THE "4A" STILL LIVES ALONG WITH ITS COPARTNER "GENEVE"

COME JOIN US AND
TAKE PART IN AN
INTERESTING AND
EVENTFULL YEAR
A RENEWAL FORM
IS ENCLOSED

EVENTS:
INSTRUCTION
BEINC CONDUCTED
ON:
MULTIPLAN AND
TI BASE (A POWER-
FUL DATA BASE)
LARCE LIBRARY
AVAILABLE.
HANDS ON USE OF
GROUPS GENEVE
SYSTEM WITH HARD
DRIVE AND TWO
FLOPPIES.

HAPPY

VALENTINE'S

DAY

The Philadelphia Area TI-99/4A Users' Group meets twice a month. On the first Saturday of any given month, we meet at the Bucks County Youth Development Center, (YDC, which is next to Neshaminy Mall), Administration Building, beginning at 10:00 am. On the third Saturday of each month, we meet at Drexel University, in Matheson Hall at 34th and Marker St. Phila. Pa in `Room M-412. Membership to The Philadelphia Area TI-99/4A Users' Group is available to all. We invite anyone that is interested in the TI-99/4A to visit us. Stop in and see what is available to you for your TI and how membership can benefit you!

Current executive board consists of:
------------------------------------

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VICE PRESIDENT...... Allan Silversteen. 215-885-7910
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| | Allan Silversteen |
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| EQUIPMENT .... | Rice Hall |
| PROGRAM ...... | Dr. Eric Bray |

REMEMBER to be considerate when calling any of the above people. Limit your calls to the early evening hours. (6pm to 9pm)

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**** NOTICE ****

```
THE MARCH COPY OF TI-D-BITS
WILL BE THE LAST ISSUE YOU
WILL RECEIVE UNLESS YOU HAVE
RENEWED YOUR MEMBERSHIP !!!
```

## CHEZ GENEVE
## By Chip Chapin
Taken from West Penn 99'ers Newsletter

1,015,808 bytes...like 1 Meg. of RAM,Man... Just like it said in the ad. The MEMEX 504K Card from Bud Mills Services (designed by Ron Walters) is just about the easiest add-on you can get. The card is a smooth production model, very clean, very neat. It looks and feels very sturdy, although it does not come in a clamshell, which makes it the only card in my PEB which does not have one. Up to this point. I had a card in every other slot but that obviously had to change. I chose to put it next to the GENEVE card, although I am sure it could have been put most anywhere in the box.

The card is a snug fit, a little more so than any of the other cards I have. But once you install it, that's all there is to it - no cables to attach, no pinouts to worry about. There is a set of DIP switches on it, which are factory set in the 'conservative' position. Only two of the switches do anything in the 504K configuration, and one of them is concerned with the LED. The other will provide you with 7 more pages of RAM, if you change the settings. But, according to the documentation, you should do this only if you know all of the cards you have in the PEB decode the two 'expansion' lines on the PEB BUS. Some information is provided on cards which are known not to do this, but you will obviously have to make some inquires if you are not sure.

So aside from another red LED on my PEB, what did I gain? Naturally, what I was interested in was the amount of RAM left after booting up. I was getting tired of having to run special Autoexec files to load TGA, Hyper-Copy, Fortran, etc., and with the extra RAM I had hopes of being able to run them in my normal configuration - that is, with the TIMODE statement and with a decent size RAM drive. As you might guess, I have made use of the batch file Menu capabilities, and one quickly gets spoiled with the one-keystroke aspects of it. So I set my RAM drive setting back up to DSSD size (RAMDISK 180) and tried it out. By the way, I am using MDOS 1.14. The first program I tried it on was QDE V1.9. It worked like a charm! Then I tried TGA. No good. Haven't figured out why, but the documentation does say that it needs all the memory it can get, so perhaps the checks it performes on loading, do not tell it that suffcient memory is available. As if 458,752 bytes would not be enought got it! Hyper-copy ran with no problems. I then tried it on FORTRAN 9640'S QDE -- no good. I did not check the actual Fortran compiler, so I can not report on that. MYART ran fine, but I only occasionally had memory problems when running it in the TIMODE statement, so it hasn't had a fair test yet.

