HUG

HOUSTON USERS GROUP

MARCH 1985

HUG TIBBS - (713) 699-2073
24-hour BULLETIN BOARD

MEETING SCHEDULE
FIRST SUNDAY OF EVERY MONTH
(2nd Sunday if 1st Sunday
is on a holliday weekend)

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AT THE NEXT MEETING

SUNDAY, MARCH 3, 1985   2:00 P.M. SHARP

St. John's School - 2401 Clairemont

The HUG meeting program this month will feature a Mini-Tutorial on how to type, load, and run a previously written program in the Bas/Ext-Bas, Assembly, Forth or Pascal languages.   (see page 2)

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1985 HUG OFFICERS

President --- BILL KNECHT ... 473-5713	Secretary - CHIA GREER ... 668-4500
VP/Membership DON LEWIS 353-5295	Treasurer - DAVID MATHER . 941-1497
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Exec. Asst. - TOM JAY 850-0222	Editor ---- CECIL CROWDER 487-5530

MARCH HUG MEETING

by Sandor Karpathy   VP/Programs

When was the last time that you opened up a magazine and found a good program that would do just what you wanted it to do, only to find that it was in Assembly Code? Now what do you do? You have the Editor/Assembler (which you haven't even opened), but how do you type in the program and make it run? This is the question that we will try to answer.

This months' HUG program will deal not only with Assembly programs but also Bas/Ext-Bas, Forth, and Pascal programing. Four Mini-turorials will be given in the basic method of loading programs that you have not written yourself but have found in magazines, copied from BBS systems, or obtained from the HUG Library. We will try to provide in each of the above four areas a demonstration on how a program can be typed, loaded, and run. Possibly, even a short section will be provided on what major items should be looked for if the program does not run.

In addition to the tutorial, handouts with detailed step-by-step procedures will be provided. Our four EXPERTS, who will conduct the meeting are:

    Tony Johnson   - Ed/Assy
    David Mather   - Bas/Ext-Basic
    Larry Pipkin   - Forth
    Paul Hutmaker - Pascal

So, if you have basic questions in any of the above areas, bring them along and come and learn. After the meeting you will be able to contact our librarian "Mr. Bill", and get some programs out that you once thought were beyond your capabilities.

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TI KEYBOARD

The following program listing will give the ASCII codes for any key depressed on the keyboard of your TI 99/4A. The only exception to this is the QUIT (FCTN =) and in order to help in debugging I have placed an exclamation point in line 100. This enables the CLEAR (FCTN 4). The ! acts as a REM and should be removed and the program SAVEd before RUNning.

There are things about these code numbers which have been going around for quite some time, but this program will give information that many, myself included, did not know. An example of this is that some keys when depressed will a different ASCII code if BOTH CTRL and FCTN are pressed at the same time.

If you are one of us which enjoy learning new things this program may very likely become a treasure in your personal library.

