



R E M I N D E R   ■   R E M I N D E R

E            N E X T   M E E T I N G            E  
 M            T U E S D A Y   8:00P:89            M  
 I            T H R E E   C L O C K   P . M .            I  
 V            R O U N D   T A B L E   P I Z Z A            V  
 D            W E S T   4 T H   &   W I N E            D  
 E            R E N O . ,   N E V A D A            E

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\* WORD SAFARI (Word puzzle)  
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 .....

**\*\* MEETING MINUTES - 7/25/89 \*\***

In the absence of the president and vice-president, the meeting was called to order by the secretary, Andy Yuan, at 7:05 P.M. at the Round Table Pizza parlor with 13 members present.

**\*\* OFFICER'S REPORT \*\***

Andy asked the group if there were any corrections to be made to last months meeting minutes as reported in the newsletter. No errors were found, and the minutes were accepted.

The Treasurer's Report for June, as given by Richard Embien, follows:

ITEM	AMOUNT
Bank balance	311.28
Cash on hand	
*****	
INCOME	
Bank interest	
Library sales	
Program sales	
Disk sales	9.00
Raffle proceeds	26.00
Donations	
Dues	25.00
Misc. income	
TOTAL	60.00
*****	
EXPENDITURES	
Printing	28.98
Postage	25.00
Program purchases	
Equipment purchases	
Misc. supplies	
Misc. costs	5.00
Bank charges	
Taxes	
TOTAL	58.98
*****	

The Program Librarian, Ed Conratt, covered briefly the two Disks of the Month offerings, to be demoed at the end of the formal meeting.

**\*\* OLD BUSINESS \*\***

Die Slunaker, has returned from the Boy Scout Summer Camp program and will be resuming his normal duties as president of the group.

**\*\* NEW BUSINESS \*\***

Andy Yuan proposed to the group, that telephone reminders to each member about meeting nights should be reinstated. After a brief discussion, a motion was duly made, seconded, then unanimously agreed by all.

Andy volunteered his services to call everyone up the day prior to the meetings. And, he promises to call in the evenings, at dinner time... when everyone is usually at home. (This tip came from none other than our beloved founder and past president, David "Who else could be so devious?" Belanger!

Next, the topic turned to our Disks of the Month (DOM) offerings. After a long exchange on the subject, it was officially decided that the club would no longer support the monthly dual-disk giveaways.

These special disk programs, however, will continue to be featured in the newsletter and demoed at the end of each meeting. But, they will now be offered for sale, only to the members in attendance, for \$.50 cents per disk.

Further, if you should miss a meeting, for any reason, you will still be able to obtain these disks, or any other ones in the Program Library, for the small sum of just \$2.00. (It was motioned, seconded, and agreed, to lower the previous library fee of \$5.00 per disk.)

To receive your choice, simply contact Ed Conradt, our program librarian, and he will fill your order and bring it to the next meeting.

Consequently, the blank disk exchange program for the DOM's is no longer in effect.

Ed Conradt put in a request to all members to help build-up the Program Library by donating any Public Domain software. The group will benefit greatly in that the larger our library, the more variety of software it will have to offer our group.

As an incentive, our policy of "Two disks from the library for one program of yours!" still stands. Why not take advantage of it!

Sandy Goetze, bless her, asked everybody to please help out our newsletter. Simply stated, "Contribute something... OR ELSE!"

**\*\* DISK'S OF THE MONTH \*\***

The following programs will be featured this month:

Disk #1 -

PROGRAMMING AIDS AND UTILITIES II - A freeware program via TEXCOMP / #76 - Series VI.

This disk includes: 1. A program to convert BASIC to EXTENDED BASIC, 2. Two on screen diagnostic programs to test keyboard and processor functions, and, 3. A merge utility program.

(This particular disk was originally purchased by club member, Edie Dettling. She has graciously contributed a copy of it to the Program Library. Thank you very much, Edie, for your support.

**Disk #2 -**

RICHIE WAGNER'S GREATEST HITS - A fairware music program by the talented and versatile Ken Gilliland. This disk offers four excellent musical scores that puts the TI sound chip through its paces, accompanied by some very fine graphics for each piece:

1. Siegfried's Funeral Music from GOETTERDAMMERUNG (Winner of the TISWAP programming contest.)
2. Prelude to LOHENGRIN,
3. Prelude to TRISTAN AND ISOLDA,
4. And, Traft ihr das Schiff im Meere an? from DER FLIEGENDE HOLLANDER.

Also included is a TI-ARTIST picture for a disk label.

Try this disk on for size! Plug it in, turn up the volume a little, sit back and enjoy!

**\*\* MONTHLY RAFFLE \*\***

This months prize was the TI Editor/Assembler Package. Included were the following: E/A cartridge, two diskettes, E/A manual, Keyboard strip, and the Tombstone City game.

The WINNER was RICHARD "I'm glad I came to the meeting!" ENBLEM. Congratulations!

Due to the lack of interest and group participation, there will NOT be a raffle at the next meeting! You heard right! No raffle.

Instead, we're going to have an old-fashioned BINGO game at the next meeting! You heard right! B-I-N-G-O! We'll be using our good old-fashioned computer to play it! Gone are the silly raffle tickets! And no more shaking up the old dented coffee can! Only \$1.00 per game card - SIX (6) cards for \$5.00 will get you in! The first person to complete a row - either horizontally, vertically, or diagonally, wins a SUR-prize! See ya' there!

**\*\* CLOSING \*\***

The formal meeting was adjourned at 7:44 P.M.

\*\*\*\*\*

**\*\*\* EDITOR'S NOTES - \*\*\***

A Tip of the 10 gallon hat to:



JEFF ASENAS, newsletter editor of the TI CLUB OF OXNARD. He just happened to be in the area a few weeks back on his way to his folks cabin in Idaho, and stopped by to say hello, and to drop off a "bundle" of programs for our library. Thank you, Jeff, for your generous contribution!

CHARLES GOOD, president of the LIMA OHIO USERS GROUP. Mr. Good was kind enough to send us the latest FUNNELWEB update (Version 4.13). Included with his

two-disk gift package were:

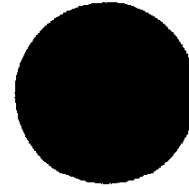
1. 80 column editor update,
2. Enhanced 80 column Quick Directory,
3. XHi v3.2 (A high resolution graphic support utility),
4. and, X80 (An 80 column text support.

All the above software is compatible with GENEVE and AVPC systems. If you have such a system and would like a copy of any of these sensational new utility programs, or wish to know more about them, contact Ed Conradt or myself.

ART BUYERS, from the CENTRAL WESTCHESTER 99'ers CLUB. Mr. Buyer's contributed three additional programs to our club. They are:

1. COLTEXT-4 by Ron Prewitt. An improved version of a text multi-columnizer utility. (Fairware)
2. GRAPHICS from HOLLAND! An XB autoloader "Slide Show" presentation of some remarkable color graphics. (Fairware)
3. NUC-99 by Scott Morrow. You are in charge of operating a nuclear reactor! Can you handle it??? XB autoloader. (Fairware)

STAR SEARCH!



Ever since the beginning of this year, I've been messing around with the STARS in the background of our Newsletter title. Apparently, not a single one of you has even noticed it or thought it worth mentioning to me! Or, perhaps, it never caught your eye because I often changed the heading graphics. (I was hoping for at least ONE smart detective among our group, though! Oh, well!)

Anyway, if you'll count the total number of peculiar-looking stars of each issue, starting with the February newsletter, then convert those numbers to the corresponding letters in the alphabet, you'll be able to decipher a monumental message which will truly astound you, put fear in the hearts of rivals, and provide you with the true meaning of life! ENJOY! (-Ed.)

