



# BYTE-LINE



March 1993

Note from the President....

**\*\* THIS MONTH \*\***

This month's meeting will be on March 18, 1993, at First Congregational Church. *Please use the south door, go down the stairs and turn to the right (2nd grade class room).* The program this month will be Calendar Creator Plus given by George Kornfeld. Calendar Creator Plus has developed into a very nifty program. Now, version 5.01 is mouse supported. The Program(CCPlus) can generate a daily, weekly, monthly, 3 month, or year calendar. The CCPLUS also be used with large selection of printer, even color. Pictures can be added to the calendar to give it a personal touch.

**\*\* LAST MONTH \*\***

Last month's meeting was on "Quattro Pro for windows" given by Steve Thorpe. As usual, Steve did a good job with giving the member a quick look at a very complicated program. One cannot learn this program in an hour and half. Steve pointed out that this program is being sold for \$99 till the end of the month by the publisher.

For those at the meeting, Harry Young was given a free copy of "Managing Your Money" by the publishers of the program. The program was won by Steve Thorpe in a drawing.

**\*\* NEXT MONTH \*\***

April and May are open to suggestions of programs the members would like to see. Also, TI members, let Charles Stringer know what you would like to see.

**\*\* \$\$\$\$ \*\***

Remember if you have not renewed, your membership is due. The Due are twenty dollars.

Carol McGonigle was the winner of the 50-50 drawing. Also Steve has been bringing the microfiche containers to the meeting, these containers make a good holder of five 3 1/2 inch disks. Thanks Steve for recycling these containers.

see you at the meeting,

George

Decatur 99er User Group

Meeting was called to order at 7:00 pm on 2-18-1993

Old Business: Charles Stringer still needs T.I. software and hardware for the Magnet Schools if anyone has any thing they don't need he sure could put them to good use.

New Business: Scottie needs some help with his clone corner for the newsletter its not easy to think of something new each month. Do you have anything you could share with the rest of the club. Jerry Rothwell- needs a monitor and a low end C.P.U. (inexpensive)

Those present were

Harry Young  
Stephen Thorpe  
Chris Kornfeld  
George Kornfeld  
Jerry Rothwell  
King Forkner  
Charles Stringer  
Scottie Williford  
Carol McGonigle

The 50\50 Drawing was won by Carol McGonigle. WOW!!

The program for this month was "Quattro Pro" for windows- If you missed this one -you really missed a good program and presentation. Steve gave a very interesting demonstration on some of the things you could do and some of the ways you could use this program. Thanks Steve as usual You did a great job.

Also we had some exciting door prizes donated to the group, Steve won Managing Your Money, Harry won Back-up, Charles Stringer won Windows 3.0

We had a good time hope to see you next month.  
Meeting adjourned at 9:00pm  
Respectfully submitted  
Carol McGonigle

DECATUR 99ER HOME COMPUTER GROUP

TI99 4A AND PC COMPATIBLE

TREASURER'S REPORT

BALANCE	1/21/93	\$351.85	
RECEIPTS	2/19/93		
Raffle		5.50	
Dues (Payable 1/21/93)			
L. Mau		20.00	
EXPENDITURES	2/19/93		\$ 0.00
BALANCE	2/19/93		377.35
		\$377.35	\$377.35
BALANCE	2/19/93	\$377.35	

A. Harry Young

## RIBBONS AND INK

by Jim Peterson

In a recent article regarding the NX1020 printer, I mentioned that Midwest Micro was selling ribbons for that printer at \$3.98 each in lots of six. I ordered six of them.

When I put in the first one and tried to print something, the chatter clutch on the printer made a terrible racket. The spindle of the cartridge was stuck tight, would not budge.

I put in another one, and tried again. It printed beautifully for several pages, then I noticed that it had stopped putting anything on the paper. The spindle was turning but the ribbon was not moving.

I called Midwest Micro and they, a bit reluctantly, gave me a return authorization for all six ribbons.

