

Everybody's Talking

ABOUT THETHE WEST PENN 99'ERS USERS GROUP
LIKE TO KNOW WHAT THEIR SAYING, WELL COME TO THE NEXT MEETING ON.....

MAY 17th
1988

UNITED PRESBYTERIAN CHURCH OF THE COVENANT
CORNER OF OAK & FORTH STREETS
IRWIN, PA

7:00 PM

ISSUE #5 MAY 1988

FOR THE RECORD

by Ed Bittner
Recording Secretary

The April meeting of the West Penn 99'ers got off to a good looking start as U.P. Micky Schmidt took the floor in absence of our late president Scott Coleman. (not to be confusing you here, he is still kicking but ever so slowly.) At 7:05, Micky was allowed to address the membership from the front of the room, much to her chagrin. The treasurers report by Joe Ekl (sitting in for Jan Trayers) was presented (see later) and it was moved and seconded that Jan be kept as treasurer, despite her inability to be present at all meetings. No offense Joe, I have a gut feeling ...Cookies and goodies are involved here. Joe also spoke of ads that he has placed in three local newspapers. There have been several responses and a few new memberships as a result of Joes efforts.

Under old business, there were discussions on transferring our own unique articles to PR Base to be used in a nationwide newsletter summary program. Wayne Meyers volunteered as our lead person in this effort. Your support and suggestions are welcome, see Wayne.

Under new business, Gary Taylor reported on the Boston trip- specifically on a 20 Meg. Hard Disk (Card only \$325) and Norm mentioned PLUS!, a TI writer utility (Like STAR ?). Micky then commented on her recent adventure interaction with Chris Bobbit. (I'm not touching this one.) Also covered at Boston was a session on " THE STATE of the TI COMMUNITY ". Two shows, Lima, Peru and Erie, Pa. were mentioned as up coming and that we should consider preparing for a display at Century III Mall in October 1988.

Under funny business, John Willforth came to the fore with pass outs on ,too numerous to mention here, except for "How to Fix a TI Console, which after viewing, everyone turned back in. He also plugged a nice little five line overlay (function keys) for TI Writer,Basic,etc. Jan will have some of these at the MAY meeting.

Several new programs were added to the library as reported by E. Zeno including some Forth Disks #1 & #2. , several "C" Disks, windows and tutorials, and Calendar + 99- Calc..... After the raffle a Graphic Editor was demonstrated by G. Taylor followed by Adventure Class - M. Schmidt, TI Tips- Tom Minear, and Hardware (in the Kitchen by the goodies) -J. Willforth.

Later than usually submitted,
Scoops Bittner



GOOD NEWS! WE'LL STILL HAVE JAN TRAYERS AS TREASURER, AND SHE WILL PROBABLY BE ABLE TO MAKE IT TO THE MEETINGS AGAIN.

TREASURER'S REPORT FOR APRIL - 1988

FROM JAN TRAYERS

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* 4/19 CASH ON HAND $ 45.00 *
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* 4/19 LIBRARY SALES 18.00 *
*
* " MICROPENDIUMS 49.00 *
*
* DUES 60.00 *
*
* DISK SALES 73.65 *
*
* RAFFLE 33.00 *
*
* BOOKS ETC. 33.00 *
*
* TOTAL $311.65 *
*
* 5/06 DEPOSIT -266.65 *
*
* CASH ON HAND $ 45.00 *
*
*****
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* 4/19 BANK BALANCE $1201.74 *
*
* 4/19 SUPPLIES FOR LIBRARY 28.00 *
*
* 1173.74 *
*
* 4/19 POSTAGE 59.00 *
*
* 1114.74 *
*
* 4/30 MICROPENDIUM 33.00 *
*
* 1081.74 *
*
* 5/01 COMPUTER STRIPS -20.00 *
*
* 1061.74 *
*
* 5/06 DEPOSIT + 266.65 *
*
* BALANCE $1328.39 *
*
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*
* TOTAL CASH BALANCE $1373.39 *
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For anyone who tried to figure out what was hidden in the text on page two of last months newsletter, look to the right of the Treasurer's report, and from about a third of the way down the page, look at the first letter of each line. Do you find "GOOD FELLOWSHIP" at the meetings? the answer is yes!

Here is a little note from the TACOMA 99'ers Users Group. Joe Nollan says that the HY6264LP-15 Static Ram chip will give you troubles in the Super Cart, or RAM DISK applications. These are made by HYUNDAI. So watch out for them.

FOR SALE:

Original TI 300 baud acoustic modem.. \$30.
Everything works. ROB EKL (412) 864-1233

FOR SALE:

ALPHACOM-81 and ALPHACOM-40 thermal printers. interface for the -81. All for \$75. or Best Offer call or write: Paul Brock (412) 478-2754
1707 luxemburg Manor N. Apollo, Pa 15673



Newman/The Listener/London

I must appologize for the newsletter this month (especially), because I've been away the past week, and only have two days to get it together, along with all else that is delinquent. I'm not checking errors.