I have to say that I am certainly satisfied with my purchase. It has performed flawlessly, hour after hour, and has given me the convenience I wanted in most cases. The other cases are due to software which was written before this memory become available. In those other cases, perhaps the program authors will be willing to make some changes now that the memory is available. In any event, I now have the capacity to run all those huge commercial-grade programs which MYARC is sure to be putting our any day now...or was that last year's April Fool joke? What ever. The point is, I do have the capacity and when its useful, its automatically being used. And we all know that old saying "Programs automatically expand to fill the available memory", which in this case wouldn't be bad, now would it?

*********************

## FROM THE TI
## ORPHAN NEWS
## (BUG NEWS 12-90)
by Frank W. Alystock
Taken from the WEST PENN 99'ers News

I have just received a new catalog from KB COMPUTER CONCEPTS and anyone interested in new games or if you liked the format of WHEEL OF FORTUNE you should see the version that is offered by them. The program SPINNER can be played by 1 to 3 people. The game comes with 120 phrases on disk. Enought for 40 games. The program allows you to make up your own

phrases. They will also accept your disks and will reimburse you at $1.75 per disk. The game sells for only $6.00. You might write to: KB COMPUTER CONCEPTS, % BERGMAN, 634 Parks Tower, 3001 West Bancroft St., Toledo, OH 43606.

From the CEDAR VALLEY 99'ER NEWSLETTER (12-90) by Bob Wahlstrom . HAM RADIO AND THE TI-CW PROGRAM.......

This is an answer to the questions Gary Bishop had in the November Newsletter about the program that I purchased from AC5D COMPUTER PROGRAMS, Sam H. Moore Sr., P.O. Box 368, Stigler OK. 74462. The version that I ordered was for use with the Mini-Memory. Another version is available for use with the memory expansion, disk drive and editor/assembler. At the same time I ordered it, The Mini-Memory and cassette version was the only one available.

The way the program gets your transmitter keys for CW is to use the earphone output jack on the T.V., or connect across the speaker. This signal then switches a relay which then keys the ham rig. This lets you see your transmission on the screen as well as hear the code transmission. I added a one transistor amplifer circuit before the relays and this seemed to make things work better.

At the time I purchased this program I got in on a half price offer which got the price down to $10.50 plus postages and handling. The program will work Ok but you will need to be receiving a fairly strong signal with a minimum of interference.

RAVE 99 Co. after many delays expectes to begin shipping their new PE/2 Professional Expansion system. The unit has a system expansion bus for 32-bit cards. The TI-99/4A and Geneve can use the "B" version of the PE/2, and the GENEVE alone occupies the "A" version. The "A" version (Geneve only) supports up to 3- 5 1/4 Half-height hard/floppy drives plus 2- 3 1/2 hard/floppy drives at a cost of $309.00. The "B" unit is $369.00 plus S/H. Both CPU's can be running at the same time with the only limitation being that the peripheral cards can be used by only one CPU at a time. Where no disk access or printing is required

(as in playing a memory resident game) you can have one system printing out reports from disk files while you are playing with the other system.

The TI and GENEVE on the PE/2 togther require a composite monitor unless the TI is equiped with an RGB adapter such as the AVPC card or Mechatronics 80-col. card.

If you don't currently have a GENEVE the PE/2 requires the purchase of a PC-Keyboard at additional cost.

Delivery time for the PE/2 is 6-8 wks. and for more information contact RAVE at 203 871-7843, 112 Rambling Road, Vernon, CT 06066

MIDI MASTER Interface.........
The MIDI interface designed by Mike Maksimik of the Chicago TI U.G. made it's debut. It supports 16 channels at the same time! The MIDI MASTER Interface consists of a special cable, MIDI MASTER software and your RS/232 card and an electronic keyboard or other device with a MIDI port. The music can be written using a word processor or the keyboard can generate the score real-time. Even PC music files can be imported for use with the MIDI MASTER Interface and saved to disk.

MIDI MASTER is available on cartridge for the TI or disk for the GENEVE. Both require a disk system and an RS232 port. The price is $44.95 and Asgard says that a cassette version will be available in the future.