**DIRECTIONS:** There are 20 words hidden in the puzzle. You may find them horizontally, vertically, or diagonally. They may also be either forward or backward. Circle each word as you find them. One word has been done for you. **GOOD LUCK!** (Answers on last page.)

```

R D U C P W R U U U H P S U E G C J A K
V E S C R O L L E C I E D D D M M M G L
T I K I D Z J N C O D E K U H Z X Y Q T
I O G D C D O T U F F N E Y A G Y G S O
C S G J D H W R N A L V F D Y B I L P D
J D Y G P Y J L U I I H M E I M A T T E
E R C E L O S L U H W Z X Z R E X I B A
A G L W L E T U C I T X M Q W E C W U J
Q E B K O Z Z R N Y S D R A Q K N H O G
T X B F F L A D H S V Z F E C K W C O Q
P F U Q W R O B C L W C K K F R U Z E O
G G S E Q W I B C I D T U G C F O M S Q
E D L R E G W M R Y S A L M W B U U L E
D D A U C X T A E P L Z Y A G D E B M Y
E O S O Z T N N O D A B L T I C S O A L
M B I X L S A O Y B O F S Y I D G I K W
P I S I M N L L W P B M Y W S R O U M Q
Z T G I Q E W J U X R E W B P B A T I C
B Q T K R C B O E M Y P Y Z U A C P U G
I J A U W L A M D A E X E L P U D H N A

```

\*WORD LIST\*

- ARCHIVE
- AUTODIAL
- BAUD
- BUFFER
- CONFERENCE
- DEFAULT
- DOWNLOAD
- DUPLEX
- ECHO
- EMULATOR
- LOG
- MACRO
- MODEM
- PARITY
- SCROLL
- SPOOLER
- TELEPHONE
- TOGGLE
- TRANSMIT
- WINDOW

\*IMPACT/99\*  
by Jack Suhrue

## LAZARUS!

Some things are fun to live through, though the going may be tough at the time.

Like being a TI-99/4A owner.

Looking back on my home-computer career, I wonder what I ever did before I had my trustee orphan. What did I do? In 1981 I bought my machine for \$475 over the strong objections of everyone I knew; mostly my wife. That was (IS!) a lot of money. LESS than half my monthly take-home pay as a teacher, granted. But still a lot of money.

I got the thing home. I carefully - I mean carefully - unpacked it. I actually read the manual BEFORE I plugged the plugs in and turned it on. When the TI screen came up it gave me the same sensation I had when the test pattern came up on our first TV (giant 7-inch screen) just before *Kukla, Fran and Ollie* came on in 1950. I watched the TI screen for a long time. Memorized it. And pressed ENTER.

That was the start of my new world.

A digression: TI had loaned me a 994 for my class for almost a year two years before prior to marketing it. Mostly flashcard stuff. No manual.

But this was two years later (a thousand dollars less; a greater machine) and it was IN MY HOME!

I bought it primarily as a word processor (and that has remained primary to this day). Though I had to get used to the finger-scrunching keyboard and the weird way to type quotes and similar things, it was such an improvement over the 4 (with the chiclet keys, all upper case, etc.) that I didn't mind.

Anyway, I had pressed ENTER and got the PRESS 1 FOR TI BASIC. (The 4 also offered a calculator mode which was really good. I wish the 4A had kept that.)

Voilà!

TI BASIC READY, shouted the screen, and gave me a blinking cursor.

I typed, PRINT "THIS IS A MESSAGE" just as the manual suggested. And pressed ENTER.

Well, I don't have to tell you what happened next.

The world became forever altered. Without my even seeing it happen the words THIS IS A MESSAGE appeared just below PRINT "THIS IS A MESSAGE".

I was in control!

(At the time all four of my kids were teenagers, so you can imagine the emotional climate here, too.)

I was in control.

And still am.

But that night when I was still playing (that is the ONLY appropriate word) with my TI - that night while the rest of America slept - that night I typed (not created) a program that played music and changed the colors on the screen (though they were only varieties of grey on my black and white TV) and created (not just typed) a program that wrote my wife's name and mine intertwined through all eternity:

```
ELAINEJACKELAINEJACKELAINEJACKELAINEJA CK
```

I wanted to wake up the household to show them what I did. (Wisely, I did not. Having the computer in the house at all was precarious, particularly as I felt it was taking food from the mouths of starving children.) I wanted to say, "Okay, for all you disbelievers, all you non-imaginative types who keep saying WHAT WILL YOU DO WITH IT?, now you know the answer: I can intertwine ELAINE and JACK so that it races up the screen forever. Or at least until I BREAK or QUIT!"

Somehow, though, I didn't think this would shut these Doubting Thomases up. They probably wanted more for my \$600 (counting tape recorder, tapes, TV, etc.). They probably wanted more.

By the time TI bit the dust through the most incredible series of executive stupidities, I had also purchased a TI for my kids (at \$300). I bought another within a month for \$100 for my classroom. And another a few months later for \$49.95 for a backup for any of the above. (I haven't had to use my backup yet. It is still in the box. I picked up

another one a year ago [new?] for \$39, which I also use in my classroom.)

I am typing this article on the original machine which has been used a minimum of 40 hours a week for six years, was lugged back and forth to school, to workshops at our local library, to our user group.

I took it all apart and cleaned it twice (thanks to the tutoring of cleaning whiz Bruce Willard of M.U.N.C.H.), surprised that it worked when I put it back together.

I first used tape word processors in BASIC. Then I bought Extended BASIC (I almost forget what life was like before XB. Got an excellent WP from Extended Software and finally added MINIMEN (which had a super one). Still in tape. I added the standalone 32K (so I could also support LOGO for school). I still have tape recorders connected at home and school and use them for certain things. [I bought KIDWARE's tape of the classic "Lemonade Stand" last year: far superior to the Apple version.]

Then I got my expansion box, 32K card, SSSD disk drive, printer, speech synthesizer, color monitor. Much later another SSSD drive. And eventually, piece by piece, my present system of Myarc Controller and 512, 2 DSDD, etc.

And another complete used system to go with my Geneve without losing my TI. But that's another story.

What started this nostalgic blast was a cleaning of my computer room. (Yes, an entire spare room! Two of my four children have moved to their own homes.) I have all the 99er magazines from the first. As I looked through these early issues and continued on through the orphaning (read Ron Albright's *ORPHAN CHRONICLES* for the full and wonderfully-told story), I was shocked at how unsophisticated our computer was compared to the other computers and software written about in *COMPUTE!*, *BYTE*, etc. at the same time. Lesser machines, like Apple, Commodore, IBM. TI had kept such lock-tight control over the architecture and software development that we were still in primary school when the others were on their way into college.

After the orphanage it all changed. The hackers and the geniuses and the game-makers and the practical people all started creating and exploring. And building and selling and sharing. And writing and thinking.

The TI started growing toward its potential. Dreams TI never dreamed were realized. A perfect example is the international evolution of the T.I. WRITER created in America. The sophistication of FUNNELWEB (created in Australia by Tony and Will McGovern and housing the incredible DM1000 created by Bruce Caron and members of the Ottawa, Canada, user group) could not have been imagined by the original TIW designers.

Last night I used my TIW cartridge just to see if it worked. All the things I have taken for granted since I got FUNNELWEB were gone. No environment. No speed in word wrap. I actually lost whole words. No proper reformation. No automatic mailbox plants. No... - but you know all that FUNNELWEB does. T.I.W. had no nothing, it seemed. I felt so limited I finally had to take the cartridge out and update myself.

