



It was indeed the February meeting time of the West Penn 99'ers on the 20th of the month as Mickey opened the main meeting at 7:15 sharp. I arrived late at 7:30 but was informed (al la Zic) that the treasurer's report was acceptable and that the acting recording secretary's report (Zic's) was summa cum lousy !! The absence of librarian Bob Sadusky did not go unnoticed but we were informed that Faireware Funnelweb 4.21 with new and improved features is now available in the library.

Back to the president, Mickey explained that the club inventory committee has found several, if not many, modules missing. Please, if you have one that belongs to the club return it to Norm R. Quick Quips from Mickey included a) dues are due b) videotapes of meetings (Lima, Harrisburg, etc.) have been loaned to PUG c) diskettes and cassettes (\$2.00) and much more are available at the tables. Discussed also were the upcoming computer shows a) TICOFF in New Jersey (?? date), the Boston Show (April 28), the Ottawa show (April 28) and the Lima show (May 26).

John Willforth, our editor in chief, talked about a music catalog, some splitter "y" cables and ribbon cables and on a company who is now handling Cor-Comp stuff. To those of you who know what any of this was about and if you're still interested, see John.

A booklet of TI-99/4A reference material was passed out (1983 vintage) with prices that will make you feel like you have a gold mine tied up in your TI.

The meeting stopper, however, was the sale of the equipment which Joe Ekl purchased for the club. We owe Joe a big thank you and Mickey deserves special credit for handling the distribution.

*Hurriedly Submitted,
Scoops Bittner*

NEXT MEETING DATE: MARCH 20 1990
 MEETING LOCATION: ST. STEPHEN'S
 BYZANTINE CATHOLIC
 CHURCH
 JUST OFF ROUTE 30
 BETHEL ROAD, NORWIN
 TIME OF MEETING: 7:00 P.M.

LIST OF WEST PENN OFFICERS FOR 1990

PRESIDENT: MICKEY 335-0163
 VICE PRESIDENT: SCOTT 523-3754
 TREASURER: LYNN 835-4304
 RECORDING SEC: ED 864-4924
 CORRESPONDING SEC: GENE 829-0469
 LIBRARIAN: BOB 863-5672
 NEWSLETTER EDITOR: JOHN 527-6656

GENERAL ITINERARY OF THE CLUB'S MEETING

6:45 P.M. DOORS OPEN
 7:00 P.M. GENERAL MEETING
 7:45 P.M. DEMOS AND NEW INFO
 8:45 P.M. HARDWARE & PRINTERS
 8:45 P.M. INTRO TO ASSEMBLY
 11:00 P.M. DOORS CLOSE

MEETING HIGHLIGHTS FOR THIS MONTH

LATEST T.I. NEWS AND SOFTWARE DISCOUNTS

ASGARD'S LEGENDS II DEMO BY DON MCCALLA
 DOOM GAMES III DISK DEMO BY DON MCCALLA
 JOHN JOHNSON'S "BOOT" DEMO BY BILL VORP
 MISSING LINK "DISK DEMO" BY BOB SADUSKY
 LATEST SOFTWARE DEMOS BY JOHN WILLFORTH

RENEW YOUR MEMBERSHIP DUES!

\$15.00 PER YEAR FOR INDIVIDUAL / FAMILY
 \$10.00 PER YEAR FOR JUST THE NEWSLETTER

FROM LYNN GARDNER

2/20	CASH ON HAND	\$ 50.00	*
	LIBRARY SALES	20.00	*
	MICROPENDIUMS	52.50	*
	DISKS & CASES	90.00	*
	RAFFLE	502.00	*
	DUES	150.00	*

	TOTAL	\$864.50	*
2/21	DEPOSIT	814.50	*

2/21	CASH ON HAND	\$ 50.00	*

1/18	BANK BALANCE	\$1311.23	*
1/22	INTEREST	+ 4.11	*

		1315.34	*
2/14	EQUIPMENT	- 78.10	*
2/20	POSTAGE (JOHN)	- 69.75	*
2/21	MICROPENDIUMS	- 37.50	*

		1129.99	*
2/21	DEPOSIT	+ 814.50	*

	BALANCE	1944.49	*

	TOTAL CASH BALANCE	\$1994.49	*

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**** ANNOUNCING NEW AND EXCITING WORLDS OF GRAPHICS FOR YOUR TI-99/4A!!!! ****
Now available for IMMEDIATE release is the new GIF Picture Loader software by Barry Boone. This powerful software will allow you to tap into the tens of thousands of GIF pictures available from sources EVERYWHERE and convert them into the convenient TI Artist format for viewing and manipulation. The two pictures enclosed in this archive are just examples of some of the great artwork that is just waiting to be tapped into by the TI community.

