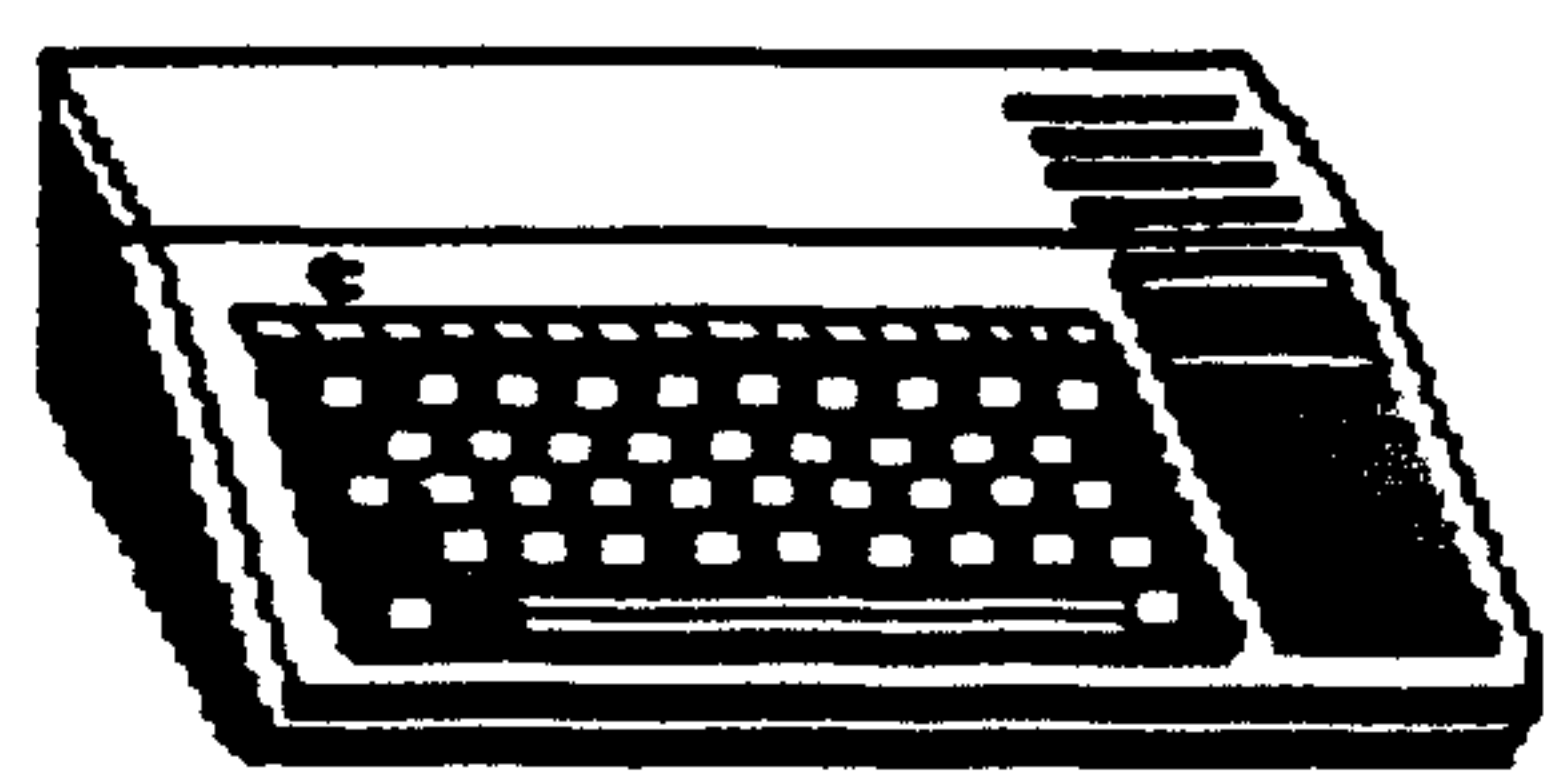




CLEVELAND AREA

TI-99/4A

USER GROUPS



DECEMBER 1992



OFFICE	TI-CHIPS	MEETINGS
CO-PRESIDENT	Glenn Bernasek 238-6335	10:00 AM
CO-PRESIDENT	Dinny Stockdale 1345-5239	N. Royalton
TREASURER	Lin Shaw 235-3912	County Library
MEMBERSHIP	John Parken 331-2830 4172 W. 217th St. Fairview Pk., OH 44126	State Rd. 50. of Route 82 1/4mi <u>EVERY THIRD SAT.</u>
SECRETARY	Tim Bodemiller 234-4297	
DISK LIBRARY	Matt Andel 676-9759	December 19,1992
TAPE & MODS	John Parken 331-2830	January 16,1992
HARD COPY	Harry Hoffman 631-2354	February 20,1993

OFFICE	NORTHCOAST	MEETINGS
CO-PRESIDENT	Ken Gladyszewski 1357-7274	1:30 PM
CO-PRESIDENT	Walt Ryder 921-8223	Euclidian Room
Treasurer	Frank Jenkins 283-8526	Euclid Sq. Mall
MEMBERSHIP	Martin Sooley 1-257-1661 6149 Bryson Mentor, OH 44060	E.260th off I-90 (South) <u>EVERY THIRD SAT.</u>
SECRETARY	Bernie Zuckerman 381-4088	
DISK LIBRARY	Martin Sooley 1-257-1661	December 19,1992
TAPE & MODS	Frank Jenkins 283-8526	January 16,1992
HARD COPY	Dick Alden 1-352-9172	February 20,1993



From the Editor's Desk:



Merry Christmas Tiers.

I'm going to try using Art Gibson's new FIRST DRAFT/Final Copy program which is a follow-up of his NewsPrint fairware program and now is being sold through ASGARD at \$39.95 less \$10.00 if you are a registered SPKLL-IT owner. This program has many new features, including the use of Artist Instances and PPRO pics along with your text. It has a built-in Spell checker with 25,000 words in it and the user can define more words and merge them into the main dictionary. The only problem I can see is for the basic SSSD disk drive user. The program, First Draft/Final Copy, will fit on a SSSD disk with the dictionary on a separate disk/s. Art suggests using a Ran Disk for lightning speed in word processing and dictionary work!