I wrote some certificates in Gothic type, made a couple of banners, drew a dinosaur and printed it out, made up a pile of new labels with graphics and borders, played some music pieces Jim Peterson had sent, typed up a few letters. Added to a P.6.Wodehouse data base I made. Added a new template to an environmental companion I created called *PLUS!* And finished the evening with my son Matt playing a pre-publication version of an exceptional graphic adventure. I was beta-testing called *LEGENDS*. This was all in one five-hour session.

We (the remarkable, world-wide TI community) now have over 700 companies (most Mom and Pop and/or Junior) making stuff for our machine. Software galore and software wonderful. Lots of it free (Public Domain) or ridiculously low (Fairware), but lots of commercial things, too. There's even an IBM clone that uses (if you can believe it!) the TI keyboard. Then there are IBM-style keyboards for our console. And even an entirely new and wonderfully upgraded computer that is a card and uses a new keyboard without the console. There is software that lets you make voice music, software that takes thousands of photographic quality pictures off satellites in space and drop them onto your printer in your home.

There are greater and greater games. Better and better filing systems (Creative Filing System by Mark Beck being one). Graphics programs that really DO go one step beyond: GRAPHX, TI ARTIST, CSGDIII, PRINTIT, PRINTER'S APPRENTICE, FONTWRITER, and, from what I hear, the completed PICASSO. And hard drives and megamemories and RAMdisks.

Not a week goes by when I don't learn something new about my computer. Not a week goes by without something new coming out FOR my computer. Not a week goes by when I do not receive at least a dozen letters (I am a compulsive letter writer.) about the TI. I, for one, have made some good friends through the mail. (I don't have a modem. Two of my kids are still at home, so I don't have access to a phone and probably won't until they are all out of college.)

But my investment in money, enthusiasia, energy, and time have been rewarded many times over. I have moved with my TI into this brave new world.

I still see a real future for our machine. It still operates (only now with much more stuff). Even if everybody suddenly stopped producing new TI things, we still have a very exciting machine with enough software and hardware to

satisfy even the most jaded for a long time to come. But that won't happen. A lot of people love this machine.

All is not roses, however. We're still losing people, still losing good people to those lesser machines. Try as we might, we will probably still lose them.

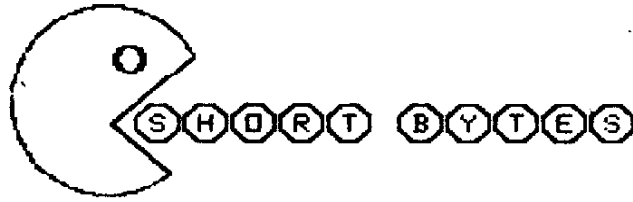
And we have infighting. Hell, siblings fight. And some animosities and politicking goes on. We ARE human, after all.

But we have more dedicated, sharing, enthusiastic, intelligent people than any other computer that I know of. And we have more fun. At lots less expense.

Aren't you glad you're a 99er?

[Jack Sughrue, Box 459, E.Douglas MA 01516]





**Tetris** by Steve Karasek of the St. Louis 99'ers (June 1989)

(Ed. note) The game TETRIS was originally a game written by a young Russian, and was imported into the U.S.A. by the English on the P.C.. It is definitely a very engrossing game, if you'll just give it a chance.

In this game, random shapes made up of four square blocks will drop from the top of a 10-column wide section of the screen. The object of the game is to rotate the shapes and move them from side to side so that when they drop in place among the previous shapes, they will form solid lines across the screen. When a line is formed, it will disappear from the screen, and partial lines on top of it will drop down. The game ends when the shapes have piled up to the top of the screen.

When the game starts, you are asked for a starting level from 1 to 9. At level 1, the shapes drop very slowly, giving you plenty of time to move them into position. At level 9, they move quite fast. The scoring is higher for each succeeding level, however, once you have experience, you will want to start at one of the higher levels so that you score more points.

For each game, the screen will start out empty, with the current level to the left and the score to the right. The high score for this session will be displayed above the current score. Press ENTER to start the game.

You may use either your right hand or your left hand to control the shapes. Make sure the ALPHA LOCK key is depressed. With the right hand, press J to move the shape to the left, K to rotate it 90 degrees counter-clockwise, or L to move it to the right. Press ; to pause and catch your breath. Press any of the other keys to resume play. When you have the shape in position, press the space bar to drop it rapidly into place (but be careful!).

If you are left-handed, use F to move to the right, D to rotate, S to move to the left, and A to pause. The space bar still drops the shape.

Points are scored for each shape. The higher the shape lands or is dropped from, the higher the score, so it pays to move it quickly into position and then drop it with the space bar. Points are also scored for each line that is formed. The higher the level, the higher the score for each shape or line.

The current level will increase for every 5000 points scored. If you want to increase the level at any time during the game, press U or R. If you want to quit, press Q.

**WARNING! THIS PROGRAM MAY BECOME HABIT FORMING.**

I've typed in this program, and I you'll find it on page 6. Yes! It doesn't even fill the whole page. Steve is really quite a programmer. It will be worth your efforts to type the program in and try it. John Willforth

```

1 REM * COMPUTER BRIDGE *
2 REM * JUNE 1989 ISSUE *
100 DISPLAY ERASE ALL AT(8,1
2): "Tetris" :: DISPLAY AT(10
,3): "(C) 1989 Steven Karasek
"
110 PRINT "STARTING LEVEL (1
-9)";: INPUT E :: E=INT(E):
: IF E<1 OR E>9 THEN 110 ELS
E E=10-E
120 DIM Z$(23),Z(26),A(18,3)
,B(18,3):: RANDOMIZE :: C$="
JKL; UQSDFA" :: Z(24)=4095
:: CALL MAGNIFY(4):: CALL CL
EAR :: FOR I=0 TO 6
130 READ N(I),C(I):: CALL CU
LOR(I+8,2,C(I)):: NEXT I ::
FOR I=0 TO 18 :: FOR J=0 TO
3 :: READ A(I,J),B(I,J):: NE
XT J :: NEXT I
140 FOR I=68 TO 143 :: READ
X$ :: CALL CHAR(I,X$):: NEXT
I :: CALL CHAR(41,"FFFFFFFF
FFFFFFFF")
150 FOR I=0 TO 23 :: Z$(I)=R
PT$(")",10):: Z(I)=2049 :: N
EXT I :: V=E :: D,P=24 :: U=
0 :: GOSUB 450 :: CALL VCHAR
(1,12,41,240)
160 CALL KEY(0,M,W):: IF W(<
1 THEN 160
170 P=0 :: Q=4 :: J=INT(RND*
7):: S=J*2 :: J8=J*8+89 :: I
F J>3 THEN S=S-1+2*(J-4)
180 GOSUB 470 :: T=0 :: X=1
:: Y=Q*8+81 :: CALL SPRITE(#
1,K,C(J),X,Y)
190 IF Z(0)AND 2^(Q+Y1)OR Z(
X2)AND 2^(Q+Y2)OR Z(X3)AND 2
^(Q+Y3)OR Z(X4)AND 2^(Q+Y4)T
HEN 430
200 FOR I=1 TO V :: CALL KEY
(0,M,W):: IF M(<0 THEN 350 EL
SE ON POS(C$,CHR$(M),1)+1 GO
TO 350,210,280,230,340,250,3
30,440,210,280,230,340,330
210 Q=Q-1 :: IF Z(P)AND 2^(Q
+Y1)OR Z(P+X2)AND 2^(Q+Y2)OR
Z(P+X3)AND 2^(Q+Y3)OR Z(P+X
4)AND 2^(Q+Y4)THEN Q=Q+1 ELS
E Y=Y-8
220 CALL LOCATE(#1,X,Y):: GO
TO 350
230 Q=Q+1 :: IF Z(P)AND 2^(Q
+Y1)OR Z(P+X2)AND 2^(Q+Y2)OR
Z(P+X3)AND 2^(Q+Y3)OR Z(P+X
4)AND 2^(Q+Y4)THEN Q=Q-1 ELS
E Y=Y+8
240 GOTO 220
250 Y1=2^(Q+Y1):: Y2=2^(Q+Y2
):: Y3=2^(Q+Y3):: Y4=2^(Q+Y4
):: GOSUB 450 :: P=D-X4

