

Issue #12 DEC 1987

FOR THE RECORDby Ed Bittner  
Recording Secretary

The coffee pot plug failed, Jan could not make it, John was tied up (literally with the phone cord), and Ed missed due to a last minute emergency- ie. no pop-no humor-no kidding, BUT, the November meeting of the West Penn 99'ers sailed on smoothly as thrice elected (twice re-elected) President Scott Coleman rose to the occasion to prevent the sinking of the Titanic. Prior to informing us of the TI Faire in Chicago, Scott directed Mickey Schmidt to give a brief treasurers report (\$868.25) as well as to give some info on her recent adventure additions to the library. Speaking of which, we have a new librarian. E. Zeno, by a landslide, almost a majority, won the election. The rest of the new officers are the same as last year, and our newly appointed editor is the same OLD one.

Gene Kelly passed out a disk to each club member in attendance (32) containing the "Florida Library Catalog", a great way to service our members with programs available in the library with no printing duplicating costs. (Great Idea, Gene.). The files can be read by the loader program, or by TI writer, or by DM1000.

Scott then proceeded with his personal account of the TI faire and Gary Taylor commented on a "good" deal he got on a Geneve. Also two, new on the market items, included a 1 MEG. ram disk kit from Bud Mills (\$400), and a gram cracker like - GRAM-U-LATOR with 64K GRAM and 16K RAM. Scott then finished old business with some quips and clips from Discover magazine, the kind of low rent stuff you've become accustomed to in this rag.

John W. then got unraveled (the phone, remember) and carried on at 96000 Baud on several things while he demonstrated a nifty Graphic Label Maker program (Freeware). TI Sings "The house of the settling daughter or rising sun" was nixed in favor of "Print Wizard", demonstrated by G. Taylor.

Adventures (M. Schmidt); PR-base (F. Zic); Beginners Basic (E. Kepps); and Ram disks (J. Willforth) were all classes slated to go. The raffle prizes were a unique clock donated by F. Foster and a WICO joystick adaptor. General floor discussions included PR-base, P-code (S. Katzman), Super cart chips and a cassette users basic.

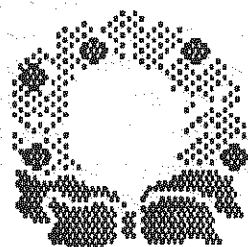
Cheerfully submitted,  
Scoops Bittner

condemn

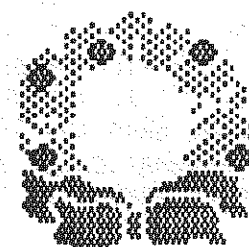
PS May I once again commend Frank Zic on his excellent note taking and tape recording prowess.

## Winners:

President: Scott Coleman	VP. :	Mickey Schmidt
Rec. Sec.: Ed Bittner	Cores. Sec.:	Gene Kelly
Treasurer: Jan Trayers	Librarian :	Eric Zeno



# HAPPY HOLIDAYS



THE WEST PENN 99'ERS IS NOW CELEBRATING THE COMPLETION OF IT'S SECOND YEAR OF EXISTANCE ! YOU CAN ALL BE PROUD OF THE FINE JOB OF REPRESENTING TI'ERS AND COMPUTER USERS IN GENERAL.

NOVEMBER TREASURER'S REPORT

FROM JAN TRAYERS

*****		
* 11/17 CASH ON HAND	* \$ 45.00	* *
* 11/17 LIBRARY SALES	* 27.00	* *
* " MICROPENDIUMS	* 20.75	* *
* MEMBERSHIPS	* 15.00	* *
* DISK, ETC.	* 196.00	* *
* SALES		* *
* RAFFLE	* 29.00	* *
* MANUAL	* 12.00	* *
* DONATION	* 5.00	* *
* T.SHIRT	* 9.00	* *
* TOTAL	* \$358.75	* *
* COST RAFFLE PRIZE	* - 5.00	* *
* TOTAL	* 353.75	* *
* 11/25 BANK DEPOSIT	* -308.75	* *
* 11/25 CASH ON HAND	* \$ 45.00	* *
*****		
* 11/17 BANK BALANCE	* \$722.25	* *
* 11/23 POSTAGE	* - 83.12	* *
	* 639.13	* *
* 11/23 MICROPENDIUM	* - 21.00	* *
	* 618.13	* *
* 11/25 DEPOSIT	* + 308.75	* *
	* 926.88	* *
*****		
* TOTAL CASH BALANCE	* \$971.88	* *
*****		

THE DECEMBER MEETING WILL BE HELD ON THE USUAL THIRD TUESDAY (15TH) AT 7:00 P.M. AT THE PRESBYTERIAN CHURCH OF THE COVENANT ON THE CORNER OF OAK AND FOURTH STREETS IN DOWNTOWN IRWIN, PA 15146.

THERE'S NO TELLING WHAT WILL HAPPEN, BUT THE BEST GUESS IS THAT ALL WHO WILL ATTEND WILL LEAVE THERE WITH SOMETHING FOR THEIR TROUBLE. AND EVEN IF YOU DON'T LEARN ANYTHING ABOUT THE TI, JAN TRAYERS ALWAYS MAKES SURE THAT NOONE WILL GO AWAY HUNGRY.

THE BUSINESS MEETING WILL COMMENCE FROM 7:00 TO ABOUT 7:45, FOLLOWED BY DEMONSTRATIONS, DISCUSSION, AND AT ABOUT 8:30, CLASSES WILL BEGIN.

SOME ARE STILL UP IN THE AIR, BUT WE HAVE A GO ON THE BASIC CLASS CONDUCTED BY ERIC KEPES, SO BRING YOUR BASIC MANUALS. ( THANKS STAN FOR TAKING OVER LAST MONTH EVERYONE WAS PLEASED WITH THE FIRST CLASS)

AS OF THIS WRITING I COULD NOT GET IN TOUCH WITH GENE AS TO THE STATUS OF THE ASSEMBLY CLASS, OR WITH STAN TO SEE IF ANYTHING FURTHER WAS TO BE DONE WITH TI-WRITER OR PASCAL.