So far, it has been a learning experience finding out how to configure this program as I've lost/misplaced my printer manual and my memory is not good enough to remember commands to put in this file. There were a couple of things a computer illiterate like myself needed explained! One was that the example files were not ALL compatible with the 40 column set-up and I was not aware of this until printing it out and losing several half

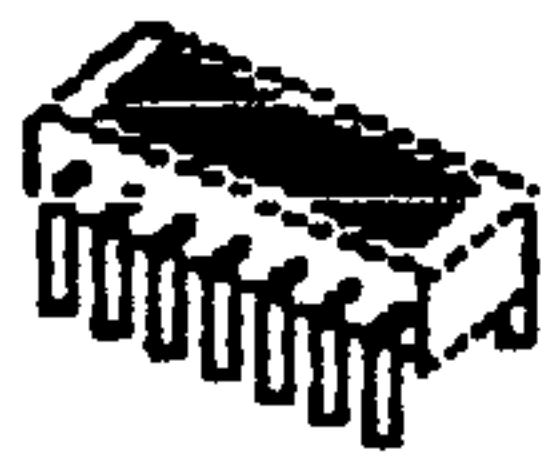
sentences. This doesn't mean the program isn't first rate! For someone with a printer capable of feeding back up the page, this is the first word processor that will put text next to a picture without being a mathematical genius! You can always make your text into an Instance or a PPRO picture, but will have a very hard time finding a compatible text. So far this is fun!!

The year is quickly coming to an end and the Tenth Anniversary of our Orphanage is swiftly coming up. Our ranks are smaller but the doers and shakers are busier than ever working to make this TI-99/4A do more than even the maker thought possible. Our clubs should get together to celebrate this Anniversary.

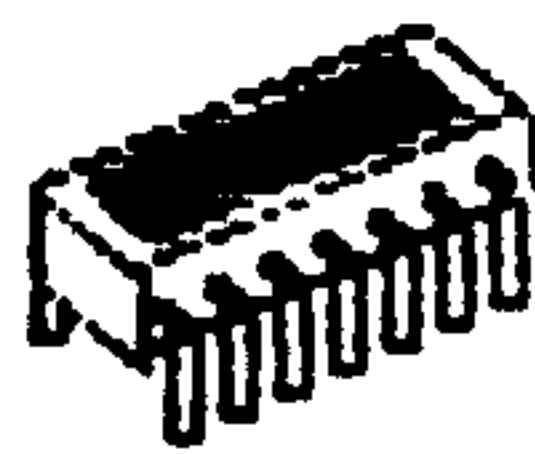
Check the cover of the new MICROpendium! Our own Boa Markus' picture is there - twice!! Once, holding up Tim Bodemiller's new programs. The middle picture is a bit more personal, but if you look close, Ada is seen sitting by their tables.

Nina and I wish everyone a Blessed Christmas and a prosperous New Year.





TI-CHIPS Notes



by **Chris Bodenmiller**

The November 21st meeting was called to order at 10:00 with 13 members present. We purchased the randisk, bringing our balance to \$817. Lin has also noticed that the check we sent to join the newsletter BBS has not gone through yet. John Parken reported that the membership is holding, and tapes and cartridges are available.

Les said he would like to have Harrison's music software in the club library. Also, Harry said that there will be a full PE box available for only \$100 at the next meeting. Ron also has some full PE boxes available. He has also lowered the prices on printer ribbons, and he has some brand new TI consoles (still in original TI packaging, and covered by TI's manufacturer warranty) available for \$49.95 each.

Harry began to install the randisk, which has room for another 512k. If you would like to see this process first hand, both of today's demos were videotaped by Dan Williams. First you must insert the Randisk in the PE box, making sure that the Randisk switch is on. Then turn on your computer and insert the ROS disk in drive one. Select Extended Basic from the menu, and you will be presented with the ROS menu. Format the Randisk into the various partitions you wish to use, and then configure it. When you configure the Randisk, you can change the names of the CALLs used to access the Randisk from XB. The procedure appears to be quite involved, so it may be in your best interest to get the video tape Dan made if you want to try this. Reset and Shift will take you back to the CorComp screen in case you make a mistake.

John gave us an excellent demo of TELCO. You can boot it up from XB, or use EA option 5. Function 7 will give you on screen help in the Terminal, and Fctn-V will toggle the menu bar. The Setup Menu will let you change the baudrate (the speed your modem uses), and lets you set thing up to use your modems special services. The program even has a print spooler. Leave the squeeze blank lines

on, to condense something on your screen, and adjust the baud rate to your modems specifications (the TI phone coupler is 300 baud). It is best to leave the parity an 8N1. Telco also supports several terminal types. Use VT100 to call the Cuyahoga Library, and ANSI to call an IBM BBS. When you are in the Terminal program, Fctn-8 lets you review the data, and Fctn-9 will take you back out of the review mode. This enables you to look back at previous Data, if it scrolled by to quickly. Ctrl-S is the break character. Reading the manual is extremely important, as it can help you understand the special features more clearly. John has made a few Telco manuals up, which have been nicely printed, and bound, and he has them available for only a few dollars. The entire demo is on video tape, and is available if you happened to miss the meeting. Great job! This is definitely something we needed.

John also mentioned that Genie (a computer network that you can call with your modem) costs on \$5 a month if you only use basic services during non prime time (after 6 pm). Also, Free-Net is a computer network here in Cleveland that is sponsored by Case Western, and you can use it for FREE! No monthly or hourly charge if it is a local call. Simply call 368-3888 to be connected. After the opening screen select 'New User' from the menu, and it will ask you some questions, and tell you how to join. Also the Cuyahoga library system can be called at 398-8806. These are all 216 area code numbers, and both of them are free. You can search the library computers, and even reserve books over the phone! Hope to see a more active TI Modem community!

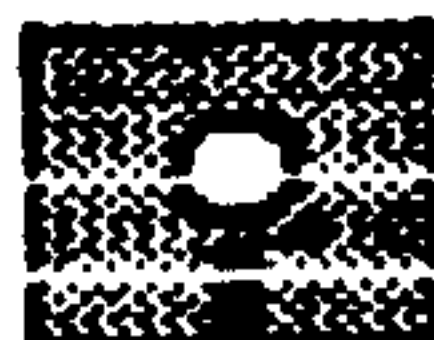
Next month the club will be electing officers. Please be sure to attend. Hope to see you soon. Happy Thanksgiving, and Merry Christmas.

Respectfully submitted,
Timothy C. Bodenmiller



**MERRY
CHRISTMAS
AND A
HAPPY
NEW YEAR**





NORTHCOST Users

By Bernie Zuckerman



NOV. 21, 1992:

The November meeting of the Northcoast TI-99/4A Users Group was called to order by Co-President Walt Ryder at 1:30 P.M.

