NEW HOLIZON

This newsletter is published jointly by OH-MI-TI and New Horizons TI-99/4A Home Computer Users' Groups. Material may be reproduced without permission provided the author and source are acknowledged. For more information concerning ${\sf TI}$ Users' Groups in the Northwest Ohio area, contact:

Robert Peters President, DH-MI-TI ; 225 S. Wheeling Oregon, OH 43616 (419) 693-7934

Meeting: 13 FEB.'87 Fri SYSOP | Meeting: 14 FEB.'87 Sat

SYSOP

(419) 385-7484) President, New Horizons TICOMM BBS | 5533 Fleet Street | >>> 24-HRS | Toledo, OH 43615 (419) 537-1454

THE NEWSLETTER STAFF

Bill Tiep Phil Bennis Dave Burkette Marilyn Schafstall

kent Sheets Roger Biddle Earl Hoffsis

LOCAL CONTRIBUTIONS BY:

MARK LAMB BILL SAGER KENT SHEETS TIM TAYLOR JOHN CLULOW DON TURNER DAYL ROMER

PHIL BENNIS

NORTHWEST



Edmonton 99 ers Computer Users 170, Box 11983 Edmonton, Alberta Canada T5J 3L1

NEW HORIZONS

by Don Turner

A month has gone by already and we are ready for February's meeting. New Horizons will be meeting at Unity Church 3535 Executive Pkwy on Saturday Feb 14 at 2:00 PM. The Basic S.I.G will meet there at 1:00 PM. I hope to see everyone there.

The new EPROM set for the 9900 CORCOMP disk controller that Craig Miller promised is now out. The EPROM chips are sent as a U-Replace item. Which is a very simple task. Fortunately the chips are in a socket so replacement is quick and easy. Carefully remove the old chips and insert the new ones as per the instructions given with the new chips. Some of the new commands include loading E/A utilities into low memory, load D/V 80 Assembly programs from a call. It will also run program image files like DM-1000. The cost of the EPROMS are \$34.95. Also, Miller is offering a new utility disk for GRAM-CRACKER owners. It features TRACING to the printer instead of the screen, resequence a group of lines instead of the entire program and copy blocks of a program.

TI-ARTIST has unprotected its version 2.1 Now the owners can back up their copies or run it from a ramdisk. Thats good news to ramdisk owners who hesitated purchasing this software do to the protection features. Why the unprotection? Perhaps the software makers are realizing that most people are buying the software rather than copy it. Also with the advent of the track copiers wich copy almost anything and are getting better at it could be inhibiting the software makers from using copy protection.

Last month several people asked if a small workshop could be added to the monthly meetings. So we decided that a BASIC/EXTENDED BASIC S.I.6 would meet at 1:00 PM until 2:00 PM. Steve Patterson agreed to help lead and answer any questions. I agreed to help Steve if he needed it. Everyone is welcome to meet with us if they wish to do so.

There were three prizes given away at the January meeting. Mike Christie donated MICROSOFT MULTIPLAN. There was also a printer and a game module available. Bill Tiep won the MULTIPLAN. Jim Wolfe won the printer. Paul Sneider won the Defender game.

Many thanks to Bill Sager for his splendid demonstration of Dave Rose's CSGD III software. Bill added a new twist to his demonstration by video taping his demo then played it back at the meeting. Mark Lamb also had an outstanding deomonstration of STAR software and also showed us some 3D drawings that can be done on the TI. Thank you both for your time and fine work.

Bill Tiep motioned that our organization purchase new software to demonstrate at our monthly meetings. Then have a member use the software, write an article for the newsletter and demonstrate the software at the meeting. The software would then be re-sold to recover the cost. There were several suggestions how the software could be re-sold.

This month Tim Taylor is going to demonstrate FAST-TERM and its many functions. FAST-TERM is a communications program that enables users to "talk" to other computers via phone lines. I am planning to demonstrate TI-KEYS as well.

The new club disks offered this month will be TI-KEYS/MASS TRANSFER also there is a disk cataloger program from the upstate NEW YORK users group. These are all freeware programs.

Phil Bennis regretfully resigned as Vice President so we will need to find a replacement. Anyone who wishes to take his place please see me at the meeting and let me know. Phil will still be on the newsletter staff and maintain his membership.

PRESIDENT'S CORNER

by BOB PETERS OH-MI-TI

This month we should fill the offices of Vice-Fresident and Directors. This will be the first order of business at the meeting. The presentations this month will be Roger Biddle showing us how he interfaces his 99/4A and his ham radio and I will show how a 64K printer buffer speeds up print times if the buffer arrives by then.

There are some new items on the market for our machine such as an 80-column card by Mechatronics and an IBM-XT clone using the 4A keyboard. Here is the press release for the Triton Turbo-XT. IBM Compatibility for the 4A

Technical Info:

- 1. Two part system. A Turbo XT and a small bridge box that connects to the side I/O port on your 4A.
- 2. The Turbo XT is an 8 Mhz, 4.77 Mhz (switchable) mother board, power supply, XT style case, CGA color graphics card (both RGB and Composite). Floppy Disk controller, 1 half high DS/DD disk drive, Parallel port and 256K of RAM on the mother board. The mother board has sockets for up to 640K of RAM. There are 8 expansion slots, two of which are used by the CGA card and the Floppy Disk controller.
- 3. The bridge box has inputs for 4A Video in, XT Video in and outputs for XT Keyboard out and Monitor out. It also contains the software for Keyboard switching between 4A mode and XT mode and the software to convert the 4A key strokes into XT keycodes. It also has a pass through so you can keep your P-Box or other Periphs hooked up.
- 4. Mode switching from 4A to XT can be done through Basic or X-Basic with CALL XT or by holding down FCTN CTRL ENTER on power up of the 4A.
- 5. Mode switching from XT to 4A is done by pressing FCTN CTRL ENTER.
- 6. The ONLY items shared by the two systems are the 4A keyboard and your current monitor or TV. Yes, you can get 80 columns out of a composite monitor, but it is easiest to read with the color turned off in 80 mode. The XT allows MODE 40 which also gives you 40, column mode. Graphics programs, such as games and drawing programs work fine in 80 column and most other software that doesn't combine weird foreground and background text colors are also guite readable.
- 7. By not sharing the disk drives it is possible to do concurrent processing on the XT. Example: Go into XT mode. start up your COMMUNICATIONS software, log onto a BBS and start a download. Now you can switch to the 4A and do whatever you would like in 4A mode while the XT is still downloading from the BBS.