You will also notice that there is no consistancy in the PRINT statements in this program. That is bad programming practice but it will help you learn that there are many different ways to do the same thing. The program is written in BASIC, but will also run in EXTENDED BASIC.

```
1 !SAVE DSK1.KEYBOARD          310 ON K GOSUB 330,350,370,3
100 !ON BREAK NEXT             90,410,430,450,470,490,510,5
110 CALL SCREEN(11)            30,550,570,590,610
120 CALL CLEAR                 320 GOTO 230
130 PRINT "THIS PROGRAM RETU   330 PRINT "(AID)";K
RNS ASCII":"CODES FOR MOST O   340 RETURN
F THE KEYS":"ON THE KEYBOARD   350 PRINT "(CLEAR)";K
"                             360 RETURN
140 PRINT : : :"EXAMPLE:": :   370 PRINT "(DELETE)";K
"THE ENTER KEY IS PRESSED":"   380 RETURN
AND ASCII CODE 13 APPEARS"     390 PRINT "(INSERT)";K
150 PRINT : :"THIS ALSO GIVE   400 RETURN
S CODES FOR":"FCTN & CTRL CH   410 PRINT "(NOTHING.....)";K
ARACTERS."                     420 RETURN
160 PRINT : :"SOME KEYS RETU   430 PRINT "(REDO)";K
RN A DIFFERENTASCII CODE WHE   440 RETURN
N FCTN & CTRL ARE PRESSED AT   450 PRINT "(ERASE)";K
 THE SAME TIME"                460 RETURN
170 PRINT : : :"PRESS PROC'D   470 PRINT "(S LEFT)";K
 TO BEGIN."                    480 RETURN
180 CALL KEY(0,K,S)            490 PRINT "(D RIGHT)";K
190 IF K=12 THEN 200 ELSE 18   500 RETURN
0                              510 PRINT "(X DOWN)";K
200 CALL CLEAR                 520 RETURN
210 PRINT TAB(9);"PROGRAM B    530 PRINT "(E UP)";K
Y:": :TAB(8);"BERNARD FALKIN   540 RETURN
"                             550 PRINT "(PROC'D)";K
220 PRINT : : : : : : : :"     560 RETURN
230 CALL KEY(0,K,S)            570 PRINT "ENTER";K
240 IF S<1 THEN 230            580 RETURN
250 IF K<>32 THEN 280          590 PRINT "(BEGIN)";K
260 PRINT "(SPACE BAR) 32"     600 RETURN
270 GOTO 230                   610 PRINT "(BACK)";K
280 IF K<16 THEN 310           620 RETURN
290 PRINT CHR$(K);K            630 END
300 GOTO 230
```

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SORRY 'BOUT THAT

In the February newsletter SLEEVE program listing:
in line 200 change the % to &
in line 240 add quotation marks at the end of the line
in line 360 add a space and a B so that the end of the line will read NEXT B

SCREEN DUMP
HUG Library #1380

This program is an assembly language screen dump which will dump BASIC, Extended BASIC and COMMAND MODULE screens to your printer. It requires Memory Expansion and the XB-Module for XB screens and the E/A Basic for BASIC screens. For dumping Command Module screens, an interrupt switch is required (see article in this newsletter). The interrupt switch may also be used for dumping the other types of screens as well.

The program comprises 330 sectors of disk space and includes the source codes and 4 pages of printed documentation. It will dump either normal size, double size (6X8), rotation of 90 degrees, tab settings for spacing and inverted image. The documentation is easy to understand and gives you samples of CALL LINK statements to use to get the different types of printout. The program takes only about a minute to dump a complete screen to your printer.

The only drawbacks I see with this program is that it does not have shadowing (the colors are either black or white) and it will not print sprites (no screen dump will do that at this point). The program was written by Danny Michael of Florence, Alabama and I must congratulate him on such as great program. Anyone who has a printer capable of screen dumps should have this program in their library.   -Bill Knecht