There were 14 members present. Treasurer Frank Jenkins gave the Treasurer's report. An income of \$268.44 and expenses of \$166.36 (which includes two months printing of the newsletter). Frank reported that the cost of the newsletter has decreased at least 55%. The cost had been \$85.69 per month for the past 2 1/2 to 3 years and 200 copies were printed (160 were delivered). This month printing was done by Office-Max and the cost was \$38.50 with 170 copies printed. Total mailings were Chips 33 copies, Northcoast 63 copies, other user groups (including Micropendium) 28 copies. That still left a sufficient number for other distributions, fairs etc.

The previous minutes were corrected to replace the " ? " member with his full name - Jerry Reising. The secretary expressed his apology for the omission, which Jerry graciously accepted. Marty Smoley gave a short report on the library. He reported that there are 8 disks ready to be issued but the library is \$ 2.83 "in the hole" — that is not unusual until people pay for their disks. Last month's newsletter had a complete listing of new disks, but copies have not been received so it will be several weeks before any orders can be filled. (Harry brought the library disks to this meeting.) Marty receives only one or two orders a month usually for 5 or 10 disks. Marty also is responsible for sending out reminders for dues and gets about a 50% return. The membership is down to 63, with expectations of dropping another 10. Marty also holds the tape library and has not had any requests for them. Frank is the librarian for the modules.

Jerry Reising has contacted Bowman again about the number of cards available or their price but has not heard

from them. A discussion followed with regards to future demonstrations. John Parkin, of TI Chips, will be contacted regarding a demo to install extended basic in the console and the video tape that is available on the same subject. Les Kee is scheduled for a demo of Astronania next month; Jerry Reising in February or March on label making; Marty Smoley was told that he was requested to demo the report generator of TI Base; an unnamed member will show a Tarot card program if he can make a meeting. Walt promised that he and Ken will review the demos and firm up the dates.

Regarding programs that are demonstrated at meetings, Bruce Bodenkirch suggested that a copy of each program be made on a disk and as other demos are given those programs be added to the original disk. In that way the demo programs are accumulated. When the disk is full, copies can be made available to the members. Every one agreed that after each demo many members would like to get a copy of the programs but if they go into the library and get mixed with other subjects they get lost. A procedure to do this was outlined by Walt and this will be done in the future.

Harry Hoffman then gave a report on his trip to Chicago and the T.I. Faire. He brought back several items that were requested by members and asked that they contact him to pick them up. There were about 300 present at the faire but many more vendors than last year, with much hardware, both new and used, being shown. He understood that there were 14 S.C.S.I. (Scuzzi) cards sold which brought up a discussion on this subject with an explanation that this card is an interface between the PEBox and up to 8 other S.C.S.I. peripherals, such as hard drives, disk drives (including 1.44 meg 3.5"), CD ROM's, Tape back-ups, and more.



Merry
Christmas



This brought up a very technical discussion between Walt, Jerry, Harry and others with the final decision being that we should wait until the DSR is finished before buying. Don Markus amplified the subject with a discussion as to when they will be available and their cost. Harry also discussed disks of the Old Testament becoming available. A "Disk of the Ancient Ones" by Ken Gilliland is his newest: A program that converts ASCII to Egyptian Hieroglyphics, a Maze game, and many TIArtist pictures.

A question came up as to whether there was anyone at Chicago that was showing a program to emulate the TI-99/4A on the IBM. The party that was following this up was hoping to gather sufficient interest in Chicago to finance his project. If you are really interested, send him one dollar. The address is in MICROpendium. Bruce Rodekirch reported that the project to produce an accelerator card for the TI ran into trouble. When Texas Instrument was contacted they advised that the circuitry of the 99-4A could not accept the idea of an accelerator.

Bruce also reported that C. Good is demonstrating the Beta version of Fannetweb 5.0 which brought up a discussion as to whether the club should request a copy at

this time. It was felt that there may be too many bugs in the code and no action should be taken until the software settles down. Since Harry H. is planning to get a copy it was decided to put this on hold for the future.

Deanna Sheridan brought copies of public domain games and programs written by John Phillips who had written many games for Texas Instruments. Jerry Reising has information on a console and modules available - contact him for further details. Marty Smoley had visited the Winklers and went through Howie's papers. It seems he had disposed of everything that was of any value. The parts that were there are being given to Ken for further research; Howie's daughter will be going through all the disks that were found since he had mixed his personal accounts with his T.I. papers.

The business meeting was then concluded and Frank Jenkins presented his demo of Multiplan - a spreadsheet written by Microsoft for Texas Instruments. Frank covered many of the uses of Multiplan and presented how he used the software to set up a record of gasoline usage and expense for his auto, a budget spreadsheet, and a utilities expense spreadsheet.

Bernie Zuckerman, Secty.

       
NorthCoast 99ers
Meeting Dates for 1993

Martin Smoley turned in this list of dates that Euclid Square Mall has given us. Two of the Saturdays are on the 4th week of the month. Three times we will meet in the small room, so always check to see where the meeting is taking place.

<u>MEETING DATE</u>		<u>MEETING ROOM</u>	
January	16th	Large	Room
February	20th	Small	Room
March	20th	Small	Room
April	17th	Small	Room
May	22nd (4th Sat)	Large	Room
June	19th	Large	Room
July	17th	Large	Room
August	21st	Large	Room
September	18th	Large	Room
October	23rd (4th Sat)	Large	Room
November	20th	Large	Room
December	18th	Large	Room