IF YOU WERE IN THE ADVENTURE CLASS, COME PREPARED IF YOU ADVENTURERS CAN FIND THE RIGHT WORDS TO REACH THE SAME PLATEAU AS THE REST OF US. (THINK ON THAT TILL MEETING NIGHT)

THE AVPC FROM DIJIT SYSTEMS IS NOW AVAILABLE FOR \$220. BY WRITING DIJIT SYSTEMS 4345 HORTENSIA STREET SAN DIEGO, CA 92103 (619) 295-3301 FOR INFORMATION.

- \* INSTALLS IN PEB
  - \* 80 CLMN. WRD. PROCESSING
  - \* 192K OF VIDEO RAM
  - \* 512 COLOR PALETTE
  - \* UP TO 8 SPRITES PER LN.
  - \* SUPPORTS VIDEO OVERLAY
  - \* 99% COMPATIBLE W/EXISTING TI-99/4A PROGRAMS.
  - \* RGB VIDEO
  - \* HIGH RES. BIT-MAPPED GRAPH.
  - \* MOUSE & LIGHT PEN PORT
  - \* SUPPORTS VIDEO DIGITIZING
- (VIDEO OUTPUT 1 VOLT P-P @ 75 OHMS ANALOG RGB)  
 (NOT COMPATIBLE W/ SEARS/SANYO, ZENITH, OR OTHER 5 VOLT MONITORS INCLUDING TTL TYPE MADE FOR IBM-PC)  
 ( WON'T WORK WITH THE VERY RARE "QI" CONSOLES, IDENTIFIED BY A SILVER COLORED SHIELDING LOOKING IN THE I/O SIDE PORT. THE NORMAL CONSOLES USE A GOLD COLORED SHIELD AROUND THE EDGE CONNECTOR)  
 ADD \$4. FOR SHIPPING AND HANDLING. CA RES. 6% SALES TAX.

THE GRAMULATOR HAS BEEN DESIGNED AND IS READY FOR PRODUCTION! MARK VAN COPPENOLLE 52 AUDUBON ROAD HAVERHILL, MA 01830 (617) 372-0336 HAS STATED THAT A GRAMULATOR WILL COST BETWEEN \$130. AND \$160. AND HAVE ADDITIONAL FEATURES. HE IS LOOKING FOR SERIOUS INTEREST AND IF YOU ARE INTERESTED, CONTACT HIM AT THE ABOVE ADDRESS OR PHONE NUMBER. THIS UNIT WILL NOT BE IN KIT FORM BUT WILL BE FULLY ASSEMBLED AND TESTED, WITH THE NECESSARY DOCUMENTATION. (HOW CAN THIS BE WHEN WE HAVE

HEARD OF GREAT PRODUCTS HAVE GONE OUT OF PRODUCTION BECAUSE OF THE HIGH COST OF DOCUMENTATION) THE GRAMULATOR WILL ENABLE YOU TO CUSTOMIZE THE TI OPERATING SYSTEM, BACK-UP GROM AND ROM CARTRIDGES, ACT AS A SUPER CART, ALLOWS LOADING USER WRITTEN GPL CODE, THE SOFTWARE NEEDED TO LOAD AND SAVE GRAM AND GROM IS BUILT-IN FOR INSTANT ACCESS. REQUIRES MEMORY EXP. AND DISK. THE UNIT WILL AUTOMATICALLY SWITCH FROM GROM 0 TO GROM 1 ETC. AS YOU LOAD. REALLY LOOKS GREAT! IF YOU HAVE BEEN TRYING TO SELL YOUR GRAM KRACKER FOR \$190.+ DOLLARS, BETTER HURRY!