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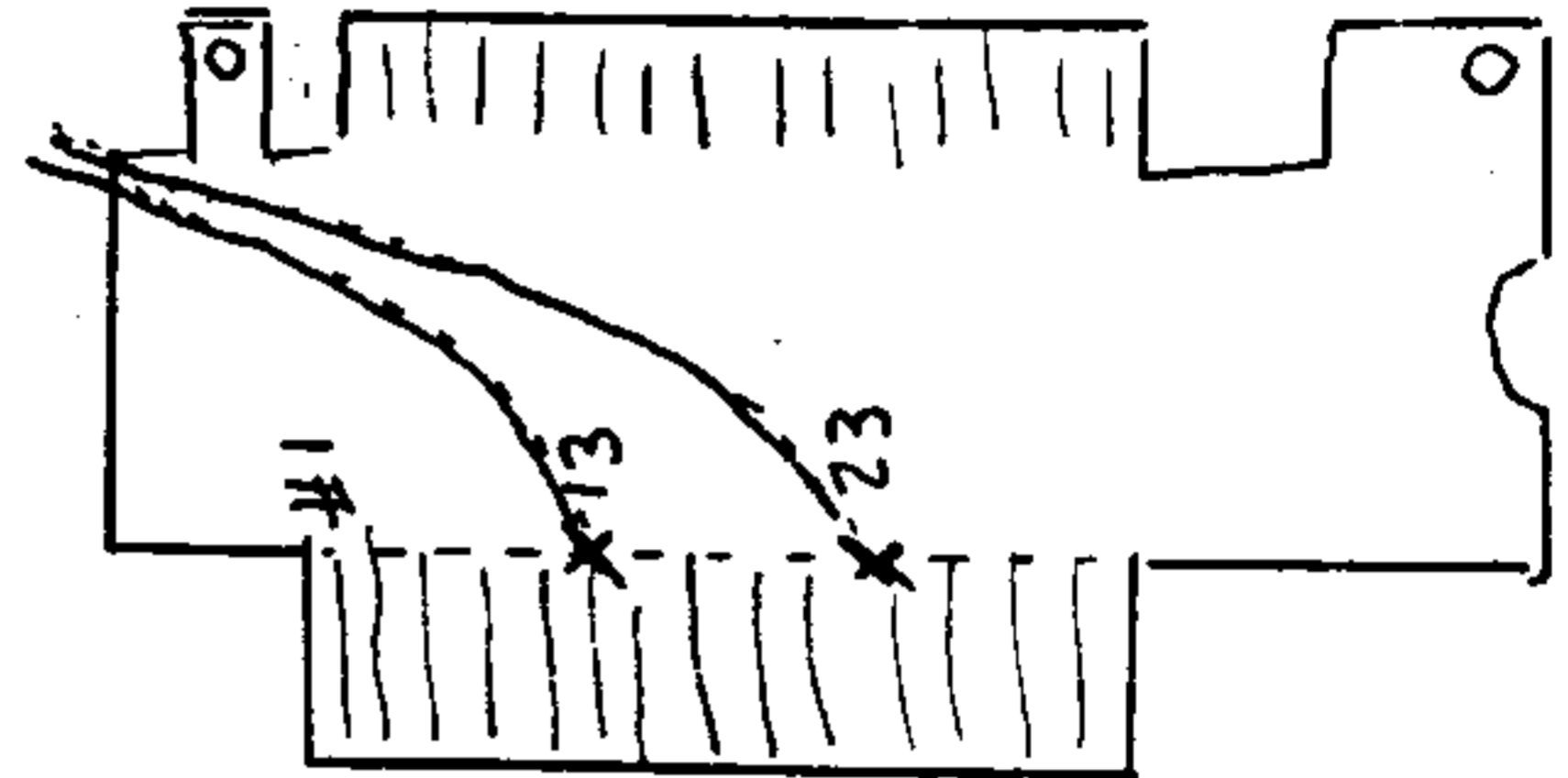## BUILDING AN INTERRUPT SWITCH

An interrupt switch is used to stop the action of a program and go to another memory location, while not changing the screen display. This is handy when you are trying to do screen dumps to a printer. In order to do this, you need an interrupt switch. One can easily be built for less than $2.00 and installed inside you speech synthesizer box.

You will need a Subminiature Push Button Switch (Radio Shack No.275-1571), two pieces of insulated wire about 6 inches long (bell wire will do), a drill the size of the switch, a soldering iron and heat sink, and a small phillips-head screw driver.

Disassemble your speech synthesizer to get to the pc board inside. Take the outer plastic case of the synthesizer and open the door. You will need to drill a hole in the right-hand corner to mount the switch (as close to the corner as you can get). It might be best to drill it from the inside. Before mounting the switch, soider the two wires to the terminals of the switch, using

a heatsink to prevent damage. Next soilder the other two ends of the wires to pin 13 and 23 of the pc board. Note: When counting pins, count 1,3,5,7,etc. (SEE DIAGRAM) Replace the metal cover over the pc board and place some tape at points where the wire passes thru. Secure the switch in place and install the plastic cover.