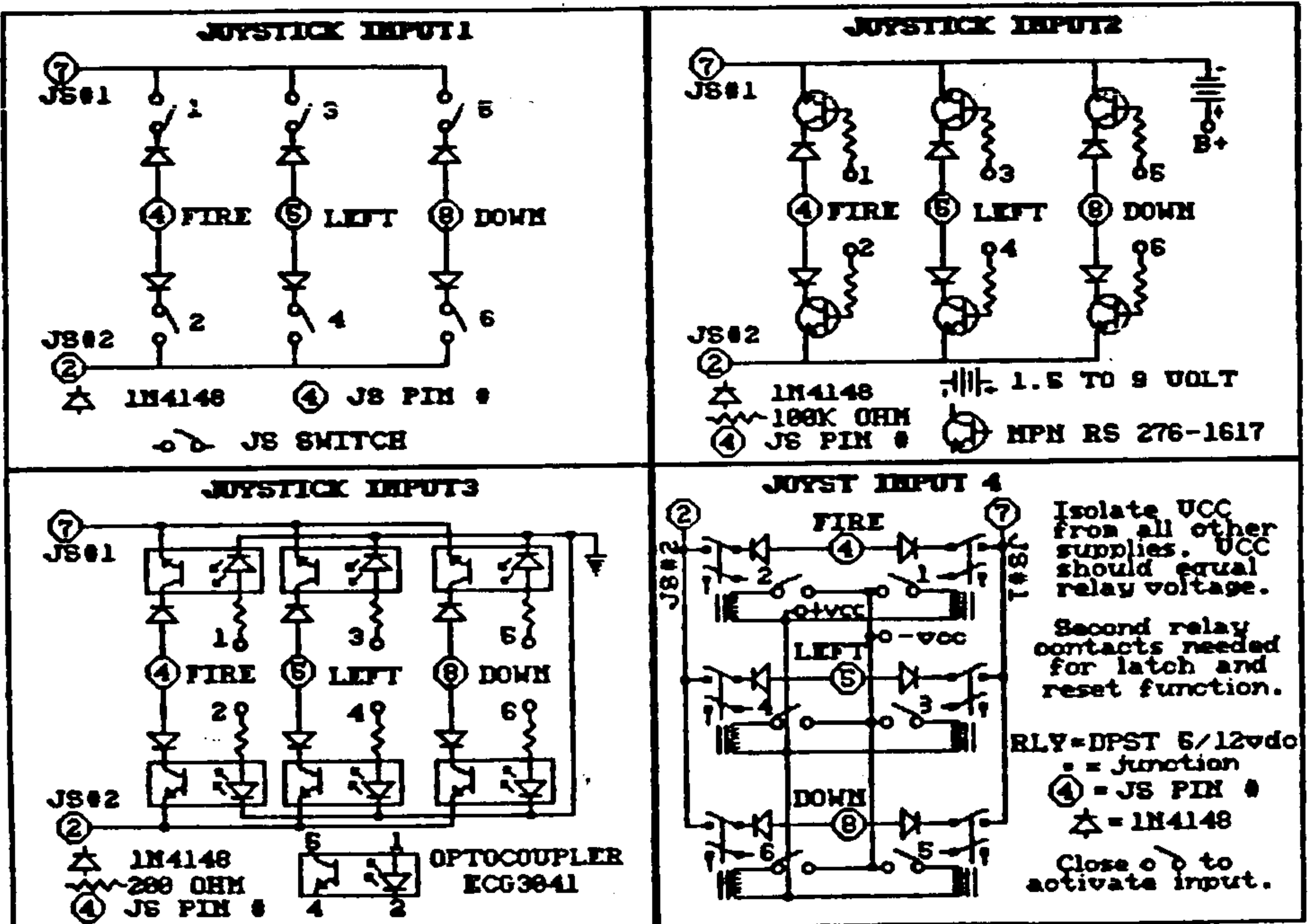
All meeting times are from 12:00 PM to 5:00 PM.

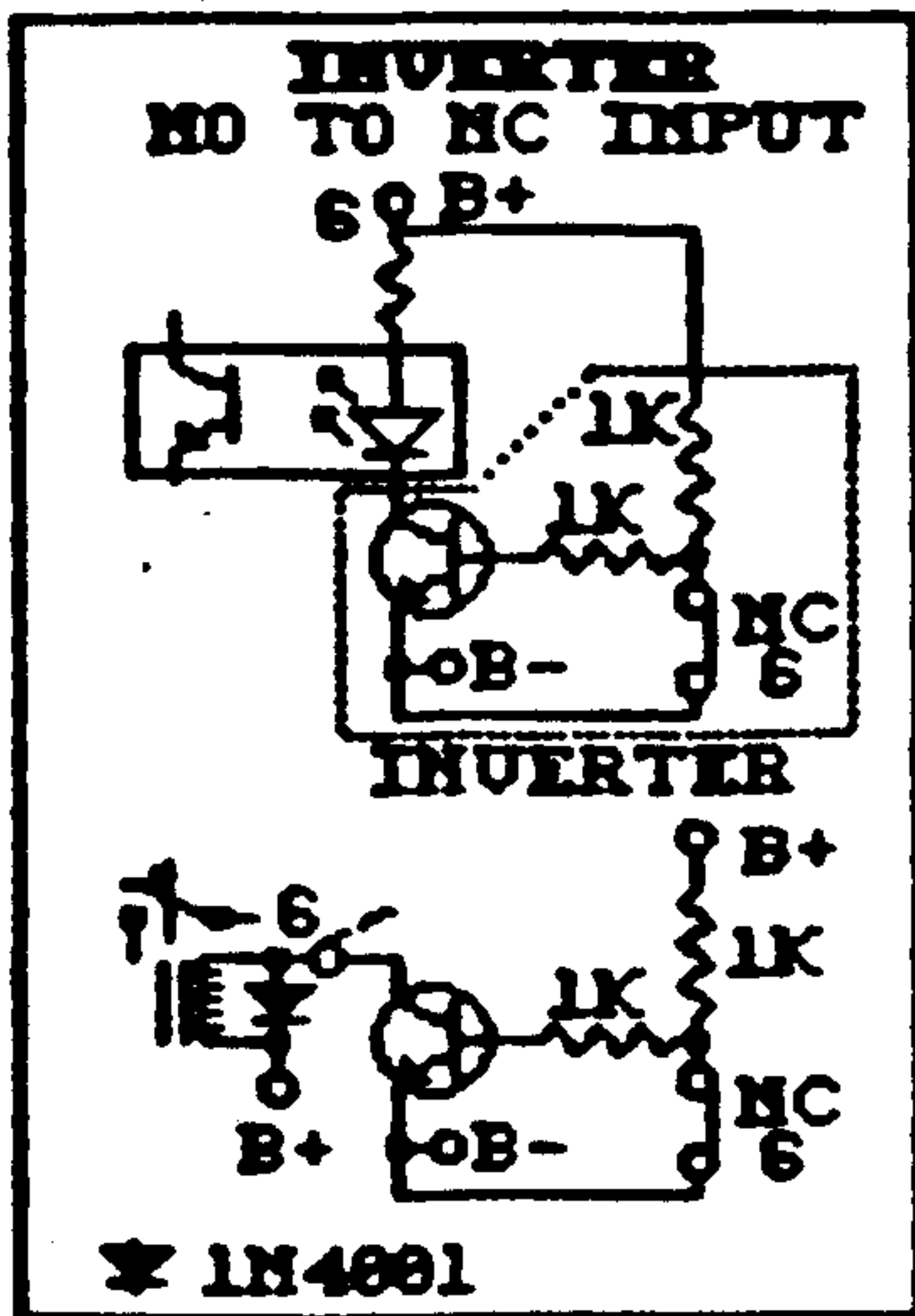




Jerry Keisler, from the Paris 99/4R User Group of Paris, Texas, is back with more on digital to analog joystick port input. Great stuff!