WHAT IS GIF?

GIF (Graphics Interchange Format) is a format for storing picture files that was developed by CompuServe so that various machines could exchange graphics. Up until now, the only TI-ish machine that could deal with the GIF format was the Myarc Geneve. Now, any TI user who has one disk drive and memory expansion can take advantage of these pictures.

256 x 192 screen size to 640 x 400 to 1024 x 768, or even larger... if you desire, this powerful software will automatically reduce even the largest GIF picture to fit on a 256 x 192 screen... OR you may wish to simply window around the larger picture, looking at only one part of it at a time. GIF pictures may also contain up to 256 colors out of a possible 16 MILLION colors! Since the TI may display only 16 colors, the software has more than one method of deciding WHICH TI colors to use where... this allows you to find the color selection method that brings out the best details of your picture.

WHERE DO YOU FIND GIF PICTURES?

If you have a modem, it is as simple as calling a local BBS or a commercial system such as GENie, CompuServe, or Delphi. GIF pictures are very popular among users of other computers, so BBS's that cater to other machines, or Geneve users, is the best place to find them. As TI users discover the GIF format, I expect the TI-oriented systems to begin filling with them rapidly. If you do not have a modem, your user group is a good place to find them, or your friendly local Geneve user, or a friend with a modem... even a friend with another machine, such as an Amiga, or IBM PC...

The GIF Picture Loader software is available for \$15 plus \$2 S/H from: Barry Boone

P.O. Box 1233
Sand Springs, OK 74063

Future updates will be available for the cost of materials, shipping, etc. (Around \$4 or \$5) and will be enable you to CREATE GIF pictures, load and create Myart files, as well as other formats (like RLE)

ED. note: The picture on right was taken from a beautiful full screen, full color GIF to ARTIST picture sent along. J.F.W.



THIS MONTH AN EXPLANATION OF THE BASIC GRAPHIC COMMAND'S N1 AND N2 PARAMETERS.

```

100 OPEN #1:"PIO.CR"
110 PRINT #1:CHR$(27)&"K"&CHR$(178)&CHR$(1);
120 FOR J=1 TO 4
130 FOR I=0 TO 6 STEP .2
140 PRINT #1:;CHR$(2^INT(3.4*(SIN(I)+1)));
150 NEXT I
160 NEXT J

```

EXAMPLE 1

THE LINE OF GRAPHICS ABOVE WAS CREATED WITH THE GRAPHIC COMMAND "ESC,K,N1,N2", ALONG WITH THE COMPUTER ACTUALLY DOING WHAT A COMPUTER IS SUPPOSED TO DO, CALCULATE. LINE 140 DOES THE CALCULATIONS TO PUT THE DOTS IN THE SINUSOIDAL PATTERN. TRY LEAVING THE ".CR" OUT OF LINE 100 TO SEE WHAT AFFECT THIS HAS ON THE PRINTERS ABILITY TO PRINT A CLEAN GRAPHIC PATTERN ON PAPER.

```

100 OPEN #1:"PIO.CR"
110 PRINT #1:CHR$(27)&"K"&CHR$(31)&CHR$(0);
120 FOR J=1 TO 1
130 FOR I=0 TO 6 STEP .2
140 PRINT #1:;CHR$(2^INT(3.4*(SIN(I)+1)));
150 NEXT I
160 NEXT J

```

EXAMPLE 2

THE MAIN SUBJECT HERE IS, HOWEVER, THE VARIABLES N1 AND N2 IN THE GRAPHICS COMMAND. THE CHR\$(27)&"K" SET THE GRAPHICS BUT THE PRINTER MUST ALSO KNOW HOW MANY COLUMNS MUST BE RESERVED FOR GRAPHICS. N1 RANGES FROM 0 TO 255 COLUMNS, WHILE N2 REPRESENTS/INDICATES HOW MANY OF THE 256 COLUMN BLOCKS MUST BE RESERVED. I.E. N2 ACTS AS A CARRY EVERYTIME N1 COUNTS EXCEED 255. EXAMPLE 1 SHOWS 14 CYCLES OF 31 DOTS PER CYCLE OR 434 COLUMNS OF DOTS

```

110 PRINT #1:CHR$(27)&"K"&CHR$(248)&CHR$(0);
120 FOR J=1 TO 8