GETTING THE MOST FROM YOUR CASSETTE SYSTEM  
BY MICKEY SCHMITT

NUMBER 17

UNDERSTANDING - CREATING - AND USING - CASSETTE FILES  
PART VI

```
*****
*           TO "OPEN" UP A CASSETTE FILE... FOLLOW THESE STEPS...           *
*****
* 01        * 02        * 03        * 04        * 05        * 06        *
*  *        *  *        *  *        *  *        *  *        *  *
*  *        *  *        *  *        *  *        *  *        *  *
* LINE   * NEED SPACE * OPEN   * NEED SPACE * FILE SIGN * FILE   *
* NUMBER *           *          *           *           * NUMBER *
* ANY NUMBER *           *          *           *           * 1 TO 255 *
*           *           *          *           *           *           *
* 10        *           *          *           *           *           *
*           *           *          *           *           *           *
*****
* 07        * 08        * 09        * 10        * 11        * 12        *
*  *        *  *        *  *        *  *        *  *        *  *
*  *        *  *        *  *        *  *        *  *        *  *
* NEED COLON * NEED QUOTE * DEVICE * NEED QUOTE * NEED COMMA * OPEN MODE *
*           *           * FILE NAME *           *           * INPUT OR *
*           *           * CS1 OR CS2 *           *           * OUTPUT  *
*           *           *           *           *           *           *
* :         * "         * CS1     * "         * ,         * = CHOICE = *
*           *           *           *           *           *           *
*****
* 13        * 14        * 15        * 16        *
*  *        *  *        *  *        *  *        *
*  *        *  *        *  *        *  *        *
* NEED COMMA * FILE * NEED COMMA * FILE TYPE FORMAT *
*           * ORGANIZATION *           * DISPLAY FORMAT = PRINTABLE ASCII = *
*           * SEQUENTIAL *           * INTERNAL FORMAT = MACHINE LANGUAGE = *
*           *           *           *           *
*           * SEQUENTIAL *           * INTERNAL FORMAT = PREFERRED OPTION = *
*           *           *           *           *
*****
* 17        * 18        * 19        * 20        * DEFAULTS *
*  *        *  *        *  *        *  *        *  *
*  *        *  *        *  *        *  *        *  *
* NEED COMMA * RECORD TYPE * NEED COMMA * FILE LIFE * SEQUENTIAL *
*           * FIXED LENGTH *           * PERMANENT * DISPLAY *
*           * 1 TO 192 *           *           * FIXED 64 *
*           * POSITIONS *           *           * PERMANENT *
*           *           *           *           *           *
*           * FIXED *           * PERMANENT *           *
*           *           *           *           *           *
*****
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LET'S TALK RAM DISK  
BY JOHN F. WILLFORTH

WE HAVE A PROBLEM AS TI-994A USERS THESE DAYS THAT MOST MARKET VIEWERS AND MANY TI OWNERS WOULD NOT HAVE BELIEVED POSSIBLE JUST A FEW MONTHS AGO. THERE ARE FOUR MAJOR VENDORS OF RAM DISKS IN THE U.S.A.. THERE IS ALSO A VARIETY OF FEATURES AND SIZES IN THESE UNITS, SOME OF WHICH ARE NOT FOUND IN UNITS BEING PRODUCED FOR ATARI, COMMODORE, APPLE, OR THE P.C. LINES OF COMPUTERS. THE BIGGEST PROBLEM FACING THE USER NOW IS "WHICH TO BUY?".

THE PURPOSE OF THIS ARTICLE IS TO PROVIDE SOME THOUGHTS AND FACTS TO HELP YOU DECIDE. THE NEXT SEVERAL PARAGRAPHS ARE NOT INTENDED TO PROMOTE ANY ONE OF THE RAM DISKS MENTIONED, AND MAY CONTAIN ERRONEOUS INFORMATION, HOPEFULLY BY OMISSION RATHER THAN COMMISSION.

FIRST A RAM DISK IS BY DEFINITION, A SOFTWARE/FIRMWARE SUPPORTED RAM CIRCUIT BOARD EMULATING A DISK. I.E. A CIRCUIT CARD, THAT WHEN PLUGGED INTO YOUR PEB, WILL ALLOW YOU TO STORE AND RETRIEVE DISK TYPE FILES TO/FROM THE UNIT WITH THE SAME EASE AS YOU WOULD TO YOUR PHYSICAL DISK DRIVE (DSK1 FOR EXAMPLE). BECAUSE RAM IS A NON-MECHANICAL DEVICE, IT IS NOT SUBJECT TO THE DELAYS OF POSITIONING A READ/WRITE HEAD OVER A CYLINDER (TRACK), AND WAITING FOR THE DISKETTE TO NOW ROTATE TO THE DESIRED SECTOR, AND THEN READ/WRITE DATA FROM/TO THE SPINNING DISK IN SERIAL (LIKE CASSETTE) FORM. THESE THREE MECHANICAL LIMITATIONS ARE THE MAIN REASON THAT DISKS ARE SLOW. YES, DISKS ARE ABOUT AS MUCH FASTER THAN CASSETTES AS RAM DISKS ARE FASTER THAN DISKS! IF YOU BUY ONE, YOU WILL ENJOY THAT KIND OF IMPROVEMENT, NO MATTER WHICH BRAND YOU BUY.

THE MAJOR TWO TYPES OF RAM DISKS ARE THOSE USING DYNAMIC RAM (MYARC, CORCOMP) AND STATIC RAM (HORIZON, MIKE BALLMAN ENHANCED HORIZON [ SOLD BY BUD MILLS ]).

\* DYNAMIC RAM IS LESS EXPENSIVE, LARGER CAPACITY, BUT REQUIRES MORE SUPPORT CIRCUITRY, DRAWS MORE POWER, AND IS MORE CUMBERSOME TO SUPPORT IF THE POWER IS LOST (LIKE TURNING OFF THE PEB).

\* STATIC RAM IS LOWER POWER AND THUS EASY TO SUPPORT DURING POWER OUTAGES. THEY ARE MORE EXPENSIVE, TAKE MORE SPACE ON A BOARD, AND THUS FOR THE AMOUNT MEMORY NEEDED, MORE EXPENSIVE THAN DYNAMIC RAM.

I WOULD LIKE TO TALK ABOUT ADDITIONAL FEATURES. THE FIRST ONE THAT I AM MOST ASKED ABOUT, IS THE SPOOLING FEATURES. ALL BUT THE HORIZON AND THE ENHANCED HORIZON, HAVE THE SPOOLING FEATURE. AT THIS PRINTING, ALL THAT HAVE SPOOLING DO IT IN A DIFFERENT MANNER, BUT JUST AS EFFECTIVELY. SOME OF YOU MAY ASK, "WHAT IS SPOOLING?" WELL TO MAKE IT SIMPLE, SPOOLING IS STORING DATA THAT IS TO GO TO A DEVICE (PRINTER MODEM, ETC.) IN MEMORY SPACE, AND RELEASING IT AS IT CAN BE USED BY THE RECEIVING DEVICE. REMEMBER THE TI SITS THERE SENDING TO THE PRINTER UNTIL ALL THE FILE IS SENT. THEN IT IS ABLE TO ACCEPT YOUR NEXT COMMAND OR CONTINUE INSTRUCTIONS. A SPOOLER ACCEPTS THIS INFORMATION AS IF IT WERE THE PRINTER, MODEM ETC., AND AT A MUCH HIGHER RATE THAN ANY OF THOSE PERIPHERALS COULD, AND IN MOST CASES WILL ACCEPT THE ENTIRE FILE TO BE PROCESSED IN A FEW SECONDS VERSES SEVERAL MINUTES. THE TI-99/4A WILL THEN ASSUME THAT ALL THAT IT HAD TO DO WAS DONE AND COME BACK TO YOU FOR FURTHER USE, WHEN IN FACT THE JOB IS STILL BEING COMPLETED BY THE SPOOLER AT A PACE THAT THE PRINTER, MODEM ETC. CAN HANDLE IT. PRETTY NEAT! HUH?

ANOTHER FEATURE IS PARTITIONING, OR MULTIPLE DISKS BEING ASSIGNED WITHIN A SINGLE RAM DISK CARD. WHAT THIS MEANS IS THAT IF YOU HAVE A SINGLE DRIVE ON YOUR SYSTEM (DSK1 FOR EXAMPLE), YOU MAY CALL A PORTION OF A RAM DISK DSK2, OR DSK3, DSK4, ETC. NOW YOU HAVE ONE PHYSICAL, AND UP TO WHO KNOWS HOW MANY OTHER DISKS WHICH ARE PART OF THE RAM DISK.

STILL ANOTHER FEATURE IS BUILT IN COMMANDS, EACH DISK MENTIONED ABOVE HAS IT'S OWN SET. FOR EXAMPLE, YOU CAN TYPE "CALL DM" IN BASIC COMMAND MODE, AND A FILE CALLED DM1 WILL BE BOOTED FROM THE DISK, FOLLOWED BY DM2. MANY COMMANDS DEALING WITH MEMORY ARE ALSO INCORPORATED.