8. We have tested this system a number of 4A system configurations and have found it to be very compatible. Since it is an IBM clone it is also fully compatible with both LBM software and IBM hardware. Yes. software and IBM hardware. you can add ANY 1BM cards you would like to the system.

The minimum 4A system requirements: A TI 99/4A console and a monitor or a TV set with RF modulator.

The system is being marketed by Triton Products Company of San Francisco. The cost is \$499 plus \$19.90 for shipping plus \$69.95 for the system support software. They have a toll free number for information. It is 1-800-227-6900.

The meeting is at Oregon Firestation at 7 February 13, 1987. P.M. on See there.

the 13th

MARK'S WORLD

by MARK F. LAMB OH-MI-TI & NEW HORIZONS

SIG

Come an hour early to the next New Horizon meeting. If you arrive at 1:00 we can try to organize a SIG for Basic/Extended Basic learning. Bring paper and pencil and your Basic &/or Extended Basic manuals. Even nothing has though formalized as to goals we can be ready to start.

Orking

Those that bought the NH disk #42 with word/count; change line 420 by replacing the period between 128 and 183 with a comma. 420 by Hank Alvaro brought this to my attention. Don't know what he has against "orking."

DATA BASE 99 & DB 99 UTILITIES

An excellant data base program that allows 350 records on a allows 350 records on a SS/SD disk with as many as 28 fields allowing up to 28 characters per field not to exceed 245 characters per record. The instructions are fairly easy to understand especially by using the demo on the disk. Great for creating your own name and address file with personal comments or vital statistics. Or for cataloging hobby items personal inventory.

One neat feature is the use of Subfiles. For example, say you are keeping track of your club's music library and during the four seasons you use music specifically for that season. You could have a field named "season" which, after cataloging the collection as a whole, you could them sort the records into the four seasons and file them seperately into subfiles. Now you would have the main record file with everything being listed alphabetically and four sets of subfiles where you may call up for example "Summer" and get just those selections you chose for that period.

It also has a catalog option in case you forget your file names and a repair option in case you accidently delete a record or wish to reinstate a previously deleted file. Priced at \$35. Add "DB 99 UTILITIES" and you

can mathematically interact your numeric fields. Useful for statistics, such as bowling, baseball, and other game & sport record keeping. Or keep running totals on inventory or catalog file. Can only be used with the DATA BASE 99 program. Priced at \$25 or you can buy both programs word till you find the one you for \$20. (You figure that one out - see the Fall '86 TENEX EVERYTHING BOOK.)

Now for the bad part, their replacement policy and I quote, "If, on arrival, the program fails to perform as specified herein, return it directly to us, wihin three days, along with proof of purchase, for a free replacement. After three days, you may obtain a replacement by returning the disk directly to us, along with \$7, plus \$3 for shipping and handling (total

\$10)..... Disks obtained from QUALITY 99 SOFTWARE cannot be cataloged, duplicated, or written on.

Warning: Any modification to the disk will render it the inoperable. voids an Replacement Policy.

feel that it If you to have a back-up disk essential on hand, we suggest that you purchase another one, just as you would do for a module." End of quote!

I would personally recommend especially, at the special rate if still available. As far as not being able to back up - well - there were two things me Granddaddy taught me; never say never and nothing is impossible. DV80 & 4A/TALK

When sending a DV80 file via the modem using "4A/TALK" do not use the "send DV80 or Data file" Doing so will be the same as "print to the disk" deletes all carriage returns and other control characters.

VCR MOVIE GUIDE

Best way to cover this excellant program is to examine the programs nine options.

Option one, load data file; you may save different files - so load the file you want.

Option two, review movie list: you have two scanning choices. auto & manual. If you choose auto you have two speeds - fast and slow. If you choose fast, be watching - it moves.

Option three, search by word; you may use a key word or use the rating. The key word may be any string, i.e., key word "bet" will bring any title containing bet, betting, better, or even the word "between." The screen will show you a movie and ask if this is the movie you were looking for. If you tell it no it will give you another movie on the list and continue with all the movies containing the MAY want and qive it a yes response or until there are no more moyies.

Option four, add new movies.

Option five, delete movies. Option six, put data in order; this is a must before option seven.

Option seven, save data. Option eight, print movie catalog.

Before I mention the next option it is important to note that there is complete tnat there documentation. Read the docs carefully or you could mess up and forget to put "ZZ" at the end of your file.

Option nine, end session: know what this means? Yep - BYE.

BULLETIN TURBO XT

Triton has just mailers announcing their new system called Triton Turbo XT Personal Computer. Specs., Microprocessor: Intel 8088,8/4.77 MHz clock speed(software selectable); Operating system: MicroSoft Disk operating system (MS-DOS); memory: 256K RAM (expandable to 640K); Disk Drive: one 5 1/4" ds/dd, 360K thin-line mini-floppy, 48 tracks per inch: RGB/composite Video: graphics display adapter; Internal expansion: 8 standard user-accessible IBM PC External connections: slots; standard parallel Printer port,, composite viedeo, RGB, AC outlet.

Triton claims: True compatibility; twice the speed of the IBM PC/XT; Use your present TI_99/4A keyboard.

Prices: Computer \$499.00: MS-DOS support software \$69.95; Shipping and handling \$19.90.

Order or information number: 1-800-227-6900 or order by mail at: TRITON Products Company; Order Center; P.O. BOX 8123; San Francisco, CA 94128-9986.

by TIM TAYLOR NEW HORIZONS

FAST-TERM is a fantastic piece of communications software which supports X-MODEM file transfers. Compared to Terminal Emulator II. it is at least twice as good on several counts. It offers baud rates at regular intervals from 110 to 19200! It offers the screen and characters colors in any combination you like. It has a printer spooler which works with either RS232 or PIO. All screen data automatically goes to your printer when you select printer spooler. Files also be transfered by the T.E.2 protocol. Additionally, you can send and receive ASCII files. There is a screen freeze feature which lets you freeze incoming data. There is a window back feature which lets you view what has already scrolled off the screen. There is a timer which you can start and re-set at any time while on line which lets you know how long you have been on a bulletin board. Other features include the ability to change duplex between full and half width between 80 and 40 characters without clearing screen.

