

Milwaukee  
Sept 86



# HOCUS

Home Computer  
Users Spotlight

a monthly publication of the  
Milwaukee Area 99/4 Users Group

SEPTEMBER-OCTOBER 1986

## MILWAUKEE AREA TI COMPUTER FAIR

The big news this month is our BIG TI FAIR being planned for Nov. 2, 1986 here at MATC in Milwaukee. If it is to be a success we are going to need plenty of help at the booths. Since it will be an all day affair, help will be needed for all shifts. The more volunteers we get, the shorter the shifts will be. Please notify any of our officers of your availability as soon as possible. We can use you all

### A REPRINT

The following is a reprint from the magazine "Directions", the official magazine for the TI professional, the News and Views column.

ONE MORE TIME: Although TI stopped making its ever popular 99/4A home computer in 1983, the company still provides parts, service, accessories and technical advice thru its nation wide toll-free number 800-TICARES. If you wonder why I keep mentioning this little machine, it is because that market has risen like a Phoenix from the ashes. By all rights, that computer and its supporters should have long since ceased and desisted. However, thousands upon thousands of its users are actively supporting numerous third-party vendors who've seized a unique opportunity when TI stopped production of the 99/4A.

There's a moral there...somewhere

### TI FORUM Programming Contest

The First Annual COMPUTER SHOPPER/ TI Forum Programming Contest'll run from now until Dec 31, 1986. There'll be three different categories, and plenty of prizes. Write to Computer Shopper, PO BOX 1419, TITUSVILLE FL 32781 for complete set of rules and then START PROGRAMMING!

## PERIODICALS for the TI 99/4A

MICROPENDIUM: \$12/yr, PO BOX 1343, Round Rock, TX 78680. Has articles, reviews, tips, TI news, advertizing, classifieds, very few programs

SMART PROGRAMMER now combined with Super 99 Monthly: \$18/yr, Bytemaster Computer Services, 171 Mustang St., Sulfur LA 70663. Tidbits, tutorials, reviews, tips and programs, covering BASIC thru FORTH and ASSEMBLY, very technically oriented, no advertising

NATIONAL NINETY NINER: \$12/yr, The 99ers Association, 3535 So H St. #26 Bakersfield, CA 93304. Hints, tips, programs and general info for TI'ers Very little advertizing and articles by guest writers of the TI community

GENIAL TRAVELLER: \$30/yr, 6 issues A magazine on disk with DV-80 format files; tips, techniques, tutorials, routines and running programs.

R/D COMPUTING: \$14/yr, RYTE Data, 210 Mountain St. Haliburton, Ontario K0M 1S0 CANADA. Newsletter format, technical articles and a lot of RYTE DATA advertizing.

COMPUTER SHOPPER: \$18/yr, BOX 1419 Titusville, FL 32781-9988. Newspaper format covering all computers. Loads of advertizing. With several pages devoted exclusively to TI.

USER GROUP NEWSLETTERS: anywhere from \$10-\$15/yr from over 200 groups around the world. You may check some out from our collection and if you find one you like, join their group and receive your own subscription.

THE INCOMPLETE AND AERIDGED  
COMPUTER TERM LEXICON

from the Washington DC Gazette  
July 13, 1983

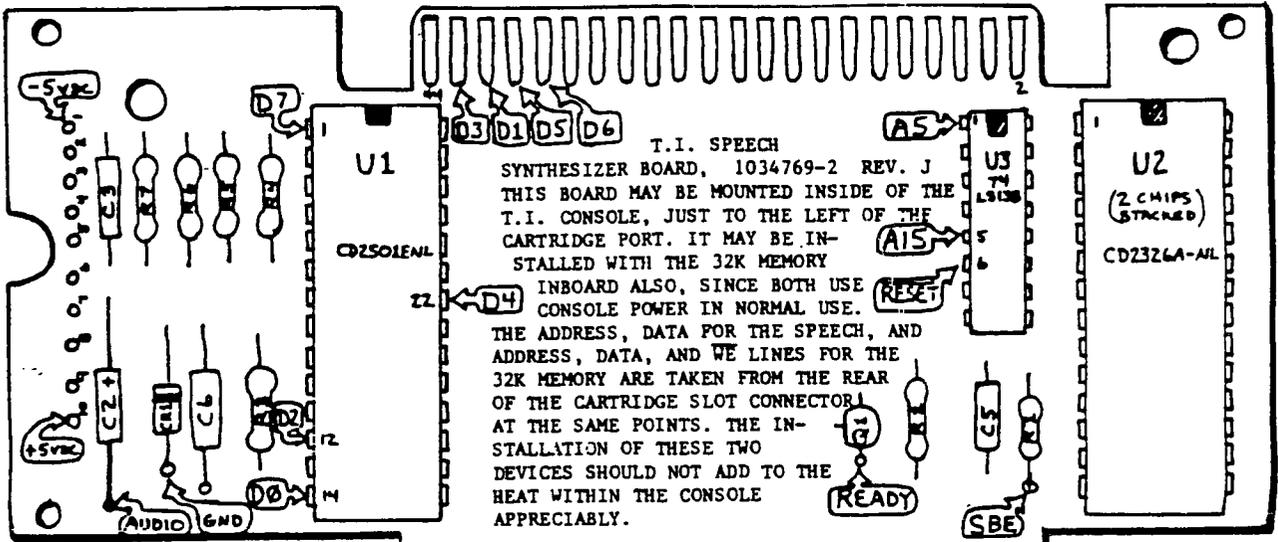
ANALOG - An hors d'oeuvre, usually made from cheese and covered with crushed nuts.  
APPLE - typically a device used to seduce men, usually equipped with display screens and/or worms.  
BAR CHART - A list of places to go at Miller time.  
BASIC - A form of motion sickness caused by waiting two hours to cross the bridge to Ocean City.  
BINARY - The ability to have friends of both sexes.  
BIFIDAR - Having a home in Gnome Alaska and Buffalo NY.  
BIT - Similar to a nibble. Commonly eight nibbles in a mouthfull. See also 'byte'  
BUBBLE MEMORY - A derogatory term referring to someones intelligence. See also 'vacuum tube'  
BUFFER - A process through which computers are treated to prevent stomach upset.  
BUG - Small living things that small living boys throw on small living girls.  
BYTE - A mouthful, as in "How many bytes in a Big Mac?"  
CARRIAGE RETURN - The act returning a vehicle to the rental counter.  
CASSETTE - A very petite cass, achieved thru exercise.  
CHARACTER DENSITY - The percent of extremely weirdo people in your computer club.  
CHIP - Small crunchy objects served with onion dip.  
CLOSED LOOP - A method of execution in vogue in Iran.  
CODE - Usually lasts about three to five days, accompanied by sore throat, runny nose and fever.  
COMMAND - A statement presented by a human and accepted by a computer, making the human feel he is in control.  
COMPILE - A heap of decomposing vegetable matter.  
CONVERSATIONAL MODE - Describes the typical office on a Monday following a Steelers game.  
COUPLING - An activity usually preceded by marriage, but not necessarily.  
CPU - A juvenile telling his dog he missed the paper.  
CRT - A movie about a little alien creature who forgets his telephone number and must write home.