```

```

260 IF (Z(P)AND Y1 OR Z(P+X2
)AND Y2 OR Z(P+X3)AND Y3 OR
Z(P+X4)AND Y4)=0 THEN P=P+1
:: GOTO 260
270 P=P-1 :: CALL LOCATE(#1,
P*8+1,Y):: GOTO 300
280 S=S-1 :: T=T-1 :: IF T<0
THEN T=N(J)-1 :: S=S+N(J)
290 GOSUB 470
300 IF (Z(P)AND 2^(Q+Y1)OR Z
(P+X2)AND 2^(Q+Y2)OR Z(P+X3)
AND 2^(Q+Y3)OR Z(P+X4)AND 2^
(Q+Y4))=0 THEN CALL PATTERN(
#1,K):: GOTO 350
310 S=S+1 :: T=T+1 :: IF T=N
(J)THEN T=0 :: S=S-N(J)
320 GOSUB 470 :: GOTO 350
330 CALL KEY(0,M,W):: IF W(<
0 THEN 330 ELSE V=V+(V>1)::
GOSUB 460 :: GOTO 350
340 CALL KEY(0,M,W):: IF W(<
1 THEN 340
350 NEXT I :: P=P+1 :: IF P+
X4>D THEN 370
360 X=X+8 :: CALL LOCATE(#1,
X,Y):: GOTO 200
370 IF (Z(P)AND 2^(Q+Y1)OR Z
(P+X2)AND 2^(Q+Y2)OR Z(P+X3)
AND 2^(Q+Y3)OR Z(P+X4)AND 2^
(Q+Y4))=0 THEN 360 ELSE P=P-
1 :: GOSUB 450
380 D=MIN(D,P):: FOR I=0 TO
3 :: W=Q+B(S,I):: M=P+A(S,I)
:: Z(M)=Z(M)+2^W :: Z$(M)=SE
G$(Z$(M),1,W-1)&CHR$(J8)&SEG
$(Z$(M),W+1,10)
390 CALL HCHAR(M+1,W+11,J8):
: NEXT I :: CALL DELSPRITE(#
1):: FOR I=MIN(P+3,23)TO P S
TEP -1 :: IF Z(I)<4095 THEN
420 ELSE J=I :: M=I-1
400 Z(J)=Z(M) :: Z$(J)=Z$(M):
: DISPLAY AT(J+1,10):Z$(J)::
IF Z(J)>2049 THEN J=J-1 ::
M=M-1 :: GOTO 400
410 U=U+INT(500/V):: GOSUB 4
60 :: I=I+1 :: P=P-1 :: D=D+
1
420 NEXT I :: GOTO 170
430 H=MAX(H,U):: DISPLAY AT(
1,20):USING "#####":H ::
CALL DELSPRITE(#1):: GOTO 1
50
440 DISPLAY ERASE ALL: "HIGH
SCORE IS":MAX(U,H):: END
450 U=U+INT((24-P)*100/V)
460 DISPLAY AT(3,20):USING "
#####":U :: V=MIN(V,MAX(
1,9-INT(U/500))): DISPLAY
AT(3,4)SIZE(2):10-V :: RETUR
N
470 X2=A(S,1):: X3=A(S,2)::

```

```

X4=A(S,3):: Y1=B(S,0):: Y2=B
(S,1):: Y3=B(S,2):: Y4=B(S,3
):: K=68+S*4 :: RETURN
480 DATA 2,15,2,7,2,14,1,16,
4,11,4,4,4,5
490 DATA 0,0,0,1,0,2,0,3,0,1
,1,1,2,1,3,1,0,0,0,1,1,1,1,2
,0,2,1,1,1,2,2,1
500 DATA 0,1,0,2,1,0,1,1,0,1
,1,1,1,2,2,2,0,1,0,2,1,1,1,2
,0,1,1,0,1,1,1,2
510 DATA 0,1,1,1,1,1,2,2,1,0,0
,0,1,0,2,1,1,0,2,1,1,1,2,2,2
520 DATA 0,0,1,0,0,1,1,1,2,0,1
,0,2,1,1,2,1,0,0,0,1,0,2,1,2
,0,2,1,2,2,1,2,2
530 DATA 0,2,1,0,1,1,1,2,0,1
,1,1,2,1,2,2,0,0,0,1,0,2,1,0
,0,1,0,2,1,2,2,2
540 DATA FFFFFFFF,FFFFFFFF,
0F0F0F0F0F0F0F0F,0F0F0F0F
0F0F0F,
550 DATA FFFFFFFF0F0F0F0F,,0
0000000F0F0F0F,,000000000F0F
0F0F,0F0F0F0F,F0F0F0F0F0F0F0
F0,,0F0F0F0FFFFFFF,,F0F0F0
F,
560 DATA 0F0F0F0F0F0F0F0F,,0
0000000F0F0F0F0F,F0F0F0F,0F0F
0F0F0F0F0F,,F0F0F0F0F0F0F0
F,,0F0F0F0FFFFFFF,,0000000
0F0F0F0F,
570 DATA 0F0F0F0F0F0F0F0F,0F
0F0F0F,00000000F0F0F0F,,FFFF
FFFF0F0F0F0F,,F0F0F0F,,00000
0000F0F0F0F,,F0F0F0F0F0F0F0F
,F0F0F0F
580 DATA F0F0F0F0FFFFFFF,,0
0000000F0F0F0F,,0F0F0F0F0F0F
0F0F,0F0F0F0F,F0F0F0F,,FFFF
FFF,,F0F0F0F0F0F0F0,,0F0F
0F0F,F0F0F0F0F0F0F0F,F0F0F0F
590 DATA 00000000FFFFFFF,,F
0F0F0F0F0F0F0F,,0F0F0F0F0F0
F0F0F,0F0F0F0F,,F0F0F0F,FFFF
FFFF0F0F0F,,F0F0F0F,,0F0F0F
0F,,F0F0F0F0F0F0F0F,F0F0F0F.

```

The Far Side By Gary Larson





TIPS FROM THE TIGERCUB

#52

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TIGERCUB SOFTWARE  
156 Collingwood Ave.  
Columbus, OH 43213

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Over 120 original programs in Basic and Extended Basic, available on cassette or disk, NOW REDUCED TO JUST \$1.00 EACH!, plus \$1.50 per order for cassette or disk and PP&M. Minimum order of \$10.00. Cassette programs will not be available after my present stock of blanks is exhausted. The Handy Dandy series, and Color Programming Tutor, are no longer available on cassette. Descriptive catalogs, while they last, \$1.00 which is deductible from your first order.

Tigercub Full Disk Collections, reduced to \$5 postpaid. Each of these contains either 5 or 6 of my regular catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - they are a free bonus!