If the computer seems to lock up when you turn it on, you have something hooked up wrong or a short. If you have any questions about this, call Cecil, Larry or myself.   -Bill Knecht

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PRESIDENT'S REPORT

I would like to say thanks to all of you who attended our last meeting. It seems like we keep filling the room beyond capacity. The board is looking into the fact that many people had to stand up and we hope to have a solution soon. If you missed the meeting, you missed a chance to meet one of the best assembly languages programmers around. Gregg Wonderly, from Oklahoma, took time out to come down to speak to us. Additionally, he presented us with some fantastic programs for our library. We now have a data base program, a menu generating program, the digitizer program and several others. Be looking for the library numbers at the next meeting.

There are still quite a few of you who have not paid your dues for 1985. I personally cannot see why someone would not want to renew. The newsletter subscription is worth the $15.00, let alone the access to the library, the meetings, the special interest groups and the fellowship. If you have not paid your dues, please do so immediately to keep from having to pay another initiation fee later.

This upcoming meeting looks to be something for everyone. If you type in programs from publications, get errors and don't know what to do, be at the meeting. If you have FORTH and don't know how to use it, be there. If you just want to get out and socialize, see you Sunday.

Bill Knecht

COPIER PROGRAMS

NIBBLER:

NIBBLER by STARSOFT has features that many copier programs do not have. It has an auto load feature in XB, works with single or multiple drives, single or double sided, single or double density and is capable of reading and writing from one selected sector to a complete disk full. It will also read at one address then write to the same or different address on the same or different disk or drive. No, you can't change information as with DISK FIXER, but Disk Fixer is not capable of writing more than one sector at a time as Nibbler can. So if you are in disk repair as I am you really need both.

Nibbler also keeps you informed of reading, writing, and current or last sector number in HEX. If you are using this program and a problem is incurred it will stall showing an error and the sector on which it stalled.

The version 1.2 had problems initializing above SSSD but version 2.0 seems to have overcome those problems.

By not letting it read the sector bit map you can make backups of nearly all your protected disks.(Quality 99 Software not included)

If my limitations were to have only one copier program, NIBBLER would definately be the one of all that I have seen. I consider this to be more of a utility than just a copier program ... so to the best of my knowledge it is in a class all its own.

Best buy? ... At a cost of less than twenty dollars the price is very reasonable compared to other copier prices.

QUICK COPYer II:

QUICK COPYer II by QUALITY 99 SOFTWARE may be loaded in XB or EA/5 and has at least two features which stand out to users of the program.

You are allowed to initialize (any format) then without copying, initialize again. The initializing policy appears to be stronger than any other that I have seen. At times with a disk which appears to have a bad but not destroyed sector in it I reinitialize with QC II and the bad sector becomes usable.

The other outstanding feature is that it extremely hard but not impossible to get a backup copy and most of us prefer to use the backup copy and store the origonal program to keep it from becoming destroyed.(this policy is recommended by some software companies)

This is probably one of the easiest to use copiers on the market and is versatile in the fact that it will allow you to copy files or a complete disk.

As a copier my rating is GOOD ... but as an initializer, BEST I've seen yet.   ... Cecil

TI 99/4A AND ENGINEERING

They may have sold it in K-Mart and Toys 'R' Us, but it definitely is not a toy. The TI 99/4A is fully capable of handling a wide range of problems found in the world of business, science and technology.

But a glance at our HUG Library Catalog shows that there aren't any programs available in science and engineering. We know that there are many problems in these fields which can be solved quickly and easily with the computer, eliminating tiresome manual iterations. Complete equations will yield error free results. The effects of changing one or more variables is a specific equation can be examined in just about the twinkling of an eye.

So, come on, all you HUG engineers and scientists. If you have or can think of public domain programs, whether in electronics, structures, mathematics, heat transfer, fluic mechanics or chemical processes, ect., don't think they will not be of interest to our members. SHARE them. Write them, with enough "REM" statements or other documentation to allow someone to pick up the listings and understand how to use them. Then submit them to Blll Rister, our librarian. You'll be glad you did. Because you will help another fellow engineer, scientist or technician in his work. And you'll get four free programs to boot from the library for each program accepted.