For more information contact: ASGARD SOFTWARE.....703 255-3085 P.O. Box 10306. Rockville. MD 20849

Some Addresses and Phone Numbers for you who can never seem to find them when you need them:

BUD MILLS SERVICES 166 Dartmouth Dr Toledo, OH 43614 ..... 419 385-5946 TI-COMM BBS 300/7/E .. 419 385-7484

HARRY T. BRASHER, 2753 Main Street, Newfane, NY 14108

OPA (Gary Bowser),432 Jarvis Street Suite 502, Toronto, Ontario, Canada M4Y-2H3 .............. 416 960-0925

JP SOFTWARE, 1014 Pine Street,Menlo Park, CA 94025 ....... 415 328-0885

T&J SOFTWARE, 515 Alma Real Dr., Pacific Palisades, CA 90272

NOTUNG SOFTWARE, 7647 McGroarty St. Tujunga, CA 91042 ... 816 951-2718

TEXAMENTS, 53 Center Street, Patchogue, NY 11772
516 475-3480 or BBS 516 475-6463

COMPRODINE SOFTWARE, 1949 Evergreen Ave., Fullerton, CA 92635
714 990-4577

L.L.CONNER ENTERPRISES, 1521 Ferry Street, Lafayette, IN 47904
317 742-8146 (Voice)
317 423-4879 (FAX)

9640 NEWS, P.O.  Box 75-2465
Memphis, TN 38115

GREAT LAKES SOFTWARE, 804 E. Grand River Av., Howell, MI 48843

BILL G. CHAVANNE (TI TAX)
4549 English Ave.
Ft. Meade, MD 20755...301 672-1980

COMPUTER BUYERS GUIDE
% Douglas Kilarski
P.O. Box 55886
Birmingham, AL 35255..800 366-0676

MICROpendium ($25.00-12 Issues)
P.O. Box 1343, Round Rock, TX 78680

DataBioTics          (Order Directly)
P.O. Box 1194        (For TI)
Palos Verdes Estates, CA 90274

IDT (CorComp), 2211 E. Winston Rd. Suite G, Anaheim, CA 92806
714 635-1815 (be sure to call first to get RMA for repair or
availability of Product)

TIGERCUB SOFTWARE, 156 Collingwood Ave. Columbus, OH 43213

ESD
(Electronic Systems Development)
P.O. Box 23805, Washington D.C.
20026-380.............301 322-6150
(New HFDC Card)

MS EXPRESS SOFTWARE, P.O. Box 498, Richmond, OH 43944

********************

## *  NEW  RELEASE  *

The TI-99/4A now has GEN/DIR
the GENeric disk DIRectory
By Norm Sellers

A long needed MUST for anyone using disk files and programs.

GEN/DIR provides all generic information possible about files in disk directory. The Disk Directory part of GEN/DIR provides the following:

GEN/DIR will date/time stamp files that have no date/time already. This is compatible with GENEVE date/time stamps.

GEN/DIR allows you to key and save file descriptions for each file, and even for each entry in object files.

GEN/DIR provides directories in 3 forms: it writes a DV80 disk file, and a printer listing of the directory, and it gives a screen display of the directory.

GEN/DIR's generic information answers the following questions about disk files in the directory listing/file/display:

* Are PROGRAM files BASIC or ASSEMBLY or DATA?
* Are BASIC programs EXTENDED BASIC or TI BASIC and do they contain imbedded assembly code?
* What memory locations are used in an assembly program file?
* Are DV80 documentation files to be printed with the FORMATTER?
* For object files, what are the entry names needed to execute the files; are they compressed or not; are they absolute or relocatable loaded; what memory is used; are there AUTOSTARTS; are there REFERENCES (these cannot be used under XB)?

Also GEN/DIR indicates what sectors are used for each file and shows how fragmented files are.

The Disk Cleanup part of GEN/DIR provides the following:

GEN/DIR indicates how many sectors are LOST (not used by and files, but marked in use), and quickly frees up all LOST sectors.

GEN/DIR indicates what sectors are BAD by making a "file of bad sectors" and marks these bad sectors in use.

GEN/DIR deletes files with bad sectors without freeing the bad sectors so the file may be re-saved to the same disk easily.

SYSTEM REQUIREMENTS:

A TI-99/4A system with 32K, at least one floppy disk drive, and A/E or TI WRITER Cartridge are required to run GEN/DIR. It is also compatible with GENEVE in GPL mode.

See Page 6 for a sample Printout of a data filled directory.

