This is great even if you don't own PAGEPRO.

Also available are PP FONTS (a few of the 50 are shown on these two pages); PP TITLES (which are works of art unto themselves); PP UTILITIES (which allow some extraordinary manipulations of the graphics for all kinds of on-screen pasteups & designs.

PAGEPRO is a WYSIWYG ("wizzywig": What You See Is What You Get) program that more than lives up to its promise. It's the standard for TI as TI-ARTIST is for drawing.



(to be continued)

FROM: N.H. 99ens

FILE SECTOR

Curtis Alan Provance
Paragon Computing

This article will attempt to describe the header sector for each file on your floppy disks. This is another in a series of articles designed to enlighten you as to the workings of your disk controller. Armed with this month's information (plus info from previous articles) we will be ready to restore damaged files, recreate overwritten text files, etc. - with the next article. File header sectors are confusing enough that the entire article will be devoted to them.

Pull out your diskette that was made several articles ago. Load up your disk editor program and take a look at sector 4. This is the header sector for "testfile2." Your sector should look like this (in hex)

7465 7374 6669 6C65 3220 0000 0003 0043
0050 C800 0000 0000 0000 0000 23A0 0031
0001 3810 013A 9001 4310 024D 9002 56F0
025D 2003 61A0 036A D003 6E20 0400 0000
(the rest are all 0's)

Let's tear this apart a line at a time

t e s t f i l e 2

7465 7374 6669 6C65 3220 0000 0003 0043

File name (10 bytes

(fill with spaces to make 10 bytes)

File type:

- 00 - Display/Fixed
- 01 - Memory Image
- 02 - Internal/Fixed
- 80 - Display/Variable
- 82 - Internal/Variable

Number of large records per sector

Number of sectors in this file
(disk managers add one more to account for the file header itself)

Since there are always ten characters reserved for a file name, if the name is not that long, spaces (hex 20) will fill in whatever is left over.

I don't know what the next two bytes are used for (I can't find my papers at the moment - when I do, I'll let everyone know).

The next byte is the file type and it can have any of the five values listed

above. This is also where the file manager indicates whether or not a file is protected. If protection is ON, a value of 08 will be added. Therefore, if we were to protect this file, it would become 08 since it is a Display/Fixed file. The others are:
Protected Memory Image - 09
Protected Internal/Fixed - 0A
Protected Display/Variable - 88
Protected Internal/Variable - 8A

Just a note on "Memory Image." These files are what most of us call "programs" - either Extended BASIC, BASIC, or Editor / Assembler Option 5 programs (such as Funnelweb, Disk Manager 1000, etc.) That doesn't mean that a memory image file HAS to be a program - it just is more often than not.

The last two bytes on this line indicate the total number of sectors in the file itself. This number does NOT include the file header, so you have to add one to find out how many sectors are being used by this file.

0050 C800 0000 0000 0000 0000 23A0 0031
1 2 3-4 (reserved.....) (Link table>)

Byte 1 is for use with memory image and VARIABLE files (either Display or Internal). This byte indicates the number of bytes used in the last disk sector of the file (more on this later).

Byte 2 is the maximum record size of the Display or Internal file. When you open a file from most text editors, the file is called a "Display/Variable 80" file because it a) stores information in Display (text) format, b) has records (lines) of Variable (different) sizes, and c) can't have records any longer than 80 characters. Since there are 256 bytes in a sector, and this file ("testfile2") was opened as a Display / Fixed 80 file, this number is 80 (which in hex is 50 -> 5*16 + 0 = 80)

Bytes 3 and 4 indicate the number of RECORDS (not sectors) in this file - but with the bytes reversed. Therefore, "testfile2" has 00C8 records which is 200 in decimal.