TIGERCUB'S BEST, PROGRAMMING TUTOR, PROGRAMMER'S UTILITIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!, MANEUVERING GAMES, ACTION GAMES, REFLEX AND CONCENTRATION, TWO-PLAYER GAMES, KID GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MIDDLE/HIGH SCHOOL MATH, VOCAB-

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NUTS & BOLTS DISKS

These are full disks of 100 or more utility subprograms in MERGE format, which you can merge into your own programs and use, almost like having another hundred CALLS available in Extended Basic. Each is accompanied by printed documentation giving an example of the use of each. NUTS & BOLTS (No. 1) has 100 subprograms, a tutorial on using them, and 5 pp. documentation. NUTS & BOLTS No. 2 has 108 subprograms, 10 pp of documentation. NUTS & BOLTS #3 has 140 subprograms and 11 pp. of documentation. NOW JUST \$15 EACH, POSTPAID.

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These are full disks which contain the programs and routines from the Tips from the Tigercub newsletters, in ready-to-run program format, plus text files of tips and instructions.

TIPS (Vol. 1) contains 50 original programs and files from Tips newsletters No. 1 through No. 14. TIPS VOL. 2 contains over 60 programs and files from Nos. 15 thru 24. TIPS VOL. 3 has another 62 from Nos. 25 through 32. TIPS VOL. 4 has 48 more from issues No. 33 through 41. NOW JUST \$10 EACH, POSTPAID.

```
*****
* NOW READY *
* TIPS FROM TIGERCUB VOL.5 *
* Another 49 programs and *
* files from issues No. 42 *
* through 50. Also $10 ppd *
*****
```

TIGERCUB CARE DISKS #1, #2, #3 and #4. Full disks of text files (printer required). No. 1 contains the Tips newsletters #42 thru #45, etc. Nos. 2 and 3 have articles mostly on Extended Basic

programming. No. 4 contains Tips newsletters Nos. 46-52. These were prepared for user group newsletter editors but are available to anyone else for \$5 each postpaid.

This one should come in handy for bowling league captains and Little League coaches.

```
100 DIM M(29,29),T$(30)
110 GOTO 130
120 N;Q%;J;I;X;P%;S%;K
130 !@P-
140 DISPLAY AT(3,7)ERASE ALL
:"LEAGUE SCHEDULER":;"by the Burwells adapt
ed by Tigercub"
150 DISPLAY AT(8,1):" This p
rogram sets up a:"schedule
for up to 30 teams":so that
each plays each":other onc
e and only once."
160 DISPLAY AT(12,1):" If an
odd number of teams":are s
cheduled, each gets one":by
e."
170 DISPLAY AT(16,1):"Number
of teams?" : ACCEPT AT(16,
18)VALIDATE(DIGIT):N : IF N
>30 THEN DISPLAY AT(18,1):"L
INIT OF 30!" : GOTO 170
180 DISPLAY AT(18,1)ERASE AL
L:"Schedule teams by name? Y
" : ACCEPT AT(18,25)SIZE(-1
)VALIDATE("YN"):Q% : IF Q%=
"N" THEN 200
190 FOR J=1 TO N : DISPLAY
AT(20,1):"Team no.":J;"name?
" : ACCEPT AT(22,1):T$(J):
NEXT J : GOTO 210
200 FOR J=1 TO N : T$(J)="T
eam No. "&STR$(J): NEXT J
210 IF N/2<>INT(N/2)THEN N=N
+1 : T$(N)="bye"
220 DISPLAY AT(23,1):"Schedu
le by day, week, month":or
what?" : ACCEPT AT(24,10):S
$ : FOR J=1 TO N-1 : M(I,J
)=J+1
230 NEXT J : FOR J=1 TO N-1
STEP 2 : GOSUB 260
240 NEXT J : FOR J=2 TO N-2
STEP 2 : GOSUB 330
250 NEXT J : GOSUB 390 : S
TOP
260 FOR I=1 TO N-2 : IF M(I
,J)=N THEN 280
```

```
270 M(I+1,J)=M(I,J)+1 : GOT
O 290
280 M(I+1,J)=M(I,J): GOTO 3
00
290 NEXT I
300 X=I+1 : FOR I=X TO N-2
: M(I+1,J)=M(I,J)+1
310 NEXT I
320 RETURN
330 FOR I=1 TO N-2 : IF M(I
,J)=2 THEN 350
340 M(I+1,J)=M(I,J)-1 : GOT
O 360
350 M(I+1,J)=M(I,J): GOTO 3
70
360 NEXT I
370 X=I+1 : FOR I=X TO N-2
: M(I+1,J)=M(I,J)+1
380 NEXT I : RETURN
390 DISPLAY AT(12,1)ERASE AL
L:"Output to - 2":;" (1) Sc
reen": (2) Printer" : ACCE
PT AT(12,13)SIZE(-1)VALIDATE
("12"):K : IF K=1 THEN 440
400 DISPLAY AT(18,1):"Printe
r? P10" : ACCEPT AT(18,10)S
IZE(-18):P% : OPEN #1:P% :
PRINT #1:"LEAGUE SCHEDULE":
: : FOR I=1 TO N-1 : PRIM
T #1:S%; " ";I : PRINT #1:T
$(I);" vs ";T$(M(I,1))
410 FOR J=2 TO N-2 STEP 2 :
PRINT #1:T$(M(I,J));" vs ";
T$(M(I,J+1))
420 NEXT J : PRINT #1:"" :
430 NEXT I : RETURN
440 FOR I=1 TO N-1 : PRINT
TAB(7);"LEAGUE SCHEDULE" :
: PRINT "WEEK #":I : : PR
INT T$(I);" vs ";T$(M(I,1)):
: FOR J=2 TO N-2 STEP 2 : P
RINT T$(M(I,J));" vs ";T$(M
(I,J+1))
450 NEXT J : PRINT "" : :
PRINT "PRESS ANY KEY FOR ME
XT WEEK"
460 CALL KEY(0,K,S): IF S=0
THEN 460
470 CALL CLEAR
480 NEXT I : RETURN : END
```

Some folks seem to think that the subprograms on my Nuts & Bolts disks are just flashy screen displays. Not so! This one will be on the next diskfull, if I ever get it full, which is most unlikely. ACCEPT AT with a negative

size is useful to accept a default string from the screen, but the length of the string is limited to 28 characters; and if you want something other than the default, you must be sure to delete any extra characters. CALL DEFAULT(R,C,M\$,R\$), where R and C are the row and column to accept at, M\$ is the default string which can be up to 254 characters long, and R\$ is the string accepted, will display the default string, accept it if Enter is pressed, or accept any other string without having to blank out the extra characters. Just don't type too fast!

```
100 M$="TESTING" :: CALL CLEAR
110 CALL DEFAULT(12,1,M$,R$)
:: DISPLAY AT(24,1):R$ :: GO TO 110
10000 SUB DEFAULT(R,C,M$,R$)
:: R$="" :: X=ASC(M$)
10001 DISPLAY AT(R,C):M$
10002 CALL HCHAR(R,C+2,ASC(STR$(M$,1,1))):: CALL HCHAR(R,C+2,30)
10003 CALL KEY(O,K,S):: IF S=0 THEN 10002 ELSE IF K=13 THEN R$=M$ :: SUBEXIT ELSE DISPLAY AT(R,C):CHR$(K):: ACCEPT AT(R,C+1):R$ :: R$=CHR$(K)&R$
10004 SUBEND
```