PASCAL/p-CODE PART 6
Stan Katzman

We have completed our discussion of the Editor and the Filer and it is time that we started writing some Pascal programs. We will start out simply and try to introduce new topics with each issue. Let me say at the outset that I am not an expert in Pascal and I would appreciate any help that I can get in the subject.

Let us write a very simple Pascal program that will show a few basic principles. This program will add two numbers and display the answer.

```
Program Add(input,output);

  Var
    A,B,C:Real;

Begin
  Page(Output);
  C:=0.0;
  Writeln('This program adds two numbers. ');
  Writeln;
  Write('Enter one number ');
  Readln(A);
  Writeln;
  Write('Enter the second number ');
  Readln(B);
  C:=A + B;
  Writeln;
  Writeln('The answer is ',C);
End.
```

Go into the Editor and enter the above program. Notice the indentation, if you indent the program is easier to read. You will notice that when you indent in the Editor by using the space bar that when you press enter the cursor returns to the indented column. To move the cursor to the left use the cursor key (Fctn S).

After you finish typing the program press Control C and save the text under the "W" option as "#5:Add". Now exit the Editor.

Let us compile this program. Enter a "C" on the main command line and you will see the prompt "Compile?", at this point enter "#5:Add". Next you will see the prompt "To what codefile?", at this point enter "#5:Add". The first prompt asks for the source file (that is the file you made in the Editor) which has the suffix .TEXT added to it. Do not add the suffix .TEXT because the Compiler will add it. When the Compiler is done it will make a record of the compiled program on the #5 drive under the name Add.Code.

While the file is being compiled an account of the progress will be displayed. If an error is encountered the compiler stops and displays the following "...<sp>(continue), <esc>(terminate), E(edit". I normally correct the errors as I encounter them so press "E". The Editor will be loaded and it will call for the file name,

enter the name minus the .TEXT ending. Editor will display the "offending" error. (Many times this is not where the error is but earlier in the program.) The directions at the top of the screen tell you to press the space bat to continue and after you do you can make the corrections. Enter Control C and then resave the file. Call the compiler and continue until the program compiles.

Now let us run the compiled program. In the main command line enter "X" (for eXecute) and you will see the prompt "What file", enter "#5:Add", the program will exicute and then return to the main command line. To run the program again press "U" (for User restart) and it will run again.

More next time.

NOTE::: A NOTE WORTH NOTING ! !

THE FOLLOWING HAVE VOLUNTEERED TO BE CO-LIBRARIANS, THAT IS TO HELP OUT. I EXPRESS MY THANKS FOR THEIR ASSISTANCE.

ROB EKL	-GAMES	1000-1799
ERIC KEPES	-CARTRIDGE,BOOKS/MANUALS,	
BOB SADUSKY	-GRAPHICS,EDUCATION MUSIC	3000-3999,4000-4999, 6000-6999
MICKEY SCHMITT	-ADVENTURE GAMES	1800-1999
ERIC ZENO	-PERSONAL+UTILITY, BUSINESS	2000-2999,5000-5999

WE EVEN HAVE A VIDEO LIBRARY (THANKS TO PAUL BROOKS),OF SOME OF THE COMPUTER CHRONICLES SHOWS, BROADCAST ON PUBLIC TV. ANYONE INTERESTED MUST HAVE A VHS VIDEO PLAYER. PLEASE CONTACT ME FOR THE TAPE.

WHAT IS THE DIFFERENCE BETWEEN FREEWARE, FAREWARE, SHAREWARE, TRYWARE??

LET ME DO MY BEST TO DEFINE THIS. AS I UNDERSTAND IT,ALL OF THESE ARE THE SAME. IT SIMPLY MEANS THAT YOU CAN TRY OUT THE SOFTWARE AND IF YOU LIKE IT, YOU ARE OBLIGATED TO SEND THE AUTHOR (NAME, AND ADDRESS IS USUALLY IN THE PROGRAM), THE AMOUNT OF MONEY HE REQUESTS. IF YOU DON'T LIKE IT YOU ARE REQUESTED TO JUST PASS IT ON TO SOMEONE WHO MAY LIKE IT.

FOR ALL THOSE WHO HAVE PURCHASED BAD DISK(S) FROM WEST PENN, THERE'S A SIMPLE SOLUTION. BRING IT TO THE NEXTED MEETING AND YOU CAN EXCHANGE IT FOR ANOTHER DISK. THE BAD ONES ARE GOING TO BE SENT BACK TO THE SUPPLIER AFTER THE NEXT MEETING.