Finally, our computer will be on its way to filling a need which as yet has been unrealized, as a scientific and engineering tool for the future.

Sandy Herman

EDITORS NOTE:

At the last HUG meeting Sandy gave me this article and gave Bill Rister five programs which are in this months LIBRARY UPDATE. THANKS and a note of APPRECIATION from me personally and as HOUSTON USERS GROUP editor to Sandy for his participation.   ... Cecil

BUSINESS USE OF THE 99/4A

I have been using the TI-99/4A for serious business purposes for over three years and have found it to be very capable and reliable. My wife and I own and operate a bookkeeping and tax business and we place extremely heavy usage on our computers. We have found that the 99/4A, with the proper software, naturally, is a real workhorse. We have had to replace three disk drives and, until several months ago, were exchanging a computer at the TI exchange center about once each five months or so. The computer exchanges were required primarily due to wear on the contacts in the cartridge slot by numerous cartridge changes each day. After a period of time, no amount of cleaning will correct the problem of screen freeze-ups. The only thing for most of us non-technical types to do is to exchange the computer for another one. If you stop and think about it, we really have it a lot easier than the users of most other computers since we can get a "new" computer within a couple of hours or so and be back in business.

Oh yes, I have been using cartridge extenders for the last eight or ten months and they have more than doubled the useful life of my computers before "maintenance exchange" is required. I highly recommend these useful devices for those of you who switch cartridges frequently and who to not tend to swing your arms wildly. You do have to be pretty careful not to bump or hit the cartridge extender or the vertical cartridges in it. I have found that the little care necessary is well worth the effort. I like this device.

I am using two full 99/4A systems, each with two single-sided, single-density disk drives. During 1984, we also added two Compaq computer systems to our office inventory. This was necessary because some of the work we are doing requires more memory than is available with the 99/4A. I mention this because I want to make the point that this only makes me realize just how capable a machine the 99/4A is. It was ahead of its time and poorly marketed by TI, but I am still impressed by it, even when comparing it with newer and more expensive computers. I am presently using the TI's for about seventy percent of my computer work and the Compaq's for about thirty percent. I am sure that these percentages will vary in the future but the point I want to make is that the 99/4A holds its own in the world of small business.

For those of you who might have been wondering if you could use your 99/4A in serious business applications, let me say a very enthusiastic "YES". The spreadsheets, word processing programs, utility programs and other available software could help make it very feasible for you to make better use of your computer. I started out with the original TI-99/A and a tape recorder which I chose, after much deliberation, over an Apple II. I have never been sorry about my choice and have had the opportunity to expand my system to be a serious business tool.

WAYNE WRIGHT

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ATTENTION TI-GENEALOGISTS

The Micro-Genealogy group, which meets the second Friday each month (7 p.m. at the Church of Jesus Christ of Latter Day Saints, 5531 Beechnut at Mullins) presents good programs. Computer genealogy is coming of age and of this generic, only 2 or 3 folk have TI-99/4As, so, if you were looking for such a group, come join us. Agnes McCabe and I are looking into organizing a SIG within TI-HUG, so if you are interested contact Agnes at 667-0235 or me at 668-4500. There are many very sophisticated genealogy programs written for IBM, TRS-80, Apple, TI-Pro, and Commodore 64. Unfortunately, the ones we have been able to locate for TI-99/4A are sad by comparison. However, we are seeking a programmer to convert one to ours. If there is anyone out there interested, in doing the conversion, or just joining us, give us a call.   CHIA GREER

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M I N U T E S TI-HUG Feb. 3, 1985

