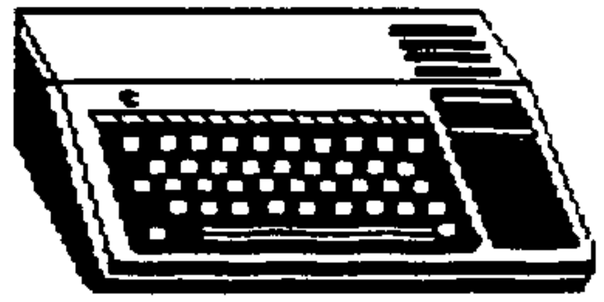
CLEVELAND AREA TI-99/4A USER GROUPS



FEBRUARY 1993

OFFICE	TI-CHIPS		MEETINGS
CO-PRESIDENT	Glenn Bernasek	238-6335	10:30 AM
CO-PRESIDENT	Virgil Thomason	1264-7779	N. Royalton
TREASURER	Lin Shaw	235-3912	County Library
MEMBERSHIP	John Parken	331-2830	State Rd. SO. of
	4172 W. 217th St.		Route 82 1/4mi
	Fairview Pk., OH 44126		EVERY THIRD SAT.
SECRETARY	Tim Bodenmiller	234-4297	
DISK LIBRARY	Matt Andel	676-9759	February 20,1993
TAPE & MODS	John Parken	331-2830	"NOTE TIME ABOVE"
HARD COPY	Harry Hoffman	631-2354	March 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 Smoley	1-257-1661	E.260th off I-90
	6149 Bryson		(South)
	Mentor, OH 44060		EVERY THIRD SAT.
SECRETARY	Bernie Zuckerman	381-4088	
DISK LIBRARY	Martin Smoley	1-257-1661	February 20,1993
TAPE & MODS	Frank Jenkins	283-8526	(Small Room)
HARD COPY	Dick Alden	1-352-9172	March 20,1993

From the Editor's Desk:

TI-CHIPS **** Note 10:30AM start time for meeting!!!

Hello TI lovers,

There's a lot of good input to this month's newsletter. Thank you Bernie, Ken, Marty, Tim, and especially Nina! Chips asked for info on what was happening at North Coast, so they could attend meetings that held their special interest. Martin Smoley will demo TI-Base on the article in this Newsletter. A chance to study it before the meeting! TI-CHIPS should give me this info in advance also, so NC has a chance to attend our meetings.

Good news for Funnel Web users! From a newsletter, comes an article that v.5 of the 40 column Editor is being used (probably Beta testing) in Australia. Can it be far from the USA?? Also rumored, that Mr. McGovern is using the SCSI card with his Hard Drive. His DSR (Disk Service Routine) must work O.K.

MICROpendium is still holding off on raising prices for a 40 page magazine. Maybe, if more people subscribed (I believe a ton of people don't) it wouldn't be necessary! This is not only the ONLY TI mag, but it is the best ever written for our computer. Anyone loving this machine of ours should want to know everything possible about it, and more is being learned every day!!

Time has a way of slipping by, at least for this editor, and so a reminder that the LIMA CONFERENCE is coming soon. Just a month and a half from now, May 14,15 1993, some of the best vendors and seminars will be at Lima. Start making your plans now, those who wish to have a great TI time!

Regarding the "Women's Point of View" column. Do you think it would be better to call it "The Beginners Page", to give everyone a chance to write an article for it? Nina would like to hear from you on this Question. Thank you!

TI-CHIPS Notes

by Chris Bodenmiller

The meeting was called to order at 10:15 with 14 members present. Lynn has moved our account to Nationwide, so that we will not have to pay a service charge. The new bank will not honor the old Cardinal check that we sent to the Newsletter Clearinghouse BBS. We will try to contact them and get them their money.

John said that the membership is holding steady. He also mentioned that the version of Telco that he passed out had a few write errors. He can get you a new one if you like. The problem was only in the part that prints the documentation.

Matt said that the disk library is doing ok (I got 17 disks), and that Funnelweb 5.0 is out for people with 80 column cards.

The club would like to give Dinny Stockdale a certificate of appreciation for his work as Co-President. He has retired this position, and we definitely appreciate all the work that he has put in to our meetings.

John has noticed that if you turn the PE-Box on its side, it looks exactly like a tower for an IBM. Glenn has already tried this, and says that it even keep the box cooler and is extremely stable. Bravo to a new idea.

Les Kee demoed his own special version of Barry Traver's XB comparer. He showed us how two files can be saved into Merge format, and then compared. The program prints out a list of the line numbers that are the same, and the ones that are different. This can be very useful in telling the difference between two versions of a program. It would certainly be a handy program to have around. Thanks Les!