SINCERELY THE LIBRARIAN

"TIPS FOR BEGINNERS"

-BY FRANK N. ZIC

Here we go together No.15. I have often said that if I had a choice to keep only two disks from all the ones I own, one would have to be Superdisk for all my serious work and experimenting. The other would be a group of games which would happen to include Midnight Mason. Now aren't you just a little curious as to what makes the Superdisk so important? Let me interject right here that I also think that a fully filled-in FNLWEB/4*0 disk might also be your primary selection. At any rate the important point is that if you have a disk drive set-up and do not have either of these two disks, then you should go out of your way to obtain a copy of one or the other. Just think of having a Cataloger, Modem Emulator, Disk Manager, Disk+Aid, Fast Copier, TI-Writer, Loaders and a whole host of useful Utilities, all on the same disk.

Yes, the programs break up very nicely to fit on both sides of a single sided disk. Boy, what power you have at your finger tips. Oh, Yes the game disk can have on it what ever games you like best. By the way my personal high score for Midnight Mason is currently 26,670. I'm really interested in knowing what some of the other high scores might be, let me know. Let's move on to some general information in a variety of areas:

*** Files that are down loaded in XMODEM, DIS/FIX 128 form will probably need to be Unarced to be useable. If they are in DIS/INT 128 form they will first have to be Uncompressed and then Unarced. Some times the term Arced is used incorrectly or too loosely. I've overheard people say, "Here is a copy of ???? that I down loaded from the BBS last night, you will have to Arc it." In all likely hood they should have said that you will have to Unarc it. The final conversion form should show up as DIS/VAR 80, which of course is readable with TI-Writer or in 40 column by using the read function in DM/1000.

*** Don't forget about the quick and easy-to-use calculator that is built into our TI units. From Basic or XB, simply put in a line such as: PRINT 57+25 (Enter) or PRINT 38-16 (Enter) or PRINT 85*2 (Enter) or PRINT 95/5. Try it and you'll see how the answers come right up. Won't the kids be glad you reminded them of this little maneuver. Good for long columns too.

*** Another nice math operation is when you want to obtain the Square Root of a number. Similarly as above enter, PRINT SQR (n). Fill in any number you want the Square Root of in the (n) position and the answer is quickly displayed out to 10 total digits. You must include the () when setting up the problem. Neat.

*** So you want to list out just certain lines from your total program listing. You can easily do this by entering, i.e., LIST "PIO" :: 140-260. This little step will allow you to print out a copy of lines 140 to 260. Alter the "PIO" for your specific printer.

May the good 4's be with you.

LET'S TALK RAM DISKS PART VI

By JOHN F. WILLFORTH

WELL IT'S MAY 1988, AND I'VE BEEN WRITING ABOUT RAM DISKS FOR SIX MONTHS NOW. I'VE ONLY LIGHTLY COVERED THE "BIG FOUR", HORIZON, HRD+, MYARC, AND CORCOMP. EACH OF THEM IS AVAILABLE NOW, AND MOST IF NOT ALL THE BUGS HAVE BEEN IRONED OUT. I THOUGHT THAT IF I STRETCHED IT OUT LONG ENOUGH, THAT DATABIOTICS WOULD HAVE THEIR UNIT OUT, RUNNING, SOME DELIVERIES UNDER THEIR BELT, AND BE PICKING UP STEAM IN THE RAM DISK MARKET FOR THE TI. WELL THERE IS STEAM!

I'M NOT GOING TO GET INTO ALL THE DETAILS, (IT'S HARD TO KNOW WHAT IS TRUE) BUT IN ORDER TO GIVE THOSE OF YOU WHO ARE CHOMPING AT THE BIT FOR THE "ADVERTISED" GRAND RAM, I'LL REVIEW AN ARTICLE BY A GUY WHO HAS TWO OF THESE RASCALS, KEN HAMAI OF THE USERS GROUP OF ORANGE COUNTY, CA. HE ISSUED MANY OF HIS OWN OPINIONS BELOW, AND WHERE THIS WAS DONE, I'LL PUT " " AROUND THE TEXT.