President Bill Knecht welcomed another standing room only group. Program Vice President, Sandor Karpathy introduced the guest speaker, Gregg Wonderly, an Oklahoma State University Computer Science Senior who two years ago became interested in the TI-99/4A. He presented considerable information concerning this computer, explaining in non-technical language the GPL, the GROM, and various aspects and capabilities of the computer. He has written and provided for the Library a number of useful programs which will soon be available in our catalog.
Membership Vice President Don Lewis advised that the total registered (new and renewals) totals 85 with 124 renewals outstanding. Anyone not renewed by the end of February will be dropped; (to rejoin will be obliged to pay as a new member).
Treasurer David Mather reported total income received for the period as $1624.00, with expenditures in amount of $547.05. A copy of the complete report will be filed in the Minute Book.
Because of limited time the reading of the January Minutes was postponed, and it was agreed to include them in the Newsletter with the February Minutes. Librarian Bill Rister asked that everyone pick up the current catalogue from S.I.G. V.P. Larry Pipkin, announcing that the addendum will start with the March Newsletter.
New programs, modules and other software was shown by Mike Matula, M and S Computer Systems.
An ad hoc committee was suggested to study and propose By-Laws and a Constitution toward non-profit structuring.

Respectfully submitted,
Lucia C. (Chia) Greer

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M I N U T E S TI-HUG Jan. 6, 1985

The first meeting of the new year was called to order at 2:00 p.m. by President Bill Knecht. Reports by Vice Presidents were presented, Membership, Don Lewis, Special Interest Groups, Larry Pipkin and Programs, Sandor Karpathy, followed by amending then approval of the December meeting minutes, and Treasurer David Mather's report. Sysop Stephen Foster, announced the BBS was expanded to include 17 file areas on 7 levels with 1574 calls received since December. Tom Jay, Exec. Ass't. congratulated the meeting noting the standing room only attendance.
Program panelists were Don Lewis, discussing good programming practices (with a hand-out) including a string editor and subroutine. William Shields, a high school senior provided information on Pascal, Mark Crump, a high school computer math teacher presented another aspect of utilization of the TI 99/4A and Gary Curry, pastor of an area church, related his background experience in computers.
A MOTION was introduced by Larry Pipkin, seconded by Kent Purdy that Stephen Foster be reimbursed for his personal expenditure in amount of $159.17 for the purchase of a Card for the Bulletin Board. MOTION PASSED.

Respectfully submitted,
Lucia C. Greer, Secretary

HUG LIBRARY CATALOG ADDENDUM
March 1985

147 COMPUTER CRAPS##XB, 32K & Disk Rqd., Speech & TI-Writer Opt. Copyright 1983 by Ramsoft Enterprises. Permission granted HUG. Screen instructions or print with TI-Writer with DSKn.INSTRUCT. Do not cover the write notch. Place disk in drive 1 and place your bets....GREAT GAME! SSSD Disk Required

148 SAILING##TI-B You must visit 3 islands in your sloop. Educational game teaches navigation. 15 sectors

149 GALAXYLAND##XB Written in Extended Basic by John Benke, this program allows you to try your hand at landing on any of the planets in our solar system. Use keyboard arrows to maneuver. 36 sectors

150 BOWLING##XB Another of John Benke's programs, this one allows from 1 to 4 players to try their skills at bowling. Using the E and X arrow keys, you can find the pocket for a perfect strike. 15 sectors

151 15-PUZZLE##TI-B Runs in either basic or x-basic to play the game we all remember of trying to line up the 15 numbers in a 4 x 4 grid sequentially. 10 sectors

152 DEPTH CHARGE##XB Written by Todd Kaplin, this game pits your destroyer against the submarines below. Use the ENTER key to fire your depth charges, but watch the time! 27 sectors

153 SKY RESCUE##XB Joysticks Rqd. This game lets you fly a plane with the joystick to rescue prisoners below, but watch out for the guided missiles! 19 sectors

154 STORYBOOK##XB, 32K & Disk Rqd. This well written story game creates a custom made story by entering nouns, verbs, etc. on prompts. 59 sectors

759 CHRISTMAS CARD##TI-B Novel cartoon graphic by John Sewell. 13 sectors

760 PUNCARD##TI-B Punlover's Christmas card by John Sewell prints a pun on the screen. 6 sectors

933 MAIL LABEL##TI-B, Printer Rqd. Prints standard size mailing labels from your files. 7 sectors

934 MEMBER LIST##TI-B, Disk & Printer Rqd. Search, add, & delete files and print roster list. 18 sectors

935 AIR/TEMP/VOLUME EFFECT##TI-B This heating & air conditioning utility calculates change in volume (cfm) required for change in room temperature. 3 sectors