In the meantime, I had called V-Tech Inc. and talked to a very knowledgeable man about reinking ribbons. He sent me a 2 oz. bottle of V17R roller ink, which he recommended, for \$2.90 plus \$1.80 shipping. That should be enough to last longer than my printer.

He also sent an instruction sheet which states that original ribbons and good quality replacement ribbons have a woven seamless ribbon loop, but that replacement cartridges from MEI, Fullmark and Midwest Micro have a poor spliced loop (Midwest Micro calls it "electronically welded") and are not worth reinking.

V-Tech also sells a very wide variety of ribbon cartridges at very reasonable prices, as well as reinking machines, etc. They also have replacement ribbons; a woven loop ribbon for the Star NX-1020 is only \$1.50, a 42 ft. welded loop 4-color ribbon for the NX-1020R is only \$3.50.

I found it very easy to re-ink an NX-1020 cartridge; just use a knife blade to pry it open, and apply ink to the foam roller. However, there is a strip of tin in there which can fall out, so keep the cartridge flat on the table as you are opening it.

You must saturate the foam roller with ink--it soaks in very slowly-- and you must run several pages of printing

through before the ribbon will be inked and printing evenly.

The address of V-Tech Inc. is 2223 Rebecca, Hatfield PA 19440. The phone number is (215) 822-2989.

## NEWS OF THE TI LIBRARY

HAVE YOU EVER HEARD your computer sing? I hadn't either, until a few days ago, when I came across THE SINGING TI. It's a public domain program which appears over the name of Terry Atkinson of Dartmouth, Nova Scotia. The documentation acknowledges a debt to TRIO+ Software, to several well known programmers of the TI world for the use of programming utilities, and to Texas Instruments itself for permission to use the 'TEXT-TO-SPEECH' file.

The result is unique, I think. Little children will love to hear a voice which can only be Kermit the Frog singing 'IN AN OCTOPUS'S GARDEN', and even grownups will listen. But what sounds charming for a children's song sounds merely ridiculous when the song has an adult theme, as do the other three songs of this package.

There's no denying that the program must have required a great deal of work. It's too bad that Terry didn't stick with children's songs, for which Kermit's voice is suited. As for the love songs, I'm reminded of what has been said of a dog walking on his hind legs: "It is not done well; but you are surprised to find it done at all."

Through the generosity of one of our members, the Library is the richer by about a dozen 'disks-of-the-month' of a well known club. There's a rich variety here--from THE SINGING TI to CADMASTER (a computer-aided drafting program), utilities of all sorts (including the very latest version of DM1000--v6.1), games, a sound digitizer that operates through the cassette port, TI music and MIDI-port music, TI-ARTIST files, and a great deal more. One special goodie--John Guion's CONSOLE REPAIR MANUAL!

The March meeting will be fluid in structure. We'll have a bash at whatever those present want to do. If you want something special, let me know ahead of time--otherwise it's potluck. If you have a favorite program you'd like to demonstrate, fine!

9 March 1993

CS Stringer

TIPS FROM THE TIGERCUB

No. 69

Tigercub Software  
156 Collingwood Ave  
Columbus OH 43213

My three Nuts & Bolts disks, each containing 100 or more subprograms, have been reduced to \$5.00 each. I am out of printed documentation so it will be supplied on disk.

My TI-PD library now has almost 600 disks of fairware (by author's permission only) and public domain, all arranged by category and as full as possible, provided with loaders by full program name rather than filename, Basic programs converted to XBasic, etc. The price is just \$1.50 per disk(!), post paid if at least eight are ordered. TI-PD catalog #5 and the latest supplement is available for \$1 which is deductible from the first order.