CURSOR - An expert in the use of four letter words.  
DEBUS - The act of placing shoe leather against small creeping creatures.  
DISC DRIVE - The propulsion method developed by a well known foreign automobile manufacturer.  
DOWNTIME - Title of a song popularized by Petula Clark.  
DUMP - The EPA's answer to good health.  
EPROM - First name of movie actor Epron Zimbalist, Jr.  
ERROR - Something only humans can commit.  
FIFO - A cute name for a dog.  
FLOPPY DISCS - A defect occurring in all 1982 disc drives, necessitating a factory recall.  
GIGO - A movie industry acronym referring to all the numerous "Gidget Goes To #####" movies.  
GLITCH - Scientific name for the little balls of fuzz that collect in navels.  
HARDWARE - Typically boots, leather and chains. Contrast with 'software'.  
INTEGRATED CIRCUIT - The end result of busing.  
INTERFACE - The opposite of "Getouttaface."  
KEYPUNCHING - An activity most similar to cowpoking.  
MEGAHERTZ - A very large car rental company.  
MODEM - A contraction, as in "Gimme modem cookies."  
NETWORK - The occupation of a fisherman.  
ON LINE - A statement shouted at tennis judges in response to serves being called 'out'.  
PROGRAM - What commercials try to do to us.  
RAM - A male sheep with horns.  
REAL TIME - Here and now, as opposed to fake time which only occurs there and then.  
RECURSIVE - See 'recursive'.  
ROM - A RAM after a delicate operation.  
SEMICONDUCTOR - A person hired to lead an orchestra before he has graduated.  
SERIAL PROCESSING - The act of making corn flakes.-  
SNOWGLOBE - A small white object thrown in winter.  
SOFTWARE - Typically silk nighties, nylons, garter belts. Contrast with 'hardware'.  
STRING - An object kittens play with.  
TERMINAL - What people have before seeing a doctor.  
TRANSISTOR - A sibling, as a transbrother.  
TYPEWRITER - A contradiction in terms.  
VACUUM TUBE - A derogatory term. See 'bubble memory'

COMPUTER ART by Hitz



INFORMATION NECESSARY TO PUT SPEECH SYNTHESIZER INSIDE OF CONSOLE.  
 ( THIS MAY BE DONE IN ADDITION TO 32K INTERNAL MEMORY )



MUCH CREDIT MUST BE GIVEN TO THE CEDAR RAPIDS USERS GROUP FOR THEIR CONTINUED EFFORTS IN MODIFYING THE HARDWARE FOR THE T.I. 99. GARY BISHOP ESPECIALLY.

BLACK PLASTIC CONNECTOR I/O TO CONSOLE CONNECTOR ON RIGHT SIDE OF THE T.I. 99/4A COMPUTER.

THERE ARE 17 ADDRESS, DATA, CONTROL, AND POWER LINES THAT GO FROM THE SPEECH UNIT ABOVE TO THE CPU BOARD BELOW. FOR EASE OF LOCATING IN THIS DRAWING, I HAVE SHOWN THEM ON ONE SIDE OF THE BOARD. IF YOU WOULD LIKE TO MAKE ALL OF YOUR CONNECTIONS ON THE SPEECH UNIT AT THE CONSOLE I/O CONNECTOR RATHER THAN ON THE COMPONENTS, SEE THE NEXT PAGE.

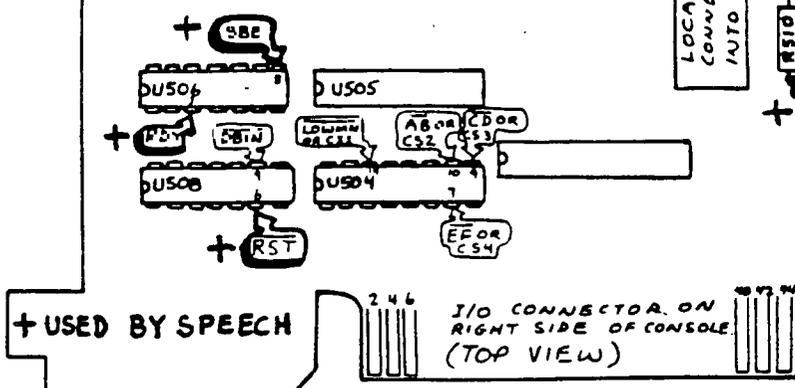
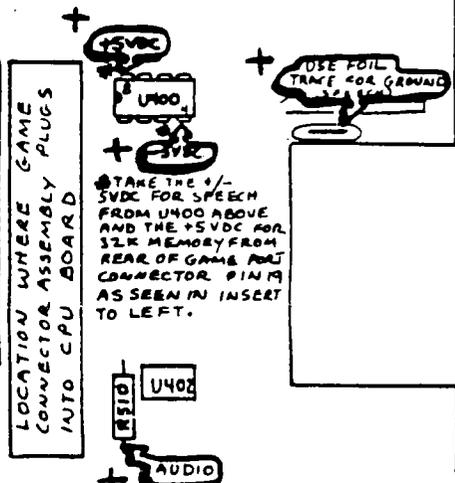
INSERT THE REAR VIEW OF GROM EXTENDER IS FOR THE PURPOSE OF CONNECTING ALL ADDRESS AND DATA LINES