The complete program may be obtained for a $30.00 donation.
To obtain the program/s please indicate:
      Part 1, Directory ....$20.00
      Part 2, Disk Cleanup..$15.00
   or FULL Program .........$30.00

If interested send request to:
      Norm Sellers
      15 Dorset Drive
      Broomall, Pa. 19008

********************

## GAME CARTRIDGE TRICKS
### By Dom Sedita
Taken from GTBTIUG Newsletter

Over the years some interesting ideas have been uncovered regarding undocumented information on the original TI cartridges. Specifically, there are some interesting screens and/or applications never published by TI, that users have discovered by

poking around on the keyboards.

Here are two of these special Cartridge applications. The first deals with the MUNCHMAN cartridge. After insertion of the cartridge you receive the "PRESS ANY KEY" message. Press 2 to go to MUNCHMAN and as soon as the first screen appears, hold the shift key down and press keys 8,4 and 8 rapidly. You will access screens not found in the TI manuals.

These new screens will allow you to go to any of three rounds, choose any of 20 screens, and start the game with as many as 10 men. Be advised that in computerese Round 0 is realy Round 1, therefore if you ask for 9 men you will realy get 10.

The second cartridge of interest is TUNNELS OF DOOM. Have you ever encountered trouble trying to get a Cassette program loaded prior to saving it to disk only to have the Tape start then stop with a :READ ERROR" message? What happens is with your disk system turned on, available memory is reduced by a chunk and the lead data information, when the Tape starts playing, tells the computer that there isn't enough memory to load the program so the system shuts down.

This is how to get around that problem using the TUNNELS OF DOOM cartridge. Insert the cartridge and proceed as though you were preparing to play the game. Instead of loading a T of D game, load your Tape program. The memory chips in the T of D cartridge give you the extra room that you need. After the program is loaded, do NOT proceed with the screen instruction to CONTINUE.

At this point, press FCTN BACK and you will be returned to the unpublished screen. The assumption here by TI is that you have loaded the wrong game or that your information didn't get into the computer. What you do get is the load screen that you started with, but also on the same screen is SAVE information.

To save that long tape program that you now have loaded into the T of D cartridge, you just follow the instructions on SAVING and one of your options is, of course, SAVE to disk.

********************

A sample printer listing of a disk directory follows:

```
SYS1-TST/V   Used=284 Lost=  0 Avail= 76  Date=90/11/29
File Name  Siz Type P Entry  YY/MM/DD HH Description              Programmers Info
                                          ************************ ----------------------
BSCSUP      15 DF80 P ERR    90/11/03 01 BSCSUP ERR FUNCTION      REL FRM @>0000 TO @>03AC REF
                      NUMASG                BSCSUP NUMASG NUM ARGS IN ASM
                      NUMREF                BSCSUP NUMREF NUM ARGS IN ASM
                      STRASG                BSCSUP STRASG STR ARGS IN ASM
                      STRREF                BSCSUP STRREF STR ARGS IN ASM
CLCOBJ      25 DF80   GO     90/11/03 01 TO TEST CLC MACRO        ABS FRM @>A000 TO @>A06C RF A
DSKFX       34 DF80C  STAR2  90/11/03 01 DISK FIXER ON DISK       REL FRM @>0000 TO @>13FF REF
DTDIRECTRY   7 DV80          90/11/29 19 PREV GEN/DIR RUN
DUMP        28 PROG   (BAS)  90/11/03 01 MEM DUMP IN BASIC        BYTES CODE  3399 LINES   330
EDITA1      33 PROG   (ASM1) 90/11/03 01 EA ASSEMBLER PART 1      LOAD @>2000 LENG >2000
EDITA2       6 PROG   (ASM)  90/11/03 01 EA ASSEMBLER PART 2      LOAD @>A000 LENG >0410
LETTER       5 DV80F         90/11/03 01 FORM LETTER FOR FORMATTER
MUSICPRE    64 DF80   EMUSIC 90/11/03 01 MUSIC PREPROCESSOR ASSEMBLY ABS FRM @>24F4 TO @>34D6
MUSICPREXN  25 PROG   (AXB)  90/11/03 01 MUSIC PREPROCESSOR LOAD PGM BYTES CODE  5870 LINES    11
PRNTSCALE    4 PROG   (X B)  90/11/03 01 BASIC PRINT SCALES       BYTES CODE   486 LINES    31
SKELM1       5 DV80          90/11/03 01 ASSEM COPY BOOK
cABLE_P     31 PROG P (DAT)  90/11/03 01 TI ARTIST PICTURE                        -
```