Merry Christmas





```

INPUT TEST PROGRAM
100 CALL KEY(1,K,S)
110 CALL JOYST(1,X,Y)
120 CALL KEY(2,J,S)
130 CALL JOYST(2,A,B)
140 PRINT K;X;Y;J;A;B
150 GOTO 100

```

CONTROL THE WORLD
WITH YOUR TI
by Jerry Keisler

-----JOYSTICK PORT-----

Let's look at the joystick port. I want to control all the inputs I can from a remote location. Also the inputs need to be isolated from the computer to keep outside electrical transients away from the computer. The two main types of control should be an open circuit and a closed circuit.

-----JOYSTICK COMMANDS-----

First, how does the joystick port work. The commands that sense joystick input are:
CALL JOYST(1,X,Y)
CALL JOYST(2,X,Y)
CALL KEY(1,K,S)
CALL KEY(2,K,S) where:
1 = joystick 1, control pin 7
2 = joystick 2, control pin 2
X = -4 for LEFT contact pin 5
X = 0 for no contact
X = 4 for RIGHT contact pin 9
Y = -4 for DOWN contact pin 8
Y = 0 for no contact
Y = 4 for UP contact pin 3
K = -1 no contact
K = 18 for FIRE contact pin 4
K = 0-19 for keyboard keys

Taking a close look at the four commands reveals that only SIX inputs can be read at one time. Also if the UP contact is used, then the ALPHA LOCK has to be released. To avoid the possibility of forgetting the ALPHA LOCK, do not use the UP contact. This leaves FIRE, DOWN, LEFT and RIGHT. I chose FIRE, LEFT and DOWN.

-----ELECTRICAL CONNECTION-----

Figure "JOYSTICK INPUT1" shows the normal connections for a joystick using the FIRE, LEFT and DOWN contacts. NOTE!, six diodes are required to allow closure detection of all six contacts at the same time. 1N4148 diodes work good for this. They can be found at Radio Shack. This circuit provides a high impedance contact that could be greatly influenced by long wire runs between the computer and actual switch. Also, there is no isolation. A better way is needed to control the joystick port.

To move control away from the joystick port, I had to find out what would control the port.

Figure "JOYSTICK INPUT2" shows the result of my experimentation. I tried it without the 1N4148s, but they are still needed. I tried low and high values of resistance. The 1.5 volt battery was connected to pin 7 and 2 via diodes. The best combination is shown. The battery can be 1.5 or 9 volts. It can work from pin 7 or pin 2. The circuit is extremely sensitive. Holding the plus of the 1.5 volt cell in one hand and one of the inputs in the other hand will trigger that input. This is not practical for an outside input circuit, but shows the joystick port can be controlled with transistors.

Now that I have two ways of controlling the joystick port, how do I isolate it?

-----ISOLATION-----

Figure "JOYSTICK INPUT3" shows how an optocoupler can be used. You will note the diode-transistor combination used in figure 2. The photo diode and resistor provides a low impedance circuit for the outside world. You can tie each input to +5 volts to affect closure. Or all the inputs can be tied to +5 volts and closure can be affected by tying the photo diode cathode to ground. NOTE!, The photo diode, its resistor, 5 volt supply and outside wiring should be completely isolated from the computer. This circuit should be immune from almost any outside electrical interference.

Figure "JOYSTICK INPUT4" shows how to accomplish isolation using relays. The same isolation rules apply. The relay coil, switch, power supply and wiring must be isolated from the computer.

-----OPEN CIRCUIT FOR INPUT-----

The inputs can be turned on with an open circuit by using a transistor inverter.

WARNING! Long lines connected to transistor bases can pick up radio signals. Use .01 mfd capacitors base to emitter or feed thru capacitors on the base. This would be good for alarm circuits. Is the alarm triggered by cutting a wire or shorting a wire? More on this later.

-----LATCHING THE INPUT-----

The joystick port is only read when the four commands above are executed. But, the outside world does not wait for the TI to ask it what is happening. How long do you hold your finger on the door bell? Will the program detect it? When someone walks thru a security beam, will it be detected?

To hold the inputs, I am working on a latch system that will hold the input until it is released by the computer. That is, when an input is activated, it will stay activated until the computer reads it and releases it. That is the reason for the double pole single throw relays in JOYSTICK INPUT4. I am also working on a latch using a hex inverter chip 7404. The latching circuits will be in a future installment.

-----PARTS-----

All parts except the optocoupler can be obtained from Radio Shack.
RELAY DPST RS 275-249 \$3.99.
This one is DPDT 12VDC.
5V DPST units can be found in electronic supply houses.
Transistors are RS 276-1617 15 for \$1.98.
1N4148 are RS 276-1122 10 for \$.99
optocoupler EC63041 \$3.74.
Check your local electronics store. The Radio Shack optocoupler uses a triac.

-----THE PROGRAM-----

The following program will allow control of PIO from the joystick. It runs in basic or extended basic.

Many thanks to Ken Gladyszewski who started me on this project and provides input to my ideas.