FEATURES SUCH AS CLOCK, (TIME OF DAY), ANALOG-TO-DIGITAL, ETC. ARE NOW COMING AVAILABLE ON THE RAM DISKS.

YOU MAY NEED MORE INFORMATION TO ORDER YOUR RAM DISK THAN I'VE PROVIDED HERE. NEXT MONTH'S ARTICLE WILL GET MORE SPECIFIC ON EACH RAM DISK BUT IF YOU BELIEVE THE ADS, MAYBE YOU CAN UNDERSTAND THEM A LITTLE BETTER NOW, AND YOUR READY TO JUMP IN. GOOD LUCK!

## "TIPS FOR THE BEGINNER"

-BY FRANK N. ZIC -

HERE WE GO TOGETHER - NO. 10. MUCH CONTROVERSY SURROUNDS THE MERITS OF THE PRBASE PROGRAM WRITTEN BY WILLIAM WARREN. PART OF THE DILEMMA STEMS FROM THE PROBLEMS FOUND WHEN TRYING TO LOAD THE PROGRAM OR PRINT OUT THE DATA. I HAVE CONCLUDED THAT MOST OF THESE PROBLEMS DON'T EXIST WHEN USING AN UNALTERED COPY OF THE ORIGINAL PROGRAM, PROVIDED YOU FOLLOW THE INSTRUCTIONS. BUT, STILL YOU SAY, I AM HAVING TROUBLE WITH IT. WELL IT SEEMS THAT THERE ARE A NUMBER OF ALTERED COPIES FLOATING AROUND THAT ARE NOT CORRECT OR COMPLETE. SO LET'S FIRST OF ALL BEGIN WITH THE MOST RECENT VERSION, 2.0. THIS PROGRAM ALLOWS FOR USE DOUBLE SIDED DISKS. IT SHOULD CONTAIN FILES NAMED PRBUTL/BAS AND PRBUTL/DOC. ON THE MODIFIED WORKING COPY THAT I HAVE, I ADDED A CALL KEY PROGRAM THAT IS A LOADER FOR THE UTILITY PROGRAM. THE LOAD PROGRAM WAS FOUND IN THE DE. 1986 ISSUE OF BYTE-LINE.

NOW LET'S START SEPARATING THE APPLES FROM THE ORANGES. FIRST, LET'S GIVE DUE CREDIT TO MR. WARREN FOR HIS NOVEL APPROACH TO A LONG STANDING AND DIFFICULT PROBLEM, THAT OF AUTHORIZING A REALLY GOOD DATA EASE PROGRAM. HE HAS INDEED DONE THIS AND MORE. THE PROGRAM IS FUNCTIONAL, VERSATILE AND FAST (WRITTEN IN ASSEMBLY LANGUAGE). IT IS WRITTEN IN A VERY UNIQUE MANNER THAT PLACES ALL THE HEADER FILES IN JUST THE FIRST TEN SECTORS, THUS LEAVING THE REST OF THE SECTORS OPEN FOR OUR DATA STORAGE. DATA DISKS DEVELOPED IN THIS MANNER CAN NOT BE READ USING THE DISK MANAGER CARTRIDGE, SO MARK THEM CAREFULLY. THEN TOO, THE SORTING ABILITY OF THE PROGRAM IS OUTSTANDING, RECOGNIZING BOTH UPPER AND LOWER CASE CHARACTERS.

MY PURPOSE IN WRITING THIS ARTICLE IS TO GIVE SOME HINTS ON HOW WE CAN ALL BETTER LOAD AND USE THIS PROGRAM. SO, FIRST PRINT OUT AND READ THE DOCS (PRBASE AND UTILITIES) INCLUDED ON THE DISK, SEVERAL TIMES AND YOU'RE READY TO EXPERIMENT WITH, PERHAPS THE BEST DATA BASE PROGRAM WRITTEN FOR THE TI COMPUTER. AN IMPORTANT NEW PROPOSAL HAS JUST BEEN ANNOUNCED THAT WOULD SEEM TO ADD GREAT IMPORTANCE TO THE VALUE OF THE PRBASE PROGRAM. A GROUP CALLED THE JOHNSON SPACE CENTER USERS GROUP IN TEXAS HAVE PLANS TO START A NATION-WIDE NEWS ARTICLE REFERENCE PUBLICATION. THEY WOULD CATALOG USER GROUP NEWSLETTER ARTICLES THUS PROVIDING US WITH A QUICK REFERENCE TO PREVIOUSLY WRITTEN ARTICLES. WITH THIS LISTING, YOU COULD FIND INFORMATION ON JUST ABOUT ANY SUBJECT, JUST SO LONG AS IT WAS PUBLISHED IN A PARTICIPATING USER'S GROUP NEWSLETTER. THEY WILL START WITH LISTINGS FOR JANUARY 1987. BOTH OUR PUG AND WEST PENN 99'ERS WILL BE INCLUDED IN THE FIRST 30 GROUPS REPRESENTED. AREN'T WE LUCKY TO HAVE FORWARD THINKING OFFICERS IN BOTH OUR USER'S CLUBS? THE TEXAS GROUP HAS ALREADY SENT OUT A SAMPLE DISK OF INSTRUCTIONS ALONG WITH A PRINTED EXHIBIT OF HOW THEY WOULD LIKE THE INFORMATION PREPARED. THEY ARE ASKING THAT EVERYONE THAT PARTICIPATES SHOULD USE THE PRBASE AS THE STANDARD. I MUST AT THIS POINT GIVE CREDIT TO JERRY PETRULAK FOR HIS HELP IN MAKING A WORKING COPY OF THE PROGRAM AVAILABLE TO THE OFFICERS OF OUR CLUBS.

CONTINUING, FIRST USE THE CREATE PORTION OF THE PROGRAM TO SET UP YOUR DESIRED FORMAT, IT OFFERS PLENTY OF FLEXIBILITY PROVIDED YOU STAY WITHIN THE PARAMETERS SET FORTH IN THE DOCUMENTATION. ONCE YOU HAVE MADE UP THE FORMAT DESIRED, THIS SECTION IS NOT NEEDED AGAIN UNTIL YOU WANT TO MAKE UP A DIFFERENT FORMAT FOR YOUR NEXT PROJECT. A PRINTED COPY OF YOUR ARRANGEMENT IS MADE BY USING FCTN-6. NOTE HERE THAT THE HARD COPY WILL BE SHOWN TWICE. THE FIRST PRINT OUT WILL HAVE NUMBERED ROWS AND COLUMNS. THE SECOND WILL HAVE THE SAME NUMBERED DESIGNATIONS AND ALSO A (+) IN ALL THE NON-USED AREAS. THIS CLEVER LAYOUT WILL HELP YOU SHOULD YOU WANT TO MODIFY THIS SAME FORMAT, OR FOR A VARIATION OF IT IN YOUR NEXT LAYOUT. IT SHOULD ALSO BE NOTED THAT ANY FANCY BORDER THAT YOU DESIGNED WILL APPEAR WITH ASTERIKS IN PLACE OF THE FANCY BORDER YOU CREATED. THE DATA SECTION ALLOWS YOU TO INSERT ALL YOUR IMPORTANT RECORDS, IN AREAS CALLED FIELDS (32 MAX). WHILE IN THIS MODE YOU CAN EDIT TO YOUR HEARTS CONTENT, USING UP TO A MAXIMUM OF 255 CHARACTORS. SO THAT THIS ARTICLE IS NOT TOO LONG, I'LL GIVE SOME SHORT HINTS: (1) NAME ALL DATA DISKS PRBASE (IMPORTANT); (2) CALLING UP THE INITIAL DATA FILE IS DONE BY INSERTING THE No. 1 AFTER DSK AND REPLACING THE (.) WITH A (?). SUBSEQUENT FILES ARE CALLED UP BY SIMPLY DEPRESSING THE ENTER KEY; (3) USING A SUPER EXTENDED BASIC CARTRIDGE DOESN'T LOAD THE UTILITY PROGRAM SINCE THE SPACE BAR IS USED TO BY-PASS THE NORMAL LOAD FEATURE ON A DISK; (4) THERE IS NO CONTINUOUS ERASE OR MOVE FUNCTION (FCTN S OR D). RELEASE AND PRESS THE KEYS FOR EACH MOVE DESIRED. IN THIS CASE, THIS RESTRICTION, LOOKS LIKE A GOOD LIMITING CONDITION; (5) TO LOAD THE UTILITY PORTION OF THE DISK, WHEN THE MAIN COMPUTER TITLE SCREEN FIRST COMES ON WITH No. 1 BASIC AND No. 2 EXTENDED BASIC, HOLD DOWN THE SPACE BAR BEFORE PRESSING No. 2 AND CONTINUE HOLDING IT DOWN UNTIL YOU SEE THE UTILITY SCREEN COME UP.

CHECK THE LISTINGS PRESENTED FOR THE FUNCTIONS THEY CAN PROVIDE; (6) ALL PROGRAM LOADINGS ARE IN XB; (7) THE LETTER H IS USED TO BRING UP THE HELP SCREEN, COMMAND SUMMARY. WHEN SELECTING A COMMAND OPTION, PRESS THE DESIRED KEY TWICE. THE FIRST PRESS SELECTS AND THE SECOND PRESS EXECUTES THE COMMAND. GIVE THE PROGRAM A TRY, IT IS VERY GOOD. IF THERE IS ANY INTEREST EXPRESSED, I COULD HAVE A CLASS ON USING THE PRBASE PROGRAM. LET ME KNOW.

WELL, I GUESS I'VE COVERED ABOUT AS MUCH AS I SHOULD AT ONE TIME. SO ONCE AGAIN LET ME GIVE CONGRATULATIONS TO WILLIAM WARREN FOR HIS FINE WORK THAT SHOULD GROW IN STATURE AS IT IS USED MORE AND BETTER UNDERSTOOD. WISHING YOU ALL A VERY HAPPY HOLIDAY SEASON FROM MY WIFE ELEANOR AND I, AND UNTIL THE NEXT TIME MAY THE GOOD 4'S BE WITH YOU.

ENHANCEMENT TO LIBRARY CATALOG DISK HANDED OUT AT THE NOVEMBER MEETING.

ED BITTNER PASSED THIS EASY FIX TO THE PROGRAM THAT BOOTED UP UNDER EXTENDED BASIC AND WAS USED TO PRINT OR DISPLAY THE D/V-80. ADD LINES 335 AND 345 AS SHOWN BELOW.