In Tips #68 I published my solution to Dr. Ecker's challenge to alternately assign X the value of A and B without using IF...THEN or any outside help. Computer Monthly has arrived again and his solution is better than mine. Try it with any two numbers:

```
100 A=2.765 :: B=-10
110 X=A+B-X :: PRINT X :: GO
TO 110
```

There has been controversy for years as to whether the TI's psuedo-random number generator is truly random. Dr. Ecker's "Computer Fun & Learning" column in Computer Monthly had a question--if you randomly generate numbers between 0 and 9, how often will you get the same number twice in succession? Three times in succession? And etc. Since there are 10 numbers to choose from, it seems to me you would get 2 in a row 10% of the time, 3 in a row 1% of the time, 4 in a row .1%, etc. I wrote this to prove it:

```
PRINT X:: IF X=F THEN FL=F
L+1 :: CL(FL)=CL(FL)+1 :: PR
INT "":FL;"=":CL(FL):"C=":C:
"%=":CL(FL)/C :: GOTO 110 EL
100 RANDOMIZE
110 C=C+1 :: X=INT(RND*10)::
PRINT X:: IF X=F THEN FL=F
L+1 :: CL(FL)=CL(FL)+1 :: PR
INT "":FL;"=":CL(FL):"C=":C:
"%=":CL(FL)/C :: GOTO 110 EL
SE FL=0 :: F=X :: GOTO 110
```

After 10,000 tries, I had 2 in a row 8.75% of the time and 3 in a row .83% and 4 in a row .07%. Does that prove anything? I don't know. (Dr. Ecker points out that those percentages could not ever quite add up to 100%!

Here is another of my XBasic programs to write assembly source code:

```
100 DISPLAY AT(2,1)ERASE ALL
:"ASSEMBLY HELP SCREEN WRITE
R":": This program will wr
ite the": "source code for an
assembly": "routine which ca
n be linked"
110 DISPLAY AT(7,1): "from Ex
tended Basic to dis-": "play
any one of several help": "sc
reens at any designated": "ke
y press or input at any": "po
int in a program."
120 DISPLAY AT(12,1): "The o
riginal source code,": "autho
r unknown, was improved": "by
Karl Romstedt and further":
"modified by Bruce Harrison.
"
130 DISPLAY AT(20,1): "How ma
ny help screens?" :: ACCEPT
AT(20,24)SIZE(1)VALIDATE(DIG
IT)BEEP:N
140 FOR J=1 TO N :: H$=H$&"H
ELP"&STR$(J)&" " :: NEXT J :
: H$=" DEF "&SEG$(H$,
1,LEN(H$)-1)