NOTE, I finally got the ZEMO board real time clock keeping the right time. The time clock will allow recording when time events happened and cause outputs at preset times.

```

100 REM SAVE BSK4.INPUT3
JOYSTICK TO PIO CONTROL.
ONLY 1 THRU 6 USED.
0 RESERVED FOR LATCH RESET.
J(1)=CURRENT JS STATUS
J(1)=FIRE1 KEY1=18
J(2)=FIRE2 KEY2=18
J(3)=LEFT1 JS1=-4,0

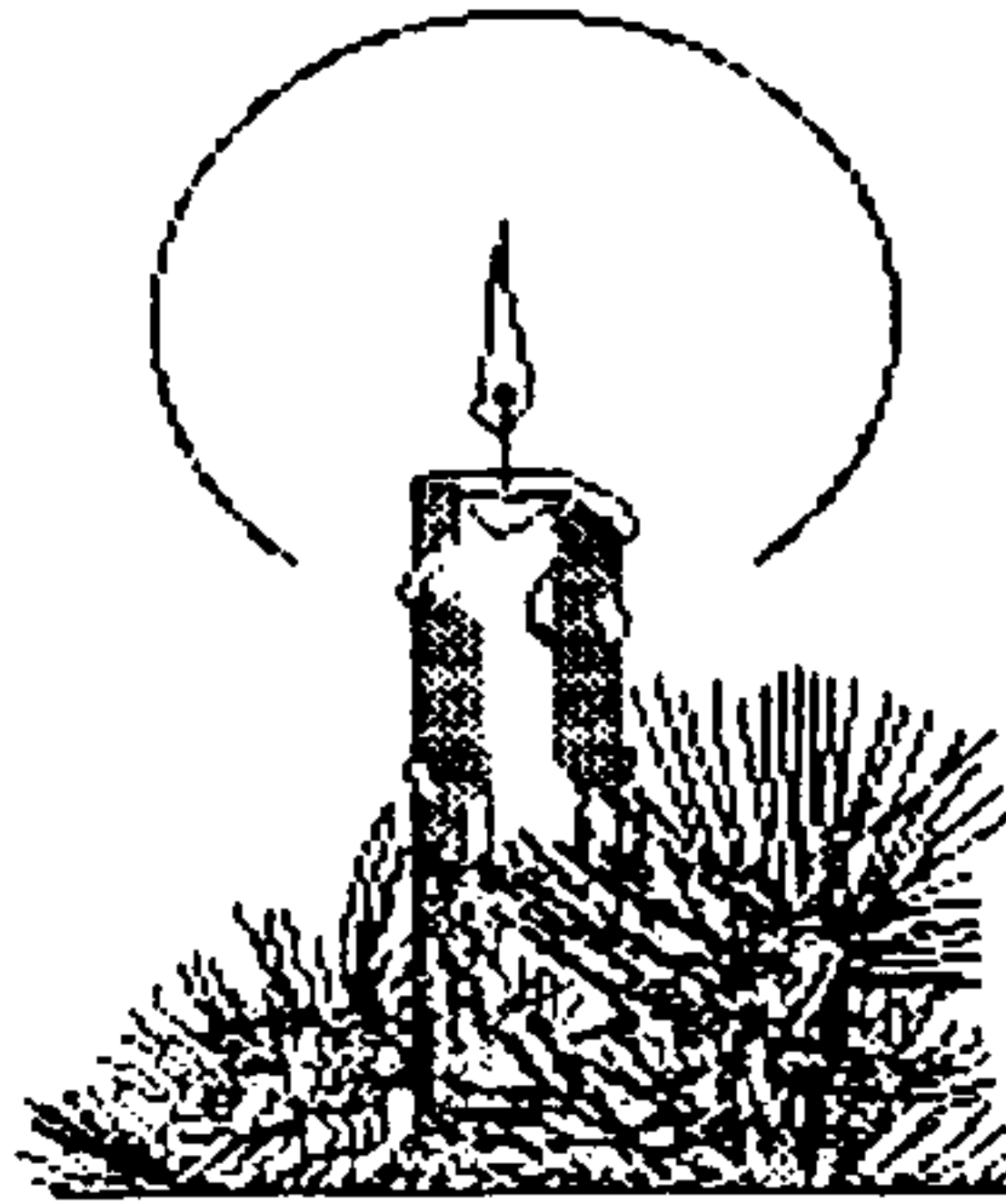
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```

J(4)=LEFT2 JS2=-4,0
J(5)=DOWN1 JS1=0,-4
J(6)=DOWN2 JS2=0,-4
ST=0 NO JS CHANGE
ST=1 JS CHANGE
PIO ON/OFF VARIABLE A()
1=DN.
ASCII VARIABLE B() VALUE OF
OUTPUT.
270 B(0)=1
280 B(1)=2
290 B(2)=4
300 B(3)=8
310 B(4)=16
320 B(5)=32
330 B(6)=64
340 B(7)=128
350 REM DISPLAY
360 CALL CLEAR
370 PRINT "OUT STATUS":
:
380 PRINT "DB0=1 0 RES
ET":
390 PRINT "DB1=2 0 FIR
E 1":
400 PRINT "DB2=4 0 FIR
E 2":
410 PRINT "DB3=8 0 LEF
T 1":
420 PRINT "DB4=16 0 LEF
T 2":
430 PRINT "DB5=32 0 DON
N 1":
440 PRINT "DB6=64 0 DON
N 2":
450 PRINT "DB7=128 0":
:
460 PRINT "TOTAL =":
470 REM JOYSTICK
480 OPEN #1:"PIO.CR"
490 PRINT #1:CHR$(0)
500 CLOSE #1
510 ST=0
520 CALL HCHAR(20,3,74,28)
530 CALL KEY(1,J(1),STA)
540 CALL KEY(2,J(2),STA)
550 CALL JOYST(1,J(3),J(5))
560 CALL JOYST(2,J(4),J(6))
570 FOR I=1 TO 2
580 IF J(1)=18 THEN 610
590 J(1)=0
600 GOTO 620
610 J(1)=-4
620 NEXT I
630 FOR I=1 TO 6
640 IF J(1)=4 THEN 700
650 J(1)=J(1)/-4
660 IF J(1)=A(1) THEN 700
670 A(1)=J(1)
680 CALL HCHAR(1+2+4,13,A(1)
+48)
690 ST=1
700 NEXT I
710 IF ST=0 THEN 530
720 REM PIO
730 CALL HCHAR(20,3,79,28)
740 TOTAL=0
750 FOR I=0 TO 7
760 TOTAL=A(1)+B(1)+TOTAL
770 NEXT I
780 CALL HCHAR(22,10,32,6)
790 T$=STR$(TOTAL)
800 FOR I=1 TO LEN(T$)
810 CALL HCHAR(22,10+I,A
EG$(T$,I,1)))
820 NEXT I
830 OPEN #1:"PIO.CR"
840 PRINT #1:CHR$(TOTAL)
850 CLOSE #1
860 GOTO 510

```


A Woman's Point of View



Dear Santa,

I've thought it over long and hard.
What I want for Christmas, I'm sending to you in this card.

I only hope it arrives in time,
and it won't cost anyone a single dime.

I want a smile to tuck away, to bring out on those cloudy
and rainy days.

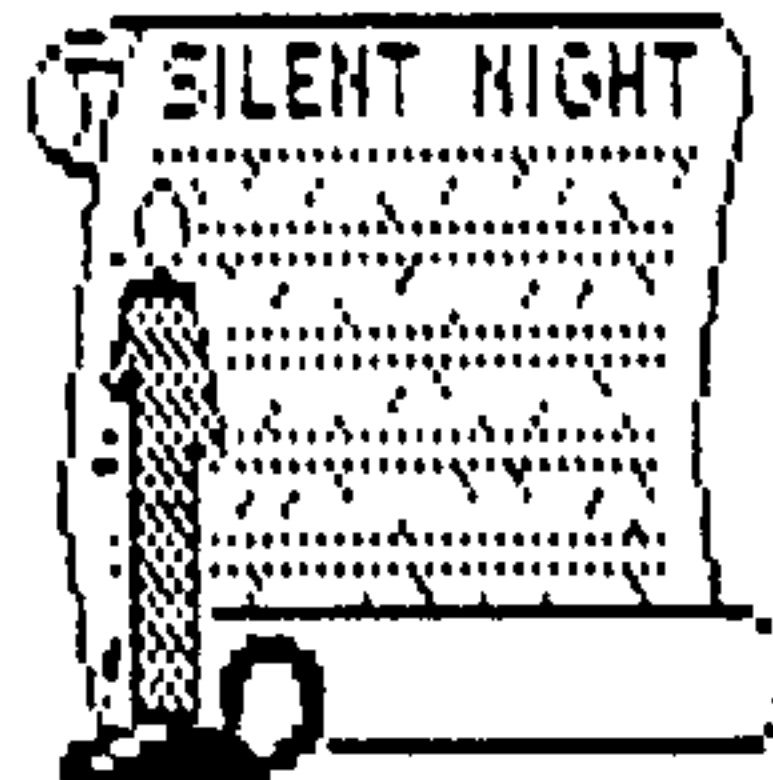
I want a hug freely given, filled with warmth and love.