```
335 IF NECP$="S" THEN PRINT A$ :: GOTO 345
345 CALL KEY(O,K,S):: IF K=32 THEN 345 ELSE 350
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IF YOU ARE MORE AMBITIOUS, I WILL HAVE A LISTING FOR TWO PROGRAMS ON HARD COPY (YOU WILL HAVE TO KEY THEM IN), WHICH WILL ADD A LOT OF VERY NICE FEATURES FOR CATALOGING AND PRINTING DISKS.

THANKS TO TOM AND BARB HARE, NOT ONLY ARE THEY ONE OF THE FIRST TO PAY FOR THEIR 1988 WEST PENN 99'ERS MEMBERSHIP, BUT THEY SENT SOME VERY INTERESTING CARTRIDGES TO THE GROUP FOR THE CARTRIDGE LIBRARY. MINI-MEMORY, PROGRAMMING AIDES I,II, AND III, HOME FINANCIAL DECISIONS, AND PERSONAL FINANCIAL AIDS, ALL WITH MANUALS, AND ALL IN NEW CONDITION! SO GET READY TO SIGN THEM OUT. CHECK WITH ERIC ZENO, OUR NEW LIBRARY CHIEF. I SAY CHIEF, BECAUSE ERIC HAS A NEW AND LARGE STAFF TO MAKE OUR LIBRARY FUNCTION AS YOU HAVE WANTED.