936 PIPELINE PRESSURE DROP##TI-B, Printer Opt. Calculates pressure drop in new steel or cast iron pipelines. 9 sectors

937 HEAT TRANSFER##TI-B Calculates the heat transfer coefficient for water cooling and heating systems. 4 sectors

938 PIPELINE FLOW##TI-B Calculates pipeline velocity in ft/sec and minimum butterfly valve closing time in seconds using known flow rates and inside pipe diameter. 4 sectors

939 VESSEL DRAIN TIME##TI-B Calculates drain time in minutes and seconds of known size vessel, liquid height, and oriface size. 5 sectors

1125 SIMILARITY##TI-B Given the measures of the corresponding sides of a triangle, this program by Matthew Cowan determines whether the triangles are similar. 3 sectors

1126 PERIMETER##TI-B Given the measures of the sides of a triangle, this program by Matthew Cowan finds the perimeter of the triangle. 2 sectors

1127 PRESCHOOL ACTIVITIES##TI-B, TE-II & Speech Opt. This is one of the first programs written by John Moeller for his preschooler to provide some interaction with the computer. Written in basic with TE-II and Speech optional, it guides a child through number guessing, color matching and beginning typing skills on the computer. 22 sectors

1128 SPELLING PROGRAM##XB, 32K, Disk & Speech Rqd. Menu driven program compiled by Cliff Donahoo teaches spelling and builds vocabulary. 255 sectors

1388 MINIMUF##TI-B This program will calculate and display an approximate set of maximum usuable frequencies for communication from one point to another point on the globe. Input needed is the location of each point by latitude and longitude, the date of desired communication, and the sunspot number for that date. 29 sectors

1389 LABEL MAKER##TI-B, Disk & Printer Rqd. Catalog disk & print to gummed labels. Similar to program 1373 but with standard size type. 10 sectors

1390 JOYSTICK TESTER##XB, Joysticks Rqd. Run this short utility to perform a complete checkup of your joysticks. Be sure to release the ALPHALOCK key. 5 sectors

1391 BASEBALL STATS##XB, 32K, Disk & Printer Rqd. This well written program by Mike Krall keeps statistics on your favorite team. Read the REMarks in lines 1 through 9 for instructions to tailor the program to your team. 46 sectors

CORRECTION

The listing in your 1985 catalog for program 1385 should read as follows:

1385 BEAM HEADER##TI-B This program calculates and displays Maximum Usable Frequency (MUF) for each hour of a given day for a specified path between two points on the earth. 20 sectors