```

EXAMPLE 3

```

100 CALL CLEAR
110 INPUT "NUMBER OF GRAPHIC COLUMNS NEEDED (UP TO 816 FOR WIDE AND 480 FOR NARROW)":C
120 IF C>767 THEN 180
130 IF C>511 THEN 210
140 IF C>255 THEN 240
150 N1=C
160 N2=0
170 GOTO 270
180 N2=3
190 N1=C-768
200 GOTO 270
210 N2=2
220 N1=C-512
230 GOTO 270
240 N2=1
250 N1=C-256
260 GOTO 270
270 PRINT "THE GRAPHIC COMMAND SHOULD BE: "; "N1=";N1;" AND "; "N2=";N2
280 INPUT "ANOTHER (Y/N)":YN
290 IF YN$="Y" THEN 100
300 END

```

FROM THE LEFT TO RIGHT MARGIN. YOU CAN SEE THAT IF WE DIVIDE 434 BY 256 WE GET 1 WITH A REMAINDER OF 178. N1 IS NOW 178 AND 1 IS THE N2 VALUE. EXAMPLE 2 IS A SINGLE 31 COLUMN CYCLE WHICH BECAUSE 31 IS LESS THAN 256 CAUSES THE N VALUES TO BE N1=31 AND N2=0. EXAMPLE 3 IS HERE JUST TO REINFORCE THIS PATTERN. LINE 120 MUST ALSO BE CHANGED IN THESE EXAMPLES SO THAT THE NUMBER OF 31 COLUMN CYCLES MATCH THE NUMBER OF COLUMNS OF GRAPHICS RESERVED. THIS IS IMPORTANT SO THE PRINTER WILL RECEIVE INSTRUCTIONS TO DO THE PRINTING, OTHERWISE IT WILL JUST SET THERE (HANG).

THE PROGRAM TO THE LEFT HAS ONE SIMPLE FUNCTION, AND THAT IS TO CALCULATE THE N1 AND N2 VALUES FROM THE TOTAL COLUMN NUMBERS THAT YOU DECIDE YOU NEED. I AM AGAIN NOT A PROGRAMMER, BUT WANTED THIS PROGRAM TO BE IN CONSOLE BASIC AS ARE ALL THE EXAMPLES HERE. BECAUSE SOME OF YOU HAVE WIDE CARRIAGES, THE WIDER LINE CAN BE CALCULATED HERE.

USING PRINTERS #4, #5, AND #6 AS A GUIDE SHOULD ENABLE SOME OF YOU TO START WRITING PROGRAMS TO SUPPORT GRAPHICS. I KNOW YOU WILL HAVE PROBLEMS, CALCULATIONS, PRINTER TYPES, ETC. DON'T GIVE UP, BE AS PERSEVERING AS YOU CAN, AND YOU WILL FIND ENJOYMENT AND SATISFACTION IN MASTERING THE PRINTER.

ML

EXTENDED BASIC SCREEN DUMP:

HERE IS MY VERSION OF A SCREEN DUMP TO THE TI (ALSO EPSON & GEMINI) PRINTER. IT CLOCKS IN AT 39 MINUTES AND 20 SECONDS (NOTE THAT YOU MUST USE EXTENDED BASIC). IT WILL TAKE ANY CHARACTER DEFINITION AT ALL 768 SCREEN LOCATIONS AND FAITHFULLY REPRODUCE THEM ON YOUR PRINTER!