MISCELLANEOUS ITEMS WANTED OR FOR SALE.....

FOR SALE

EXPANSION SYSTEM FOR SALE: P-BOX WITH INTERFACE CARD, 32K CARD, DISK CONT-ROLLER CARD, DISK DRIVE, BOOKS AND CABLES. CALL RON 412-793-7310

WANTED

LOW COST GREEN MONITOR FOR USE WITH A TI CONSOLE. CALL EVENINGS AND ASK FOR KEN. 412-523-6914

WANTED

USED COLOR MONITOR FOR USE WITH A TI CONSOLE. CALL EVENINGS AND ASK FOR BOB 412-864-3880 (PLEASE AS SOON AS POSSIBLE).

WANTED VARIETY OF CARTRIDGES FOR USERS GROUP CARTRIDGE LIBRARY, CONTACT ANY ONE OF THE OFFICERS LISTED BELOW.

FOR SALE

TI-99/4A COMPUTER WITH ADAPTER, TWO PROGRAMS, MANUALS, TWO BOOKS, \$40.00 412-834-8097

JUST A REMINDER ALL 1988 MEMBERSHIP DUES ARE DUE JANUARY FIRST FOR WEST PENN 99'ERS.

PRESIDENT	SCOTT COLEMAN	412 271-6283	823 NORTH AVE. N. BRADDOCK, PA 15104
V. PRESIDENT	MICKEY SCHMITT	412 335-0163	196 BROADWAY AV. LOWER BURRELL PA 15068
REC. SECRETARY	ED BITTNER	412 864-4924	92 CORBETT AVE. IRWIN, PA 15642
CORES. SECRTY.	GENE KELLY	412 829-0469	444 WALL AVE. WALL, PA 15148
TREASURER	JAN TRAYERS	412 863-1575	2151 MICKANIN RD. N. HUNTINGDON PA 15033
LIBRARIAN	ERIC ZENO	412 371-4779	414 HIGHLAND RD. PITTSBURGH PA 15235
ACTING NEWS LETTER EDITOR	JOHN WILLFORTH	412 527-6656	R.D. #1 BOX 73A JEANNETTE, PA 15644

~~THE~~ ~~COMPUTER~~ ~~INDUSTRY~~ CONVERT DAVID DHEIN, ENHANCED BY PAUL BERG ~~THE~~ ~~COMPUTER~~ ~~INDUSTRY~~  
 CONVERTS TI-ARTIST FILES TO TI-WRITER FILES (9 DISK SECTORS)

```
>100 DISPLAY ERASE ALL AT(1,4
);"TI-ARTIST TO TI-WRITER":
;"      CONVERSION PROGRAM"
>110 DISPLAY AT(5,1):"INSTANC
E file name:"
>120 ACCEPT AT(5,21)SIZE(8):N
AME$
>130 DISPLAY AT(7,3):"The fil
e is on drive 1"
>140 ACCEPT AT(7,24)SIZE(-1)V
ALIDATE(DIGIT):FD
>150 DISPLAY AT(8,1):"Which, d
rive for new file? 1"
>160 ACCEPT AT(8,27)SIZE(-1)V
ALIDATE(DIGIT):SD
>170 DISPLAY AT(10,1):"Select
printer: 1": " 1 Epson":
;" 2 Prowriter"
>180 ACCEPT AT(10,17)SIZE(-1)
VALIDATE(DIGIT):P
>190 A$="DSK"&STR$(SD)&". "&NA
ME$
>200 NAME$="DSK"&STR$(FD)&". "
&NAME$&"I"
>210 DISPLAY AT(18,8):"...Wor
king."
>220 OPEN #1:NAME$,INPUT
>230 OPEN #2:A$,OUTPUT
>240 INPUT #1:X,Y
>241 DISPLAY ERASE ALL AT(1,1
):"OUTPUT CENTERED ? Y" :: A
CCEPT VALIDATE("YN")SIZE(-1)
AT(1,19):C$
>250 IF X*Y>25 THEN DISPLAY A
T(20,4):"This may take awhile
e." :: DISPLAY AT(21,4):"Ple
ase be patient..."
>260 PRINT #2:".TL 92:10" ! ~
=CHR$(10)=LINE FEED
>270 IF P=1 THEN PRINT #2:".T
L 61:27,65,8" :: PRINT #2:".
TL 62:27,65,12" :: PRINT #2:
"=" :: GOTO 290 ! EPSON COM
MANDS
>275 ! = IS 8/72 LINE SPACE
      > IS 12/72 LINE SPACE
>280 PRINT #2:".TL 62:27,65"
:: PRINT #2:CHR$(27)&"T16":
PRINT #2:"^" ! PROWRITER COM
MANDS
```

```
>285 ! > IS 6 LINES TO INCH
      2nd LINE IS CUSTOM LIN
      E SPACE AT 16/144
>290 FOR K=1 TO Y
>300 FOR L=1 TO X
>310 IF P=1 THEN INPUT #1:C(7
),C(6),C(5),C(4),C(3),C(2),C
(1),C(0):: GOTO 330
>320 INPUT #1:C(0),C(1),C(2),
C(3),C(4),C(5),C(6),C(7)
>330 FOR I=7 TO 0 STEP -1
>340 A=C(I)
>350 FOR J=7 TO 0 STEP -1
>360 IF 2^J>A THEN 390
>370 A=A-2^J
>380 B(J)=B(J)+2^I
>390 NEXT J
>400 NEXT I
>410 A$=STR$(B(0))
>420 B(0)=0
>430 FOR I=1 TO 7
>440 A$=STR$(B(I))&","&A$
>450 B(I)=0
>460 NEXT I
>470 IF P=1 THEN PRINT #2:".T
L "&SEG$(STR$(127-L),1,3)&":
27,75,8,0,"&A$ :: GOTO 490
>480 PRINT #2:".TL "&SEG$(STR
$(127-L),1,3)&":27,83,48,48,
48,56,"&A$
>490 NEXT L
>491 IF C$="Y" THEN PRINT #2:
".CE"
>500 N$="" :: FOR N=1 TO X ::
N$=N$&CHR$(127-N):: NEXT N
:: PRINT #2:N$&"^"
>510 NEXT K
>520 FOR N=1 TO X :: N$=".TL
":: N1$=SEG$(STR$(127-N),1,3
):: N$=N$&N1$&":"&SN1 :: PRI
NT #2:N$ :: NEXT N
>530 PRINT #2:".TL 92:92
>540 IF P=1 THEN PRINT #2:".T
L 61:61
>550 PRINT #2:">"
>560 PRINT #2:".TL 62:62
>570 CLOSE #1
>580 CLOSE #2
>590 END
```