The disk file containing the disk directory is a DV80 file named
DTDIRECTRY.  A sample file is listed below:

```
SYS1 TST/V    Used-284  Lost=   0 Avail= 76 Date=90/11/29
File Name   Siz Type P Entry   YY/MM/DD HHDescription
                                         *************************
BSCSUP       15 DF80  P ERR     90/11/03 01BSCSUP ERR FUNCTION
                       NUMASG               BSCSUP NUMASG NUM ARGS IN ASM
                       NUMREF               BSCSUP NUMREF NUM ARGS IN ASM
                       STRASG               BSCSUP STRASG STR ARGS IN ASM
                       STRREF               BSCSUP STRREF STR ARGS IN ASM
CLCOBJ       25 DF80    GO      90/11/03 01TO TEST CLC MACRO
DSKFX        34 DF80C   STAR2   90/11/03 01DISK FIXER ON DISK
DTDIRECTRY    7 DV80            90/11/29 19PREV GEN/DIR RUN
DUMP         28 PROG    (BAS)   90/11/03 01MEM DUMP IN BASIC
EDITA1       33 PROG    (ASM1)  90/11/03 01EA ASSEMBLER PART 1
EDITA2        6 PROG    (ASM)   90/11/03 01EA ASSEMBLER PART 2
LETTER        5 DV80F           90/11/03 01FORM LETTER FOR FORMATTER
MUSICPRE     64 DF80    EMUSIC  90/11/03 01MUSIC PREPROCESSOR ASSEMBLY
MUSICPREXN   25 PROG    (AXB)   90/11/03 01MUSIC PREPROCESSOR LOAD PGM
PRNTSCALE     4 PROG    (X B)   90/11/03 01BASIC PRINT SCALES
SKELM1        5 DV80            90/11/03 01ASSEM COPY BOOK
cABLE_P      31 PROG  P (DAT)   90/11/03 01TI ARTIST PICTURE
^^^^^^^^  EOF Required Record if TI Writer Save is used.
```

## TIPS FROM THE TIGERCUB

### #37

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TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

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Over 130 original programs in Basic and Extended Basic, available on cassette or disk, only $3.00 each plus $1.50 per order for PPM. Entertainment, education, programmer's utilities.
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Tips from The Tigercub, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 50 original programs and files, just $15 postpaid.
Tips from the Tigercub Vol. 2, another diskfull, complete contents of Nos. 15 through 24, over 60 files and programs, also just $15 postpaid.
```
****************************
*                          *
*  Tips from the Tigercub  *
*  Vol. 3 is now ready.    *
*  Another 62 programs,    *
*  routines, tips, tricks. *
*  from Nos. 25 thru 32.   *
*  Also $15 postpaid. Any  *
*  two Tips disks $27 or   *
*  all 3 for $35 postpaid. *
*                          *
****************************
```
Nuts & Bolts (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation with an example of the use of each subprogram. All for just $19.95 postpaid.
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Tigercub Full Disk Collections, just $12 postpaid! Each of these contains either 5 or 6 of my regular $3 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 – my own programs on these disks are greatly discounted from their usual price, and the public domain is a FREE bonus!
TIGERCUB'S BEST, PROGRAM-TUTOR, PROGRAMMER'S UTILITIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!, MANEUVERING GAMES, ACTION REFLEX AND CONCENTRATION, TWO-PLAYER GAMES, KID'S GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MIDDLE/HIGH SCHOOL MATH, VOCABULARY AND READING, MUSICAL EDUCATION, KALEIDOSCOPES AND DISPLAYS
For descriptions of these send a dollar for my catalog!

I'm going to mail out the July and August Tips at the end of June, and go fishing. Imagine, a TI publication AHEAD of schedule! However, in the unlikely event that anyone should send me an order, it will receive my usual one-day service.