That summarizes some of FAST-TERM's features. My advice is: once you have acquired a copy of FAST-TERM, make yourself a back-up copy of it and store the original in a safe place. Them, on your back-up copy which you will use regularly, why not "customize" it to suit your individual needs. On my "working" copy, I have purposely left off the write-protect tab so that I can add programs I want to download and keep them there temporarily until I decide if I want to keep it and if so which disk I want to move it to. Also, I can use the same disk (FAST-TERM/customized) conveniently store the SESSION data, which I am about to explain.

Insert your Extended Basic cartridge and select EXB. Do Not insert Fast-Term disk yet. Wait . . until the . . until appears. Now in *READY* Now insert Fast-Term disk and type: RUN "DSK1.DEFAULT". This need only be done (usually) once แอดก initial use. Answer all of the input prompts concerning your modem port, printer port, baud rate, bell chimes or beeps, screen colors, and a few other questions. At the end, all of your choices will be saved on your Fast-Term disk. Next, press <FCTN> QUIT and re-select Extended Basic again. In about

30 seconds. Fast-Term will be loaded. When it asks for file parameter DSk1. you enter the hostname vou chose when setting up DEFAULT. Press (ENTER). You are now ready to communicate with a bulletin board. Dial un a bulletin board. Dial up TI-COMM (or other board).

If you are planning on saving all data received on the BBS you are about to call, hold <FCTN> and press B. FAST-TERM now opens a file called SESSION. Into it will go eveything you do on the BBS you are about to call. It will be in a call. It will be in a display/variable 80 file and may be read later by either Disk Manager 1000 or by TI-WRITER/FUNNEL WRITER or by FR1002 written by Steve Patterson. Next, dial phone number (385-7484). dial the BBS If at any time you do not want data to go into the SESSION file, simply press <FCTN> and . To re-open file while still on the board, press <FCTN> and . again.

To download and upload via X-MODEM, which is what TI-COMM HSPS.

select W on TI-COMM main menu. Let's deal with downloads first. Select D when given the choice. Read through list of programs and files. When listing is completed, press <FCTN> and N. You will see DSK1.SENDFILE. Move cursor over to the S on the word SENDFILE. Type in the name of the program you want from the download list as it appears on the list or whatever names suits you. Be sure it is a name different than any other name on your disk. Press <ENTER>. your disk. Press <ENIER>.
Press Y for CRC error checking.
TI-COMM next asks you to type
your choice of file exactly as
listed on download list, with
ALPHA LOCK DOWN. TI-COMM now
tells you transfer will begin in 20 seconds. You must now press 3 keys all at once: <FCTN>
<SHIFT> and X. Next press R for receive and <ENTER> to accept CRC error checking. The rest is automatic, unless there is a bad file or a noisy phone line.

Now, to upload. Insert disk with file you wish to upload. Press <FCTN> and N. Again, type the name of the file exactly as it is on your disk in place of the word SENDFILE. Press <ENTER>. Press U for upload.
Press Y for CRC error checking.
Enter the file name again as you have just typed it in place of SENDFILE. Press <ENTER>. Press Again, press 3 keys all at once:

<FCTN> <SHIFT> and X. Press

<ENTER> to accept the S (SEND).

Then press <ENTER> to accept CRC error checking. Again, the rest is automatic until transfer is complete.

Fast-Term has lots "goodies" to play with and is an exceptionally fine piece of software! It's author, Paul Charlton, is to be commended for writing such a fine terminal program!

Documentation files are on the disk with the program.

COMPUTERFEST

by Don Turner

This years computerfest will be held at the MASONIC GREAT HALL. 4645 Heatherdowns on Heatherdowns March B from 8:30 to 4:30

Tables are a first come first serve basis. \$10.00 per 8 ft table. There will be door prizes and refreshments. Parking is FREE.

256K Upgrade

hy John Clulew New Horizons

THANKS to the NEWSLETTER EDITOR for deciding to publish the article on how to add 64% to upgrade the Horizon RAMDISK to 256K. Edward Hallett certainly did an excellent job of explaining the project.

It's hard to believe that 64K can be added to the Horizon card so easily and for only \$24 and that the revised card still easily fits in a single PE-Box slot. Having worked with Dale Foote in doing three such modifications -- one for Bill Sager -- I can strongly recommend it to all Horizon Ramdisk owners.

A new revised version of the John Johnson MENU DSR which works with the upgrade is available either through me or the clubs for those who decide to do this project.

PLEASE USE THE FOLLOWING FOR THE NEWS LETTER

- .TL 35:14,27,69
- .TL 126:38
- .LM 0:RM 31:IN +0:NF:NA
- # T 1 T L E
- TL 35:27,72,27,65,11
- CE 2
- hy Arther Auther OH-MI-TI and/or NEW HORIZONS
- .IL 35:35 .IN +2:F1:AD

AN OPEN LETTER THE MEMBERS NEW HORIZONS \mathbf{r} CHE

by Phil Bennis NEW HORIZONS

I was honored to have been elected to the position of First Vice President at the January meeting. This is a position that I view as important to maintaining continued growth of the club. It is not a duty to be taken lightly or without a full committment to doing the very best job that can possibly be done. When I accepted the position in January, I had every intention of doing just that. However, I now find that due to family and personal committments for the next few months, 1 will not be able to fulfill my job as I had intended. I have no other l had intended. I have no other choice than to resign my office in favor of letting the Club find someone else who will be able to make that full committment. I am sorry for letting the club and the other officers down, but at this time, I have no other choice. I am sure that there are many well qualified people in our group than can step foreward and do an excellent job.

This club is one of the best things that the TI community in Toledo has going for it. Support it, nuture it, and help it grow to the full potential of what can be accomplished.

COMPANION DISK TI-ARTIST FONTS

by Bill Sager NEW HORIZONS

Owners of TI-Artist Ver 2.01 may experience problems when using several of the largest size font sets from the TI-Artist Companion disk. These are the fonts that are loaded by the Enhancement feature and not the built-in alpha/numeric entry.

The problem arises only when using the ending characters of the set. They either do not display or are incomplete. All fonts do work with Ver 2.0 of TI-Artist. Ver 2.01 uses some of the space that was used by certain large fonts.

If you do use any of the large fonts you may want to do an advance check to be sure that your entry will all be accepted.