ABOUT AN HOUR BEFORE I PUT THE DECEMBER ISSUE TO BED AND WOULD BREATHE A SIGH OF RELIEF FOR ANOTHER COUPLE OF WEEKS AND ABOUT A HALF HOUR AFTER I'D FINISHED PAGE 6, I GOT A CALL FROM AN AQUAINTANCE WHO WAS A TI USER IN THE GREENSBURG, PA AREA, AND SOME MONTHS EARLIER PURCHASED THE TRITON TURBO-XT SETUP (LITERAL TRANSLATION), ASKING IF WE COULD INCLUDE THE EXCESS EQUIPMENT IN OUR DECEMBER NEWSLETTER. YOU GUESSED IT, : ASKING \$200. FOR ALL!

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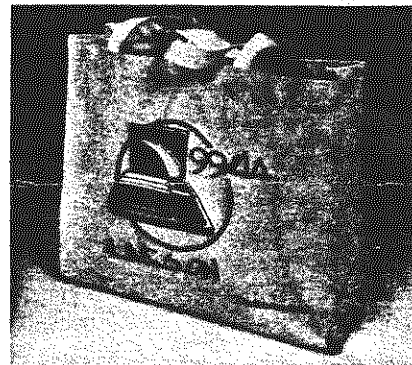
CALL (412) 834-5761 AFTER 4:00 PM (EST) AND BEFORE 6:00 PM (EST) OR SATURDAY. DAVE

CC40 OWNERS, CHUCK WYNNE OF THE TIPS99 UG OF LYNNWOOD, WA INDICATES THAT HE HAS ADDED TO THE MACHINES MEMORY BY TAKING THE TWO HM6116LP-4 (STATIC RAMS) OUT AND PUTTING THE LARGER HM6264LP-15 (STATIC RAMS) IN THEIR PLACE, AND CHANGING THE JUMPERING ON THE BOARD TO ACCESS THE LARGER CHIPS. YOU WILL HAVE TO USE A LOW WATTAGE IRON AND A SOLDER SUCKER, AND HE SAYS A LITTLE "GUTS". REMOVE THE BACK, REMOVE THE BATTERIES, REMOVE THE MOTHER BOARD, AND CAREFULLY LIFT BOTH BOARDS OUT OF THE CASE WITH THE KEYS DOWNWARD (CAREFUL THEY CAN FALL OUT, AND ARE A MESS TO PUT BACK). AT THE BOTTOM OF THE BOARD ARE THE TWO CHIPS. DON'T TOUCH THE OTHER ONES ABOVE. THEY ARE SMALLER THAN THE ONES YOU WILL INSTALL, SO THE HOLES AT THE END OF THE CHIP WILL HAVE TO BE CLEARED ALSO. ON THE LEFT OF THE CHIPS ARE TWO OPTION STRAPS. YOU MUST MOVE ONE END OF THESE TO THE OTHER SOLDER HOLE. THE OTHER END OF THE STRAP IS THE SAME CONNECTION. IF YOU WOULD LIKE INFO. PAPER WORK WITH DIAGRAMS, SEND HIM \$1.00 AND HE'LL SEND IT TO YOU. 16223 70TH PLACE WEST, EDMONDS, WA. 98020 206 745-3249



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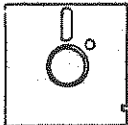
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# Command D.O.S.



new by Monty Schmidt

The final word. Command DOS is a totally unique program in the 99/4A world. Command DOS gives you the power of several utilities in one powerful package. This program gives you more control over your computer.

From power up you can auto-execute a set of "batch" files where the computer automatically performs a series of tasks. Command DOS will allow you to format, copy, delete, protect, erase and diskcopy. You can "type" (list) files to your screen and/or printer. From Command DOS you can load and run program image and D/F files, execute batch files, directory your disks, search the REF/DEF table and more.

Command DOS will also load TI Writer to use as an editor — in 40 or 80 column mode! What's more, special commands provide utility programs: such as CHECKDISK, COMPARE, FORMAT and EDIT40 which then exit back to Command DOS. You'll find that the 34 new prompt line commands provide great flexibility and power.

Command DOS will format disks in the 80 track format required for the TI Disk Controller EPROM set. This feature gives you a total package with more power and features than Disk Manager II from Texas Instruments. See page 8.

If you are a serious 99/4A user, Command DOS will provide a new operating system environment which builds on the existing TI operating system.

In fact, if you are considering a Myarc 9640 or are already using MS-DOS at work, your TI will give you the features of that operating system. The transition is powerful, seamless and logical.

NOTE: Command DOS does not use up the usual memory areas. Another great feature of Command DOS is that it loads into the memory space >6000 to >7FFF. The first disk based version requires a GRAMCRACKER, Super Space module, Maxmem, GRAM Card, Cache Card or 8k RAM E/A module.

## Command DOS

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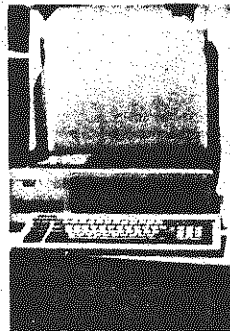
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## TECHNICAL DRIVE

A new book by Monty Schmidt. Published in North America by Ryte Data.

"TECHNICAL DRIVE" was written to continue the release of information detailing the inner workings of the TI 99/4A operating system. If you've ever wondered exactly how peripheral devices work with the computer, TECHNICAL DRIVE will show you. If you've ever needed to write direct access software, you will appreciate the extensive coverage. This book contains over 150 pages of in-depth information on the DSR "Device Service Routine" peripheral interface used to connect a wide range of devices to the computer.