KEN SAYS THAT HE'S BEEN BETA TESTING A PAIR OF THE GRAND RAMS FROM DATABIOTICS, AND "THEY HAVE REALLY GOTTEN IT TOGETHER WITH THE SOFTWARE. IT HAS BEEN UNFORTUNATE THAT THIS PRODUCT HAS HAD SO MANY DELAYS IN MANUFACTURE, BUT IN A WAY, LOOKING BACK OVER THE LAST 6 MONTHS, I HAVE TO ADMIT THAT THE SOFTWARE SIX MONTHS AGO WAS TERRIBLE COMPARED TO WHAT IT IS NOW." KEN THEN COMPARES THE GENEVE, AND INFERS TO THE LONG INCUBATION, NATIVITY, INFANCY, AND IT'S NEARING PUBERTY EVEN NOW, AS A JUSTIFICATION FOR THE GRAND RAM'S LONG TIME IN DEVELOPMENT. I PERSONALLY DON'T FIND THAT THE COMPARISON IS THERE. IT TAKES MORE TO DEVELOP A MACHINE THAT EMULATES AN OLDER TECHNOLOGY, AND MAINTAIN COMPATIBILITY WITH ALL PERIPHERALS THAT PLUGS INTO THE SAME SYSTEM BUS, AS WELL AS IS ABLE TO KEEP UP WITH THE BEST OF WHAT IS BEING PRODUCED BY THE MONIED PERSONAL/HOME COMPUTER MANUFACTURERS OF TODAY THAN IT IS TO FOLLOW ON THE COAT-TAILS OF PEOPLE LIKE LOU PHILLIPS, RON GRIES, JOHN CLULOW, DAVE ROMER, AND THE FOLKS AT CORCOMP.

THE WEST PENN 99'ERS ATTEMPTED TO PURCHASE TWO RAM DISKS FROM DATABIOTICS AS LONG AGO AS TWO YEARS. WE WERE BUYING THEM AS PART OF THE NATIONAL ADVISORY PANEL (NAP), WHICH WAS SET UP BY DATABIOTICS TO GET SOFTWARE/HARDWARE INTO THE HANDS OF KEY PEOPLE IN THE TI FAMILY FOR THE PURPOSE OF REVIEWING FOR THE MUTUAL BENEFIT OF DATABIOTICS AND THE USERS GROUPS. THIS WAS TO BE THE GRAND RAM YES 2+ YEARS AGO NOT SIX MONTHS AGO. REMEMBER? WE DID GET OUR MONEY BACK ABOUT A YEAR AGO AFTER BEING WITH-OUT IT OVER 11 MONTHS. WE JUST LIVE RIGHT!

ENOUGH, I THINK WE NEED ALL THE SUPPORT WE CAN MUSTER, AND WE IN TURN MUST SUPPORT THOSE

WHO TAKE THE PLUNGE AND INVEST THOUSANDS IN AN ORPHANED COMPUTER. WE HAVE TO AS EDITORS OF NEWSLETTERS, INCLUDE THE COMPLETE PICTURE SO THAT YOU GET THE MOST FOR YOUR DOLLAR AND ARE INFORMED ABOUT WHAT IS GOING ON IN THE MARKETPLACE.

KEN REPORTS THAT YOU CAN USE THE GRAND RAM AS BOTH A RAM DISK AND AS A PRINT SPOOLER, WITH THE SIZING BEING DONE BY A CONFIGURE PROGRAM NOT UNLIKE THAT AVAILABLE FOR THE HRD, HRD+, BUT HAVING OF COURSE THE ADDED ABILITY TO CONFIGURE THE CLOCK, THE PRINT SPOOLER AS WELL AS OF COURSE THE RAM DISK. KEN SAYS THAT YOU CAN HAVE UP TO SEVEN OF THESE GRAND RAMS IN A PEB, AND "USE THEM ALL". HE SET HIS 512K (MAX. UNIT SIZE) CARD UP AS 1-DSDD, 1-SSSD, AND A 50K SPOOLER. A 50K SPOOLER SHOULD BE MORE THAN ENOUGH TO PRINT OUT MOST DOC FILES, AND RETURN THE TI CPU TO YOU FOR FURTHER PROCESSING IN LESS THAN TWO MINUTES. THE PRINTER MAY START TO BOTHER YOU AFTER A HALF AN HOUR OF PRINTING WHILE YOUR PLAYING VIDEO CHESS.