HORIZON RAMDISK DEALERS

Horizon Computer Limited is pleased to announce that the Horizon Kamdisk is available for purchase from the following computer businesses. in the United States:

> AFMADILLO BYTES P.O. Box 900921 Dallas, 1x 75218

DISK ONLY SOFTWARE F.O. Box 244 Lorton, VA 22079

L.L. CONNER ENTERPRISES 1521 Ferry St. Latayette, IN 47904

MICROSTUPH 1456 Grandview Columbus, OH 43212

MIDWEST ENGINEERING 203 Arcadia Vernon Hills. IL 60061

QUALTECH. Inc. 116 Lomas N.W. Albuquerque, NM 87104

RMJ HOME COMPUTER SALES 2082 Whileaway Circle W. Colorado Springs, CO 80917

SUN SUFFICIENCY, Inc. RD 1, Box 359-5 Kingston, NY 12401

Dutside the United States:

COMPUTER DOWNLOAD 25 Ottawa St. Armprior, Ontario Canada K7S 1W7

SOLID STATE HARDWARE 506 Dawes Rd. #105 Toronto, Ontario Canada M4B 2G2

PETER BROOKS 96 Banbury Oxford, England OX2 6JT

FLEKTRONIK-SERVICE Linning 37 4044 Kaarst 2 West Germany

NEWSLETTER WHAT?

by Bill Sager NEW HORIZONS

As you have probably noticed, this newsletter has no one who is designated as the Editor. Instead, the Staff gets credit and they are listed on the front page.

Most other groups have an Editor for their newsletter. other groups have an But not us! From the current Staff the closest we get to an Editor is Bill Tiep. Bill keeps saying he's not the Editor and really only puts the newsletter together from articles and intormation he gathers and that which is submitted by members. You know -- he assembles the newsletter.

Bill maintains that we are so desperate for material that he can't afford to "edit out" anything, so there is no need for the Editor title.

Be all of that as it may, what I think we have found in Bill is another Tiep of EDITOR/ASSEMBLER for the 99/4A.

QUIZ ANSWERS

by STAFF OH-MI-TI & NEW HORIZONS

ANSWERS:

- 1. It comes down with a terminal illness.
- 2. Loss of memory.
- "Anything you can do, I can do better!".
- 4. To a disk-o-tech.
- 5. Down memory lane.
- 6. Very cool answers.7. A computer that jumps to conclusions.
- 8. CPU!
- 9. A chip off the old block.
- 10. Syntax ERROR.