EDITORS NOTE: I KEYED THIS PROGRAM IN EXACTLY AS I RECEIVED IT AND IT WORKS. YOU WILL WANT TO SAVE IT AS A MERGE FILE WITH HIGH NUMBERS (RENUMBER TO 32000), BEFORE SAVING AS A MERGE FILE. YOU CAN THEN MERGE IT TO YOUR EXTENDED BASIC PROGRAM WHICH EXHIBITS THE GRAPHICS YOU WANT TO CAPTURE.

```

100 OPEN #1:"PIO.CR" :: PRIN
T #1:CHR$(27);CHR$(65);CHR$(
8):: B$="0123456789ABCDEF"
110 FOR R=1 TO 24 :: PRINT #
1:CHR$(10);CHR$(13);CHR$(27)
;CHR$(75);CHR$(0);CHR$(1)::
FOR C=1 TO 32 :: CALL GCHAR(
R,C,A):: CALL CHARPAT(MIN(MA
X(A,32),143),H$)
120 C1,C2,C3,C4,C5,C6,C7,C8=
0 :: FOR P=1 TO 15 STEP 2 ::
X=POS(B$,SEG$(H$,P,1),1)-1
:: Y=POS(B$,SEG$(H$,P+1,1),1
)-1 :: Z=2^((15-P)/2)
130 C1=C1+Z*SGN(X AND 8):: C
2=C2+Z*SGN(X AND 4):: C3=C3+
Z*SGN(X AND 2):: C4=C4+Z*SGN
(X AND 1):: C5=C5+Z*SGN(Y AN
D 8):: C6=C6+Z*SGN(Y AND 4):
: C7=C7+Z*SGN(Y AND 2):: C8=
C8+Z*SGN(Y AND 1)
140 NEXT P :: PRINT #1:CHR$(
C1);CHR$(C2);CHR$(C3);CHR$(C
4);CHR$(C5);CHR$(C6);CHR$(C7
);CHR$(C8):: NEXT C :: NEXT
R :: PRINT #1:CHR$(27);CHR$(
65);CHR$(12):: CLOSE #1
    
```

ADDITIONALLY, YOU COULD BEST USE THIS PROGRAM WITHIN YOUR PROGRAM WITH A GO SUB AND A RETURN AS AN ADDITIONAL LAST LINE TO THIS PROGRAM. IF YOU CANNOT REMEMBER HOW TO GET MORE THAN 5 LINES OF PROGRAM PER PROGRAM LINE, TRY KEYING UNTIL THE CURSER STOPS AT THE END OF THE 5TH LINE, PRESS ENTER, FOLLOWED BY FCTN "8", THIS WILL RETURN TO THE LAST LINE ENTERED, BUT WILL ALLOW YOU TO GO TO THE 6TH AND 7TH LINES, WHICH YOU WILL TERMINATE WITH AN "ENTER". IF YOU DON'T WANT TO DO THIS, JUST BE SURE

THAT YOU SPLIT THE LINES AT "::<" AND CONTINUE. SINCE LINE NUMBERS ARE NOT REFERENCED WITHIN THE PROGRAM, THE ONLY THING THAT IS OF ANY CONSEQUENCE HERE, IS THE ORDER OF THE COMMANDS, NOT THE LINE NUMBERS USED.

GENEVE MONITOR CONNECTIONS .. ONE MORE TIME
 BY RUDY JOHNSON - SOUTHERN NEVADA U.G.
 SNUGLETTER FEBRUARY, 1990 P. 4

SINCE I STARTED THE PRESIDENT'S MESSAGE I RECEIVED AN RGB MONITOR, WHICH I ORDERED (FROM SCOTT DISTRIBUTING, R.D.#3 Box 3186, POTTSVILLE, PA 17901; ORDER PHONE (800) 447-0895). THE MODEL WHICH I ORDERED IS A MAGNAVOX 8CM515 PRICED AT \$210. PLUS \$12.07 SHIPPING. IT IS ONE OF THE PREFERRED MONITORS FOR BOTH THE GENEVE AND THE AVPC UNIT MADE BY DIGIT SYSTEMS.