The next eight bytes are "reserved" which doesn't mean "They're used, but we won't tell you what for!" Reserved usually means that they AREN'T used, but the

manufacturer (TI) may want to use them later, so don't mess with them. If you want to write a special application which uses these bytes - feel free! But! Don't expect to have your ideas work with someone else's use of the same bytes

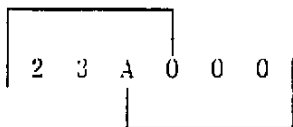
The rest of the header sector is devoted to the (here it comes)

Block Link Table

The Block Link Table is (at least to me) the most complex part of the whole disk storage scheme. I thought I understood it thoroughly a couple of days ago, but double checked again - just in case! I'm glad I did, because the paper from which I originally learned about the link table was WRONG! Here is what the link table does:

If a file is written on to a clean (no other files) disk, the file being written will most likely start at sector >22 (more or less) and fill each consecutive sector until the file is done. This being the case, all you have to record in the file header is the fact that the file starts at sector >22 (or whatever) and that it is xx sectors long. If, however, there are other files already on the disk, the disk manager will start at the first available sector and fill each free sector - whether or not the free sectors are consecutive.

If you are putting a sector or two here and a sector or two there, you have to keep track of where each patch (or fragment) starts and how long it is. The disk manager does that with a group of three bytes - but not the way you would think! For each group of three bytes, there are really only two numbers - each number is three nybbles (a nybble is half of a byte - I'm not kidding!) long. Look at the first three bytes of our file - 23A0 00 - these nybbles have to be rearranged as follows:



To give us the final numbers 023 and 00A.

The first number represents the starting sector of that particular fragment. The next number is somewhat confusing, because

it represents two things:

- 1) any previous sectors in the file from previous fragments, plus
- 2) any sectors in THIS fragment OTHER THAN the sector pointed to in the first number.

OK - I'm confused, too. Hang in there, though, and we'll follow this through to the end

The first three bytes in this file (after being converted to their proper form) say that 1) this fragment starts at sector 023 (in hex, of course) and that 2) other than this sector (023) there are 00A (10 in decimal) sectors in this fragment. We know there aren't any previous sectors because this is the first entry in the link table. If you count sector 023 in this fragment (which you should) then there are 11 (decimal) or 00B (in hex) sectors in the first fragment.

The next three bytes in the link table are 31 0001 which (after moving nybbles around) becomes 031 and 010. This means that 1) the second fragment starts at sector 031 and that there are an additional 010 - 00B = 005 sectors in this fragment. (16 - 11 = 5)

Whoa! Let's look at this again! The first entry in the link table said there were 00A sectors in that fragment! Yes! But you have to add the starting sector, too, which gives us 00B (11) total. The next link entry said that there were 010 sectors total (previous sectors plus sectors in this fragment OTHER THAN THE STARTING SECTOR). Therefore, we may subtract the previous 00B (11) sectors to find out how many MORE sectors there are in this link.

Let's move on to the third link. How many sectors have we gone through so far? If you guessed 011 (010 + 1), you're right! The next link looks like this - 3810 01 - which converts to 038 011. So, the third fragment starts at sector 038, and there are

011 - 011 = 000 additional sectors in this fragment! In other words, the third fragment consists of a single sector - sector 038! The count is now up to 012.

Figure out the rest for yourself and I'll publish "the answer" in the next installment of these articles!

Editor's note: *The newest addition to BYTE, Stop Bit will be a forum for our staff, readers, and industry leaders to take on the myths, shibboleths, and conventional wisdom of the computer industry. More than just a soapbox, this column will address serious, sometimes controversial issues, with hard-nosed facts, true experiences, and an occasional touch of humor. In the months to come, you'll see some highly recognizable names here and some names you've never seen before. The opinions offered here will be those of the author and not those of BYTE, McGraw-Hill, or its employees. We welcome your feedback.*

THANKS TO WALLY GOVE FOR
THIS ARTICLE. Ed.

MOBY DICK 2.1

What if literature
were published
the way software is?

As a fan of great literature. I found myself wondering the other day, "What if novels were published the way software is?" If they were, the process might go something like this:

Herman Melville would announce the publication of *Moby Dick* a year before you could actually buy it. Reviewers would praise it, and several literary magazines would select it as "Editor's Choice" for best novel of the year—all before it ever appeared on bookstore shelves.

Eventually, the publisher would send out a press release to announce that copies of *Moby Dick* were actually shipping. The public, tantalized by the pre-publication hype, would rush out to buy the book like sharks at a feeding frenzy. The novel would become an overnight bestseller, thereby confirming the media's amazing prophetic abilities.