REAR VIEW OF GROM EXTENDER SHOWING PIN NUMBERING AND FUNCTION OF THE WIRES REQUIRED BY THE MEMORY CHIPS

146	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

A-INDICATES ADDRESS BUS D-INDICATES DATA BUS

**+ USED BY SPEECH**



## SIMPLIFIED INSTRUCTIONS

IF YOU DECIDE THAT REMOVING THE TRUSTY SPEECH SYNTHESIZER FROM IT'S HOME ON THE RIGHT SIDE OF YOUR CONSOLE, WHERE IT'S BEEN SINCE YOU SPENT \$240 SOME ODD DOLLARS ( SIX CARTRIDGES YOU GET ONE FREE SPEECH SYNTHESIZER, REMEMBER? ), JUST TO PUT IT INSIDE THE MACHINE WHERE NO ONE, NOT EVEN YOUR FRIEND WITH THE ATARI, OR THE COMMADORE ( WHO BY THE WAY PROBABLY DOESN'T EVEN HAVE SPEECH ON HIS ) CAN SEE IT, IS WORTH IT, THEN READ ON. ( SAY THAT WITH ONE BREATH WILL YOU? )

I'M GOING TO LEAVE THE FACT OF WEATHER OR NOT YOU HAVE ALREADY INSTALLED 32K OF MEMORY INSIDE YOUR CONSOLE NOT CLOUD THE DESCRIPTION HERE, EXCEPT TO STATE THAT THERE IS ROOM FOR BOTH INSIDE THE CONSOLE ABOVE THE UPPER SHIELD, TO THE LEFT OF THE GROM PORT.

FIRST YOU SHOULD PREPARE A STATIC FREE PLACE TO WORK, NO CARPET UNDERFOOT, TRY TO WEAR COTTON CLOTHING, MOVE AROUND AS LITTLE AS POSSIBLE, AND TRY TO PROVIDE YOURSELF WITH A GOOD EARTH GROUND AT THE IMMEDIATE WORK AREA. GOOD LIGHTING IS IMPORTANT, AND THE JOB WILL ALWAYS PROGRESS FASTER AND YOU WILL BE LESS FRUSTRATED IF YOU HAVE THE RIGHT TOOLS. A PHILLIPS SCREWDRIVER (#2); A 15 to 25 WATT ( GROUNDED IF POSSIBLE) SOLDERING IRON, SMALL GAUGE RESIN CORE SOLDER, 10" OF RIBBON CABLE WITH AT LEAST 17 WIRES (OR ANY MULTI-STRAND WIRE EQUIVELANT TO THIS ), ELECTRICAL TAPE, AN EXACTO ( TYPE ) KNIFE, SMALL SIDE CUTTERS OR WIRE STRIPPERS, AND A SMALL PAIR OF PLIARS, PREFERABLY NEEDLE NOSE.

REMOVE THE SPEECH SYNTHESIZER UNIT FROM THE ENCLOSURE, AND TAKE THE SHIELDING OFF OF THE BOARD. USING THE TOP PART OF THE DRAWING ON THE PREVIOUS PAGE, ORIENT YOURSELF WITH THE COMPONENT LAYOUT, AS WELL AS THE PIN LOCATIONS ON THE VERY TOP OF THE CARD ITSELF WHERE D3, D1, D5, D6 ARE SHOWN . IF YOU DO NOT WANT ANY CONNECTIONS MADE TO COMPONENTS, YOU CAN ALSO MAKE ALL YOUR CONNECTIONS TO THE PINS COMING FROM THE BLACK PLASTIC CONNECTOR WHICH SOLDERS TO THE SPEECH CIRCUIT CARD. THE PIN NUMBERS ARE:

PIN:	TERM:	PIN:	TERM:	PIN:	TERM:	PIN:	TERM:
1	--- +5V	19	---- A15	36	---- D6	40	---- D1
2	--- SBE	23	---- GND	37	---- D0	42	---- D3
3	--- RESET	34	---- D7	38	---- D5	43	---- -5V
5	--- A5	35	---- D4	39	---- D2	44	---- AUDIO
12	--- RDY						

MAKING THE ABOVE CONNECTIONS WILL KEEP THE BOARD CLEAN AND ELIMINATE THE LIKELYHOOD OF DAMAGING A CHIP IN THE SPEECH UNIT WITH A HOT SOLDERING IRON, AS WELL AS ENABLING THE WIRES TO GO TO A MORE COMPACT LOCATION ON THE BOARD.

ATTACH THE WIRES TO THE BOARD EITHER AS SHOWN IN THE DRAWING OR TO THE EDGE CONNECTOR AS DESCRIBED ABOVE.

REMOVE THE COVER FROM YOUR T.I. COMPUTER, AND TAKE THE TOP SHIELD OFF OF THE CPU BOARD. ( THE BOARD MUST BE OF THE OLDER TYPE, IN THAT WITH THE BOARD LYING ON THE WORK AREA AS IT WOULD BE IF YOU WERE ACTUALLY USING IT, THE GROM PORT AND I/O PORT ON THE RIGHT, THE CPU PROCESSOR CHIP, THE 64 PIN CHIP, MUST BE HORIZONTAL TO THE FRONT EDGE OF THE CPU CARD) IF THE CPU CHIP IS VERTICLE TO THIS EDGE, THAT IS GOING AWAY FROM YOU, CLOSE THE MACHINE BACK UP AND STOP WITH THIS PROJECT.

