



BITS, BYTES & PIXELS



HAPPY NEW 1986
LIMA 99/4A USER GROUP
VOLUME 2 NO 1 JANUARY 1986

COMMENTARY...

When the bubbly has lost its bubble and the reality of Christmas Bills sinks in many of our well intentioned New Year's resolutions will fall into obscurity only to be reserected next New Year. That phenomenon can be best ascribed to human nature.

Maybe there is a better way. We suggest that making a goal and setting a time-table in which to complete it is a method that is used by business and has an application to a disciplined individual. After setting the goal, the individual can regularly check on him/herself to see what kind of progress is being made towards the goal.

What kind of goals? For those of us who are hackers a goal might be to save enough money to be able to buy a piece of equipment, say a modum, for our system. Another could be to broaden one's knowledge in languages (computer, that is), copy a program from a computer journal and put it into the library.

One we'd like to see is a goal to write an article or a review of a type of software for the "Bits, Bytes and Pixels" Think on these suggestions and see if you can come up with a goal for 1986. Happy hacking in 1986.

MISCELLANY....

Q What's a crick?

A That's the noise made by a Japanese camera.

Q Do you know how to make antifreeze?

A Hide her pajamas. (Groan, Groan)

NEW SOFTWARE...

We just acquired a new software TI-1-2-3 Like its famous counterpart TI has 3 parts, a spread sheet, word proceser, and a memo writer. All are superbly documented and relatively simple to use. Some time in the near future we will give a demonstration for the club. It is the product of Datax Co. and was advertised in arecent issue of "Micropendium" The cost is \$39.95 + S&H.

BRAIN TEASER...

What do the following words have in common?
deft, first, calmness, canopy, laughing, stupid, crabcake, hi jack?



HOME
COMPUTERS
SOFTWARE



I BOUGHT A NEW
PROGRAM TO KEEP TRACK
OF MY FINANCES ---
IT'S CALLED
"TRIVIAL PURSUIT!"

THAMES 11-7

Answer to Brain Teaser: all words contain letters in alphabetical sequence.



CHARLIE SAYS:

A TALE OF TWO PRINTERS
STAR GEMINI 10X and the STAR SG10

The GEMINI 10X has to a large extent become the defacto standard printer for II99/4A users. Much of the available software, particularly screen dump and graphics programs, will work automatically with this printer. Even the II impact printer, originally sold for use with the 99/4A requires modification to do graphics properly. AXIOM printers with the well advertised "just plug it in" interface are totally incompatible with most 99/4A graphics or screen dump software because they use different codes than those used by the GEMINI and other similar printers.

I bought my GEMINI 10X in August of 1983 for \$300, which at the time seemed like a good price. The print head literally fell apart and had to be replaced in December 1984 (\$60 for the part. It WAS easy to replace myself). I did not get the expected several million characters out of that original head. I personally know of another local person who bought his GEMINI 10X when I did and had to replace his print head about the same time as I replaced mine.

Last month my printer suddenly quit doing form feeds and the print head wouldn't return to the home position. The printer made a clunk-clunk sound and then blew a fuse. Replacing the fuse didn't help. A call to the Dayton STAR service center produced the following information from one of their repair people. This information should be of interest to all GEMINI owners:

The problem with my printer was probably caused by a certain transistor burning out and allowing the power supply to send excess voltage to the form feed motor. This burns out the form feed motor. Excess voltage is also sent to the print head motor and this too may have burned out. Estimated repair cost (including labor) and assuming the print head motor is OK- \$125-\$150.

Now for the really interesting part. The service man said that he has seen this problem with lots of GEMINI 10X's. He has NOT YET seen this problem with ANY SG10 printers although both printers use similar components. Either the SG10 has not been around long enough for the problem to show up, or the problem is less likely to develop with the SG10.

NEXT PAGE PLEASE

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*
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Since my repairs would be so costly, I decided to spend a few more bucks and get a new printer, complete with new printer warranty. In the Winter of 1985 STAR replaced the GEMINI 10X with the SG10, a printer with more features at less cost. All of my software is configured to run on the 10X. Largely for this reason I decided to purchase a STAR SG10 even though I am now somewhat dubious about the quality of STAR printers. I hope the Dayton service person is correct in suggesting that the SG10 may be less likely to self destruct.