150 DATA VMBW EQU >2024,V
MBR EQU >202C,KSCAN EQU
>201C,STATUS EQU >837C
160 OPEN #1:"DSK1.HELP/S",OU
TPUT :: PRINT #1:H$ :: FOR J
=1 TO 4 :: READ M$ :: PRINT
#1:M$ :: NEXT J
170 FOR J=1 TO N :: H$="HELP
"&STR$(J):: PRINT #1:H$&" L
WPI WS": " LI R13,HEL
PS"&STR$(J)
180 IF J<N THEN PRINT #1:"
JMP SAVSCR"
190 NEXT J :: H$=RPT$(" ",7)
200 PRINT #1:"SAVSCR CLR RO
":H$&"LI R1,SAVIT":H$&"LI
R2,768":H$&"BLWP @VMBR":H$
&"LI R9,NEWSCR":H$&"MOV R
9,R1":H$&"MOV R2,R4"
210 PRINT #1:H$&"LI R3,>60
00": "ADDOFF MOVB #R13+,#R9":
H$&"AB R3,#R9+":H$&"DEC R
4":H$&"JNE ADDOFF":H$&"BLWP
@VMBW"
220 PRINT #1:"KEYLOD BLWP @K
SCAN":H$&"BLWP @KSCAN":H$&"C
B @ANYKEY,@STATUS":H$&"JNE
KEYLOD"
230 PRINT #1:"REPL LI R1
,SAVIT":H$&"BLWP @VMBW": "RET
N LWPI >83E0":H$&"B @>6
A"
240 PRINT #1:"WS BSS 32
": "SAVIT BSS 768": "NEWSCR
BSS 768": "ANYKEY BYTE >20":
H$&"EVEN"
250 DISPLAY AT(3,1)ERASE ALL
:" Enter data just as you": "
want it to appear, in 24": "l
ines. Press Enter for blank"
:"lines."
260 FOR J=1 TO N :: DISPLAY
AT(12,1): "Ready for screen #
"&STR$(J): "": "Press any key"
270 CALL KEY(0,K,S):: IF S=0
THEN 270 ELSE CALL CLEAR
```

```

280 ACCEPT AT(1,0):M$ :: PRIN
NT #1:"HELPS"&STR$(J)&" TEXT
' "&M$&RPT$(" ",30-LEN(M$))
&" "
290 FOR K=2 TO 24 :: ACCEPT
AT(K,0):M$ :: PRINT #1:H$&"T
EXT ' "&M$&RPT$(" ",30-LEN(M
$))&" "
300 NEXT K :: NEXT J :: PRIN
T #1:H$&"END"
310 DISPLAY AT(3,1)ERASE ALL
:" Source code has been writ
-":"ten to DSK1 as HELP/S. T
o":"assemble, insert Editor/
":"Assembler module."
320 DISPLAY AT(7,1):"Insert
Assembler disk in drive 1
.":"Select 2 ASSEMBLER":"Loa
d Assembler? Y":"Source file
name DSK2.HELP/S"
330 DISPLAY AT(12,1):"Object
file name? DSK2.HELP/O":"Li
st file name? Press Enter":"
Options? R"
340 DISPLAY AT(15,1):"Load t
he resulting object":"file i
nto your program by":"CALL I
NIT ::":"CALL LOAD("DSK1.HE
LP/O") or,"
350 DISPLAY AT(19,1):"much b
etter, imbed it with":"ALSAV
E or SYSTEX."
360 DISPLAY AT(21,1):"Access
the screens in your progra
m by":" CALL LINK("HELP1")
","CALL LINK("HELP2"), etc
"
370 CALL KEY(0,K,S):: IF S=0
THEN 370 ELSE CALL CLEAR