YOU MAY LOOK AT THE TOP SHIELD AND SEE THE BEST WAY FOR YOU TO ROUTE THE WIRES THAT GO TO THE CPU BOARD COMPONENTS, THROUGH IT. THESE WIRES COME FROM PINS, 1,2,3, 12,23,43, AND 44 AS SHOWN ABOVE. YOU MAY WISH TO CUT A SLOT IN THE SHIELD FROM ONE EDGE TOWARD THE CENTER OF THE SHIELD AND PROTECT THE EDGE WITH SILICONE CAULKING, OR USE JUST ELECTRICAL TAPE, TO PREVENT DAMAGE TO THE WIRES THAT GO TO THE CPU BOARD.

ATTACH THE 7 WIRES JUST MENTIONED, INSTALL THE SHIELD, AND ATTACH THE REMAINING 10 WIRES, DO THRU D7 AND A5, AND A15 TO THE REAR OF THE GROM CONNECTOR AS SHOWN IN THE INSERT ON THE FIRST PAGE. INSULATE THE BOARD FROM THE SHIELD EITHER BY USING NYLON OR PLASTIC SLEEVES AND SCREWS TO HOLD THE BOARD ABOUT 1/4" TO 1/2" ABOVE THE TOP SHIELD. ASSEMBLE THE CONSOLE. USE A SPEECH CARTRIDGE, OR WHATEVER MEANS YOU HAVE TO TEST OUT THE CARTRIDGE. **SEE** I TOLD YOU THIS WOULD BE SIMPLE. GOOD LUCK!

JOHN F. WILLFORTH WP99'ERS  
(412) 527-6656

AMNION™ HELPLINE  
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6 AUGUST 1986

TO: HOWIE ROSENBERG  
19 7TH AVENUE  
FARMINGDALE NY 11735

TERRIE MASTERS  
148 SO. MAPLE DRIVE  
BEVERLY HILLS CA 90212

RELEASE FROMULGATE

Dear Howie & Terrie,

I have finished gathering this information that I hope will be of some help to all those who have been cheated by Home Computer Journal aka 99'er. The information was obtained both first hand and by several sources reporting their results, so it is a composite.

It seems that at the same time HCJ was sending out their "postcard" offer to subscribers, they were also closing down and dissolving Emerald Valley Publishing. The new company, composed of all the very same people, is called something like Computer Technology Publishing. Call them to complain about what they did to TI owners and they'll tell you they are not liable for anything since Emerald Valley Publ. is no more. They will refuse to talk to anyone further.

The district attorney in Eugene, Oregon has received enough complaints that they have begun an investigation. They are interested in hearing from any and all complainants about HCJ. They have exerted pressure on HCJ so that a few people have actually gotten their money back on unfinished subscriptions. To strengthen the case against HCJ, however, they need to hear from "damaged parties" or they will be helpless. Anyone who was cheated by HCJ is strongly urged to contact:

DISTRICT ATTORNEY  
CONSUMER RELATIONS  
400 LANE COUNTY COURTHOUSE  
EUGENE OREGON  
503-687-4261

If people will just take a few minutes of their time to let them know about their personal complaints, maybe the scam can be ended permanently. Please pass this information along to as many people as you can. IMPORTANT - all complaints should be leveled against Emerald Valley Publishing Co. aka HCJ, etc. etc.

As always, thank you for your support and concern for TI owners everywhere.

*Guy 2*



```

49# DATA 5,6,7,1,7,6,5,6,7,1
,2,1,7,6,7,1,2,3,2,1,7
50# DATA 1,2,3,4,4,3,2,1,2,3
,4,5,5,4,3,2,3,4,5,6,6,5,4,3
,4,5,6,7,7,6,5,4
51# DATA 5,6,7,8,8,7,6,5,6,7
,8,1,1,8,7,6,7,8,1,2,2,1,8,7
,8,1,2,3,3,2,1,8
52# FOR J=1 TO A :: FOR JJ=1
TO A :: READ M(J, JJ) :: NEXT
JJ :: NEXT J
53# X=A+1 :: FOR J=1 TO A ::
FOR JJ=1 TO A :: M$(J, JJ)=M$
(1, JJ)&CHR$(D(M(J, JJ)))
54# M$(2, J)=M$(2, J)&CHR$(D(M
(JJ, X-J))+1)
55# M$(3, J)=M$(3, J)&CHR$(D(M
(X-J, X-JJ))+2)
56# M$(4, J)=M$(4, J)&CHR$(D(M
(X-JJ, J))+3)
57# NEXT JJ :: NEXT J
58# CALL CLEAR :: FOR R=1 TO
A#H STEP A :: FOR C=1 TO A#
HC STEP A
59# CALL KEY(0, K, ST) :: IF K=
81 THEN 32#
60# V=V+1+(V=4)#4 :: FOR T=1
TO A :: DISPLAY AT(R-1+T, C)
:M$(V, T) :: NEXT T :: NEXT C
:: V=V+W+(V=4)#4 :: NEXT R
61# RETURN