The book would come wrapped in oilcloth, with a long parchment notice explaining when and where you could read it, that you couldn't loan the book to anyone, and that the publisher wasn't responsible if anything in the book were to cause damage to your life, liberty, or kidneys. If you violated the rules of the reader agreement, you would forfeit your firstborn child.

After struggling through the first few chapters of the book, two-thirds of *Moby Dick*'s readers would realize that they had no idea what it was about. Most of them would put the book away, haul it out now and then, and one day find a registration card that they had never bothered to send in. On sending in the card, they would receive the following letter:

Dear Registered *Moby Dick* Reader,

Enclosed you will find *Moby Dick* version 2.1, which replaces earlier versions.

1. Version 2.1 restores several key characters that readers reported were missing in version 2.0, which was subsequently recalled. We have also added several new characters to version 2.1. In particular, several readers reported that the character of Harold the bookkeeper, who was intended to act as a foil for Ishmael, simply did not work. This character has been replaced by Queequeg, a South Seas savage. Further modifications should not be necessary.

2. Version 2.1 contains corrections to errors reported by readers of earlier versions, most of whom were being too picky. However, one misprint on page 127 could make it difficult for you to follow the remainder of the story. Note that it is a "gold piece" that Ahab nails to the main mast, not a "cod piece." (Also note: If, beginning in this section, your version of *Moby Dick* refers consistently to "the Great White Tuna," you have the original version, 1.0.)

3. Early readers of *Moby Dick* commented that the hardcover modification (intended to discourage unauthorized copying of the book) made it impossible to install the book into their libraries. Version 2.1 contains a modified "key-type" protection. In the enclosed envelope, you will find a key that will open your copy (and only your copy) of the book. Attempting to open the book without using your key will invalidate your readership license.

4. With this version of *Moby Dick*, we are inaugurating our telephone support service, available free of charge to all registered readers. If you have a problem while reading the novel, please refer to the *Moby Dick Technical Reference Manual* (#MD-1024), which contains answers to the most commonly asked questions and includes a complete table of literary symbols used in the book. If you still cannot resolve the difficulty, call (800) BIG-FISH. The customer service representative will ask for the serial number of your book before assisting you.

5. Finally, it has come to our attention that certain unscrupulous publishers have pirated portions of the *Moby Dick* reader interface or are producing complete *Moby Dick* "clones." The most flagrant example involves a pirate captain whose hand has been swallowed (along with an alarm clock) by a large crocodile. We are suing the publisher of this work. If you buy it, you could become a codefendant in the lawsuit. You'll also receive a visit from large men with blunt instruments.

Please complete the enclosed registration card so that we can send you information on new versions of *Moby Dick*. We will also inform you of forthcoming products, such as our state-of-the-art novel, *Ambergris*, an integrated tale of daring and intrigue in the perfume and whaling industries, to be released in the fourth quarter of 1889.

Melville Press
Seattle, Washington

USING A MODEM--PART 2

By Dick Beery

A couple of months have passed without my getting the second part of this series to our editor. For that I apologize. I will try to be more prompt with future articles.

In part one, which began on page 11 of the March issue, I tried to cover what modems are; what they do; what is meant by baud rate; acoustic and direct-connect modems; and some reasons why people use modems. I also hinted at costs--ballpark figures only!

Interpersonal communication between individuals by modem can be quite exciting and rewarding. Let's say I have a program that you want. You can call me on the phone and if I am willing to send it, we proceed as follows:

I am assuming that both parties have at least one disk drive, a 32K (or larger) memory card, an RS232 card, and some type of modem. It is also necessary to have software that will access the modem. The two most popular programs among people I know are Fast-Term and Telco. I normally use the former, although my friends keep trying to convert me to Telco, and I must admit that it offers more options that does Fast-Term. Both are fairware and can be obtained from your user-group library or a friend. Since I don't know which one you will be using, I will try to point out general things you will need to know/do and leave it up to you to read the documentation for your program to discover how these may be implemented.