Dan Williams is now demonstrating the first part of our bowling league program. He has designed and written the part of the program which sets up the variables, saves and loads data, and sets up a new league. It will keep track of nearly every kind of bowling data imaginable. This project will be a group effort, and if you would like to help, and learn a little programming, see Les Kee at the next meeting. Several ideas for the program were also brought up. The use of an escape key (like fctn-9) would be nice, but is too hard to use when you are getting input from accept at. We will also have to add some error checking (for example: no score over 300 will be accepted).

Dan also demoed a program that originally came from Home Computer magazine, which was greatly modified by his son. It was a very realistic horse racing game, and it even had animated horses. The program was very well written; however, Dan lost the race. A few people did guess the winner, and maybe Dan will win next time. Thanks for the demo.

Glenn has given the bowling team a copy of a data-base program that he wrote. I am sure that this will be of great help. Thanks for your support.

Ron said that Asgard is once again in the process of change. They are getting someone new to head up their hardware development, and have developed a new card that will give the TI more memory. This card is called the Asgard Memory System, and it will be capable of holding 5 programs in memory at once, and it will give us the ability to do multi- tasking.

Rockrunner, and a few other games by Eric Lafortune, have been released to public domain. Rockrunner requires the Editor Assembler, and the other PD program will require Mini-Memory. Ron also has 20 new fairware disks available. Have Fun!

Dan Williams won the raffle, and the meeting was adjourned. Hope to see you at the next meeting.

Respectfully submitted,

Timothy C. Bodenmiller

9900 Micro Expansion (Side-car):

RS232; 32K; DSDD Controller, also a

Corcomp .5 Meg Ram Disk.

Call: (216) 933-3354 for price. Ask for Jerry Reising

NORTHCOAST 99ers

By Bernie Zuckerman

JANUARY 16, 1993 - Co-President Walt Ryder called the meeting to order, with 21 members present. Treasurer Frank Jenkins gave the financial report, with an income of $58.77 and expenses of $64.51. The minutes of the last meeting were published in the Newsletter and they were accepted as printed.

Under old business, Walt reported that he and Ken have consulted and are preparing a list of future programs and demos so that the membership will be advised as to what is planned for future meetings. Walt read off a list of possible future programs which are carried over from last year. These include report functions of TI-Base, installing Extended Basic in the console, a label making program. The members were urged to offer programs or demos for the meetings. Gerry Reising scheduled his demo for the March meeting. For the February meeting, Bernie will try to have his demo on using the bare TI console as a burglar alarm with the Gladyszewski original electronics. If he isn't ready then Marty will demo some part of TI Base.

The status of the bulletin board in Columbus was discussed. We were advised that there is a set of discs that instruct the user how th bulletin board operates. Further information will be forthcoming. Ken and Walt discussed the re-election of officers for the coming year and were concerned that there may be members who wish to serve the club but who were not recognized. Normally there would be a nominating committee but since there were no members requesting to be office holders, Dick Alden made a motion to re-elect the 1992 slate of officers which was seconded by Chuck Poulin, and passed unanimously. For the record the officers and committee heads for 1993 are:

Co-President - Ken Gladyszewski
Co-President - Walt Ryder
Treasurer - - Frank Jenkins
Secretary - - Bernie Zuckerman
Membership - - Martin Smoley
Newsletter - - Harry Hoffman
Disk Library - Martin Smoley
Tape & Mods - Frank Jenkins
Hard Copy - - Dick Alden

All the above members agreed to serve for another year and received the thanks of the Co-President.

Frank Jenkins was complimented on the great improvement in the printing of the Newsletter followed by a round of applause. It was pointed out that Frank is printing the newsletter at about half the cost it was done previously. Regarding the articles that are published in the Newsletter a member suggested that whenever an abbreviation or new term or word is used for the first time it should be explained.

Harry Hoffman has received a copy of the Version 5.0 of Funnelweb but it is only for an 80 Column Card. The McGoverns are working on the 40 column version but it is not yet ready. There was a question as to what happened to the club's ram-disk. Ken explained that it has been installed but it had crashed. He can bring it up again but there may be a problem with charging the battery since he does not turn on the computer very often. It was suggested that a lithium battery be installed - the original Ni-Cad battery may have corroded.

The list of locations and dates for the 1993 meetings have been published in the Newsletter. Ken asked if anyone has information about a used Hardware/soft- ware Club that was mentioned in MICROpendium. A member had received information and will bring it in to the next meeting. Harry Osterman announced that the Lorain County Radio Club is holding classes for those who want to get into amateur radio.

A new roster of the club membership will be printed and brought to the next meeting for distribution. All members who wish to offer their services as advisers in any field such as programming, hardware, systems etc. are requested to let Harry Hoffman know the area they are willing to advise. This information will be printed in the newsletter so that members (and especially new owners of the T.I.) will have someone locally to contact if they need help in any area of TI computing.