```

This routine will search a disk file for up to 18 keywords in one pass - more if you DIM K\$( ) - and you may elect to find all records which contain the keyword or only those which contain it in combination with one of 1 or more secondary keywords.

```

18# CALL CLEAR
19# Y=# :: DISPLAY AT(3,5):"
TIGERCUB KEYSEARCH" :: DISPL
AY AT(6,1):"Filename? DSK" ::
ACCEPT AT(6,14)BEEP:F# ::
OPEN #1:"DSK"&F$,INPUT
12# DISPLAY AT(8,1):"Output
to:" (1)Screen" (2)Printer"
(3)Both" :: ACCEPT AT(8
,11)VALIDATE("123")SIZE(1)BE
EP:Q
13# IF Q>1 THEN DISPLAY AT(1
3,1):"Printer name?" :: ACCE
PT AT(13,15):P# :: OPEN #2:P
#
14# DISPLAY AT(15,1):"Search
for:" (1)First match" (2
)All matches" :: ACCEPT AT(1
5,13)VALIDATE("12")SIZE(1)BE

```

```

EP:S
15# DISPLAY AT(12,1)ERASE AL
L:"Press ENTER when all key-
":*words have been entered."
16# DISPLAY AT(17,1):"Press
ENTER if none -"
17# Y=Y+1 :: DISPLAY AT(15,1
):"Keyword? ";CHR$(127):: AC
CEPT AT(15,18)SIZE(-28)BEEP:
K$(Y):: IF K$(Y)=CHR$(127)TH
EN 19#
18# W=W+1 :: DISPLAY AT(19,1
):"With? ";CHR$(127):: ACCEP
T AT(19,7)SIZE(-21)BEEP:W$(Y
,W):: IF W$(Y,W)=CHR$(127)TH
EN W=# :: GOTO 17# ELSE GOTO
18#
19# Y=Y-1
20# LINPUT #1:M#
21# FOR J=1 TO Y :: IF POS(M
$,K$(J),1)=# THEN 29#
22# IF W$(J,1)=CHR$(127)THEN
25#
23# W=W+1 :: IF W$(J,W)=CHR$(
127)THEN W=# :: GOTO 29#
24# IF POS(M$,W$(J,W),1)=# T
HEN 23#
25# IF Q>1 THEN PRINT #2:M#
26# IF Q<2 THEN PRINT M#
27# IF S=1 THEN 31#
28# IF W$(J,W)<>CHR$(127)THE
N 23#
29# NEXT J
30# IF EOF(1)<>1 THEN 20#
31# CLOSE #1 :: DISPLAY AT(2
4,1):"FINISHED - PRESS ANY K
EY" :: CALL SOUND(200,500,5)
32# CALL KEY(0, K, ST) :: IF ST
=# THEN 32# ELSE CALL CLEAR
:: GOTO 11#

```

You can set up a keyfile in TI-Writer - just remember that each 88-character line is a separate record, and keep the Alpha Lock down!

However, this is the program that I plan to use to set up a keyfile index of all the newsletters you have sent me, if I ever find the time -

```

18# DISPLAY AT(3,18)ERASE AL
L:"TIGERCUB" :: KEYWORD I
NDEX WRITER" !by Jim Peterso
n
19# DISPLAY AT(8,1):"Filenam
e? DSK" :: ACCEPT AT(8,14):F
# :: OPEN #1:"DSK"&F$,APPEND
:: CALL KEY(3,K,S)

```

```

12# P#="*****" :: Y=# :: M#
="*" :: P=#
13# DISPLAY AT(12,1):"NEWSLE
TTER? ";P# :: ACCEPT AT(13,1
)SIZE(-28):P# :: IF SE6$(P#,
1,3)="END" THEN CLOSE #1 ::
STOP
14# DISPLAY AT(14,1):"YEAR?"
;Y :: ACCEPT AT(14,7)VALIDAT
E(DIGIT)SIZE(-4):Y
15# DISPLAY AT(14,13):"MONTH
? ";M# :: ACCEPT AT(14,28)SI
ZE(-9):M#
16# DISPLAY AT(16,1):"PAGE?"
;P :: ACCEPT AT(16,7)VALIDAT
E(DIGIT)SIZE(-3):P
17# DISPLAY AT(18,1):"ARTICL
E? " :: ACCEPT AT(19,1):A#
18# DISPLAY AT(20,1):"AUTHOR
?" :: ACCEPT AT(21,1):AU#
19# DISPLAY AT(22,1):"KEYWOR
DS?" :: ACCEPT AT(23,1):K#
20# PRINT #1:P#&" "&STR$(Y)&
" "&M#&" "&STR$(P)&" "&A#&"
"&AU#&" "&K#
21# GOTO 13#

```

Here's one to have fun with, from an ingenious German programmer. I just couldn't resist adding a tuba to his band.

```

19# !BY TORSTEN NIEMIETZ, MA
RBACHER WEG 3, D-2800 BREMEN
1, WEST GERMANY
11# FOR J=1 TO 1# :: READ T(
J)
12# NEXT J :: E=33# :: A=44#
:: H=49# :: C=55# :: K=65#
:: F=74# :: G=83#
13# DISPLAY AT(3,8)ERASE ALL
:"S - D - L - O" :TAB
(18);"MIT OOMPAN" :RPT#("=
,28) :: "BY:" TORSTEN NIEM
IETZ" : "mit Oompah by Tiger
cub"
14# DISPLAY AT(18,1):"MAKE U
P YOUR SOLO WITH" :KEYS 1 TO
9 ... COME ON !!!"
15# FOR S=1 TO 2 :: CALL SOU
ND(200,E,3,H,3) : CALL SOUND
(200,E,3,H,3)
16# CALL SOUND(200,E,3,C,3) :
CALL SOUND(200,E,3,H,3) ::
NEXT S
17# M=E :: N=H :: O=C :: D=8
:: GOSUB 21# :: M=A :: N=K
:: O=F :: D=4 :: GOSUB 21#
:: M=E :: N=H :: O=C :: GOSUB
21# :: M=H :: N=F :: O=6 ::