For our interpersonal transfer, our two computer users get in touch by telephone and agree upon on a baud rate, usually 300, 1200 or 2400. Then they make sure that both their modems and their software are set for that rate. One of them then will type the command 'ATA' on the monitor and

the other will type either 'ATO' or 'ATD' depending upon the modem they own. The 'AT' in all modem commands stands for 'Attention' and serves to alert the modem that what follows is a command. The 'A' and 'O' stand for 'Answer' or 'Originate,' the two modes that the modem can use. Some modems use the 'D' command to go into originate mode. Either way, one modem must be in answer mode and the other must be in originate mode for a connection to be made. Your modem manual should explain this in greater detail.

Modems vary, and I have discovered that my 'normal' pattern--me with ATA, and my recipient with ATO, does not work with everyone else's modem. You may need to experiment with the other person in an attempt to connect.

Whatever you select, both parties type the command, press the enter button, then hang up the telephone (for some modems you may also have to push the voice-data switch to DATA).

You'll then hear two tones, and a sort of static sound, followed by the message: 'CONNECT,' 'CONNECT 1200' or 'CONNECT 2400.' This indicates that the connection between computers is successful. You can now type messages back and forth that will display on the other person's computer screen. For typing to each other, you will probably want to switch first to HALF-DUPLEX mode (see your software docs), otherwise, you won't be able to see what you're typing, although the recipient will.

Once you are ready to begin transmitting a file or program, each of you will need to signal to your computer that you are about to 'upload' (send) or 'download' (receive) a file.

PAGE

6

FROM: SPIRIT OF 99

USING A MODEM--PART 2

(continued from page 6)

Check the documentation for your software to see how this is accomplished. The program will ask you to designate a disk drive and a filename to either send or to save the received information.

Once the transfer has started, you can both sit back and wait for the message "FILE TRANSFER COMPLETE." Your disk drive may turn on several times during the transfer. This is either to read portions of the file from disk for sending or to save the information received. When the transfer has been completed, you may type back and forth again, perhaps suggesting the sending of other files, etc. It is a good idea, when you are beginning, for the inexperienced person to try both sending and receiving, so that you develop familiarity with both types of procedures.

What types of files can you send? Almost anything, although there are some limitations based on the type of computer you're using and the file transfer method. If you use your computer to send files to a friend with a TI 99/4A or Geneve computer, you can send and receive programs, text files, etc. However, if the other person has a different brand of computer (an IBM or Apple, for instance) it only makes sense to send text files, since programs designed for the TI won't work on that computer anyway.

There are several file transfer methods you can use, including ASCII, Xmodem, TIBBS Xmodem, Ymodem, Compuserve B and others. Your program documentation will show you which is available to you. The various methods, called protocols, each has advantages, but the main point is that both the sender and receiver must be using the same protocol.

All right! I hope you were successful on the first try, but

don't be discouraged if you were not. If you keep trying, changing the words typed to the screen and other options, you're sure to catch on quickly. Some people connect successfully on the first try; other need a few tries to get going. Once you have succeeded in connecting to one other computer, subsequent transfers with the same person should be easy. With a different individual and a different modem, you may have to experiment again.

Now that you've mastered one-on-one transfers, let's call a BBS and transfer some files. You may remember from the first article that the CONNI club's board, the Spirit of 99, may be reached by calling 262-3412. Chuck's BBS, also for the 99/4A and the Geneve, is at 268-1994. If you are dialing from outside central Ohio, use area code 614. TIABS, mentioned in part one, is currently unavailable. Watch for more information regarding its status in later issues of this newsletter.

BBSes can vary in what keypresses are needed to get from one section to another. I suggest that, on your first call to any BBS, you print out the menu screen (see your software docs) and keep it handy until you are thoroughly familiar with which key does what. What should you look for? Find out which key lets you read messages (some boards send them to you automatically, and others will allow you to access only those messages directed to you personally). You can find out a lot about other users by their messages. In addition, you'll find out much about software and hardware just by reading the questions and answers provided by others. If you have a question or problem with your computer or with modeming, find out how to post a

USING A MODEM--PART 2

(continued from page 7)

message and ask away. You're sure to get quick advice from someone who has the information you need.

In your first session, also be sure to learn what key you need to press to "log-off," i.e. say goodbye and quit communicating with that board. Find out what key sequences let you upload and download information.