Here's another tune for the dulcimer player in the last Tips. Change the TO value to 94 –
```
350 DATA 9,11,13,13,13,13,13
,16,16,13,13,11,11,11,11,11,
11
360 DATA 16,18,14,21,18,18,1
6,13,9,11,9,9,9,9,9
370 DATA 21,20,18,18,16,13,1
6,16,9,11,13,11,13,14,13,13
380 DATA 21,20,18,18,16,13,1
6,16,9,13,11,9,8,6,4,4
390 DATA 9,11,13,13,13,13,13
,16,16,13,13,11,11,11,11,11
400 DATA 16,18,14,21,18,18,1
6,13,9,11,9,9,9,9,9
```

Here's one for those who like graphics, and those who make a living designing floor tiles. It borrows a bit from a Renko & Edwards program –
```
100 CALL CLEAR :: F=2 :: BC=
16 :: RANDOMIZE :: DISPLAY A
T(2,10):"ESCHER ART": :TAB(1
4);"by": :TAB(9);"Jim Peters
on"
110 DISPLAY AT(12,3):"Press
Q for new pattern":"
R to change colors":"
 C for new colors": :"
 Any key to start"
120 CALL KEY(0,K,S):: IF S=0
THEN 120 ELSE CALL CLEAR
130 DATA 8080808080808080FF0
0000000000000101010101010
1000000000000000FF
140 DATA 2020202020202020000
0FF0000000000040404040404040
40000000000FF0000
150 DATA 1010101010101010000
000FF00000000080808080808080
00000000FF000000
160 DATA COCOCOCOCOCOCOCOFFF
F000000000000030303030303030
3000000000000FFFF
170 DATA F0F0F0F0F0F0F0F0FFF
FFFF0000000000F0F0F0F0F0F0F0
F000000000FFFFFFFF
180 DATA 8040201008040201010
204081020408080402010080402O
10102040810204080
190 DATA 101020C0000000000808
0403000000000000000003040808
```

in TI-Writer - just remember that each 80-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 -

```
100 DISPLAY AT(3,10)ERASE AL
L:"TIGERCUB": :"    KEYWORD I
NDEX WRITER" !by Jim Peterso
n
110 DISPLAY AT(8,1):"Filenam
e? DSK" :: ACCEPT AT(8,14):F
$ :: OPEN #1:"DSK"&F$,APPEND
 :: CALL KEY(3,K,S)
120 P$="*****" :: Y=00 :: M$
="**" :: P=00
130 DISPLAY AT(12,1):"NEWSLE
TTER? ":P$ :: ACCEPT AT(13,1
)SIZE(-28):P$ :: IF SEG$(P$,
1,3)="END" THEN CLOSE #1 ::
STOP
140 DISPLAY AT(14,1):"YEAR?"
;Y :: ACCEPT AT(14,7)VALIDAT
E(DIGIT)SIZE(-4):Y
150 DISPLAY AT(14,13):"MONTH
? "&M$ :: ACCEPT AT(14,20)SI
ZE(-9):M$
160 DISPLAY AT(16,1):"PAGE?"
;P :: ACCEPT AT(16,7)VALIDAT
E(DIGIT)SIZE(-3):P
170 DISPLAY AT(18,1):"ARTICL
E? " :: ACCEPT AT(19,1):A$
180 DISPLAY AT(20,1):"AUTHOR
?" :: ACCEPT AT(21,1):AU$
190 DISPLAY AT(22,1):"KEYWOR
DS?" :: ACCEPT AT(23,1):K$
200 PRINT #1:P$&" "&STR$(Y)&
" "&M$&" "&STR$(P)&" "&A$&"
"&AU$&" "&K$
210 GOTO 130
```