The meeting was then turned over to Ken who, ever since he controlled a robot with his TI, got the bug of doing more than the usual 'computing' with his T.I. He tried to convince the membership that 'anyone can do the same thing he has done' and it is not that complicated. Not many members agreed but were fascinated with what he did. Although he started with nothing fancy (just resistors, transistors and diodes) (nothing fancy???) Ken admitted he quickly went to integrated circuits. By clever electronics and programming Ken showed how the T.I. can be used for voice recognition.

Ken explained how the joystick port can be used to control analog or digital hardware. The small pulse that the T.I. puts out when the programmer uses the Call Joystick command is sufficient to provide a trigger pulse to a transistorized circuit. A microphone, a circuit, and a program, and the T.I. obeyed Ken's voice and printed on the screen in very large characters exactly what he said. He was limited to very few words, but it worked. Using charts and the T.I. Ken explained how he was able to accomplish this feat. The club is certainly proud and lucky to have someone like Ken discovering new uses for the T.I. He invites anyone who is interested to try their hand on the many projects he has in mind; as he says, 'It's not that complicated!!!'

TI-99/4A BIOGRAPHY TIME
by Barnie Zwakarman

HOW I BECAME A T.I. USER
or
IS THERE ANY OTHER?

In 1983, when I retired, I became reinterested in computers. (My first experience with them was in 1959 when I was placed in charge of a group using the I.B.M. Ramac and then the I.B.M. 1401 main frame.) However, with funds very limited, the dollars required for the I.B.M. P.C. or the Apple IIE were out of sight. Then EUREKA! K-Mart advertised the little TI-99/4A Home Computer for $40.00 (original price $1100, then reduced to $300, then reduced to $150) - Texas Instrument was going out of the home computer business. At 8:00 A.M. the next morning (my wife, experienced shopper, suggested getting there early) I lined up with 40 other hopefuls and was one of the 20 lucky owners of a computer. Back home, attached to my old unused B/W 9" TV and with the built-in TI Basic I was soon writing programs with sound, music, graphics, and if I used the living room TV, in living color. Eat your heart out I.B.M. and Apple.

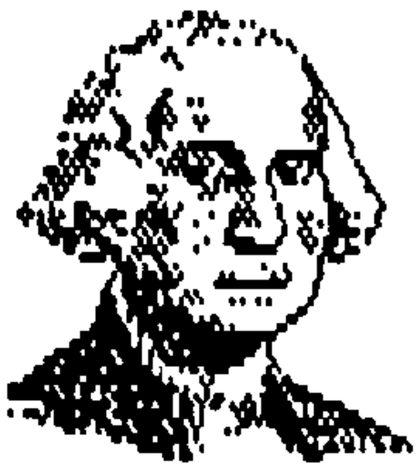
Statistics on the TI-994A are:

CHIPS - TMS 9900 16 bit microprocessor; TMS 9918A Video Display processor: TMS 9919 Sound Processor
MEMORY - 16K, expandable to 48K
STORAGE - 2 Disks, plus tape
OPERATING SYSTEM - T I O S

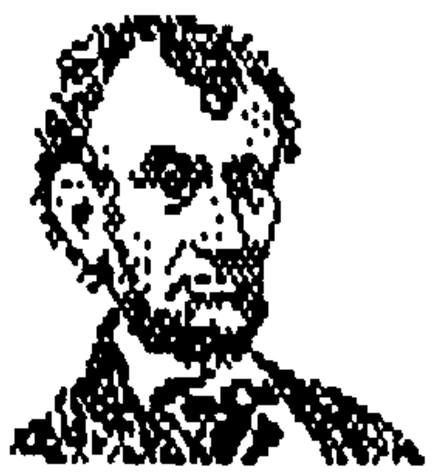
I did not appreciate the possibilities of this "Home Computer". After experimenting and using cassette tapes to store programs, I began to seek further. Again EUREKA!, a TI-994A Users Group and at the invitation of a great lady (Deanna Sheridan) I attended a meeting. Early on I was exposed to the Peripheral Expansion System, and within six months, courtesy of the then president Marty Smoley a bargain presented itself. A P.E.Box with a single sided single density disk drive and controller and a 32 K expanded memory. It was not long thereafter that I obtained dual drives and an RS232 Card with parallel and serial ports - and thrown in for good measure a word processor with the strange name "Funnelweb". Further on I added a printer (courtesy of my son), an extended basic cartridge, a speech synthesizer, joy sticks, a 300 Baud Modem, and finally Microsoft Multiplan (A spread sheet as good as Lotus 1-2-3).

Since speed of computing is not essential to a retired engineer, I let my little old TI-994A grind away on purchased and self written programs, and enjoy the challenge at 1/10th the cost of the I.B.M. PCs and Apples.

There is one problem. I have since been introduced to MSDOS (with the bootstrap programs IBMDOS, IBMBIOS, COMMAND COM, CONFIG SYST, and AUTOEXEC.BAT) I am beginning to think that the other computers really do have a future. If I succumb to the PC, XT, PS/2 syndrome I will find that they are not compatible to my TI-99/4A. Then what do I do?