```

```

D=2
18# GOSUB 21# :: M=A :: N=K
:: O=F :: GOSUB 21# :: M=E
:: N=H :: O=C :: GOSUB 21#
:: M=H :: N=F :: O=6 :: GOSUB
21#
19# FOR X=1# TO 3 STEP -1 ::
CALL SOUND(200,E,3,H,3,T(X
,#)
20# NEXT X :: CALL SOUND(800
,E,3,H,3,K,0) :: GOTO 15#
21# FOR X=1 TO D :: FOR Y=1
TO 2 :: GOSUB 28#
22# CALL SOUND(200,M,3,N,3,T
(R-48-(R=48))#.9375,3#,-4,#)
23# NEXT Y :: GOSUB 28#
24# CALL SOUND(200,M,3,O,3,T
(R-48-(R=48))#.9375,3#,-4,#)
:: GOSUB 28#
25# CALL SOUND(200,M,3,N,3,T
(R-46-(R=48))#.9375,3#,-4,#)
26# NEXT X :: RETURN
27# DATA 587,659,784,880,968
,1175,1319,1568,1760,44733
28# CALL KEY(0,R,S) :: IF S<>
# AND R>48 AND R<58 THEN RET
URN ELSE R=57 :: RETURN

```

I !ONE-LINER universal calendar for day of week of any date since 1985 - by Dennis Hodgson in Sydney News Digest

```

2 !input day, month, year as
for instance 3#,4,1986
18# A=1 :: INPUT D,M,Y :: FC
R T=A TO M-A :: H=M+29+VAL(S
E6)("28212122121",T,A) :: H#
XT T :: J=H+(Y/4<>)INT(Y/4)AN
D M>2)+INT((Y-A)#365.25)+D
: PRINT SE6$("SASUMOTUNETHFR
", (J-INT(J/7)+7)#2+A,2) :: RU
N

```

Yes, there are legitimate uses for GRAM copiers and track copiers and such - but there is no way to get these utilities into the hands of the few who will only use them honestly, without also getting them into the hands of the many who will use them as burglar tools. And so, a few more nails are driven into the coffin...

MEMORY FULL

Jim Peterson

TIPS FROM THE TIGERCUB

#38

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For descriptions of these send a dollar for my catalog!

I have discovered a rare bug in the 28-Column Converter, published in Tips #18, which will cause an I/O 25 ERROR if the very last line of the program being converted happens to have exactly 88 characters. You can fix it by adding a line -
215 IF EOF(1)=1 THEN 268

There is also a rare bug in the SIDENWAYS subroutine on my Nuts & Bolts #2 disk, which prevents turning some

redefined character sets sideways. If you are one of those who BOUGHT that disk from me, you can fix it by changing the L=LEN(B\$) in line 21639 to L=64.

I was in too much of a hurry to go fishing when I put the last couple of Tips together. In the Gordian Knot in Tips #35, I left out some essential instructions. Please add -
131 DISPLAY AT(11,1):" When you cross your track,"pres s 0 to go over, U to go:"under, C to go across."

To make that fit, you will have to change the DISPLAY AT in line 138 to (8,1), in line 148 to (15,1) and in line 158 to (28,1), also the ACCEPT At in 168 to (28,11). And this change will prevent a lockup when you reach a border -

288 D=D-1 :: IF ABS(D-D2)=2 OR R+(D=1)=8 OR R-(D=3)=25 OR C+(D=4)=2 OR C-(D=2)=31 THEN 188 :: GOSUB 518 :: IF D<>D2 THEN GOSUB 458

I wrote the dulcimer music in Tips #36 in Basic, but I forgot to test it in Basic. It actually runs much better in Extended Basic, but will run fairly well in Basic if you delete the delays in lines 288 and 388.

-If you liked the ESCHER ART in Tips #37, these modifications will improve it considerably -

118 DISPLAY AT(12,1):"Press -: " Q for new pattern": " B to change background": " F to change foreground": " R to reverse colors": : "Any key y to start"
288 A=INT(6\*RND+3):: H=INT(2/4/A):: RX=24-H\*A :: HC=INT(2/B/A):: CX=28-HC\*A :: W=ABS(HC/2=INT(HC/2))-(RX>8):: DIM M(8,8):: FOR P=1 TO A
338 IF K<>66 THEN 346
348 BC=BC+1+(BC=16)\*15 :: IF BC=F THEN 348 ELSE 347

346 IF K<>78 THEN 368 :: F=F+1+(F=16)\*15 :: IF F=BC THEN 346

347 FOR S=7 TO 14 :: CALL COLOR(S,F,BC):: NEXT S :: GOTO 318

358 ! \*\*DELETED LINE \*\*
368 IF K<>ASC("R")THEN 318 :: : T=F :: F=BC :: BC=T :: GOT 0 347

688 GOSUB 988 :: FOR T=1 TO A :: DISPLAY AT(R-1+T,C):M\$(V,T):: NEXT T :: NEXT C
681 IF CX>8 THEN AA=A :: GOSUB 888

685 GOSUB 1888 :: NEXT R
686 IF RX=8 THEN 618
687 GOSUB 1888 :: FOR C=1 TO A\*HC STEP A :: GOSUB 988 ::

FOR T=1 TO RX :: DISPLAY AT(R-1+T,C):M\$(V,T):: NEXT T :: : NEXT C

688 IF CX>8 THEN AA=RX :: GOSUB 888

888 GOSUB 988 :: FOR T=1 TO AA :: DISPLAY AT(R-1+T,C):SE 6\$(M\$(V,T),1,CX):: NEXT T :: : RETURN

988 V=V+1+(V=4)\*4 :: RETURN
1888 V=V+W :: V=V+(V>4)\*4 :: : RETURN

I had a letter from a teacher who was using the PRK module to keep student grades, and wanted to know how to average them. It can be done, but is so impractical that I wrote this program. While I was at it, I speeded up the loading and saving to cassette greatly by converting the grades to an ASCII string and combining the student's name and all grades into one record.