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

```
100 !BY TORSTEN NIEMIETZ, MA
RBACHER WEG 3,D-2800 BREMEN
1,WEST GERMANY
110 FOR J=1 TO 10 :: READ T(
J)
120 NEXT J :: E=330 :: A=440
 :: H=494 :: C=554 :: K=659
:: F=740 :: G=831
130 DISPLAY AT(3,8)ERASE ALL
:"S - O - L - O": :TAB
(10);"MIT OOMPAH": :RPT$("="
,28): : :"BY":" TORSTEN NIEM
IETZ": :"mit Oompah by Tiger
cub"
140 DISPLAY AT(18,1):"MAKE U
P YOUR SOLO WITH":"KEYS 1 TO
 9 ... COME ON !!!"
150 FOR S=1 TO 2 :: CALL SOU
ND(200,E,3,H,3):: CALL SOUND
(200,E,3,H,3)
160 CALL SOUND(200,E,3,C,3):
: CALL SOUND(200,E,3,H,3)::
NEXT S
170 M=E :: N=H :: O=C :: D=8
 :: GOSUB 210 :: M=A :: N=K
:: O=F :: D=4 :: GOSUB 210 :
: M=E :: N=H :: O=C :: GOSUB
 210 :: M=H :: N=F :: O=G ::
D=2
180 GOSUB 210 :: M=A :: N=K
:: O=F :: GOSUB 210 :: M=E :
: N=H :: O=C :: GOSUB 210 ::
M=H :: N=F :: O=G :: GOSUB
210
190 FOR X=10 TO 3 STEP -1 ::
 CALL SOUND(200,E,3,H,3,T(X)
,0)
200 NEXT X :: CALL SOUND(800
,E,3,H,3,K,0):: GOTO 150
210 FOR X=1 TO D :: FOR Y=1
TO 2 :: GOSUB 280
220 CALL SOUND(200,M,3,N,3,T
(R-48-(R=48))*.9375,30,-4,0)
230 NEXT Y :: GOSUB 280
240 CALL SOUND(200,M,3,O,3,T
(R-48-(R=48))*.9375,30,-4,0)
:: GOSUB 280
250 CALL SOUND(200,M,3,N,3,T
(R-48-(R=48))*.9375,30,-4,0)
260 NEXT X :: RETURN
270 DATA 587,659,784,880,988
,1175,1319,1568,1760,44733
280 CALL KEY(0,R,S):: IF S<>
0 AND R>48 AND R<58 THEN RET
URN ELSE R=57 :: RETURN
```

```
1 !ONE-LINER universal calen
dar for day of week of any d
ate since 1905 - by Dennis H
odgson in Sydney News Digest
2 !input day, month, year as
 for instance 30,4,1986
100 A=1 :: INPUT D,M,Y :: FO
R T=A TO M-A :: H=H+29+VAL(S
EG$("20212122121",T,A)):: NE
XT T :: J=H+(Y/4<>INT(Y/4)AN
D M>2)+INT((Y-A)*365.25)+D :
: PRINT SEG$("SASUMOTUWETHFR
",(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

* * * * * * * * * * * * * *

```
000000000C0201010
200 DATA FFFEFCF8F0E0C080FF7
F3F1F0F0703010103070F1F3F7FF
F80C0E0F0F8FCFEFF
210 DATA F0F0F0F0000000000F0
F0F0F0000000000000000000F0F0F0
F00000000F0F0F0F0
220 DATA 80C0A090888482FFFF8
2848890A0C080FF4121110905030
101030509112141FF
230 DATA 8142241818244281814
2241818244281814224181824428
18142241818244281
240 DATA 08080808FF080808101
01010FF101010101010FF1010101
0080808FF08080808
250 DATA AA55AA55AA55AA5555A
A55AA55AA55AAAA55AA55AA55AA5
555AA55AA55AA55AA
260 DATA F0F0F0F0F00F0F0F0F0F0
F0F0FF0F0F0F0F0F0F0F0F0F00F0F0F0
F0F0F0F0F0FF0F0F0F0F0
270 CALL CHAR(84,RPT$("0",64
)):: FOR CH=88 TO 140 STEP 4
 :: READ CH$ :: CALL CHAR(CH
,CH$):: NEXT CH :: CALL SCRE
EN(5)
280 A=INT(6*RND+3):: H=INT(2
4/A):: HC=INT(28/A):: W=ABS(
HC/2=INT(HC/2)):: DIM M(8,8)
:: FOR P=1 TO A
290 D(P)=INT(15*RND+21)*4
300 NEXT P :: GOSUB 370
310 CALL KEY(3,K,ST):: IF K<
>81 THEN 330
320 CALL SOUND(50,500,5):: F
OR J=1 TO 4 :: FOR JJ=1 TO A
 :: M$(J,JJ)="" :: NEXT JJ :
: NEXT J :: GOTO 280
330 IF K<>67 THEN 360 :: F=I
NT(15*RND+2)
340 BC=INT(15*RND+2):: IF BC
=F THEN 340
350 FOR S=7 TO 14 :: CALL CO
LOR(S,F,BC):: NEXT S :: GOTO
 310
360 IF K<>ASC("R")THEN 310 :
: T=F :: F=BC :: BC=T :: GOT
O 350
370 ON A-2 GOSUB 380,390,400
,410,420,430 :: GOTO 520
380 RESTORE 440 :: RETURN
390 RESTORE 450 :: RETURN
400 RESTORE 460 :: RETURN
410 RESTORE 470 :: RETURN
420 RESTORE 480 :: RETURN
430 RESTORE 500 :: RETURN
```