I want a special spot in the hearts of those who are dear
and loved a lot.

I want to be remembered, as years pass by, as someone who
snatches a little sunshine to pack away inside.

And if one little box I could have, that when opened, a
quiet stillness would ascend. And all around a message
would arise, of Peace and Joy of enormous size. And in that
Peace, I could hear a whisper that only my heart could hear,
a blessing from God to fill all the new year.

Love,
Ada



A MINI-TURBO ADDED TO MY TI

By Glenn Bernasek
TI-Chips Cleveland, Ohio

After reading Jesse C. Slicer's article "SPEEDING UP YOUR CONSOLE" in the September 1992 issue of MICROpendium, I decided to give it a try. The procedure, as described by Jesse Slicer, seemed rather easy to follow. So I said, "why not?"

* KEEP THE 12.000 CRYSTAL *

The 12.000 crystal was very easy to locate, and with a little coaxing, I was able to remove the crystal intact. However, after COMPLETELY reading Jesse's article before attempting this modification, I decided that it would be a good move to install color coded leads in place of the crystal I had removed. (By the way, I also marked a RED line alongside one edge of the crystal to maintain proper orientation.) These leads (one RED, to match my RED mark on the crystal, and one BLACK) were attached to the center terminals of a micro DPST (double pole - single throw) slide switch. I was trying to stay one step ahead of Jesse's instructions.

* KEEP THE 12.000 CRYSTAL *

I had ordered the 14.31818 crystal from RADIO SHACK for \$5 and received delivery in one week. On one side of the switch I installed the new crystal, and on the other I installed the old 12.000 that I had removed and carefully kept.

* KEEP THE 12.000 CRYSTAL *

When I turned on my TI, I found that the RAM disk would not respond when the "Turbo" 14.31818 crystal was switched in. I then shut down my system and rebooted it with the old 12.000 crystal

switched in line, and everything worked fine. I then loaded and ran some of the Extended Basic programs manually under the "Turbo" option, and found that they did run about 18 to 20 percent faster!

* KEEP THE 12.000 CRYSTAL *

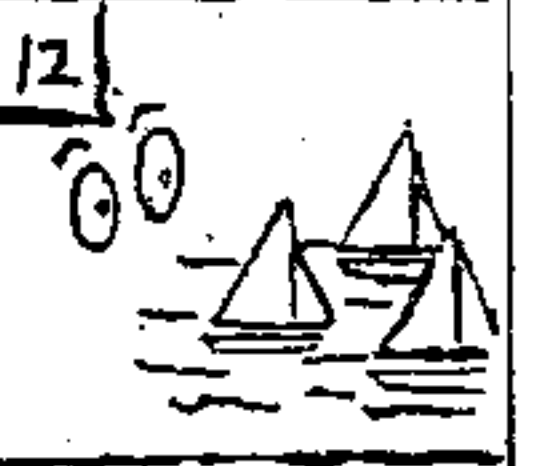
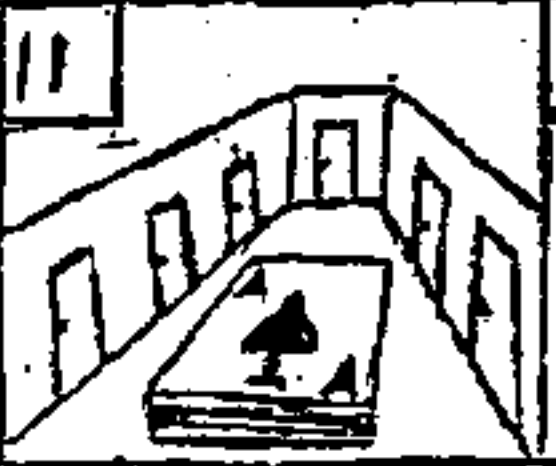
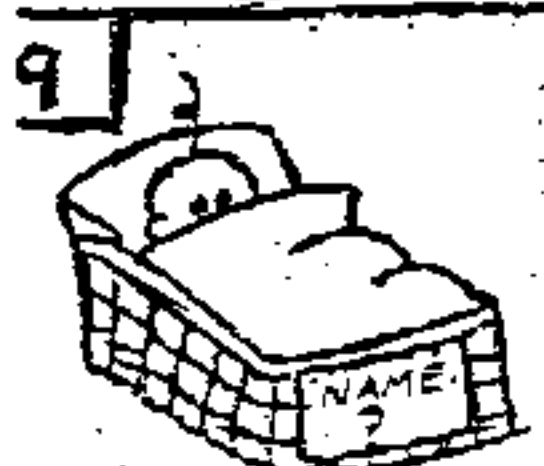
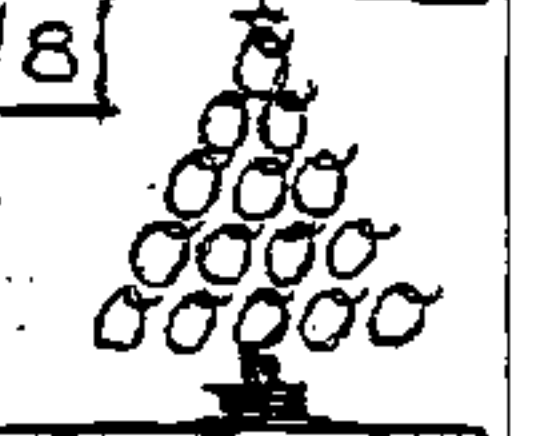
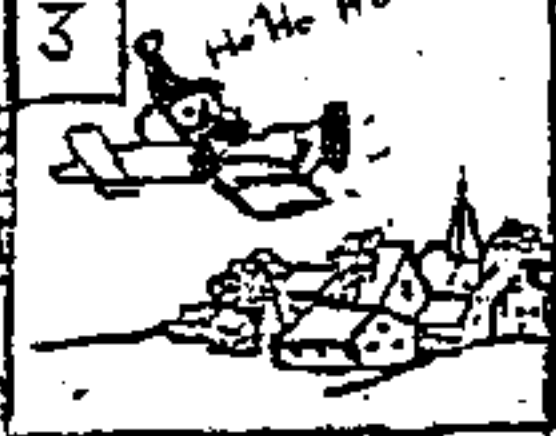
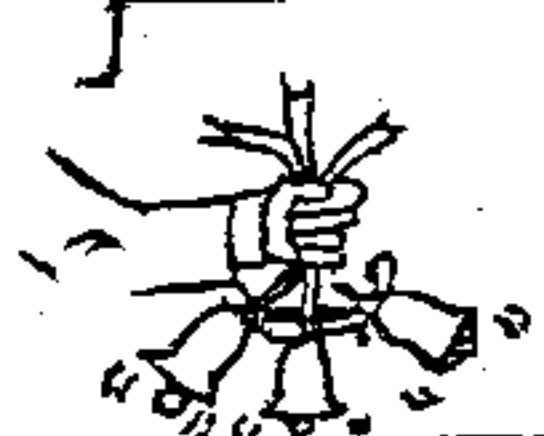
However Sprite movement and location was messed up. I also found that I was unable to run any ASSEMBLY language programs (computer locked-up) while in "Turbo" mode. Therefore the "Mini-turbo" modification of my TI-99/4A provided me with an 18 to 20 percent faster operating speed in Extended Basic programs (without Sprites) only.