We thank Dan Davenport, Former President of North Coast 99ers, and James "Jim" DeLaney for letting us know when there are great bargains for DSDD drives and disks! Check out this IBM place of business:
DIGITAL ONE
7601 Mentor Ave.
Mentor, OH 44060
Phone: 1-951-8088



Feb. 22nd Feb. 12

NorthCoast 99'ers

TI-Base Meeting Demo


```
*   CF to update DISKLIB4  and print
*    a report on the NorthCoast disk
*    Library transactions to date.
*
*              filename = DISKLIB4/C
CLOSE ALL
USE DSK7.DISKLIB4
SET LSPACE=500
CLEAR LOCAL
LOCAL SUB_BAL N 7 2
LOCAL SUBDISK N 7 0
LOCAL TCASH N 7 2
LOCAL TMSCHK N 7 2
LOCAL TNCCHK N 7 2
LOCAL TPOSTG N 7 2
LOCAL TDSKCST N 7 2
LOCAL TDIN N 5 0
LOCAL TDOUT N 7 0
LOCAL TODAY D 8
REPLACE TODAY WITH .DATE.
 CAL HEADER C 65
REPLACE HEADER WITH "␣x1Disk Library ";
 "Report␣W1␣w1␣G  NorthCoast 99'ers";
 "␣W0␣w0␣x0"
BOTTOM
  WHILE (SPACE = "      ")
   MOVE -1
  ENDWHILE
REPLACE SUB_BAL WITH BALANCE
REPLACE SUBDISK WITH DISK_BAL
 MOVE
  WHILE .NOT.(EOF)
REPLACE BALANCE WITH SUB_BAL + CASH;
 + MSCHECK + POSTAGE + DISKCOST
REPLACE SUB_BAL WITH BALANCE
REPLACE DISK_BAL WITH SUBDISK + DISK_IN;
 + DISKS_OUT
REPLACE SUBDISK WITH DISK_BAL
REPLACE SPACE WITH "<--    "
 MOVE
  ENDWHILE
*
SUM CASH TO TCASH
SUM MSCHECK TO TMSCHK
SUM NCCHECK TO TNCCHK
SUM POSTAGE TO TPOSTG
SUM DISKCOST TO TDSKCST
SUM DISK_IN TO TDIN
SUM DISKS_OUT TO TDOUT
*
```


The Command File you see on these pages is one long CF. It should be broken into two or three smaller CFs, but I didn't plan it, I just mish moshed it together. In other words, I didn't start out with a plan, I just wrote a small CF, then I added a couple pieces, added another piece, took out something, added something, etc. For that same reason the programming is also a little messy, but it works for me and it will make a reasonable demo. Why did I explain all that, because people tell me, "I can't handle those big programs". Well I don't even try big programs. I start with a small piece, see if if works, and keep adding small pieces to that until I have a large CF that works. The (that works) part can be hard sometimes. Note: I edit CFs in FunnelWeb. If you use TI-Bases Modify Command, you will need to make at least three smaller CFs from this big one and run (or DO) the second and third CF from the first. I chose this CF because I receive quit a few questions about printing reports with TI-Base.

This CF opens (or USEes) the Database named DISKLIB4, completes the math work, and prints a report (bottom next page) of all transactions and balances to date. The Structure for DISKLIB4 is listed to the right so you can see all the field and LOCAL names I am using.

```
* CREATED 08/11/90 CHANGED 01/31/93
* FIELD  DESCRIPTOR  TYPE  WIDTH  DEC
*   1    DATE         D     008
*   2    NAME         C     025
*   3    ITEM         C     010
*   4    CASH         N     007    02
*   5    MSCHECK      N     007    02
*   6    NCCHECK      N     007    02
*   7    POSTAGE      N     007    02
*   8    DISKCOST     N     007    02
*   9    BALANCE      N     007    02
*  10    SPACE        C     007
*  11    DISK_IN      N     004    00
*  12    DISKS_OUT    N     004    00
*  13    DISK_BAL     N     004    00
*        000 1 DISKLIB400000/00004
```

"OK!" The first thing I do (for safety) is to CLOSE ALL open databases. The next thing (USE DSK7.DISKLIB4) is to open the Database (Db) I really want. SET LSPACE=500 expands the space where TIB can store things from the normal 256 bytes to 500. As you can see I have a bunch of LOCALs. CLEAR LOCAL is very important, it tells TIB to perform the SET LSPACE task, without it the LSPACE will remain the same size. The bunch of lines that start with LOCAL create individual spaces within TIB. The name, such as SUBDISK or TDIN, lets TIB, and you, keep track of the data stored in those LOCALs. Most of the LOCALs are Numeric, signified by a N, with the numbers after that specifying the number of columns and the decimal places from the right. The first REPLACE command puts the date you typed in at the startup of TIB into TODAY. The second REPLACE puts my page heading information into HEADER. The next seven lines make up a small program unit.