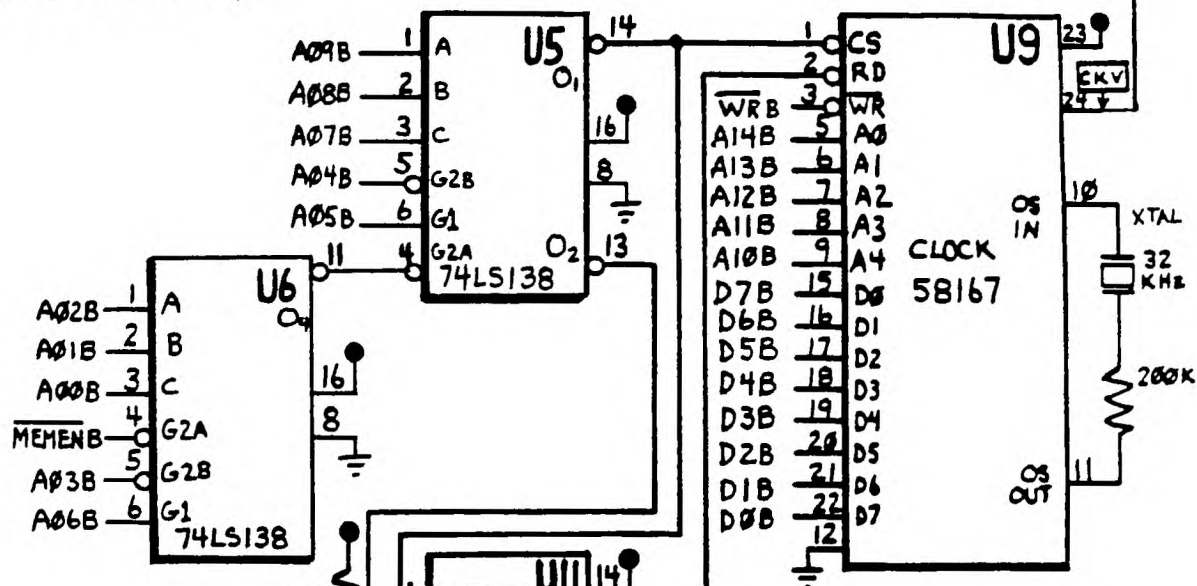
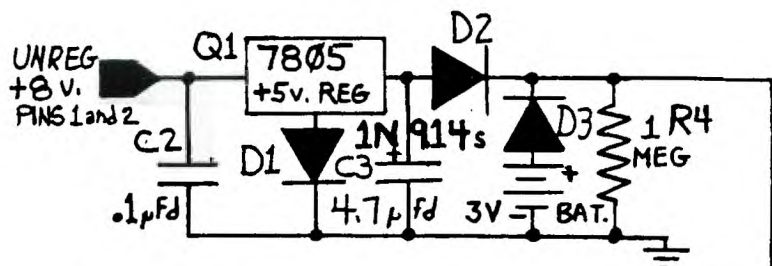
THE DRIVES CAN BE DESIGNATED 1 THRU Z, AND THIS SHOULD COME OUT TO 35 LOGICAL UNITS AND IF THAT ISN'T ENOUGH, YOU BETTER LOOK TO A WINCHESTER DRIVE.

THE GRAND RAM HAS "HOT KEYS", WHICH MEANS YOU DON'T HAVE CALL LOADS. "YOU JUST PUNCH THE KEYS AND WHAM! THE PROGRAM YOU WANT IS UP AND RUNNING!" THIS IS BECAUSE THE UNIT HAS A BUILT-IN INTERRUPT TIMER CHIP, AND EACH CARD HAS 14 HOT KEYS. THESE KEYS DO SUCH THINGS AS TURNING YOUR CLOCK ON/OFF, PRINT SPOOLER ON/OFF, POWER UP PROGRAM ON/OFF, AS WELL AS DISABLING INTERRUPTS, AND SEVEN KEYS (PROGRAMMABLE) FOR PROGRAM LOADING. REMEMBER EACH GRAND RAM IN THE PEB HAS THESE 14 KEYS.