I HAD TO DO SOME THINKING ON HOW TO HOOK UP THE UNIT, AS IT COMES WITH A CABLE TO HOOK IT UP TO A PC VIA TTL PORT. THE ANALOG PORT IS A 6-PIN DIN TYPE WHICH HAS INPUTS FOR BOTH HORIZONTAL AND VERTICAL SYNC SIGNALS. MY DILEMA WAS THAT MY GENEVE OUTPUTS A COMPOSIT SYNC SYGNAL. SO I WASN'T SURE WHICH PINS TO HOOK UP TO WHICH PINS ON THE GENEVE. I HAD PREVIOUSLY PICKED UP A COUPLE OF 8-PIN DIN PLUGS THAT ARE REQUIRED FOR THE GENEVE PORT, BUT DIDN'T HAVE THE 6-PIN DIN PLUGS THAT GO INTO THE MONITOR. FORTUNATELY I DISCOVERED THAT RADIO SHACK IS NOW CARRYING BOTH TYPE OF PLUGS, AS WELL AS A 9 CONDUCTOR SHIELDED CABLE. SO I HAD THE PARTS, BUT NOT THE SMARTS (YET).

HOWEVER, BEFORE I STARTED TO DO ANY WIREING, I TOOK ANOTHER LOOK THROUGH THE GENEVE MANUAL AND GOT TO THE BACK PART IN APPENDIX E, WHERE THE PINOUT OF THE PORTS ARE GIVEN. I HAPPENED TO NOTICE THAT IN PARENTHESES, AFTER THE "COMPOSITE SYNC" NOTATION, WAS INCLUDED "VERTICAL SYNC". I THOUGHT, "IT'S WORTH A TRY." SO I CONNECTED THE GENEVE'S COMPOSIT SYNC OUTPUT TO THE VERTICAL SYNC. INPUT OF THE MONITOR (AND ALL THE OTHER COLOR, AUDIO, AND GROUND HOOK-UPS TO THEIR THEIR MATCH. VOILA! IT WORKED THE FIRST TIME!! AFTER ALL THE TIMES WHERE I HAVE HAD SLAVE HOURS OVER SOMETHING THAT DIDN'T WORK AS EXPECTED, IT WAS GREAT TO GET SOMETHING TO WORK THE FIRST TIME. SO THE FINAL PIN TO PIN HOOK-UPS ARE:

GENEVE 8-PIN	8CM515 6-PIN	
1 - NO CONNECTION (+12 RF MOD)	-----	X
2 -----GROUND ALSO TO SHIELD AUDIO CABLE	-----	3
3 - NO CONNECTION AUDIO (RCA TYPE PLUG)	----	X
4 - NO CONNECTION COMPOSITE MONITOR	-----	X
5 - ----- RED	-----	4
6 ----- GREEN	-----	1
7 ----- BLUE	-----	5
8 - VERT. SYNC.(CSync ON GENEVE)	-----	6

NO CONNECTION TO 2- HORIZONTAL SYNC.

I'M NOT CERTAIN, BUT I THINK THAT THIS MODEL ALSO IS DELIVERED WITH A DB-9 TYPE CONNECTOR. I SUSPECT THAT THE PINS WOULD HAVE TO BE CONNECTED IN A SIMILAR FASHION BY FOLLOWING THE PIN OUTS GIVEN IN THE MANUAL FOR THAT UNIT. I HOPE THIS HELPS SOMEONE ELSE GETTING OVER THE HOOK-UP PROBLEM AS I HAVE SEEN SOME MONITOR HOOK-UP INSTRUCTIONS THAT WOULDN'T WORK HERE AND MUST HAVE BEEN GARBLED SOMEWHERE ALONG THE LINE, AS THEY MADE NO SENSE WHEN COMPARED TO HOOK UP THAT I KNOW TO HAVE WORKED. -RUDY

have taken better care of myself." I think there is a lot to think about in those few words. John F. Willforth



I reminded Gary Taylor that I was getting older, I had a recent birthday, turned 47. He said, "If I'd known I'd live this long, I'd

ATTENTION

ALL WEST PENN 99ERS

THERE WILL BE A VERY SPECIAL SALE TAKING PLACE DURING THE REGULAR WEST PENN MEETING ON MARCH 20 1990

ALL CLUB MEMBERS WILL BE GIVEN AN EQUAL OPPORTUNITY
***** NO ADVANCE SALES *****

THE FOLLOWING IS A LIST OF ALL ITEMS TO BE SOLD

- EMPTY P-BOX.....\$60
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- RS232 CARD.....\$40
- 32K CARD.....\$20
- DISK DRIVE (NO POWER).....\$15
- BLACK/SILVER CONSOLE.....\$15
- SPEECH SYNTHESIZER.....\$15
- EXTENDED BASIC MODULE.....\$15

C H E Z G E N E V E

By Chip Chapin

1,015,808 bytes...like...1 Meg. of RAM, Man... Just like it said in the ad. The *MEMEX 504K Card from Bud Mills Services* (designed by Ron Walters) is just about the easiest add-on you can get. The card is a smooth production model, very clean, very neat. It looks and feels very sturdy, although it does not come in a clamshell, which makes it the only card in my PEB which does not have one. Up to this point, I had a card in every other slot but that obviously had to change. I chose to put it next to the GENEVE card, although I am sure it could have been put most anywhere in the box.