M & S COMPUTER SYSTEMS

MIKE & SHERRIE MATULA
15910 CAVENDISH DRIVE
HOUSTON, TEXAS 77059
(713) 484-0224

FEBRUARY/MARCH SPECIALS

	LIST	SALE
STAR MICRONICS		
GEMINI 10X DOT MATRIX PRINTER,120 CPS, F/T(1 YEAR WARRANTY!)	399.00	279.95
STAR POWER TYPE DAISY WHEEL, 18 CPS(TRACTOR EXTRA: $59.95)	499.00	370.00
ANCHOR AUTOMATION		
SIGNALMAN MARK III MODEM W/ AC ADAPTER & FREE "SOURCE/TELNET"	148.95	88.95
SIGNALMAN VOLKSMODEM W/ CABLE & FREE "SOURCE/TELNET"	92.90	76.95
VERBATIM VEREX DISKETTES, SSDD(BX OF 10)	15.49	
VERBATIM DATALIFE DISKETTES, SSDD(BX OF 10)	19.49	
SSDD(BX OF 10) W/ PLASTIC CASE	20.50	
VERBATIM DATALIFE DISKETTES, DSDD(BX OF 10)	25.50	
DSDD(BX OF 10) W/ PLASTIC CASE	26.50	
VERBATIM HOLIDAY PACK		
DATALIFE DISKETTES W/ PLASTIC BOX & HEAD CLEANING KIT, BX OF 10, SSDD		22.00
" " W/ " " " ", BX OF 10, DSDD		28.00
FLIP 'N FILE/10	5.95	4.50
FLIP 'N FILE/15	9.95	7.50
MEDIA MATE 5 DISK FILE(DISK BANK), HOLDS 50 DISKS	16.95	13.95
FLIP 'N FILE FLOPPY DISK FILE, HOLDS 50 DISKS	24.95	16.95
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ROLLTOP 100 DISK FILE(HOLDS 120 DISKS)	39.95	28.95
$2.00 OFF ALL DISK STORAGE SYSTEMS(50+ CAPACITY) WITH PURCHASE OF BOX OF DISKS!!		
CORCOMP		
RS232 CARD, 2 SERIAL & 1 PARALLEL PORT(FOR PEB)	117.95	87.00
DISK CONTROLLER, DOUBLE DENSITY(FOR PEB)	199.95	164.95
RS-232 STAND ALONE(2-SERIAL, 1-PARALLEL PORTS)	164.95	134.95
MODEL MASTERS		
MINI-WRITER WORD PROCESSOR(MINI-MEMORY & PRINTER REQD.)	20.00	16.00
PERSONAL PERIPHERALS		
"SUPER SKETCH" GRAPHICS PAD	59.95	42.95
DRAGON SLAYER		
99/4A AUTO SPELL CHECKER(2 DISK SET, USE W/ TI WRITER OR E/A)	49.95	42.95
AMA		
TERMINAL EMULATOR PLUS(110-4800 BAUD)(32K & IB REQD))))SPECIAL>	39.95	30.00
NAVARONE (CARTRIDGES)		
HOMEWORK HELPER + W/SPELLING CHECKER SUPPLEMENT(DRIVE, 32K RQD)	49.95	39.95
SUPER-DUPER(HIGH SPEED DISK COPIER-COPIER IN 1 OR 2 PASSES)	39.95	32.95
DISK FIXER(CART.)	39.95	32.95
CARTRIDGE EXPANDER	39.95	32.95
CONSOLE WRITER(WORD PROCESSOR W/O DISK-DRIVE MEMORY)	49.95	39.95
SPEED READING, VERSION A FOR TEENS & ADULTS(CART.)	49.95	39.95
VERSION B FOR CHILDREN(CART.)	49.95	39.95
DATA BASE MANAGEMENT(DISK DRIVE REQD.)	69.95	55.95
"THE HIDDEN POWERS OF DISK FIXER" BY BILL GRONOS(EXCELLENT!)	14.95	12.95
MUSIC EDITOR(DISK) SPECIAL CLOSE OUT!!!		18.00
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DISK DRIVE, 1/2 HIGH, MODEL 55B, DSDD(FOR PEB)		148.95
2 TEAC 55B DISK DRIVES W/ MOUNTING KIT(CABLES & PLATE)		324.95
CLASSIC COVERS		
VINYL(BROWN) DUST COVER FOR TI-99/4A CONSOLE		6.95
" " " " GEMINI 10 & 10X		6.95
" " " " EPSON MX80 OR TI IMPACT PRINTER		6.95

QUALITY 99 SOFTWARE	LIST	SALE
DRAW 'N PLOT(EXCELLENT GRAPHICS PKG.)(DISK, 32K IB REQD.)	39.95	32.00
DATA BASE 99(700 RECORDS DS, 350 RECORDS SS DISK; DISK,32K, IB)	39.95	27.00
DISK MANAGER III(RESIDENT DISK MGR.)(DISK, 32K, IB)	39.95	32.00
GS-WRITER(TI WRITER LOADER-ELIMINATES MODULE)(DISK, 32K, IB)	29.95	25.00
SDUMP(RESIDENT SCREEN DUMP PROGRAM)(DISK, 32K, IB)	19.95	17.00
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