CALL DEFAULT(R,C,N,RN), with N as the default value and RN as the value accepted, will do the same for numeric input, and will reject any non-numeric input. Errors due to fast typing can be prevented by omitting the DISPLAY AT(R,C):CHR\$(K) in line 1002.

```
100 N=176453.897 :: CALL CLEAR
110 CALL DEFAULTN(12,1,N,RN)
:: DISPLAY AT(24,1):RN :: GO TO 9999
10000 SUB DEFAULTN(R,C,N,RN)
:: DISPLAY AT(R,C):N :: N$=STR$(N),1,1
```

```
10001 CALL HCHAR(R,C+2,ASC(M$)):: CALL HCHAR(R,C+2,30)
10002 CALL KEY(O,K,S):: IF S=0 THEN 10001 ELSE IF K=13 THEN RN=M$ :: SUBEXIT ELSE DISPLAY AT(R,C):CHR$(K):: ACCEPT AT(R,C+1):R$ :: R$=CHR$(K)&R$
10003 ON ERROR 10004 :: RN=VAL(R$):: GOTO 10005
10004 CALL SOUND(200,110,5,-4,5):: DISPLAY AT(R,C):N :: ON ERROR STOP :: RETURN 10002
10005 SUBEND
```

Ed Machonis discovered an easy way to count the words in a TI-Writer file, using TI-Writer itself. Just put in a line before line 0001, with .LM 0;RM 1;FI;PL nnn with nnn being the sector length of the file multiplied by 40. Save it, go into the Formatter and print it to disk under a different filename. Return to Editor, load the resulting file, page through it with FCTN 4 counting any blank lines, subtract the number of blanks from the last line number, and that's it! The Formatter takes about one minute to count 1000 words. If the resulting file is very large, you may have to load it in two sections.

```
100 M$="POS WILL FIND THE FIRST OCCURRENCE OF A SUBSTRING WITHIN A STRING BUT I OFTEN NEED TO FIND THE LAST OCCURRENCE SO I WROTE THIS SUBPROGRAM"
105 INPUT "SUBSTRING?":L$
110 CALL LAST(M$,L$,P):: IF P=0 THEN PRINT "NOT FOUND" :: GOTO 105 ELSE PRINT SEG$(M$,P,255):: GOTO 105
120 SUB LAST(M$,L$,P):: X=1
130 Y=POS(M$,L$,X):: IF Y=0 THEN P=0 :: SUBEXIT ELSE Z=Y
140 X=Y+1 :: Y=POS(M$,L$,X):: IF Y=0 THEN P=Z :: SUBEXIT ELSE Z=Y :: GOTO 140
150 SUBEND
```

Here's a new way to make music. The algorithm in 110 sets up a 3-octave chromatic scale - note the N(I)=F, I have erroneously omitted it when I previously published that algorithm. To change the key of the music you have programmed, just change the value of F. Lines 190-220 contain the part of the music that is repeated within the melody. A is the subscript of the melody note, B is the subscript number of the chord. These must be above 13, as the frequency is divided by 2 in the subroutine. Each beat of the music has a GOSUB, to 230 to play a bass accompaniment with the first note of each bar, to 260 for the other notes of the bar. The chord note is divided by different values to play the three notes of the chord in succession, and multiplied by 3.75 in the 3rd voice to produce a bass note two octaves lower in the -4 noise. The melody note is multiplied by 1.01 in the second voice to give a richer tone.

```
100 DISPLAY AT(12,3)ERASE ALL:"THE MAGRI FAREWELL SONG"
! programmed by
Jim Peterson
110 F=110 :: DIM N(36):: FOR J=1 TO 36 :: N(J)=INT(F*1.059463094^(J-1)): NEXT J :: N(1)=F :: T=-999
120 GOSUB 190 :: A=30 :: B=23 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=32 :: B=28 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=28 :: B=23
130 GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=30 :: B=23 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=28 :: B=23
140 A=28 :: GOSUB 260 :: A=30 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: GOSUB 260 :: GOSUB 260 :: GOSUB 260
150 A=30 :: B=23 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260
```

```
:: A=32 :: B=16 :: GOSUB 230
:: GOSUB 260 :: A=28 :: GOSUB 260
160 A=33 :: B=23 :: GOSUB 230 :: GOSUB 260 :: A=32 :: GOSUB 260 :: A=25 :: B=13 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260
170 A=27 :: B=23 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=28 :: B=16 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260
180 B=28 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: B=16 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: GOTO 120
190 A=32 :: B=28 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=28 :: B=16 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: A=30 :: GOSUB 230
200 A=32 :: B=28 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: B=16 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: B=28 :: GOSUB 230 :: GOSUB 260
210 A=30 :: GOSUB 260 :: A=33 :: B=23 :: GOSUB 230 :: GOSUB 260 :: A=27 :: GOSUB 260 :: A=28 :: B=16 :: GOSUB 230 :: GOSUB 260
220 B=28 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: B=16 :: GOSUB 230 :: GOSUB 260 :: GOSUB 260 :: RETURN
230 CALL SOUND(T,N(A),5,N(B)/1.585,9,N(B)*3.75,30,-4,9):: GOSUB 290
240 CALL SOUND(T,N(A),5,N(B)/1.334,9,N(B)*3.75,30,-4,9):: GOSUB 290
250 CALL SOUND(T,N(A),5,N(B)/2,9,N(B)*3.75,30,-4,9):: GOSUB 290 :: RETURN
260 CALL SOUND(T,N(A),5,N(A)*1.01,5,N(B)/1.585,9):: GOSUB 290
270 CALL SOUND(T,N(A),5,N(A)*1.01,5,N(B)/1.334,9):: GOSUB 290
280 CALL SOUND(T,N(A),5,N(A)*1.01,5,N(B)/2,9)
290 FOR D=1 TO 20 :: NEXT D :: RETURN
```

MEMORY FULL.....  
Jim Peterson

System	Commodore PET	Apple II	Radio Shack TRS-80	Atari 400,800	TI 99/4	Exidy Sorcerer
STRINGS ( <i>n, char</i> )			✓			
VAL ( <i>string</i> )	✓	✓	✓	✓	✓	✓
VARPTR <i>var</i>			✓	ADR		

BASIC Functions	Commodore PET	Apple II	Radio Shack TRS-80	Atari 400,800	TI 99/4	Exidy Sorcerer
(Precision)	9	10	6 or 16	10	14	6
ABS ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
ATN ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
CINT ( <i>expr</i> )			✓			
CDBL ( <i>expr</i> )			✓			
CLOG ( <i>expr</i> )		✓		✓		
CSNG ( <i>expr</i> )			✓			
COS ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
ERL ( <i>expr</i> )			✓			
ERR ( <i>expr</i> )			✓			
EXP ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
FIX ( <i>expr</i> )			✓			
FRE ( <i>expr</i> )	✓		✓ (also MEM)	✓		✓
INT ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
LOG ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
MOD ( <i>expr</i> )		✓				
POS ( <i>expr</i> )	✓	✓	✓			✓
RANDOMIZE	RANDOM		RANDOM		✓	
RND (0)	✓	RND	✓	✓	RND(1)	✓
RND ( <i>expr</i> )		✓	✓			
SCRN ( <i>x, y</i> )		✓				
SGN ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
SIN ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
SPC ( <i>expr</i> )	✓					
SPC ( <i>num</i> )		✓		NULL		✓
SQR ( <i>expr</i> )	✓	✓	✓	✓	✓	✓
TAN ( <i>expr</i> )	✓	✓	✓		✓	✓
TI ( <i>expr</i> )	✓					
USR ( <i>X</i> )	✓	✓	✓			✓
AND, OR, NOT	✓	✓	✓			✓

Table 3: Availability of BASIC mathematical and other functions in six microcomputer families.

## Explanation

Returns a string of length  $n$  composed of the specified character.

Converts a string of numerals (eg: "68") to its numeric value (eg: 68).

Returns the memory address where the name, value, and pointer of variable  $var$  are stored.

## Explanation

The number of significant digits with which the computer operates. The TRS-80 has double-precision (sixteen-digit) capability, but all machine-supplied functions are truncated to six digits.

Gives the absolute value of the specified expression.

Gives the arctangent in radians; ATAN can be set up to use angular measures in degrees.