If you look at the printout you will see a "<-- " in the SPACE column. When entering (or APPENDing) new data in the DISKLIB4 Db, I leave the SPACE column blank. TIB uses this information by going to the BOTTOM of the Db and backing up until in finds a "<-- ", or anything else for that matter, and stops. Because TIB should now be looking at the last field that was totaled, I tell it to pick up the cash and disk balances and save them to SUB_BAL and SUBDISK. Then TIB MOVEs to the next record, which should be the first record which requires math totals. I go to the BOTTOM and back up because there will, most likely, be less untotaled records than totaled. The next WHILE loop MOVEs through the rest of the Db and calculates the BALANCE and DISK_BAL fields. This is all addition because I wanted to see, at a glance, the incoming and outgoing money on the report. Because minus signs work best for me, totals must then be done by addition. You should notice that the last thing TIB does before the MOVE command is to put "<-- " into the SPACE field. The "<-- ", also works well for me visually, and if I want to recalculate part of the Db, I can type (at the dot prompt) REPLACE SPACE WITH " " ;FOR DATE > "01/04/93". This would blank the SPACE field for all dates later than 01/04/93 and I could rerun the report and totals.

NorthCoast 99'ers

Here is the rest of the DISKLIB4 Command File (CF).

```
SET RECNUM OFF
SET HEADING OFF
 PRINT HEADER,TODAY,(LF)
 PRINT (Drft),(E),(78-),(f),(LF)
SET RECNUM ON
SET HEADING ON
 PRINT ALL
SET RECNUM OFF
SET HEADING OFF
 PRINT (LF),(24 ),"Totals through  ",;
TODAY,"  ",TCASH,TMSCHK,(8_),;
TPOSTG,TDSKCST,BALANCE,(7~),TDIN,TDOUT,;
(5 ),DISK_BAL,(LF)
 PRINT "Checks made out to the ",;
"NorthCoast 99'ers go directly to ",;
"Frank J.    ",TNCCHK,(LF)
 PRINT (Drft),(E),(78-),(LF)
IF BALANCE < 0
 PRINT "      Current cash deficit.... ",;
BALANCE,(LF)
 ELSE
  PRINT "      Current cash balance";
".... ",BALANCE,(LF)
ENDIF
IF DISK_BAL < 0
  PRINT "      Current disk deficit ";
"is... ",DISK_BAL,(LF)
 ELSE
  PRINT "      Disks currently on ";
"hand. ",DISK_BAL,(LF)
ENDIF
  PRINT (78-),(LF)
 CLOSE ALL
SET LSPACE=256
CLEAR LOCAL
 SET RECNUM ON
 SET HEADING ON
RETURN Copyright Martin A. Smoley 1993
```

The seven lines that begin with SUM do just that. They up all of the records in the Db under the field names (CAS. MSCHECK, etc.) and place each total in a particular local (T TCASH, TO TMSCHK, etc.). Those totals will be used in the printout or report.

That brings us to the report printing part of the CF, whic is all the stuff on this page. First I turn the RECNUM and HEADING OFF. Then I print the top line of my report which consists of all the stuff that I previously stored in HEADER followed by the current date which I stored in TODAY, plus a Line Feed (LF). Next I PRINT (Drft), which is a TIB command like (LF), that sets all previously sent printer commands back to Draft quality. The (E) resets the printer to Emphasized mode. The (78-) prints a line of 78 dashes. The (f) sets the printer to Condensed mode, and last but not least, another Line Feed. After that I turn the RECNUM and HEADING back ON. The statement PRINT ALL prints all of the data in the Db. In this case the printout will include the HEADINGs across the top and the RECord NUMbers down the left side. Now I turn the RECNUM and HEADING OFF again. This keeps the report neet. Now I print a (LF), twenty-four spaces (24), the phrase "Totals through ", the date (TODAY), two more spaces (" "), TCASH, TMSCHK, underline eight spaces (8_), TPOSTG, TDSKCST, BALANCE, seven tildes (7~), TDIN, TDOUT, five spaces (5), DISK_BAL and a line feed (LF). Yes, that is all one line and you can see it on the printout starting with "Totals through". The next line is a lot simpler. PRINT the phrase "Check made out to the NorthCoast 99'ers go directly to Frank J. " and then TNCCHK (which stands for Total NorthCoast CHecKs) finished off with a (LF). For no real reason, at that point, I throw another line across the page almost the same as I did before. Now I need to make some desisions. IF the cash BALANCE is less than zero (< 0) I PRINT " Current cash deficit.... " and then the BALANCE. Otherwise (or ELSE) it should be equal to or greater than zero, so I PRINT " Current cash balance.... " and the BALANCE. I ask the same question for DISK_BAL. Is the total in that variable less than zero? If it is I print the deficit phrase and DISK_BAL, otherwise (ELSE) I print the "on hand" phrase and DISK_BAL. NOTE: All of these lines are followed by a (LF). After that I Print another line of dashes, CLOSE ALL Dbs, SET the LSPACE back to what it was (remember the CLEAR LOCAL), SET RECNUM and HEADING back ON and RETURN.
Note: Remember that all IF statements must have an ENDIF just as all WHILEs must have an ENDWHILE.