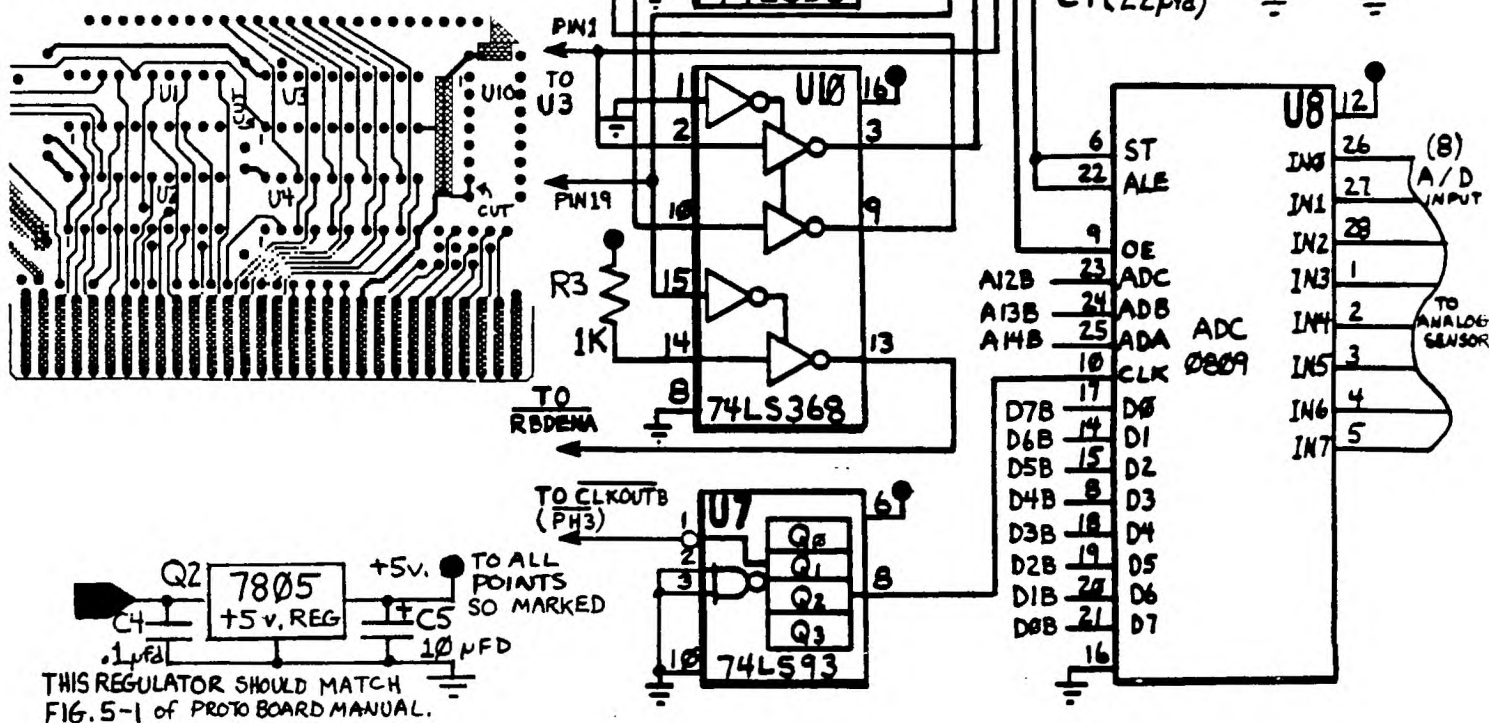
THE UNIT COMES WITH A MODIFIED "MENU" PROGRAM FROM JOHN JOHNSON, UPDATED VERSION OF 4A TALK, AND THE WORD PROCESSOR IS MODIFIED (WHICH WP, I DON'T KNOW) TO RUN ON IT. DISK MASTER I (FROM DATABIOTICS) IS PROVIDED BUT AT THIS TIME CANNOT ACCESS DRIVES 7 THRU Z. JOHN BIRDWELL'S DISK UTILITIES 4/GR SUPPORTS THIS UNIT ACCORDING TO KEN, AND "DOES IT ALL!" I BELIEVE THAT IF I WERE TO GET A GRAND RAM, I WOULD WRITE TO JOHN BIRDWELL AT THE SAME TIME I WROTE THE CHECK FOR THE HARDWARE.

SPEAKING OF HARDWARE, THE PRICE IS UP A BUNCH SINCE YOU READ ABOUT THAT \$99. PRICE LAST SUMMER FOR A 64K VERSION (\$150. NOW). BE CAREFUL ABOUT BUYING THIS UNIT RIGHT NOW. ASK THE GUYS IN DALLAS, TEXAS. IT'S REALLY EXPENSIVE WHEN YOU DON'T GET THE HARDWARE!

CLOCK/CALENDAR ANALOG-TO-DIGITAL CIRCUIT FOR THE "PROTO BOARD" (PUBLIC DOMAIN)



To interface the circuit on the right to the System Bus, cut the trace from pin 1 of U3 to pin 16 of U1 (below), and attach the two lines shown immediately to the right (Pin 1 and Pin 19) to the appropriate pins on U3 (74LS345).



CLOCK/CALENDAR/ANALOG-TO-DIGITAL CIRCUIT FOR THE PROTOTYPE BOARD

The circuit shown is that of the PUBLIC DOMAIN circuit which was designed by Gary Emmich of the Northern New Jersey Users Group. The circuit was provided as a kit by a MBP and has become known as the "MBP CARD". The circuit shown here was redrawn directly from the original included with this package. I do not assure you that it will function as you intend. You may use either the drawing and the instructions I've included or those which Gary Emmich constructed. There is a lot of software to support the circuit as well as some hardware to interface to the A/D port.

READ about the PROTOBOARD FIRST! Install the (3) 74LS244 and (1) 74LS245 chip in the area at the bottom of the PROTO BOARD for complete interfacing to the PEB System Bus. Use sockets for ALL chip. Reference page 1 in the PROTO BOARD manual, specifically the right center of FIG. 1-1. The chip shown was a 74LS125, however before you install a 16-pin socket cut the small trace between pins 7 and 8. U10 (74LS368) will go here, and requires a 16-pin bed. Install the socket now. To adhere to Gary's schematic, you will have to make one more change to your PROTO BOARD, and that is to cut a trace which goes to pin-1 of the 74LS245 chip on the component side (from pin-15 of a 74LS244 to it's left). ALL terms that end in a "B" are Buffered and do not go to the edge connector of the PROTO BOARD. The term will either be in the ADDRESS DATA BUS line (shown in FIG. 4-2 of PROTO BOARD manual) or one of the two clusters of terms as seen in FIG. 3-1 or 4-1 in the same manual. No connections to the card edge connector will be necessary! Let's

keep it neat.