The card is a snug fit, a little more so than any of the other cards I have. But once you install it, that's all there is to it - no cables to attach, no pinouts to worry about. There is a set of DIP switches on it, which are factory set in the 'conservative' position. Only two of the switches do anything in the 504K configuration, and one of them is concerned with the LED. The other will provide you with 7 more pages of RAM, if you change the setting. But, according to the documentation, you should do this only if you know all of the cards you have in the PEB decode the two 'expansion' lines on the PEB BUS. Some information is provided on cards which are known not to do this, but you will obviously have to make some inquiries if you are not sure.

So aside from another red LED on my PEB, what did I gain? Naturally, what I was interested in was the amount of RAM left after booting up. I was getting tired of having to run special Autoexec files to load TGA, Hyper-Copy, Fortran, etc., and with the extra RAM I had hopes of being able to run them in my normal configuration - that is, with the TIMODE statement and with a decent sized RAM drive. As you might guess, I have made use of the batch file Menu capabilities, and one quickly gets spoiled with the one-keystroke aspects of it. So I set my RAM drive setting back up to DSSD size (RAMDISK 180) and tried it out. By the way, I am using MDOS 1.14. The first program I tried it on was QDE V1.9. It worked like a charm! Then I tried TGA. No good. Haven't figured out why, but the documentation does say that it needs all the memory it can get, so perhaps the checks it performs on loading, do not tell it that sufficient memory is available. As if 458,752 bytes would not be enough for it! Hyper-Copy ran with no problems. I then tried it on Fortran 9640's QDE -- no good. I did not check the actual Fortran compiler, so I can not report on that. MYART ran fine, but I only occasionally had memory problems when running it in the TIMODE statement, so it hasn't had a fair test yet.

I have to say that I am certainly satisfied with my purchase. It has performed flawlessly, hour after hour, and has given me the convenience I wanted in most cases. The other cases are due to **software which was written before this memory became available**. In those other cases, perhaps the program authors will be willing to make some changes now that the memory is available. In any event, I now have the capacity to run all those huge commercial-grade programs which MYARC is sure to be putting out **any day now...** or was that last year's April Fool joke? Whatever. The point is, I do have the capacity and when its useful, its automatically being used. And we all know that old saying "Programs automatically expand to fill the available memory", which in this case wouldn't be bad, now would it?

See you next time Chez Geneve.

ED. Note: The above article was taken from the March, 1990 issue of the Nittany Users of Texas Instruments. Chip is the president of that group. For more info. call or write: **BUD MILLS SERVICES, 166 DARTMOUTH DR., TOLEDO, OH 43614 (419) 385-5946** (Chip didn't mention that the up-grades are available in 504K, 1008K, 1512K, and 2016K, that's half a Meg. to 2 Meg.)

MECHATRONICS 80-COLUMN CARD AVAILABLE

If you are a TI-99/4A user, you are probably aware that the Mechatronics 80-Column upgrade device was discontinued 6 months ago. However, I'm pleased to announce that by special arrangement with the developer, and the firm that acquired the rights to manufacture it from Mechatronics, this solid piece of German engineering is now available again! This 80-column device is the easiest to install video upgrade available for the TI-99/4A. Upgrading to 80-columns with this enhancement requires no modifications to your console beyond removing the video chip already installed and plugging in a special connector in its place. This well-designed device simply plugs in the side (a la the Speech Synthesizer), and you can attach other peripherals into it. Plug your monitor cable into the special connector in the back and you instantly have a beautiful, high resolution display! Because the new manufacturer added circuitry to improve the video display, the picture is as clear on a \$50 composite monochrome monitor as it is on a \$1000 VGA monitor. The Mechatronics 80-column card is compatible with virtually every TI-99/4A program, and functions well with almost every program designed for use with an 80-column device or in the TI mode of the Myarc Geneve. Anyone who does word processing, telecommunications or spreadsheets will appreciate doubling the width of the screen. You'll never have to window over in TI-Writer again! New 80-column card software is coming out almost daily, making this an even better value. The next generation of TI software will require an 80-column device, and the Mechatronics 80-column card is one of the best around, if not the best. Users familiar with the devices previous incarnation should be pleased to note that a new, more detailed manual for it has been written, the software included with the device has been substantially upgraded, and the internal program code has been vastly improved. All in all, the new