```

For instance, at any point in a program where keyboard input is required and user may not know what to do:

```

ACCEPT AT(24,1):M$ :: IF M$=
"HELP" THEN CALL LINK("HELP1
")

```

and the first help screen will pop up to give instructions. Press any key and the previous screen reappears.

This time I am borrowing heavily from the TI#MES news letter of England, which has also borrowed from the REC newsletter.

This one is useless, but is a remarkable example of compact complex programming. It shows that there is an algorithm for everything. See if you can figure out how it works:

```

100 CALL CLEAR :: FOR A=1 TO
2 :: FOR B=1 TO 4 :: X=2-AB
S(SGN(B-3)):: FOR C=1 TO X :
: PRINT CHR$(84-7*A+5*B-8*X)
::: NEXT C :: NEXT B :: PRIN
T CHR$(A+31):: NEXT A

```

Another useless one that is easier to figure out:

```

100 DISPLAY AT(1,1)ERASE ALL
:"NUMBER OF MONTH(1-12)"

```

```

110 ACCEPT AT(2,12)SIZE(2)VA
LIDATE(DIGIT):A :: IF A<1 OR
A>12 THEN 110
120 DISPLAY AT(3,1):A;"x 4="
:A*4 :: A=A*4
130 DISPLAY AT(4,1):A;" +13="
:A+13 :: A=A+13
140 DISPLAY AT(5,1):A;"x 25="
:A*25 :: A=A*25
150 DISPLAY AT(6,1):A;"-200="
:A-200 :: A=A-200
160 DISPLAY AT(8,1):"Input d
ate (1-31):" :: ACCEPT AT(8,
19)SIZE(2)VALIDATE(DIGIT):B
:: IF B<1 OR B>31 THEN 160
170 DISPLAY AT(10,1):A;"+";B
;"=";A+B :: A=A+B
180 DISPLAY AT(11,1):A;"x'2="
:A*2 :: A=A*2
190 DISPLAY AT(12,1):A;"-40="
:A-40 :: A=A-40
200 DISPLAY AT(13,1):A;"x 50
=";A*50 :: A=A*50
210 DISPLAY AT(15,1):"Input
last two digits of year e
g 91:"
220 ACCEPT AT(16,16)SIZE(2)V
ALIDATE(DIGIT):B
230 DISPLAY AT(18,1):A;"+";B
;"=";A+B :: A=A+B
240 DISPLAY AT(19,1):A;"-105
00=";A-10500 :: A=A-10500
250 DISPLAY AT(24,1):"ANY KE
Y FOR ANOTHER"
260 CALL KEY(5,A,B)
270 IF B<1 THEN 260
280 RUN
290 END

```

One for the little ones--change the string to anything you want.

```

1 REM SILLY PROG BY S SHAW
MARCH 1991
2 ! did you see COMPUTER WAR
S-the film? It is said that
the star, who was required t
o type fast into a computer
3 ! could not type, so a pro
gram just like this one was
used to give a good effect!
4 ! now adjust it how you wi
sh and show your friends how
fast you can type
5 ! at end of text string pr
ogram will just stop with th
is listing but can be modifi
ed to do anything you wish!
6 !
100 A$="This is how a non-ty
pist canproduce information
on screen quickly,witho
ut
110 A$=A$&"having to look at
what keys are being bashed!
Just bash keys and watch ho
w perfect text appears no m
atter what you press."
120 CALL CLEAR :: PRINT A$:
: : :
130 CALL KEY(3,A,B):: IF B<1
THEN 130
140 C=C+1 :: PRINT SEG*(A$,C
,1):: IF C=LEN(A$)THEN 160
150 GOTO 130
160 GOTO 160

```

And a very fast routine to find prime numbers:

```

100 ! FIRST 100 PRIMES
    -QUICKLY-
110 ! Dr H B Phillips
    from THE REC NEWSLETTER
    March 1988 Vol 3 #2
120 DIM P(300),X(12)
130 A=0 :: B=1 :: D=0.5 :: E
    =180
140 M=100 :: L=3 :: F=0
150 ! increase M for more- a
    lso increase DIMs.
160 PRINT 2;:: C=B :: IF M=B
    THEN END
170 L=INT((M/C)*L+F):: N=L+L
    +B
180 FOR I=B TO INT((SQR(N)-B
    )/D):: PP=P(I)
190 IF PP=B THEN 230
200 IF PP=A THEN PP=I+I+B ::
    PRINT PP;:: P(I)=PP :: C=C+
    B :: IF C=M THEN END
210 IF X(I)=A THEN X(I)=(PP*
    PP-B)*D
220 FOR J=X(I) TO L STEP PP :
    P(J)=B :: NEXT J :: X(I)=J
230 NEXT I :: IF F=0 THEN S=
    I
240 FOR I=S TO L
250 IF P(I)=A THEN PP=I+I+B
    :: PRINT PP;:: P(I)=PP :: C=
    C+B :: IF C=M THEN END
260 NEXT I :: F=(M-C)*L/E ::
    S=L+B
270 GOTO 170

```

And a demonstration of how the INTERRUPT routine works independently of whatever else the computer is doing:

```

100 REM interrupt demo
110 REM
120 REM MACHINE LANGUAGE
130 REM ROUTINE LOADED AT
140 REM >2600 XB OR E/A WITH
    32K
150 REM >7200 MINI MEM NO 32
    K
160 REM
170 CALL INIT
180 XM=9728
190 MM=29184
200 LAD=XM
210 REM TEST XB OR MM?
220 CALL LOAD(XM,170)
230 CALL PEEK(XM,X)
240 IF X=170 THEN 270
250 REM NO 32K MUST BE MM
260 LAD=MM
270 A=LAD
280 REM LOAD M/C
290 CALL CLEAR
300 FOR D=540 TO 630 STEP 10
310 CHECK=0
320 FOR N=1 TO 10
330 READ X
340 CALL LOAD(A,X)
350 CHECK=CHECK+X
360 A=A+1
370 NEXT N
380 READ X
390 IF CHECK<>X THEN 490
400 NEXT D
410 REM POKE INTERRUPT