Disk Library Report **NorthCoast 99'ers** 02/02/93

REC	DATE	NAME	ITEM	CASH	MSCHECK	NCCHECK	POSTAGE	DISKCOST	BALANCE	SPACE	DISK_IN	DISKS_OUT	DISK_BAL
0000	01/03/93	New NOCO Records for 1993	1992 Bal.	-.97	.00	.00	.00	.00	-0.97	<--	8		8
0001	01/04/93	Renewal etc. Postage	Membership	.00	.00	.00	-2.90	.00	-3.87	<--			8
0002	01/31/93	Martin A. Smoley Club	Renewal	15.00	.00	.00	.00	.00	11.13	<--			8
0003	01/31/93	Renewal etc. ->Postage<-	Membership	.00	.00	.00	-2.90	.00	8.23	<--			8
		Totals through	02/02/93	14.03	0.00	_____	-5.80	0.00	8.23	-------	8	0	8
Checks made out to the NorthCoast 99'ers go directly to Frank J.						0.00							

Current cash balance.... 8.23
Disks currently on hand. 8

A Public Domain Announcement

The Future of TI Gaming
by
Timothy C. Bodenmiller

It is becoming increasingly easier to make your own program, and this will mean faster developement time, and more software for you, the TI user. There are programs that do everything from converting your Music Maker files into programming code, to program compressors, and character editors. The next step in TI gaming is not just more, and better games, but entirely new types of games that have never been available on your TI.

The TI computer may sit modestly on your computer desk, but inside, there are all kinds of wonderful features. Many of these have been used to such a limited degree, that they are virually unkown to TI'ers. Hopefully, we will be able to bring these capabilities out into the open, where they can be used.

The first of these capabilities is screen scrolling. This has been used only in the most limited sense in a few games, but you have probably seen it done many times with text. Many editors now scroll the screen smoothly, instead of the old TI-Writer 20 column hops. But did you know that you can do the same thing with graphics! Yes, I mean full color graphics. In past games, like Parsec by TI, the part of the screen that was scrolled could only be in two colors, but if anyone noticed, Rock Runner scrolled a screen with more colors than that! This is because it scrolled the screen by moving entire characters, this does make the movement a little jerkier, but if it is done fast enough, it can look beautiful.

I am releasing an assembly routine which can be called from Basic, which will scroll the entire screen, to the right or to the left, and it can do graphics! This routine may be used by you in your programs, be they commercial or otherwise, at no cost to you. I do not ask for any type of compensation, but it would be nice if you would give me a complimentary copy of anything you develop with the routine.

The routine starts by passing a line of text or graphics, which is to be placed on the screen, and a variable which tell the program which way to scroll. The assembly program saves the information on which characters are in which screen positions into another location, it then redisplays them moved over one space to the left or right. Finally it prints the line of text or graphics that is coming on to the edge of the screen, horizontally, at the left or right side (depending on which way you are scrolling). It then returns to XB.

The disk also has some other XB subprograms on it, but it is primarily geared towards programming graphics. Even if you aren't into programming, it may be worth it to see this screen scrolling demo, just to see what your TI will be doing in the future. Keep computing, and most importantly, have FUN with your TI!

Editor's note;

If you want this disk of material, send a disk and mailer with at least 50 cents postage to:

Timothy C. Bodenmiller
43 Monroe St.
Berea, OH 44017

I HOPE ALL YOU GENTLEMEN OUT THERE DID BETTER THAN HARRY FOR YOUR LOVED ONES! THERE IS NO DOUBT THE WOMEN REMEMBERED THEIR MEN JUST FINE!