Some BBSes will let you download a limited number of programs before you must upload something for other users. If you have very little software (public domain and fairware only--boards usually will not accept copyrighted software) and nothing really new, talk to the sysop, the computer operator who runs the board. You may be able to do this right from your computer screen by selecting the "Chat" option on the bulletin board's menu. This alerts the sysop that someone would like to talk to him and, if he's available, he'll sit down at his computer and type a greeting to you. The two of you can then type messages back and forth.

If you explain that you're a novice user, the sysop may allow you to upload an older file or just advance you some download credits so that you can start to take advantage of the board. Of course, what you download from one board often may be uploaded to another, if that board does not already have it.

You might also want to explore such items as the board's "stats"--the hardware and software it uses; the user list--you may find that a friend is already using the board; and send a message to an individual or to all other users.

If this all sounds complex, it will soon become second-nature as you continue to practice. Remember, I said in part one that modeming is FUN! It is, or at

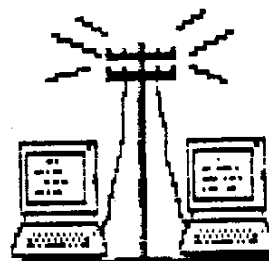
least it will be as soon as you have done it a few times.

Now, to keep a promise made in part one, I will give you two numbers to access library information through your computer:
OSU library . . . 292-3112.
This is the computer line, but you can also call the voice line at 292-3900 and ask for a pamphlet that explains how to use the service.

Columbus Public Library . . . 645-2070.

The OSU number will help you locate recent (after 1975) books, pamphlets and magazines, etc., to be found in the OSU libraries, the library of the state of Ohio, and to a limited degree, the Ohio Historical Society. The latter does the same for all branches of the Columbus Public Library system.

That's all for this time! Watch for part three.



NEXT MEETING TUESDAY JULY 10, 1990

MUNCH OFFICERS AND NUMBERS (all in 508 area unless noted)

President	W.C. Wyman	839-4134		
Vice President	Bruce Willard	852/3250	MUNCH DUES	
Secretary	Jim Cox			
Treasurer	Jim Cox	869-2704	NEW MEMBERSHIP	\$25.00
Acting Editor	Jim Cox		RENEWAL MEMBERSHIP	\$15.00
Adv.Prog. Chair	Dan Rogers	248-5502	NEWSLETTER ONLY	
Library	Al/Lisa Cecchini		SUBSCRIPTION	\$12.00
Disk Librarian	Lou Holmes	617 965/3584		
Tape Librarian	Walter Nowak	413 436/7675		
+++++++	Jack Sughrue	476/7630		

JUNE MEETING. The June meeting was called to order by Vice President Bruce Willard, there were 17 members present. Bruce brought his TRIS cartridge and this game was the hit of the meeting, it is an addictive game. Jack went over some of the configure files of Funnelweb, we can't seem to get enough instruction for this software. We expect to have the latest version in a month or two.

JULY MEETING. Jack hopes to have the latest version of Funnelweb to demo at this meeting and we will probably go over some more of the configure files. Hopefully Corson will return from his honeymoon with all kinds of new info, about the T.I. of course. The Disk of the Month will be Assembly Language Games, which includes Beyond Parsec, Blitz, Lasso and Submarine.

NEW TI PUBLICATION. Vulcan's Computer Buyer's Guide is a new Computer Shopper like magazine with one BIG difference. It will have a monthly T.I. column. The cost of a subscription is \$12 for 12 issues or \$19 for 24 issues. To order call 1-800-824-0676; MC, VISA & AMEX are accepted. This looks like a good magazine, let's get behind it.

RAFFLE. Every month we have a raffle to help defer the cost of the monthly hall rental. The number of prizes awarded depends on the number of tickets sold. This month we have some TI T-Shirts, disk holders and some games for prizes. If you have some old things you no longer use how about some donations for the raffle.

LIBRARY NOTICE. Please return any items borrowed from our library. If you can not come to a meeting or give these items to someone who will be at the meeting.

REPRINTS. Reprints are permitted as long as credit is given to M.U.N.C.H.

ARTICLES. I am always looking for articles for this newsletter, anything which interests you will probably interest other members of the TI community, so please share your ideas and opinions with all of us.

DISK LIBRARY. The disk library will be at the meetings from now on. We have copies of all disks in the library and they are available to members for just \$1.50 each.