```

```

420 REM ROUTINE ADDRESS
430 REM INTO >83C4
440 CALL LOAD(-31804,LAD/256
    )
450 REM JUST IDLE AWAY TIME
460 FOR N=1 TO 9940
470 NEXT N
480 STOP
490 PRINT "ERROR IN DATA STA
    TEMENT ",D
500 STOP
510 REM EACH DATA STATEMENT
520 REM HAS 10 DATA BYTES
530 REM PLUS A CHECK SUM
540 DATA 192,236,000,092,004
    ,194,005,131,002,131,987
550 DATA 000,060,026,003,004
    ,195,006,236,000,094,624
560 DATA 203,003,000,092,060
    ,172,000,090,006,002,628
570 DATA 017,015,019,010,006
    ,002,019,004,002,000,94
580 DATA 002,039,010,083,016
    ,002,002,000,002,086,242
590 DATA 096,003,016,007,002
    ,000,000,119,010,083,336
600 DATA 016,002,002,000,000
    ,072,160,003,002,096,353
610 DATA 064,000,006,192,215
    ,192,006,192,215,192,1274
620 DATA 016,000,216,044,000
    ,094,140,000,004,091,605
630 DATA 000,015,000,000,138
    ,128,000,000,000,000,281
640 END

```

Run that, then press FCTN 4. Enter LIST. Enter NEW. To stop it, enter BYE.

This is an oldie, but well worth repeating. You can use it to turn your cassette recorder on and off, to add speech or music from tape to a running program. With the proper hardware, you could write a program to control almost anything from the cassette port. If it doesn't work, reverse the polarity of the remote. Ed Hall wrote this:

```

100 CALL INIT
110 CALL LOAD(16368,79,70,70
    ,32,32,32,36,252)
120 CALL LOAD(16376,79,78,32
    ,32,32,32,36,244)
130 CALL LOAD(8194,37,4,63,2
    40)
140 CALL LOAD(9460,2,12,0,45
    ,29,0,4,91,2,12,0,45,30,0,4,
    91,203,78)
150 PRINT "PRESS":" P Play":
    "B Stop"
160 CALL KEY(3,A,B)
170 IF BK1 THEN 160
180 ON POS("PS",CHR$(A),1)+1
    GOTO 160,190,200)
190 CALL LINK("ON"):: GOTO 1
    60
200 CALL LINK("OFF"):: GOTO
    160

```

And that is just about--

MEMORY FULL!

Jim Peterson



George Konrad.....President  
Charles Stringer.....Vice president  
Aubrey Johnson.....Vice president  
Carol McGonigle.... Secretary

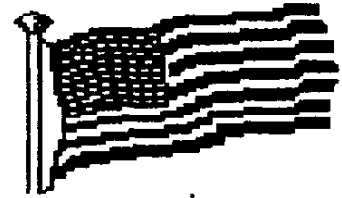
Scottie Whitford.....Editor  
Charles Stringer.....Librarian(TI)  
Ray Fisher.....Librarian(PC)  
Harry Young.....Treasure

March 18, 1993 Next meeting.

April 15, 1993

May 20, 1993

June 17, 1993



First Congregational Church..3465 N. MacArthur Rd..Decatur,IL...7:00pm to ????

**Decatur 99er H.C.U.G.  
P.O. Box 1361  
Decatur,IL 62525-1361**

**PLEASE NOTE NEW  
BOX NUMBER 1361**