NORTHWEST OHIO NEWS 1986

by Kent Sheets OH-MI-TI

132 CHARACTERS PRIN						
TOT PURENTIEND LKIN	Γ	NMO	0410	1186		
132PRINT/DOC	SMOLEY	NWO	0403	0386	132PRINT	PRINTER
32K MEMORY INSIDE S	PEECH	NWO	0405	0586	32K MEMORY	WILLFORTH
ADDING A SECOND RAM	CHIP	NWO	0406	0686	SUPERCART	MCCULLOCH
ADDING TO YOUR SUPE	RCART 4/1/86	NWO	0405	0586	SUPERCART	MCCULLOCH
ADVENTURES IN BASIC			0403		BASIC	
ADVENTURES IN BASIC			0404		2.1010	
ADVENTURES IN BASIC			0404			
					DACIC	
ADVENTURES IN BASIC			0403		BASIC	
ADVENTURES IN BASIC			0401	-	BASIC#2	
ADVENTURES IN BASIC	· - ·		0401		BASIC#1	
ANNIVERSARY	TIEP	-	0410		NOVEMBER1983	BLACK FRIDA
ART LIBRARY	A. ANDREWS	NWO	0410	1186	RLE	
ARTICLE RELEASE	SHEETS	NWO	0410	1186	ALBRIGHT	BOOK
ASSEMBLY E/A3 TO E/A	A5	NWO	0403	0386	D1S/FIXBO	PROGRAM
BEST OF STEVE PATTE	RSON	NWD	0401	0186	DISK	
BILL SAGER SHOUL		NWI	0403	0386	FROSTY	
BILL'S WORLD	TIEP		0412		FLAP'S LAW	GALLDIS'S
BINARY SEARCH	ROMER		0402		BINARY	SEARCH
BIZARRE PRODUCT UPDA			0402		NUCLEAR POWER	
			-			
BUILDING A HORIZONS			0403		RAMDISK	BIDDLE
BUILDING A RAM-DISK			0404	- · - -	RAMDISK	
CABLE BOX	EDWARDS SFV		040B		PEB CABLE	CABLE BOX
CASSETTE SYS TIPS#6			0410		TRICKS	TIDBITS
CHESS	SHEETS	NMO	0402	0286	CHESS	COMPUSERVE
CHICAGO TI FAIRE NO	V 1	NWO	0409	1086	FAIRE	
CLUB NEWSLETTERS		NWN	0402	0286		
COMING COMPUTER EVE	NTS	NWÖ	ŏ4ŏ3	ŏŝĕZ		
COOLING THE COOLING	FAN TURNER	NWO	0410	1186	P-BOX	REPLACEMENT
CQ PACKET	BIDDLE		0412		AMATEUR RADIO	า
						_
DIAL-A-WORD	LATIMER			1186	PHONE WORD	HIDDEN WORD
DIAL-A-WORD	LATIMER	NWO	0410		PHONE WORD	HIDDEN WORD
DISK DRIVE SPECIFIC	ATIONS 1.1	NMO NMO	0410 0409	1086	PHONE WORD DISK SPECS	HIDDEN WORD GULON
DISK DRIVE SPECIFIC DISK SWEEPER	ATIONS 1.1 PATTERSON	NW0 NW0	0410 0409 0401	1086 0186	DISK SPECS	GULON
DISK DRIVE SPECIFIC DISK SWEEPER DISK SWEEPER2	ATIONS 1.1 PATTERSON PATTERSON	OWN OWN OWN	0410 0409 0401 0409	1086 0186 1086		GULON
DISK DRIVE SPECIFIC DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THER	ATIONS 1.1 PATTERSON PATTERSON	NWO NWO NWO NWO	0410 0409 0401 0409 0401	1086 0186 1086 0186	DISK SPECS DISK SWEEPER:	GULON
DISK DRIVE SPECIFIC DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THER ERROR CODE LISTING	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO	NWO NWO NWO NWO NWO	0410 0409 0401 0409 0401 0409	1086 0186 1086 0186 1086	DISK SPECS DISK SWEEPER: ERROR CODE	GULON 2
DISK DRIVE SPECIFIC DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THER ERROR CODE LISTING EXTEND THE USE OF T	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER	NWO NWO NWO NWO NWO NWO NWO	0410 0409 0401 0409 0401 0409 0405	1086 0186 1086 0186 1086 0586	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER	GULON
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THEREFOR CODE LISTING EXTEND THE USE OF THE FILE READER 1002	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON	NWO NWO NWO NWO NWO NWO NWO NWO NWO	0410 0409 0401 0409 0401 0409 0405	1086 0186 1086 0186 1086 0586	DISK SPECS DISK SWEEPER: ERROR CODE	GULON 2
DISK DRIVE SPECIFIC DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THER ERROR CODE LISTING EXTEND THE USE OF T	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER	NWO NWO NWO NWO NWO NWO NWO NWO NWO	0410 0409 0401 0409 0401 0409 0405	1086 0186 1086 0186 1086 0586	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER	GULON 2
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THEREFOR CODE LISTING EXTEND THE USE OF THE FILE READER 1002	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON	NWO NWO NWO NWO NWO NWO NWO NWO NWO NWO	0410 0409 0401 0409 0401 0405 0405 0403	1086 0186 1086 0186 1086 0586	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER	GULON 2
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERE ERROR CODE LISTING EXTEND THE USE OF THE READER 1002 FOR SALE	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON	NWO OWN OWN OWN OWN OWN OWN OWN OWN OWN	0410 0409 0401 0409 0401 0405 0405 0403	1086 0186 1086 0186 1086 0586 0586	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER FILE READER	GULON 2
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERE ERROR CODE LISTING EXTEND THE USE OF THE FOR SALE FORTH TUTORIAL PT1 FORTUNATELY	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0410 0409 0401 0409 0401 0405 0405 0403 0401 0409	1086 0186 1086 0186 1086 0586 0586 0386 0186	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER FILE READER	GULON 2 GRAPH
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THEREFORE CODE LISTING EXTEND THE USE OF THE FOR SALE FORTH TUTORIAL PT1 FORTUNATELY FUNLWRITER 3.3 REVI	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW	00000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0403 0401 0409 0407	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER	GULON 2 GRAPH NUVOLINI
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERE ERROR CODE LISTING EXTEND THE USE OF THE FORTUNATELY FUNLWRITER 3.3 REVICEMINI 10X CHIP	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS	NWO 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0410 0409 0401 0409 0405 0405 0405 0401 0409 0407 0403	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086 0886	DISK SPECS DISK SWEEPER: ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X	GULON 2 GRAPH
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THEREBY ERROR CODE LISTING EXTEND THE USE OF THE FOR SALE FORTH TUTORIAL PTIFORTUNATELY FUNLWRITER 3.3 REVICEMINI 10X CHIPGOING FORTH	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH	NWOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	0410 0409 0401 0409 0405 0405 0405 0401 0409 0407 0403 0401	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086 0886 0386	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH	GULON 2 GRAPH NUVOLINI
DISK DRIVE SPECIFICED DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THEREBY ERROR CODE LISTING EXTEND THE USE OF THE FOR SALE FORTH TUTORIAL PTIFORTUNATELY FUNLWRITER 3.3 REVIOLEMINI 10X CHIPGOING FORTH PT2	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH	00000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0401 0409 0407 0403	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086 0886 0186 0186	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH	GULON 2 GRAPH NUVOLINI LQ CHIP
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTUNATELY FUNLWRITER 3.3 REVIOLEMENT SEMINI 10X CHIP GOING FORTH PT2 GRAFH PAPER PRINTER	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD	00000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0401 0402 0412	1086 0186 1086 0186 1086 0586 0586 0386 0186 0886 0386 0186 0286 1286	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH FORTH GRAPH PAPER	GULON 2 GRAPH NUVOLINI
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTH TUTORIAL PT1 FORTUNATELY FUNLWRITER 3.3 REVIOLEMINI 10X CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER FGM	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE	0000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0402 0412 0407	1086 0186 1086 0186 1086 0586 0586 0386 0186 0386 0186 0186 0286 1286 0886	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH GRAPH PAPER GRAPHSHEET	GULON 2 GRAPH NUVOLINI LQ CHIP PRINTER
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTUNATELY FUNLWRITER 3.3 REVIOLEMENT TO CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER HEM GRAPHX COMPANION	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE BURKETT	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0402 0412 0407	1086 0186 1086 0186 1086 0586 0586 0386 0186 0386 0186 0186 0286 1286 0886 0186	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH FORTH GRAPH PAPER GRAPHSHEET GRAPHX	GULON 2 GRAPH NUVOLINI LG CHIP PRINTER COMPANION
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTH TUTORIAL PT1 FORTUNATELY FUNLWRITER 3.3 REVIOLEMENT FORTH TOX CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER FOM GRAPHX COMPANION GROW SHIPS INSIDE TO	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE BURKETT	0000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0402 0407 0406	1086 0186 1086 0186 1086 0586 0586 0386 0186 0386 0186 0286 1286 0886 0186	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH GRAPH PAPER GRAPHSHEET	GULON 2 GRAPH NUVOLINI LQ CHIP PRINTER
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTH TUTORIAL PT1 FORTUNATELY FUNLWRITER 3.3 REVIOLEMENT FORTH TOX CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER FOM GRAPHX COMPANION GROW SHIPS INSIDE THAT FEST	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE BURKETT I CONSOLE	0000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0402 0402 0407 0406 0403	1086 0186 1086 0186 1086 0586 0586 0386 0186 0386 0186 0286 1286 0886 0186	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH GRAPH PAPER GRAPHSHEET GRAPHX GROM CHIPS	GULON 2 GRAPH NUVOLINI LQ CHIP PRINTER COMPANION UGORCAK
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTH TUTORIAL PT1 FORTUNATELY FUNLWRITER 3.3 REVIOUS FORTH TOX CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER FOM GRAPHX COMPANION GROW THIS INSIDE THAT FEST HARDWAF HINTS	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE BURKETT I CONSOLE	0000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0407 0407	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086 0386 0186 0286 1286 0886 0186 0686 0386	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH FORTH GRAPH PAPER GRAPHSHEET GRAPHX	GULON 2 GRAPH NUVOLINI LG CHIP PRINTER COMPANION
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTUNATELY FUNLWRITER 3.3 REVIOUS FORTH TOX CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER FOM GRAPHX COMPANION GROW SHIPS INSIDE THAM FEST HARDWAF HINTS HIDDE CHARCATERS	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE BURKETT I CONSOLE	0000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0407 0406 0403 0403 0403	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086 0386 0186 0286 1286 0886 0186 0486 0486 0486	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH GRAPH PAPER GRAPHSHEET GRAPHX GROM CHIPS DISKDRIVE	GULON 2 GRAPH NUVOLINI LQ CHIP PRINTER COMPANION UGORCAK
DISK DRIVE SPECIFICATION DISK SWEEPER DISK SWEEPER2 DON'T JUST SIT THERETOR CODE LISTING EXTEND THE USE OF THE FORTH TUTORIAL PT1 FORTUNATELY FUNLWRITER 3.3 REVIOUS FORTH TOX CHIP GOING FORTH PT2 GRAPH PAPER PRINTER GRAPHSEET MAKER FOM GRAPHX COMPANION GROW THIS INSIDE THAT FEST HARDWAF HINTS	ATIONS 1.1 PATTERSON PATTERSON E, HOP TO I-WRITER PATTERSON HINDLEY SNEIDER EW SHEETS KOTH KOTH BEHNKE/DODD BEHNKE BURKETT I CONSOLE	0000000000000000000000000000000000000	0410 0409 0401 0409 0405 0405 0405 0407 0407 0407 0407 0406 0403 0403 0403	1086 0186 1086 0186 1086 0586 0586 0386 0186 1086 0386 0186 0286 1286 0886 0186 0686 0386	DISK SPECS DISK SWEEPERS ERROR CODE TI-WRITER FILE READER FORTH FUNLWRITER GEMINI 10X FORTH FORTH GRAPH PAPER GRAPHSHEET GRAPHX GROM CHIPS	GULON 2 GRAPH NUVOLINI LQ CHIP PRINTER COMPANION UGORCAK