188 DIM N\$(58),T(58,28)
118 CALL CLEAR
128 PRINT " TEACHER'S HELPER": : :
138 REM - by Jim Peterson
148 PRINT "(1)CREATE A FILE?" : "(2)ADD TO FILE?" : "(3)LOAD A FILE?" : "(4)SAVE A FILE?" : "(5)PRINT A FILE?"
158 PRINT "(6)CORRECT A FILE ?" : "(7)COMPUTE AVERAGES?" : "(8)QUIT?"
168 CALL KEY(8,K,S)

```

170 IF (S=0)+(K<49)+(K>56)TH
EN 160
180 ON K-48 GOTO 190,250,610
,800,380,990,1120,1510
190 X=0
200 INPUT "SUBJECT? ":S$
210 GOSUB 1370
220 INPUT "TEST #? ":N
230 GOSUB 1440
240 GOTO 140
250 PRINT ;;:"(1)ADD NAMES?"
:"(2)ADD GRADES?"
260 CALL KEY(0,K,S)
270 IF (S=0)+(K<49)+(K>56)TH
EN 260
280 ON K-48 GOTO 290,310
290 GOSUB 1370
300 GOTO 140
310 INPUT "TEST #? ":Q
320 IF T(1,Q)=0 THEN 350
330 PRINT ;;:"TEST #";STR$(Q
);" ALREADY RECORDED"
340 GOTO 140
350 N=Q
360 GOSUB 1440
370 GOTO 140
380 CALL CLEAR
390 PRINT "OUTPUT TO:"(1)SC
REEN?:"(2)PRINTER?"
400 CALL KEY(0,K,S)
410 IF (S=0)+(K<49)+(K>56)TH
EN 400
420 IF K=49 THEN 460
430 INPUT "PRINTER DESIGNATI
ON? ":P$
440 OPEN #2:P$
450 Fe=2
460 PRINT "PRESS ANY KEY TO
PAUSE":
470 PRINT #Fe:S$:
480 FOR J=1 TO X
490 PRINT #Fe:"":N$(J)&" ";T
AB(10);
500 FOR K=1 TO HN
510 PRINT #Fe:T(J,K);
520 NEXT K
530 CALL KEY(0,K,S)
540 IF S<>> THEN 530
550 NEXT J
560 PRINT #Fe
570 IF Fe=0 THEN 140
580 Fe=0
590 CLDSE #2
600 GOTO 140
610 PRINT ;;:"(1)CASSETTE?:"
(2)DISK?"
620 CALL KEY(0,K,S)
630 IF (S=0)+(K<49)+(K>56)TH
EN 620
640 ON K-48 GOTO 650,670

```

```

650 OPEN #2:"CS1",INPUT ,FIX
ED
660 GOTO 690
670 INPUT "FILENAME? DSK":F$
680 OPEN #2:"DSK"&F$,INPUT
690 INPUT #2:X,HN,S$
700 FOR J=1 TO X
710 INPUT #2:K$
720 N$(J)=SEG$(K$,1,POS(K$,C
HR$(255),1)-1)
730 K$=SEG$(K$,POS(K$,CHR$(2
55),1)+1,255)
740 FOR K=1 TO HN
750 T(J,K)=ASC(SEG$(K$,K,1))
-50
760 NEXT K
770 NEXT J
780 CLOSE #2
790 GOTO 140
800 PRINT ;;:"(1)CASSETTE?:"
(2)DISK?"
810 CALL KEY(0,K,S)
820 IF (S=0)+(K<49)+(K>56)TH
EN 810
830 ON K-48 GOTO 840,860
840 OPEN #2:"CS1",OUTPUT,FIX
ED
850 GOTO 880
860 INPUT "FILENAME? DSK":F$
870 OPEN #2:"DSK"&F$,OUTPUT
880 PRINT #2:X:HN:S$
890 FOR J=1 TO X
900 K$=""
910 FOR K=1 TO HN
920 K$=K$&CHR$(T(J,K)+50)
930 NEXT K
940 PRINT #2:N$(J)&CHR$(255)
&K$
950 K$=""
960 NEXT J
970 CLOSE #2
980 GOTO 140
990 CALL CLEAR
1000 INPUT "STUDENT'S NAME?
":Q$
1010 FOR J=1 TO X
1020 IF N$(J)=Q$ THEN 1060
1030 NEXT J
1040 PRINT ;;:"NAME NOT FOUN
D":
1050 GOTO 140
1060 INPUT "CORRECT WHICH TE
ST? (0 TO QUIT) ":C
1070 IF C=0 THEN 1110
1080 PRINT ;;:N$(J);""S TEST
#";STR$(T(J,C)):
1090 INPUT "CORRECT TO? ":T(
J,C)
1100 GOTO 1060
1110 GOTO 140

```

```

1120 CALL CLEAR
1130 PRINT "OUTPUT TO:"(1)S
CREEN?:"(2)PRINTER?"
1140 CALL KEY(0,K,S)
1150 IF (S=0)+(K<49)+(K>56)T
HEN 1140
1160 IF K=49 THEN 1200
1170 INPUT "PRINTER DESIGNAT
ION? ":P$
1180 OPEN #2:P$
1190 Fe=2
1200 PRINT #Fe:S$
1210 FOR J=1 TO X
1220 PRINT #Fe:N$(J);" AVERA
GE ";
1230 FOR K=1 TO HN
1240 TT=TT+T(J,K)
1250 NEXT K
1260 AV=TT/HN
1270 TAV=TAV+AV
1280 PRINT #Fe:AV
1290 TT=0
1300 NEXT J
1310 PRINT #Fe:"CLASS AVERAG
E ";TAV/X
1320 TAV=0
1330 IF Fe=0 THEN 1360
1340 Fe=0
1350 CLOSE #2
1360 GOTO 140
1370 PRINT ;;:"STUDENT'S NAM
ES - ":type END when finish
ed":
1380 X=X+1
1390 M$="NAME #"&STR$(X)&" "
1400 INPUT M$:N$(X)
1410 IF N$(X)<>"END" THEN 13
80
1420 X=X-1
1430 RETURN
1440 FOR J=1 TO X
1450 M$=M$(J)&""S GRADE? "
1460 INPUT M$:T(J,N)
1470 NEXT J
1480 IF N<HN THEN 240
1490 HN=N
1500 RETURN
1510 END

```

20, 26, 27, 31, 32, or 44 as a null string (a blank), and will drop these characters at the end of a string? And ASCII 32 will be dropped at the beginning or end of a string. And ASCII 0 within a string, or ASCII 34 anywhere, will crash, while ASCII 44 within a string will lose the rest of the string. I should have known what ASCII 0, 32 (the space), 34 (quotes) and 44 (comma) would do, but why the others?