manufacture has paid strong attention to detail, ease-of-use and versatility. Finally, while the original card cost over \$250, we are pleased to be able to offer it for only \$200, plus \$10 S&H. Considering the cost of acquiring another computer capable of doing the high-quality, VGA and Amiga-like graphics possible with the Mechatronics 80-column card and its 9938 Video processor, it makes much more sense to upgrade your TI than to buy another machine and start all over. This device will help carry your TI into the '90s with style. At the moment, the manual is being translated from the original German, and we are taking orders. If you are interested in purchasing this device, only send your name and address, and we'll contact you when it is available. If you would like to receive it as soon as it arrives, send a post-dated check or credit card number and expiration date (add 7% for Visa/Mastercard), and we will ship yours the moment they arrive from Germany.

Please note that in order to get this special price we need to order a minimum quantity from the manufacturer, hence we won't be able to place an order until a certain number of orders have been received. Hence, if you'd like to do your part in bringing this useful addition back into the TI world, send us a postcard expressing your intention to buy it when it is available, or an order, today.

This product carries a 90-day warranty. Most parts are socketed hence it can be serviced after 90-days by any reasonably competent technician, or returned to us for servicing for parts plus labor.

To order, send to:

Asgard Peripherals
P.O. Box 10697
Rockville, MD 20849
(703)255-3085

A subsidiary of Asgard Software (of course)

Addendum: Custom cables and special software packages are available to purchasers of this device at a reasonable cost.

SUPPLIERS.....

TI-99/4A SUPPLIERS - COMPILED BY JIM PETERSON, 156 COLLINGWOOD AVE COLUMBUS, OH 43213
 THESE WERE COMPILED AS OF DEC. 1989, HE ASKS IF YOU CAN ADD TO IT, CONTACT HIM.

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VERSION 2.3 JUST CAME OUT.

THIS DOES IT FOR THIS YEAR
AND I HOPE THIS HELPS. JFW

```

100 ! SIMPLE LABELER
110 CALL CLEAR :: CALL SCREE
N(5):: FOR @=0 TO 14 :: CALL
COLOR(@,16,1):: NEXT @
120 A=17 :: B(1)=17 :: B(2)=
20 :: ON WARNING NEXT
130 ! CENTERS SCREEN TEXT
140 DEF CTR$(Z$)=RPT$(" ",IN
T((28-LEN(Z$))/2))&Z$
150 ! CENTERS PRINTED TEXT
160 DEF CTRP$(Y$)=RPT$(" ",I
NT((A-LEN(Y$))/2))&Y$
170 ! PRINTER NAME
180 P$="PIO"
190 ! PRINTER RESET
200 PR$=CHR$(27)&CHR$(64)
210 ! DOUBLE STRIKE
220 DS$=CHR$(27)&CHR$(71)
230 ! EMPHASIZED PRINT
240 EP$=CHR$(27)&CHR$(69)
250 ! EXPANDED PRINT (DOUBLE
WIDTH)
260 DW$=CHR$(27)&CHR$(87)&CH
R$(1)
270 ! LINE FEED
280 LF$=CHR$(10)
290 ! CARRIAGE RETURN
300 CR$=CHR$(13)
310 ! Main Program
320 ! Main Menu
330 CALL CLEAR :: DISPLAY AT
(4,1):CTR$("Main Menu"):CTR$
(RPT$("=",18)):"":":":":":CTR$
("1> 3.5 X 1.0 LABEL"):"":":":
:CTR$("2> 4.0 X 1.5 LABEL")
340 DISPLAY AT(15,1):CTR$(">
Exit Program "):"":":":":":
":CTR$("choice (1-3)?")
350 CALL KEY(0,K,S):: IF S=0
THEN 350 ELSE IF K<48 OR K>
50 THEN 350 ELSE IF K=48 THE
N CALL CLEAR :: END
360 A=B(K-48):: D=K-48
370 ! LINE ENTRY
380 DISPLAY AT(1,1)ERASE ALL
:CTR$("Enter your Text")
390 IF D=1 THEN E=5 ELSE E=8
400 FOR @=1 TO E :: DISPLAY
AT(@+8,3):STR$(@)&" "&A$(@):
: NEXT @
410 DISPLAY AT(3,1):CTR$("yo
u may enter"&STR$(E)&" lines
")
420 FOR @=1 TO E
430 ACCEPT AT(@+8,5)SIZE(-A)
:A$(@)
440 NEXT @
450 DISPLAY AT(24,1):CTR$("1
s text alright (Y/N)?")
460 CALL KEY(0,K,S):: IF S=0
THEN 460