# 99AT Expansion System



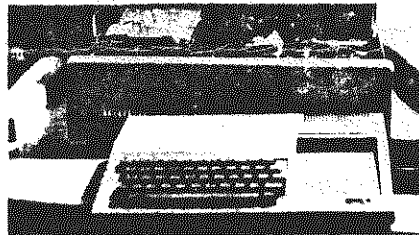
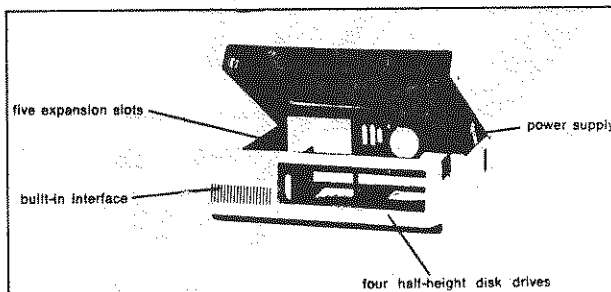
To expand your computer system to add powerful new expansion cards, upgrade to disk drives or the new Myarc 9640 computer, this hardware is the logical choice. We reviewed the options and decided that this product is needed in the TI 99/4A community.

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The 99AT project was designed by Pat Saturn of MicroStuph & Microart of Toronto and implemented through Millennium Computers. For full expansion capability; new peripheral cards, disk drives and the new Myarc computer system... the 99AT expansion unit is the ONLY expansion choice. To receive yours, simply send us your order via



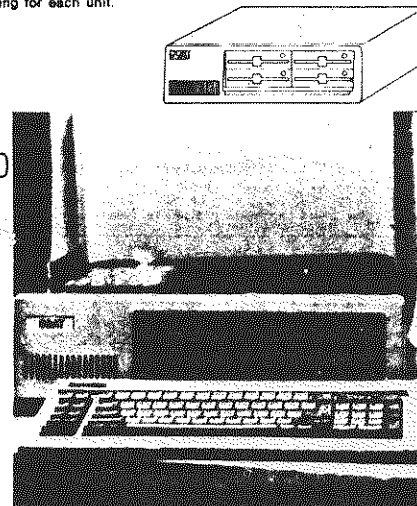
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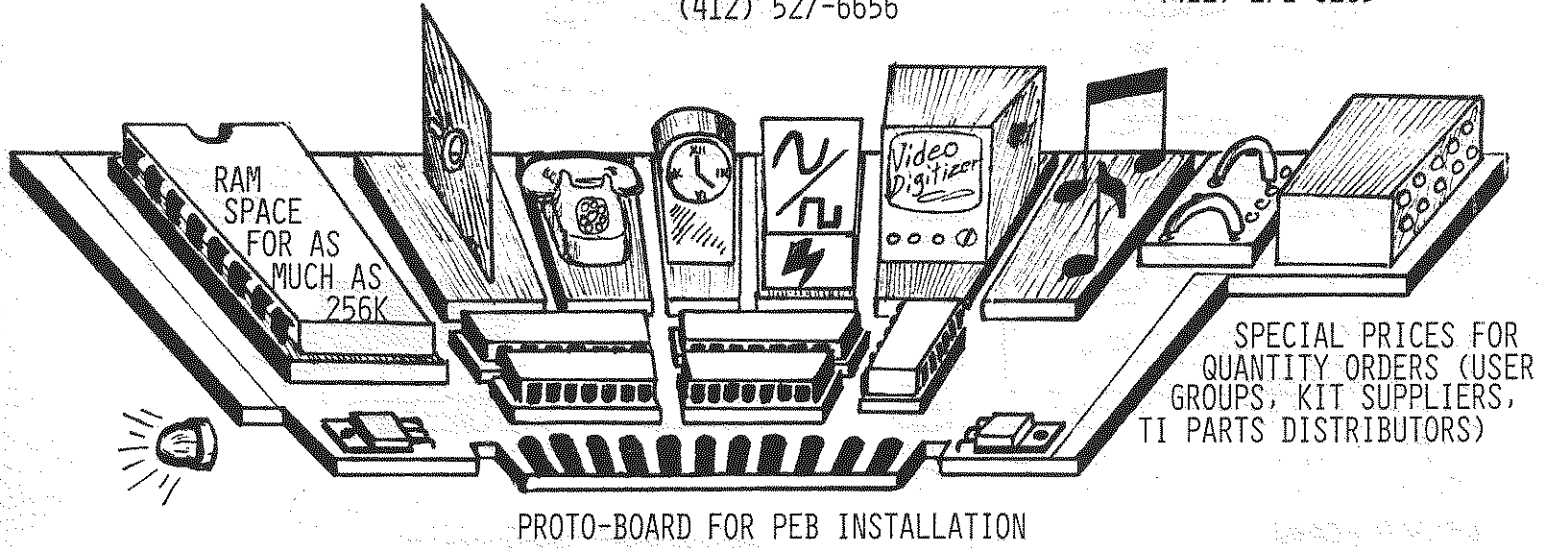
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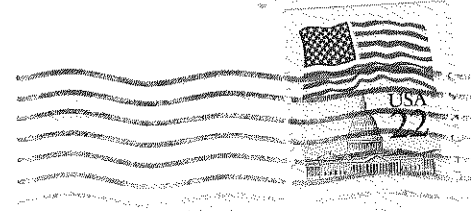


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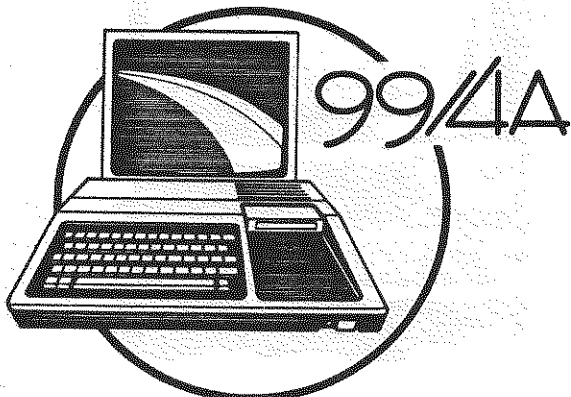
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