Install U5,6,7,8,9,11, and 12 sockets in locations most desirable for your application in the proto-typing area (columns M thru V). Wire the +5 and ground to all chips first, and then put the address and data lines on next, finished off by the control and clock lines.

Build the +5 supply in the area shown in PROTO BOARD manual FIG. 5-1 and the 5 v. CLK "CKV" will have to be constructed in the proto-typing area being sure to use +8 v. unreg. from pin 1 or 2 of the EDGE conn. (use the lead thru hole provided).

After the board is assembled, you should remove all boards from the PEB and do a "SMOKE TEST". If all is in order, then test the board with the minimum configuration needed, (a disk cont. and memory).

PARTS LIST *

2 U5,U6	-	74LS138	Decoder/Demux
1 U7	----	74LS93	4-Bit Bin. Ctr.
1 U10	---	74LS368	Hex Tri-St.Buf.
1 U11	---	74LS08	Quad 2-Inpt AND
1 U12	---	7555	CMOS 555 Timer
1 U8	----	ADC0809	8-Ch. A/D
1 U9	----	MM58167	Clock chip
1 XTAL	--	Crystal	32K Hz
2 Q1,Q2	-	Regulator	+5 Volt
1 BAT.	--	Lithium	+3 Volt
1 LED	--	LED, Red	
3 D1,2,3		Diodes	1N914
12 Cx-Cy		Capacitor	.1 Mfd **
1 C5	----	Capacitor	10 Mfd 35 V.
1 CT	----	Capacitor	22 Mfd
1 C3	----	Capacitor	4.7 Mfd 35 V.

* This list is for the CLOCK/CAL.& A/D circuit only. You will have to insert (3) 74LS244s and a 74LS245 into the PROTO BOARD first. See p.1 Fig. 1-1 in PROTO BOARD manual.

** This number will vary and will include C1,C2,C4, and one on each of the IC Vcc pins to ground.

Please familiarize yourself very thoroughly with the circuit, the PROTO BOARD docs and the board. You may be suprised what you can do!

SUPER-CARTS

8K LITHIUM BATTERY BACK-UP MODULE.

IF YOU PROVIDE THE DOUBLE SIDED CIRCUIT BOARD(Ex. Munchman or
TI Invaders) AND AN EDITOR ASSEMBLER CHIP OR MODULE.....\$23.00
I PROVIDE NEW ROM DOUBLE SIDED CIRCUIT BOARD.....ADD-- 4.00
I PROVIDE NEW EDITOR ASSEMBLER CHIP.....ADD-- 8.00

NEW KEYBOARDS (BLACK or GREY).....\$10.00
NEW R/F MODULATOR.....\$10.00
NEW TI TRANSFORMER.....\$ 9.00
NEW "COOL" POWER SUPPLY.....\$ 9.00
NEW ORIGINAL TI JOYSTICKS.....\$ 8.00
NEW 3' CORD WITH FUSE FOR USE WITH TRANSFORMER..... FREE
WITH ALL ORDERS!!! EXTRA CORDS.....\$ 3.00

SHIPPING--10% OF TOTAL ORDER (\$2.00 MINIMUM)

FREE FREE INSTALLATION OF ALL ITEMS!!! FREE
WHEN SHIPPING YOUR UNIT YOU MUST INCLUDE RETURN POSTAGE.

CHRISTOPHER PRATT
51 LANDAU DRIVE
PULASKI, PA 16143

Just a few random notes that may interest you.

GARY TAYLOR went back to visit some of his "OLE PARDNERS" down Texas way last week end, and we will hear a few words about the TEXAS FAIR. He brought some new software back with him, and will demonstrate "WINDOWS 99" which he says is great, and that's from a guy who is forced to use P.C.s at work. Come to the meeting to hear and see what's going on out there.

I feel really bad that some of you people who belong to the WEST PENN 99'ers in other states like Florida, California, Texas, N. Dakota, can't be with us. Most everyone that lives within two to three hours fly'in time makes it here each month without fail to our meet'in. We do have the LIBRARY and this newsletter to keep you updated. If you have any questions, write or call John F. Willforth R.D. #1 BOX 73A Jeannette, PA (412) 527-6656

The article on pages 7 and 8 will help you to build a CLOCK/CALENDAR/ANALOG-to-DIGITAL board on your PROTO-BOARD. If you do not have one look at the back cover of the news letter for ordering information. If you are a member of the WEST PENN 99'ers or the PITTSBURGH USERS GROUP, the price is \$30. each in Qty. of one. There is some really strong stuff for the PROTO-BOARD coming out from users groups, and will be sent out soon to those who have purchased the card. (I hope!).