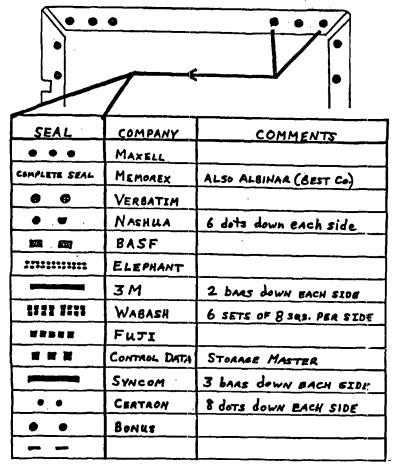
JPDATE NWO 0409 1086	RAMDISK	UPDATE
ORT NWO 0402 0286		ROMER
AVING NWO 0402 0286	RAMDISK	REVIEW
NWO 0404 0486		
R NWD 0404 0 486	BBS	
NWO 0403 0386		
NWO 0402 0286	LAWS	
NWD 0404 0486	LOADER	
NWO 0405 0586	LOADING	FILE FORMAT
NWD 0409 1086	RLE3	ARCHIVER
NWO 0410 1186	TEXAS PICS	
NWO 0402 02 8 6	CSGD	GRAPHIC
NWO 0403 03 8 6	CSGD DEMO	TEMPLATE
NWO 0405 0586		
RSON NWO 0409 1086	MASS TRANSFE	ER .
SEN NWO 0401 0186		
NWD 0402 0286	MODEMS	
NWD 0402 0286	MODULES	PRINT
/ NWD 0404 0486	MS/LABELS	
NWO 0407 0886	MULTIPLAN	ZIMMERMAN
NWD 0408 0986	RIVAL	
NWD 0403 0386	TECHIE	
NWD 0404 0486	MAXIMEM	TI-ARTIST
NWO 0410 1186		
NWD 0403 0386	FROSTY	
NWO 0407 0886	RLE	VIDEO TAPES
NWD 0409 1086		
NWD 0412 1286		
NWO 0405 0586		
NWD 0402 0286	CSGD	
NWD 0408 0986		
NWD 0406 0686	PR-BASE	
NWO 0401 0194	3RD ANNV.	
NG NWO 0408 0986	CONTEST	
NWD 0409 1086		
NWO 0403 0386	RECIPE	QUICK DIAL
NWO 0410 1186	FORMAT	ARTICLES
TH NWD 0403 0386	LOTTO ODDS	
NWO 0403 0386	NUTRITION	
	PORT NWO 0402 0286 NWO 0404 0486 NWO 0404 0486 NWO 0404 0486 NWO 0402 0286 NWO 0404 0486 NWO 0405 0586 NWO 0407 0886 NWO 0404 0486 NWO 0405 0586 NWO 0407 0886 NWO 0408 0986 NWO 0408 0986 NWO 0408 0986 NWO 0403 0386 NWO 0403 03	PORT NWO 0402 0286 RAMDISK AVING NWO 0402 0286 RAMDISK NWO 0404 0486 RAMDISK NWO 0404 0486 RAMD 0404 0486 RAMD 0404 0486 RAMD 0403 0386 NWO 0404 0486 LOADER NWO 0405 0586 LOADING NWO 0405 0586 LOADING NWO 0407 1086 RAMD 0405 0586 RAMD 0407 0886 RAMD 0407 0886 RAMD 0408 0986 RAMD 0408 0408 0408 RAMD 0409 1086 RAMD 0407 0886 RAMD 0407 0408 0786 RAMD 0407 0408 RAMD 0407 0

Will you be my valentine ...

A QUICKIE QUIZ FROM THE NORTH JERSEY TI USERS GROUP ANSWERS ARE TO BE FOUND ELSEWHERE IN THIS NEWSLETTER

- 1. How does a computer 'die?
- 2. What's a sure sign of old age in a computer?
- 3. What did the computer say to the Adding Machine?
- 4. Where do computers go dancing?
- 5. Where do computers like to stroll when they have a class reunion?
- 6. What do you get when you cross a computer with a refrigerator?
- 7. What do you get when you cross a computer with a rabbit?
- 8. What did everyone say when the science teacher crossed a computer with a skunk?
- 9. What did the big computer call the little computer?
- 10. What is a mistake on a burglar's income tax form?

IDENTIFICATION OF 54" DISKS



THIS CHART SHOWS THE NAME OF THE MANUFACTURER WHO MAY HAVE PRODUCED THAT DISKETTE YOU NOW HAVE IN YOUR DISKETTE DRIVE. I WOULD LIKE TO THANK THE N.O.V.A. USERS GROUP OF VANCOUVER, WA. FOR THIS CHART PRINTED IN THEIR NOV. ISSUE.

EPROMS

by Arther Auther OH-MI-TI & NEW HORIZONS

Ryte Data is offering a pair of EPROMS for the Disk Controller Card that will allow up to QUAD density. The cost is \$45.00.