LINPUT will accept anything, of course, but I wanted to keep this in BASIC for the teachers who are struggling along without the XBasic module or disk drive.

Chick De Marti published in LA 99ers TOPICS the surprising discovery that PRINT USING and DISPLAY USING can read the IMAGE format from a variable, array or string!

Which led me to some fooling around -

100 !PRINT USING DEMO by Jim Peterson, based on a discovery by Chick De Marti

```

110 CALL CLEAR :: RANDOMIZE
:: CALL SCREEN(5):: FOR S=2
TO 14 :: CALL COLOR(S,S,S)::
NEXT S
120 N=INT(13*RND+1):: C$=CHR
$(8*N+32-(N=4)*11)
130 FOR J=N TO 12 :: A$=RPT$(
" ",J)&"#&RPT$(" ",26-J*2)
&"#": PRINT USING A$:C$,C$
:: NEXT J
140 FOR J=12 TO N STEP -1 ::
A$=RPT$(" ",J)&"#&RPT$(" ",
26-J*2)&"#": PRINT USING
A$:C$,C$ :: NEXT J :: GOTO 1
20

```

Here is one last TigerCub challenge. What is the longest possible one-liner? And what is the longest possible one-liner that actually does something?

MEMORY FULL

Jim Peterson

The reason that 50 is added to the value in line 920, before saving, and subtracted again in line 750 after loading, is because of a quirk of the computer that I don't recall seeing in print anywhere. Did you know that INPUT will read a string beginning with ASCII 0, 2, 4, 7, 10, 12, 14, 18,



Here it is Wisconsin!



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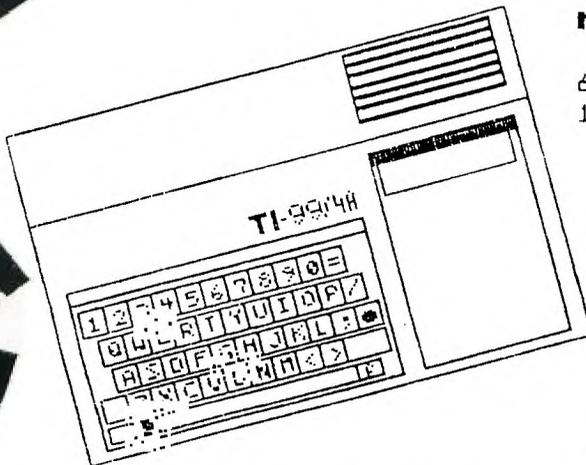
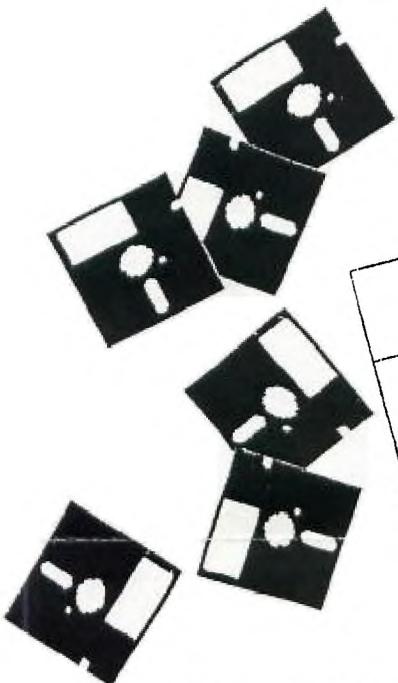
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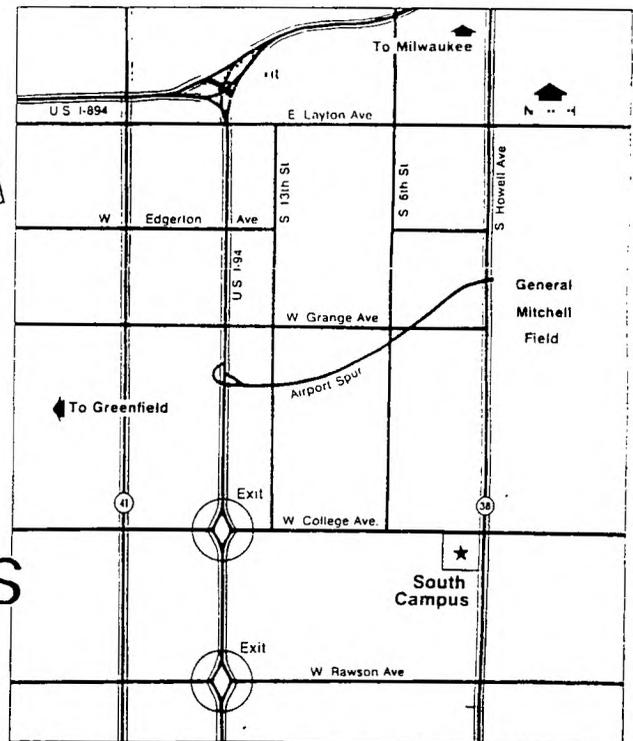
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