```
440 DATA 1,2,1,2,3,2,3,1,3
450 DATA 1,2,2,1,2,3,3,2,3,4
,4,3,4,1,1,4
460 DATA 1,2,3,1,2,2,3,4,3,2
,3,4,5,4,3,4,5,1,5,4,5,1,2,1
,5
470 DATA 1,2,3,3,2,1,2,3,4,4
,3,2,3,4,5,5,4,3,4,5,6,6,5,4
,5,6,1,1,6,5,6,1,2,2,1,6
480 DATA 1,2,3,4,3,2,1,2,3,4
,5,4,3,2,3,4,5,6,5,4,3,4,5,6
,7,6,5,4
490 DATA 5,6,7,1,7,6,5,6,7,1
,2,1,7,6,7,1,2,3,2,1,7
500 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
510 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
520 FOR J=1 TO A :: FOR JJ=1
 TO A :: READ M(J,JJ):: NEXT
 JJ :: NEXT J
530 X=A+1 :: FOR J=1 TO A ::
 FOR JJ=1 TO A :: M$(1,J)=M$
(1,J)&CHR$(D(M(J,JJ)))
540 M$(2,J)=M$(2,J)&CHR$(D(M
(JJ,X-J))+1)
550 M$(3,J)=M$(3,J)&CHR$(D(M
(X-J,X-JJ))+2)
560 M$(4,J)=M$(4,J)&CHR$(D(M
(X-JJ,J))+3)
570 NEXT JJ :: NEXT J
580 CALL CLEAR :: FOR R=1 TO
 A*H STEP A :: FOR C=1 TO A*
HC STEP A
590 CALL KEY(0,K,ST):: IF K=
81 THEN 320
600 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
610 RETURN
```

This routine will search a disk file for up to 10 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.

```
100 CALL CLEAR
110 Y=0 :: DISPLAY AT(3,5):"
TIGERCUB KEYSEARCH" :: DISPL
AY AT(6,1):"Filename? DSK" :
: ACCEPT AT(6,14)BEEP:F$ ::
OPEN #1:"DSK"&F$,INPUT
120 DISPLAY AT(8,1):"Output
to":" (1)Screen":" (2)Printe
r":" (3)Both" :: ACCEPT AT(8
,11)VALIDATE("123")SIZE(1)BE
EP:Q
130 IF Q>1 THEN DISPLAY AT(1
3,1):"Printer name?" :: ACCE
PT AT(13,15):P$ :: OPEN #2:P
$
140 DISPLAY AT(15,1):"Search
 for":" (1)First match":" (2
)All matches" :: ACCEPT AT(1
5,13)VALIDATE("12")SIZE(1)BE
EP:S
150 DISPLAY AT(12,1)ERASE AL
L:"Press ENTER when all key-
":"words have been entered."
160 DISPLAY AT(17,1):"Press
ENTER if none -"
170 Y=Y+1 :: DISPLAY AT(15,1
):"Keyword? ";CHR$(127):: AC
CEPT AT(15,10)SIZE(-28)BEEP:
K$(Y):: IF K$(Y)=CHR$(127)TH
EN 190
180 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=0 :: GOTO 170 ELSE GOTO
 180
190 Y=Y-1
200 LINPUT #1:M$
210 FOR J=1 TO Y :: IF POS(M
$,K$(J),1)=0 THEN 290
220 IF W$(J,1)=CHR$(127)THEN
 250
230 W=W+1 :: IF W$(J,W)=CHR$
(127)THEN W=0 :: GOTO 290
240 IF POS(M$,W$(J,W),1)=0 T
HEN 230
250 IF Q>1 THEN PRINT #2:M$
260 IF Q<>2 THEN PRINT M$
270 IF S=1 THEN 310
280 IF W$(J,W)<>CHR$(127)THE
N 230
290 NEXT J
300 IF EOF(1)<>1 THEN 200
310 CLOSE #1 :: DISPLAY AT(2
4,1):"FINISHED - PRESS ANY K
EY" :: CALL SOUND(200,500,5)
320 CALL KEY(0,K,ST):: IF ST
=0 THEN 320 ELSE CALL CLEAR
:: GOTO 110
```

You can set up a keyfile