THE FOLLOWING PROGRAM WILL DEMONSTRATE A MOST AMAZING THING THAT IS ONE OF THE MANY FEATURES THAT EXIST IN TI BASIC (EXTENDED), EVEN IF TI ACCIDENTLY PUT THEM IN OR NOT. ED BITTNER ALSO DUG THIS OUT OF AN OLD NEWSLETTER, BUT AT THE TIME I TYPE THIS I CANNOT GIVE CREDIT TO THE AUTHOR OR THE NEWSLETTER. PLEASE FORGIVE ME.

```
100 CALL CLEAR :: PRINT "HERE I GO" :::
```

IF YOU DON'T DO A LOT OF PROGRAMMING, YOU MAY NOT SEE THE THE SUBTLE BEAUTY OF WHAT IS DEMONSTRATED HERE. THE LINE 110 TELLS THE COMPUTER TO GOTO A SUBROUTINE AT LINE 200 IN THE PROGRAM, AFTER WHICH IT WILL RETURN TO THE NEXT COMMAND, OR LINE STATEMENT, WHICH WILL BE WELL YOU MAY THINK THAT "DELAY ROUTINE" WAS A TYPO ON MY PART. IT WASN'T. YOU ARE ABLE TO INSERT REMARKS IN GOSUB AND GOTO STATEMENTS WHICH ARE PART OF MULTI-STATEMENT LINES OTHER THAN AT THE END OF THE LINE! THIS FEATURE, ALTHOUGH DEMONSTRATED BY THIS SHORT PROGRAM, COULD BE EVEN MORE HIGHLY APPRECIATED, IN A 5 ROW EXTENDED BASIC LINE, TO DIRECTLY POINT TO WHAT YOU ARE GOING TO DO WHEN YOU GET THERE, TYPE OF THING.

THE ONLY STIPULATION IS THAT THE STRING IS CONTINUOUS (NO SPACES), THAT IS WHY THE " " EXISTS. TRY IT, THIS MAY PUT A NEW TI WEAPON IN YOUR ALREADY GREAT TI PROGRAMMING ARSENAL.

¹¹⁰ GOSUB 200 DELAY ROUTINE :: PRINT "HELLO ! I'M BACK"

¹²⁰ END

²⁰⁰ FOR D=1 to 400 :: NEXT D

²¹⁰ RETURN

THE FIRST OF "CALL KEY"

The CALL KEY command in Basic and Extended Basic

The CALL KEY command in Basic and Extended Basic is one whose complete power may not be appreciated by many programmers. This article and list of examples is an attempt to explain some of the "hidden" capabilities of the CALL KEY statement so that you can get the most out of it in your own programs.

The information in this article was collected from several sources including: an excellent summary of the CALL KEY options, written by Joyce Corker of Waltham, Mass. (the examples that make up the second half of this article are completely hers) which has appeared in several other newsletters recently; and an article by several other newsletters recently; and an article by Glenn Davis in the January 1985 edition of the MSP 99 Newsletter.

CALL KEY, as implemented on the TI 99/4A has six possible modes in which to operate. These modes are summarized below.

CALL KEY (O. KEY, STATUS)

When the mode specified is "O", the keyboard is scanned in the same mode it was in previously. (The normal Basic mode is Mode 5 --see below-- so when a CALL KEY(O,K,S) statement is used in Basic or Extended Basic, we are really telling the computer to scan using Mode 5 "just like you were doing before".)

CALL KEY(1, KEY, STATUS)

Mode 1 scans the left side of the keyboard only.

CALL KEY (2, KEY, STATUS)

Mode 2 scans the right side of the keyboard only.

CALL KEY (3, KEY, STATUS)

Mode 3 is the "99/4" mode. In this mode values for upper case letters are returned in "KEY" even if a lower case letter is pressed. (In other words, in this mode it doesn't matter whether the ALPHA LOCK key is up or down, all you get is upper case letters.) This mode is particularly useful where upper case

letters are important. For example, it is recommended that disk file names be in all upper case letters. By putting a CALL KEY(3,K,S) statement before the INPUT or ACCEPT statement, the name typed in by the user will be all in upper case letters. (Il Writer uses this mode when accepting file names.)

CALL KEY(4, KEY, STATUS)

Hode 4 (Pascal Hode) allows upper and lower case letters and all control and function keys. However, some of the "codes" are different than in Basic. For example, FCTN 4 will not "break" a program on an INPUT or ACCEPT statement, FCTN S will not backspace, etc. This is because these combinations of key strokes generate different codes in this mode than in Basic. lSee the appendix in the User's Reference Guide.)

CALL KEY (5, KEY, STATUS)

Mode 5 is normal Basic mode and allows for both upper and lower case letters.

EXAMPLES

Below are several examples of how some of the modes described can be put to use.

Yes or no answers using CALL KEY O

100 CALL CLEAR 110 PRINT "Y OR N?" 120 CALL KEY(0, K, S) 130 IF K=78 THEN 170 140 IF K<>89 THEN 120 150 PRINT "YES" 160 60TO 180

170 PRINT "NO"

Space bar or ENTER answers using CALL KEY 5

100 DISPLAY AT(3,3)ERASE ALL: PRESS SPACE BAR TO CONTINUE": PRESS ENTER TO PRINT"
110 FOR DELAY=1 TO 600:: NEXT DELAY

120 CALL KEY(5,K,S)
130 IF K=32 THEN PRINT "SPACE BAR PRESSED" ::
60TO 150 ELSE IF K<>13 THEN 120
140 PRINT "ENTER WAS PRESSED"

150 END

Alphabet answers that are forgiving of wrong case using

100 DISPLAY AT (3, 3) ERASE ALL: "PRESS R TO REPEAT" : "PRESS P TO PRINT"

110 FOR DELAY=1 TO 600 :: NEXT DELAY

120 CALL KEY(3,K,S) 130 IF K=82 THEN PRINT "HERE YOU WOULD 60 TO YOUR REPEAT SUBPROGRAM" :: 60TO 150 ELSE IF K()80 THEN 120

140 PRINT "HERE YOU WOULD 60 TO YOUR PRINT SUB"

150 END

Accessing Function and Control Keys using CALL KEY 5

100 DISPLAY AT (3, 3) ERASE ALL: "PRESS CONTROL KEY AND COMMA*

110 FOR DELAY=1 TO 600 :: NEXT DELAY

120 CALL KEY (5, K, S) 130 IF K=128 THEN PRINT "CONTROL AND COMMA PRESSED" ELSE 120

140 END

100 DISPLAY AT(3,3) ERASE ALL: "PRESS FUNCTION 8" 110 FOR DELAY=1 TO 600 :: NEXT DELAY

120 CALL KEY(5,K,S) 130 IF K=6 THEN PRINT "FUNCTION 8 PRESSED" :: 60TO 140 ELSE 120

140 END

As you can see, the CALL KEY command gives you a great deal of control over the input you are accepting. If you develop other ways to use these modes, bring them to the next meeting and share them with all of us. 5. CREATE/S -

CHANGE "DATA >BB00" to "DATA >FB00" at LABEL LINK1.