Converts the expression into the largest integer not larger than the expression;  $-32768 \leq expr \leq 32768$ .

Converts the expression to double-precision (sixteen-digits).

Returns the base-10 (common) logarithm of the specified expression; CLOG(0) will give an error, CLOG(1) = 0.

Converts the expression to single-precision (six digits).

Returns the cosine of the expression, where  $expr$  is in radians.

Returns the line number of the current error.

Returns a value related to the current error.

Returns the natural exponential ( $e^{2*expr}$  = EXP(2\*expr)).

Returns the integer equivalent of the expression, truncated.

Tells you total number of unused and unprotected bytes in memory. MEM does not include unused string space. FRE(A\$) will tell you amount of unused string space.

Returns largest integer not greater than the expression ( $-32768 \leq expr \leq 32768$ ).

Returns natural logarithm (base  $e$ ) of the expression; the expression must be positive.

Modulo arithmetic: returns remainder after two numbers are added/subtracted, allows for some division. Available in Apple Integer BASIC only.

Returns a number indicating the current position of the cursor on a line: available in Applesoft only.

Reseeds the random-number generator.

Returns a pseudorandom number between .000001 and .999999; in Applesoft and TI BASIC, RND(0) returns the last random number given.

Returns a pseudorandom number between 1 and the value of the expression ( $1 \leq expr \leq 32768$ ). In Applesoft if  $expr < 0$ , then the same value is returned each time  $expr$  is used.

Returns the color value at screen position  $(x,y)$ ; available in Integer BASIC only.

Returns a  $-1$  if the expression is negative, 0 if it is 0, or  $+1$  if it is positive.

Returns the sine value of the expression;  $expr$  must be in radians.

Returns the number of skips specified in the argument. Range  $0 \leq expr \leq 255$ . SPC(0) = 256 skips.

Prints the specified number of spaces.

Returns the square root of the specified expression;  $expr$  cannot be negative.

Returns the tangent of the expression, the expression must be in radians.

Sets the real-time clock to the value specified.

Passes the value  $X$  to a machine-language subroutine and executes subroutine. Address of the routine must already have been POKEd into memory.

These three operators perform the given logical operations on numeric variables or expressions. (NOT works on a single number.) In most cases, these operators work bit-by-bit on the numeric values expressed in binary. For example, 3 OR 5 equals 7: 3 is binary 011, 5 is binary 101, and 7 (the result) is 111 (011 OR 101).

The Windy City 99 Club

3.5" 720K Disk Drive

By: Michael G. Mickelsen

How would you like to have a 3.5 inch disk drive connected to your II? Well, now you can with Radio Shack offering their Tandy 1000 EX 3.5 720K external disk drive for only \$99.95.

All the parts you need can be purchased from your local Radio Shack store. Here is the complete list:

25-1061	External 3.5 inch disk drive	\$99.95
276-1525	34 position computer connector	\$2.49
277-1022	Plug in 3-output DC power supply	\$4.95
277-1016	Switching power supply chassis	\$4.95

The only part needed from the switching power supply chassis is the three wire connector. If you have changed out your old power supply in the console, you can remove the connector from the old power supply. There are three wires on this connector. The red wire is the only one that needs to be moved. It is located on the second pin. Just break it off and solder it to the first pin. The fourth pin has a black wire which is common. The third wire is white and is the 12 volt line. The new red location is the 5 volt line.

Now that you have the power supply completed, the next step is to disassemble the disk drive case. You will find a small printed circuit board inside. The power supply, three-wire connector will be soldered at the point where the power wires go from the circuit board to the disk drive.

Disconnect the ribbon cable from the disk drive which is attached to the circuit board. You may want to use this connector instead of purchasing the part listed above. The connector is press-fitted to the ribbon cable. Add this connector to the end of your existing expander ribbon cable then attach it to the disk drive.

When reassembling the disk drive, you may place the connector for the power supply inside the disk drive. I have mine on the outside for ease of replacing the power supply if needed.

The complete project only took me one hour. The drive is so quiet you may not think it is formatting. I currently have mine connected to a Myarc hard drive controller. It can be formatted to 720K and have up to three subdirectories.

# BITS, BYTES & PIXELS

LIMA 99/4A USERS GROUP



SEPTEMBER 1989 VOLUME 5 #7

## \*QDAV\* -FUNNELWEB'S NEW ENHANCED QUICK DIRECTORY reviewed by Charles Good Lima Ohio User Group

Tony McGovern has released as a stand alone addition to Funnelweb the 80 column enhanced Quick Directory first demonstrated at the May 20 Lima Multi User Group Conference. The new file is named QDAV referring to the fact that it was created by Tony on a 99/4A system equipped with an AVPC card. QDAV now has even MORE FEATURES than the one shown at the May 20 Conference. QDAV has been tested successfully on the Geneve and on 99/4A systems that use the AVPC or the Mechatronics 80 column peripheral. A 40 column version with very similar features will soon also be available for you poor schmucks who don't have 80 column cards. I am currently playing with a beta testing version of this 40 column enhanced QD (tentatively named QD40).

With QDAV you can bring up a disk directory, move the cursor next to a file name, press "R", and RUN the software. This works for any kind of software that can normally be run from Funnelweb, including Xbasic PROGRAMS, assembly PROGRAMS, assembly software in DF80 format. With this initial release of QDAV, under certain circumstances a minor bug appears when you run assembly software. Sometimes you are returned to the 32 column loader menu display and given an EA? or LL? error message. No problem! Just press the appropriate number from the 32 column loader menu and the assembly software will boot properly without further problems.

You can load ANY KIND OF FILE into a 64K buffer for viewing by scrolling or paging rapidly up and down. You can also print all or part of the file to your printer. If you have the 192K of VRAM (standard on the Mechatronics peripheral, an optional extra with the AVPC, and not normally available with the Geneve) you can load a second file into a second 64K buffer and view both files simultaneously on a split screen. These 64K buffers permit viewing and printing only. No file editing is possible from within QDAV.

This feature is particularly useful with DV80 text files. It is no longer necessary to print out a long doc file, or find in one of your many stacks of papers the hardcopy of the doc file you made months ago in order to read the text. Just keep the doc file and software together on the same disk. With QDAV you can easily load the whole doc into memory and read it directly from the screen.

Internal files can be displayed either as ASCII or as a simultaneous Hex/ASCII display. I use a PD Xbasic name and address program to keep track of the Lima U6 newsletter mail list. This program stores names, etc in an I/V105 file.

Before QDAV I used to have to load the Xbasic program, load the file into the program, and then view the contents of the file one record at a time. Now I can dump this I/V105 file into one of QDAV's buffers and view the entire file in an 80 column ASCII display, scrolling rapidly up and down the list of names.

Program files are displayed in much the same way they would be if viewed with a sector editor. The screen display is simultaneously in both ASCII and Hex.

When you display a disk directory with QDAV you can press "H" and see sector zero of the disk displayed simultaneously in ASCII and Hex. No, you can't edit the display.

You can put the cursor next to a file name, press CTRL/H, and view the header sector (file description sector) of the file in ASCII/Hex. As with file viewing, editing sectors is not possible from within QDAV.

That's it folks, for now at least. More Funnelweb changes are in the works. QDAV is most similar to the current Miami U6 MENU. QDAV has much better text and file display capabilities compared to MENU, and I don't think MENU can boot DF80 software. MENU is sold for \$7.95. Those who use QDAV should send Tony an appropriate fairware donation over and above what they have already paid for other parts of Funnelweb.