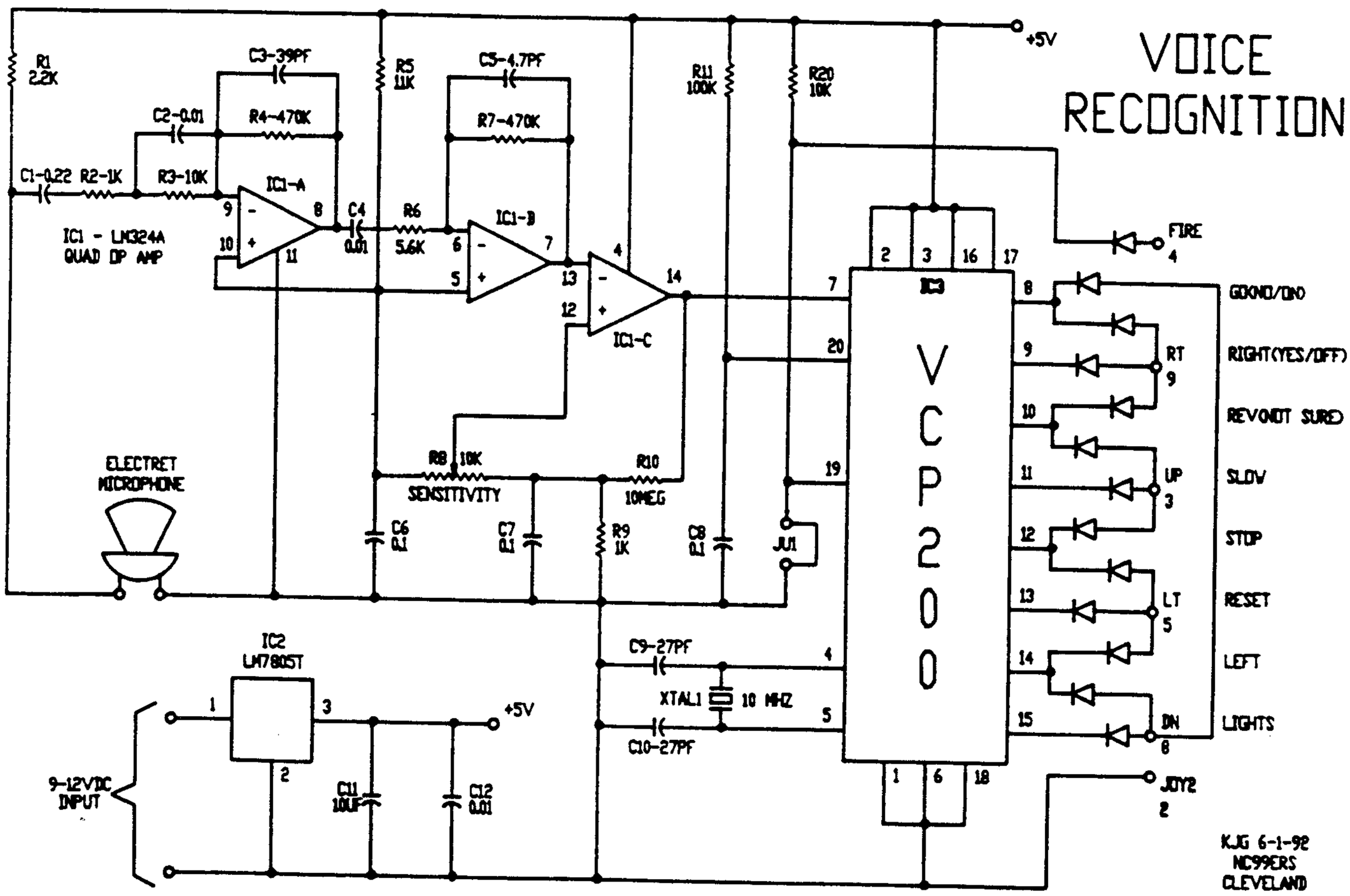
A Woman's Point of View

HELLO.

I hate to start the new year out with a negative column, but if I am going to write honestly, I have to admit my first encounter with the fundamental basics of the computer was not a happy one. The main problem was I already had some knowledge of working on the computer,so that starting at the very beginning left me frazzled. For some unknown reason the computer and I did not blend together as happy campers. I would type something and lo and behold there was an error. Using my knowledge of FUNCTION 9 and CONTROL 2 I made more of a mess because nothing happened, as I found out later I was in a different program. Another main problem was that I did not understand the directory. It was all greek to me. Needless to say I was discouraged, and felt very stupid. As a result the computer and I were enemies hopefully never to meet again.

However, destiny has a way of working things out, after all, to master the computer was one of my resolutions for the New Year. We had company over for the Holidays and the conversation turned to, what else, but the DREADED COMPUTER. And guess what, I wasn't so dumb after all. We all had experienced the same trouble at one time or another. We were all in different stages of mastering the computer and of course their input helped me to see I wasn't a blithering idiot, only a person learning about the computer. My husband, who was trying to be my tutor, was really pretty patient with me and we came up with what we hope will be a solution to my problem. Tune in again next month to see if I have faced the dreaded enemy and won at least one battle. My hats off to all of you who have made the computer your friend. If you have any suggestions or comments please feel free to send them to me as I am open to your help and support.

Schematic below is for article on next page.....



LIMITED VOICE RECOGNITION AND THE TI

The ability to recognize voice electronically has existed for a number of years and is no stranger to the TI99. Back in the early 80's such a feature was included with the Milton-Bradley Expansion (MBX) system, which debuted just before TI's pullout. This system, which was a real breakthrough in the home computer market, had an analog joystick and used voice recognition as an enhancement to game cartridges such as Baseball. In my recollection, these features were only usable with special cartridges and could not be used any other way, such as with "BASIC" programs.