Change "DATA >BD00" to "DATA >FD00" at LABEL LINK2.

Change "DATA >BF00" to "DATA >FF00" at LABEL LINK3.

Change "PARTA_03" to "PARTA246" in the TEXT LINE after LABEL PDATA.

Change "PARTB_02 to "PART B256" in the TEXT LINE

Change "PARTB_02 to "PART B256" in the TEXT LIME after LABEL LDATA.

- FILL/S Change "LI R5,93" to "LI R5,125" (one LINE before LABEL FLOOP1).
 - 7. LOADER/S -

Change "DATA >BBOO" to "DATA >FBOO" at LABEL LIMK. Change "BYTE >BB" to "BYTE >FB" at LABEL MXL1. Change "BYTE >BD" to BYTE ">FB" at LABEL MXL2. Change "BYTE >BF" to "BYTE >FF" at LABEL MXL3.

8. PARTA -

Change "DATA 720" to "DATA 976" at LABEL MAXSEC.
Change "DATA 720" to "DATA 976" at LABEL FORSEC.
Change "DATA >BB00" to "DATA >FB00" at LABEL LINK1.
Change "DATA >BD00" to "DATA >FD00" at LABEL LINK2.
Change "DATA >BF00" to "DATA >FF00" at LABEL LINK3.
Add the LINES "C RS@MAXSEC" and "JEQ FFDONE" after the LINE "INC RB" (fourth LINE after LABEL FMTLP1.

Add the LINE "FFDONE MOV 48,R3" after the LINE "JNE FMTLPO" (mixth LINE after LABEL FMTLP1.

- 9. SVXB/S Change "LI R1, >BF00" to "LI R1, >FF00" (fourth LINE after LABEL SVXB.
 - 10. VERSION/S -

Change "DATA >BB00" to "DATA >FB00" at LABEL LINK1.

Change "DATA >BD00" to "DATA >FD00" at LABEL LINK2.

Change "DATA >BF00" to "DATA >FF00" at LABEL LINK3.

Change "PARTA_03" to "PARTA256" in the TEXT LINE

after LABEL PDATA.

Change "PARTB_03" to "PARTB256" in the TEXT_LINE after LABEL LDATA.

11. XB/S - Change "CI R2,1441" to "CI R2,977" at LABEL MAXO2.

REASSEMBLE theme FILES to create the MEW OBJECT FILES. Then REASSEMBLE the FILE "TEST/S" which ASSEMBLES the DSR FILES PARTA thru PARTE. Call this FILE "DSR256". ASSEMBLE the ORIGINAL FILES "CHAR/S" and "DOWNLD/S" from the HORIZON SOURCE DISK.

Next RUN the "LOADER" prograe asmembled from "LOADER/S" to LOAD the following:

"DSR256" into BLOCK 1.

"CALL" from the assembled FILE "CALL/S" into BLOCK 2.
"CHAR" from the assembled FILE "CHAR/S" into BLOCK 3.
"DOWNLD" from the assembled FILE "DOWNLD/S" into BLOCK 3.

Now run this BASIC PROGRAM:

100 CALL INIT

110 CALL LOAD ("DSK1.XB")

120 CALL LDAD("DSK1.SVXB")

130 CALL LINK("SVXB")

140 END

NOTE: the RAMDISK MUST be set at CRU 1000 for the SVXB program to work as it does NOT search for the HORIZON CARD CRU like the other programs do. If you have another CARD at CRU 1000 (like the MYARC 128K or 512K CARD), you can change the sixth LINE of the "SVXB/S" FILE from "LI R12,1000" to "LI R12, (CRU of your HORIZON CARD)".

The modified DSR CODE, CALL SUBPROGRAMS ETC. are now LOADED in their NEW locations in RACKS 122 THRU 124. Next RUN the program "CREATE" from the assembled FILE "CREATE/S" (PROGRAM NAKE "IMAGE")> This will create the FILES "PARTA246" and "PARTB256" on DSK1 for use with the VER 256 LOADER from the assembled file "VERSION/S".

The SOURCE CODE for the program "UTIL1" (the multiple RAMDISK LOADER) was not provided on the HORIZON SOURCE CODE DISK. It can be modified by DISSASSEMBLING it with "MILLERS BRAPPIES DISKASSEMBLER", finding the four words >02DO, >BBOO, >DOO, and >BFOO, changing them to9 >03DO, >FBOO, >FDOO, >FFOO, changing "PARTA_03" and "PARTB_03" to "PARTA256" and "PARTB256", REASSEMBLING the program, and then RUNning the SAVE UTILITY from the EDITDR/ASSEMBLER to change it back to PROGRAM IMAGE FORMAT.

This completes the DSR modifications. All functions of the HORIZON RAMDISK will function as they did originally, but now being able to UTILIZE 976 Sectors (256K).

When formatting the 976 SECTOR RANDISK, select DSDD format. The DISKMANAGER will show "974 SECTORS FREE" and "466 SECTORS USED". This is because the DISKMANAGER is trying to format 1440 SECTORS and reads 466 USED during SECTOR VERIFICATION. This does not affect RANDISK OPERATION in any way, but it can be corrected to show "974 SECTORS FREE" and "2 SECTORS USED" by changing BYTES 10 and 11 of SECTOR 0 from >05A0 to >03D0. The following program is used to correct the SECTORS FORMATTED number.

DEF START
SECTOR DATA >03D0
START LI R12,>1200 CRU DF YOUR CARD
LI R1,7
SWPB R1
LDCR R1,8
MOV SECTOR, @>580A
SBZ O
RT
END START

This completes the HORIZON RAMDISK 256K EXPANSION TO LCT. Questions concerning this project should be sent to: EDWARD A. HALLETT, 5600 S. COUNTRYCLUB #64, TUCSON, A7 85706. Phone (602)889-6930.