The most recent release of 40 column Funnelweb v4.13, dated July 4, 1989 as of this writing, as well as the 80 column QDAV and most recent 80 column Funnelweb ED and EE editor files (both dated July 7, 1989) can be obtained from us by any user group (not individuals). Send a disk and paid return mailer to the Lima Ohio User Group, P.O. Box 647, Venedocia OH 45894.

\*\*DONE\*\*

## EARLY PUBLICATION

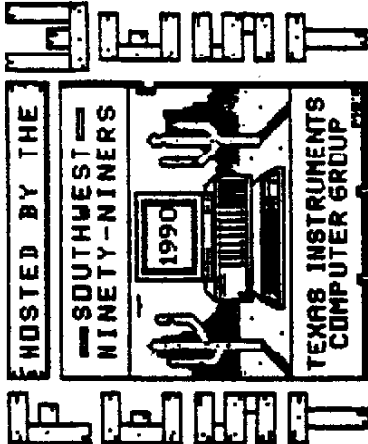
Why are we publishing this "September" issue of B&P in early August?

We have received lots of submissions to the newsletter lately (other groups eat your hearts out), and have even had to increase the size of this issue from 8 to 10 pages. We feel that it is important to get the major reviews and software offerings out to the TI community as soon as possible. Thus, we have pushed forward our publication schedule.

\*\*DONE EARLY\*\*

--- ANNOUNCING ---

T I F E S T W E S T ' 9 0



**HOSTED BY:** Southwest Ninety Niners User Group  
 P.O. Box 17831  
 Tucson, Arizona 85730

**DATE/TIME:** Saturday, February 17, 1990, 9:00 A.M. till 5:00 P.M.  
 Sunday, February 18, 1990, 9:00 A.M. till 3:00 P.M.

**LOCATION:** Days Inn (formerly the historic Santa Rita Hotel)  
 88 East Broadway Blvd  
 Tucson, Arizona 86702

**FEST WEST '90 IS THE BEST IN THE WEST!!** Fest West, in past years, has been held in Los Angeles (hosted by the Los Angeles User Group), Las Vegas (hosted by the Southern Nevada User Group), and San Diego (hosted by the Southern California Computer Group). This year, in what promises to be the best Fest West yet, it will be held in Tucson, Arizona and will be hosted by the Southwest Ninety Niners User Group.

Dealers, vendors, and user groups from all over the United States will be present, offering a complete selection of hardware, software, and accessories for the TI-99/4A and the Myarc Geneve 9640 computers.

5200 square feet of exhibit space is available. User groups and vendors are invited to display and sell their wares. There are plenty of electrical outlets with good lighting available. Booths will be available for \$25 for the first eight foot table and \$15 for each additional table. Each booth reservation will include two free admissions for both days of the fest. For more information, see the contact list at the end of this announcement. All announcements will be uploaded to the mentioned BBS's in Form\_Shop and TI-Writer formats.

Days Inn is giving us great rates during the peak of the tourist season. For only \$49.18 (\$44.00 plus all local taxes) per night, rooms with 1 King size bed or 2 Queen size beds are available. See the accompanying flyer for more information on Days Inn. For those who wish, Days Inn also has suites available. Call Days Inn direct for those rates. Be sure to mention you will be attending Fest West '90 when calling and ask for Olivia.

RV facilities will also be available for \$16 per night (tax included). Reservations are required, and should be made through the Fest West '90 Committee. No deposit is required. Use the enclosed form when making your reservation. Send the reservation to the address listed at the end of this announcement.

As an added incentive, the Southwest '90's are negotiating special airline fares. More information will be forthcoming in future news releases regarding these reduced plane fares.

Besides attending Fest West '90, Tucson is a great place to visit in February. With normally sunny days, warm temperatures, and beautiful evenings, Tucson is a very active community during the winter months. After Fest West '90, consider a vacation in the "Old Pueblo".

Things to see in and around Tucson include historic downtown Tucson, Old Tucson (a famous movie set/museum), The Arizona-Sonora Desert Museum (one of the 10 best zoos in the country - includes a zoo, museum, and botanical gardens), Reid Park Zoo, the Mission San Xavier Del Bar, the Titan Missile Museum, and many, many more sights to see.

During the weekend of Fest West '90, Tucson will also be the site of the Tucson Balloon Festival. More information on this and other activities will be forthcoming in future Fest West '90 news releases.

For additional information, contact the Southwest Ninety Niners Fest West '90 Committee via one of the following:

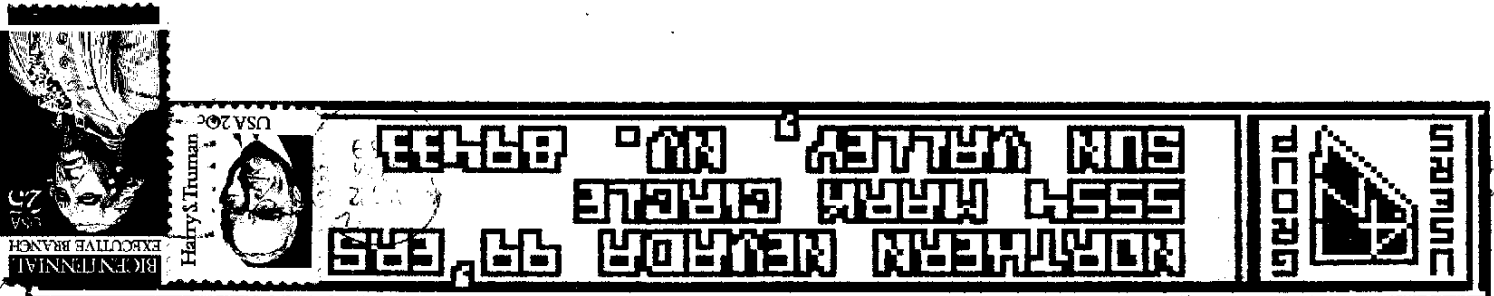
Write to  
 SouthWest Ninety Niners User Group  
 Fest West '90 Committee  
 P.O. Box 17831  
 Tucson, Arizona 85730  
 OR call: 602-747-5016 (BJ Mathis) or 602-886-2460 (Tom Willis)

BBS's:  
 Cactus Patch BBS  
 602-795-1853  
 24 hours a day, 300/1200 baud at 8M parity  
 Address a message to user 2 (Tom Willis) or user 3 (BJ Mathis)  
 Logon as User #27 with the password FESTWEST  
 American People/Link  
 Via Telesat  
 Address your inquiry to WIS99ER (Tom Willis)  
 CompuServe  
 Address your inquiry to 71550,3213 (Tom Willis)

Delphi  
 Address your inquiry to TAWILLS  
 Genis  
 Address your inquiry to T.Willis or I.McCargar

DALLAS TI HOME COMPUTER GRP.  
 P.O. BOX 29863  
 DALLAS, TX. 75229

T O T



ANSWERS TO WORD PUZZLE

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 . . . . . . . . . . D . E X E L P U D . . . . . A

This Newsletter is published monthly by the Northern Nevada Ninety-Niners Users Group (4N), a non-profit organization, supporting the TI-99/4A and NYARC 9640. 4N is not affiliated with Texas Instruments or NYARC, or their subsidiaries. Any mention of a specific product does not constitute an endorsement. Opinions expressed in this newsletter belong solely to the writer and does not necessarily reflect the views of the 4N Users Group, its officers, members, or the editor.

Members are encouraged to submit articles, comments, tips, etc., for publication in this newsletter. Please send your submittals to:

4N Newsletter Editor  
 3490 Golden Valley Road  
 Reno, Nv 89506

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Group meetings are held on the last TUESDAY of each month at 7:00 P.M. at Round Table Pizza, W. 4th St. and Vine, Reno. Visitors are cordially invited to attend.