The type of speech recognition employed in the MBX system was of the "Speaker Dependent" variety. This type requires the user to teach the computer to recognize how the speaker pronounces a command. The computer does this by breaking down the command into 'phonemes' which are small units of sound that make up words and stores them in memory as patterns. By comparing these stored patterns against random speech the computer can recognize a command when a match is made. To achieve a high rate of success with a speaker dependent system requires computer systems with large amounts of memory and consequently very fast microprocessors to analyze vast amounts of data.

The other type of speech recognition is called "Speaker Independent" in which the system recognizes a command when spoken by anyone. This is a very difficult task that uses the principle that all speakers have certain similarities in their pronunciation, but it has the advantage of needing less memory. To achieve any reliability, the commands must be unique sounding so as not to be confused with other similar sounding commands.

I became interested in the subject of voice recognition when I discovered a single 20 pin integrated circuit (IC) had been developed by Voice Control Products (VCPI) as the VCP200 and that this chip was being sold by Radio Shack as part No. 276-1308. I limited my interest until Radio Shack discontinued them some time ago. They have disappeared from Radio Shack shelves but have been showing up at Ham Fests and can still be bought from:

VCPI
450 Pacific Street,
Suite 320
Monterrey, CA 93940
Tel.(408) 647-1502

I have a very limited supply that I will offer to interested Hardware Hackers at the Lima Conference.

This chip as supplied by Radio Shack came with a reprint of the literature supplied by VCPI. The information shows a simple circuit using only one other IC and a small amount of other components, detailed in a parts list and even has the foil patterns to make a printed circuit board. What more could a person ask? Well, unfortunately, my first attempt to build a working circuit failed! It was at this point that I remembered seeing a similar project in the April '91 issue of Radio Electronics. Coincidentally, they used the same chip and almost the same circuit. More importantly, they filled in the missing pieces including a description of the operation and as an added bonus, the fact that the chip can recognize additional commands.

The chip recognizes a total of 12 commands in 2 groups, 8 in the first mode: GO, RIGHT, REVERSE, SLOW, STOP, RESET, LEFT, and LIGHTS. In the alternate mode: "NO" or "ON", and "YES" or "OFF". I have suspected that this chip was designed for a toy robot and only recently that the robot is made by Capsela, sold by Herbach and Rademan of Bristol, PA.

The magazine article is very well written and is the basis of much of the information provided here. I highly recommend reading it before attempting to use this chip.

After I had a working circuit, I realized the TI could be interfaced thru the joystick port to 'read' the outputs of the chip. This is possible because the VCP200 has a single output which goes low for each recognition command. The outputs are interlocked within the chip so only one output can be on at a time. By using a number of diodes, these outputs are coupled to one or more of the joystick inputs in "legal" combinations, for example, if the "STOP" command has been recognized by the VCP200, pin 12 will be low, causing an input to the joystick "UP" and "LEFT" pins. A "CALL JOYST(2,X,Y) will return a value of -4 in X and +4 in Y.

The mode of the chip is governed by the presence or absence of the jumper (JU1).

The computer can determine the mode thru a CALL KEY(2,K,S) command with a value of 19 for K when the jumper is in.

This circuit could be improved by using a microphone with a "Push-to-Talk" switch to eliminate false outputs due to background noise or the computer could be made to control the chip mode by use of a flip-flop controlled by use of a CALL JOYST 1 or 2 command.

As I've said before, if anyone finds this interesting and would like to ask questions or anything - please write me at:

Ken Gladysewski
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Concord, OH 44077

Until then, I'll continue my endeavers. I hope to have all projects I've written about plus new ones at the Lima Conference this year but will probably NOT do a formal presentation.

WANTED: Non-working or unwanted TI hardware at reasonable cost. Contact Ken at address in article!

Cleveland Area User Groups
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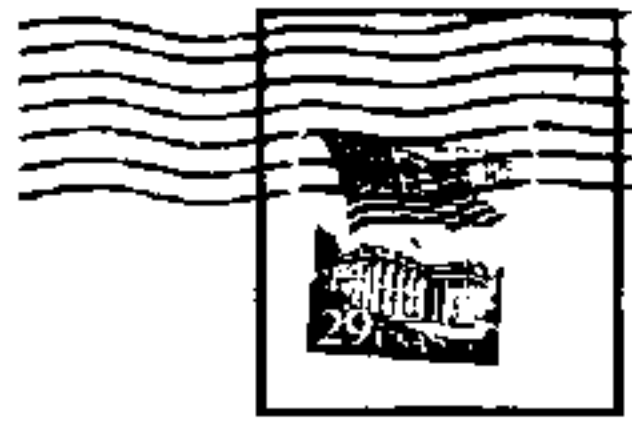

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