THE PROTO-BOARD FOR THE TI-99/4A CONSOLE IS HERE. DELIVERY OF THIS BOARD STARTED IN SEPTEMBER 1987. SALES HAVE EXCEEDED EXPECTATIONS (OVER 200 DELIVERED TO DATE). WE EXPECT ABOUT THREE NEW PROJECTS TO BE DOCUMENTED AND PUBLISHED BY CHRISTMAS HOLIDAYS, AND SEVERAL MORE BY THE LATER PART OF JANUARY. WE EXPECT A REDESIGNED SOUND BOARD (FORT1 CARD), DSR, SUPER CART, A/D, AND THE SPEECH INTERFACE IN THE NEXT COUPLE OF WEEKS. THERE IS ALSO THE POSSIBILITY OF AN 80-COLUMN TEXT ONLY CARD. A BANK-SWITCHED MEMORY, PRINT SPOOLER, NEW RS232/MODEM, DIGITIZERS, ARE ONLY A FEW OF THE OTHER PROJECTS MENTIONED FOR THE PROTO-BOARD. IF ANY OF THE ABOVE EXCITE YOU, AND YOU HAVE THE ABILITY OR INTEREST TO ATTEMPT THE DESIGN, LET US KNOW.

AVAILABLE FROM: THE COMPUTER BUG (QUANTITIES 1 TO 4) AT \$35. EACH +S/H (PA RES.ADD 6% SALES)

5075 CLAIRTON BVD.

PITTSBURGH, PA 15236

(412) 882-3374

FOR LARGER QUANTITIES CALL SCOTT COLEMAN

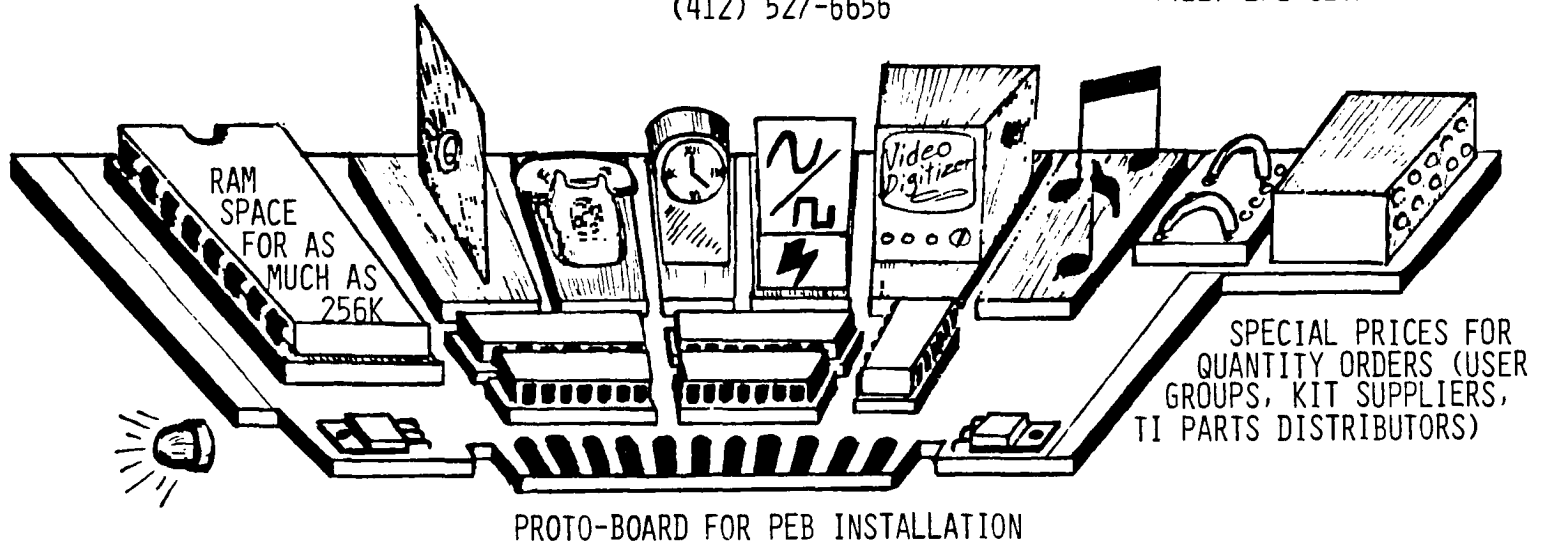
823 NORTH AVE.

N. BRADDOCK, PA 15104

(412) 271-6283

FOR TECHNICAL INFO. JOHN WILLFORTH

(412) 527-6656



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% John F. Willforth

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Jeannette, PA

15644

MAY 1988 ISSUE