```

SIMPLE LABELER
Paul Schindler
Program to print
labels on 2 sizes
of label stock.

THANKS
ROCKY MOUNTAIN
99'ERS
February, 1990
 (3.5 X 1.0 INCH LABEL)
 (4.0 X 1.5 INCH LABEL)

```

470 IF K=78 THEN CALL HCHAR(
24,1,32,32):: GOTO 420 ELSE
IF K<>89 THEN 460
480 DISPLAY AT(24,1):" ce
nter text (Y/N)? " :: ACCEPT
AT(24,24)SIZE(-1)VALIDATE("
YN"):SW$
490 DISPLAY AT(24,1):"1> pri
nt ) return to menu"
500 CALL KEY(0,K,S):: IF S=0
THEN 500 ELSE IF K=50 THEN
330 ELSE IF K<>49 THEN 500
510 DISPLAY AT(24,1):" how m
any labels? " :: ACCEPT AT(
24,20)SIZE(-3):TNL :: IF TNL
=0 THEN 330 ELSE DISPLAY AT(
22,1):"-- hold any key to ab
ort! --"
520 ! PRINTER ROUTINE
530 OPEN #1:P$&".LF.CR"
540 PRINT #1:PR$&EP$&DS$&DW$
&CR$;
550 FOR @=1 TO TNL
560 DISPLAY AT(24,1):" print
ing label...#"&STR$(@)
570 FOR I=1 TO E :: IF SW$="
N" THEN A=(LEN(A$(I)))
580 PRINT #1:CTRP$(A$(I))&CR
$&LF$ :: IF I=E THEN 600
590 NEXT I
600 PRINT #1:CR$&LF$
610 CALL KEY(0,K,S):: IF S<>
0 THEN 630
620 NEXT @
630 PRINT #1:PR$ :: CLOSE #1
:: GOTO 330
640 END

```

40 COLUMN ROUTINES FOR XBASIC
 BY BRAD SNYDER
 BELOW YOU SEE A SCREEN DUMP OF A
 DEMO SCREEN IN BRAD'S PACKAGE. I'D
 ESTIMATE 1 MINUTE TO PRINT, AND IT
 WOULD BE MY PRINTERS LIMITATION.
 AVAILABLE FROM BRAD OR CLUB LIBRARY.

40 Column Routines For X-Basic
 © 1989 By Brad Snyder

```

MONTD 1 - Change text / screen colors
        2 - Demo of the new commands
        3 - Instructions for Loading
        4 - Printout documentation
        5 - Screen dump PIO
        6 - End this program
    
```

Instructions for the commands:

1-SETUP	8-ACBEEP
2-INIT	9-PRINT
3-NEXT	10-SCROLL
4-NORM	11-VERT
5-CLS	12-HORZ
6-STOP	13-GSTEN
7-ACCEPT	14-LOWCRS

Please enter your choice -

5

Then press ENTER

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MARCH-1990

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HE IS CHARGED WITH THE INDUCTION OF AN 18-TURN COIL NAMED MILLI HENRY, WHO WAS FOUND CHOKED AND ROBBED OF VALUABLE JOULES. HE IS ARMED WITH A CARBON ROD AND IS A POTENTIAL KILLER. CAPACITY IS ALSO CHARGED WITH DRIVING A DC MOTOR OVER A WHEATSTONE BRIDGE AND REFUSING TO LET THE BAND PASS.

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