* KEEP THE 12.000 CRYSTAL *

The problem with running Assembly language (compiled) programs continued for a couple of weeks. Then, without warning, the "Turbo" 14.31818 crystal began working with both X-Basic and Assembly language programs. Don't ask me how or why, I'm just happy to report that I now have a "zipper" TI in all modes! It still messes up sprite movement and location, but that's why the 12.000 crystal is installed as a system back-up if needed.

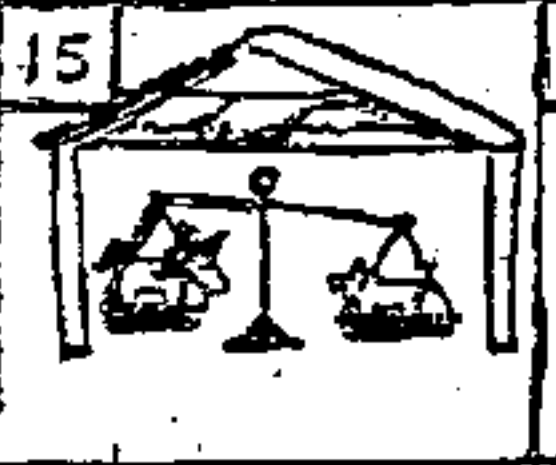
* KEEP THE 12.000 CRYSTAL *

Adding an increase in operation speed is a nice option, and is a very easy modification. However, you must remember to switch out the "Turbo" mode before you try to load and/or run the "Problem Programs" that Jesse Slicer warned us about.



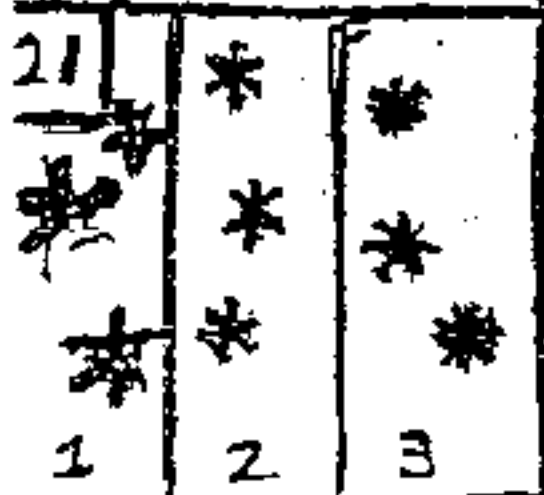
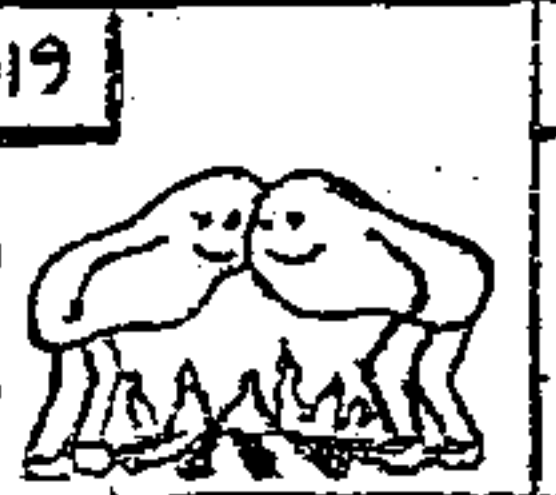
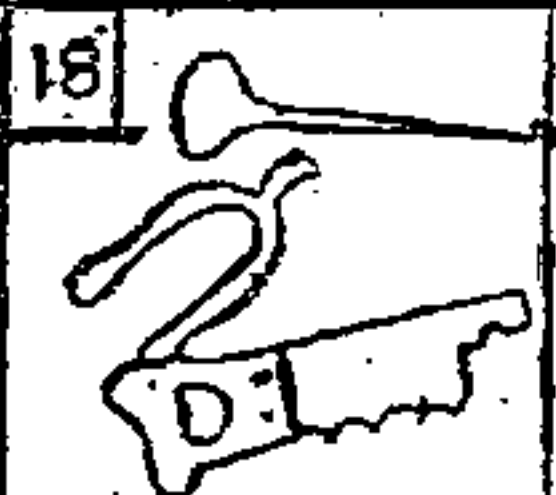
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A B C D E
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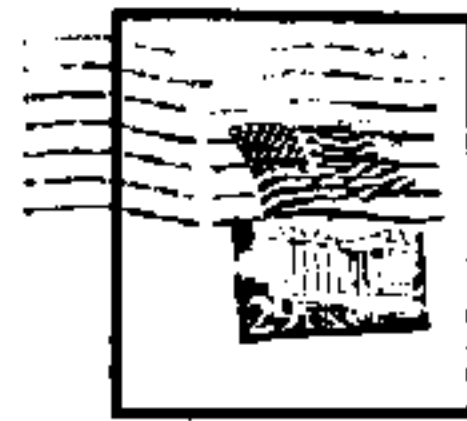


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27	28	29	25	31		



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