What follows is a comparison of the two printers emphasizing the improvements incorporated into the SG10 and not found in my old GEMINI 10X. The two printers are exactly the same size and use many of the same fonts of the GEMINI are in the SG10. All GEMINI codes work with the SG10. Both have the same parallel interface. Both use the same cheap ribbon. It comes with a ONE YEAR warranty on parts and labor. Ship the printer to a STAR service center or return it to the dealer that sold it to you for warranty service. The SG10 comes with a very easy to understand 237 page users manual. This manual is an improvement over the already good one that came with my GEMINI.

Improvement #1- Price. My SG10 cost \$229 + P & H. GEMINI's were never this cheap while they were still being manufactured.

Improvement #2- DIP Switches. They are ALL on the OUTSIDE of the SG10 on the left side of the printer, unlike the VERY internal DIP switches of the GEMINI. Pica, Elite, Italic, Near Letter Quality, and international character sets can be selected using these switches without the need of using software control. This is a very

nice feature, especially when using II-writer. Although the DIP switches look identical on both printers, they don't do the same thing on both printers. To set up the SG10 for use with II-Writer all the switches are normally in the on position. To use II-Writer with the GEMINI, some of the switches have to be off.

Improvement #3- Less noise. The SG10 seems quieter than the 10X. This is an unexpected bonus I didn't read about in any of the magazine ads.

Improvement #4- Near Letter Quality Printing (NLQ mode). The print looks like that of an IBM typewriter. It has to be seen to be believed, so below is a sample of emphasized print (the best looking font of the GEMINI).

Here is a sample of Emphasized Pica print, in my opinion the closest thing the GEMINI 10X has to letter quality print. Note that the letters are not as crisp as letters printed in the rest of this article.
 ABCDEFGHIJKLMNOPQRSTUVWXYZ12345
 67890abcdefghijklmnopqrstuvwxy

You can compare it to all the rest of this article which is printed in NLQ mode. NLQ mode almost makes the expense of a new printer worth it to me. This is a very significant improvement.

Improvement #5- Dust Cover. The SG10 dust cover is orange. You can see through part of it and read the most recent lines of print. The back of the cover has an edge that makes it easy to tear off pages. You can't easily see as easily through the smoke grey GEMINI cover and tearing off fan fold paper with the GEMINI is not easy.

Improvement #6- Large Printer Buffer. The SG10 has a 2K buffer. this will allow quadruple density graphics. The GEMINI has a 0.8K buffer and will only do high density graphics with optional (and expensive) buffer add-ons. The SG10's 2K buffer quickly frees the computer to do other tasks when printing short documents such as a one page letter.

Improvement #7- Faster Speed. The SG10 is slightly faster (up to 120 C.P.S.) than the GEMINI. This highly advertised improvement is not really very significant. Both printers are plenty fast enough for my uses. I don't notice the slight speed improvement of my new printer.

In summary: the SG10 is clearly the best of the two printers. I am VERY impressed with its NLQ mode. Since it arrived (3 weeks) my SG10 has worked perfectly. What about the future? Will I need a new print head soon? Will the printer self destruct like my GEMINI? I have taken a big gamble that this time I have purchased a quality product.

MISSION IMPOSSIBLE Words

Below is a list of all the first and second words accepted by Scott Adams #3, Mission Impissible. As with adventures #1 and #2, the computer acturally responds only to the first three letters. These are shown in upper case.

FIRST WORD (verb)	SECOND WORD (noun)
ACT	ANTI-radiation
AUTHorize	ANY
BREAk	AROUnd
CHANGe	AUTHorization
CLEAn	BADge
CLOSe	BLUe

CUT	BOMB
DISconnect	BOX
DROp	BUTton
EMPTy	CAMeRA
ENTer	CARtridge
EXAMine	CASe
FINish	CHAir
FOLlow	CUTter
FRISK	DEBRis
GET	DETECTOR
GO	DIAL
HELP	DOOR
INS?	DOWN
INVENTORY	EAST
JUMP	ENVELOPE
KICK	FEET
KNOck	FILM
LEAVE	FIST
LOAD	FLOOR
LOCate	FOOD
LOOK	GAME
MOP	GLASS
MOVE	GREEN
OPEN	GUAge
PLAcE	HANDLE
POUR	HAR?
PREpare	HIM
PULL	INVENTORY
PUSH	KEY
PUT	LEAFlet
QUIT	MAN
READ	MAP
REMOVE	MOP
RUN	NORTH
SAVE	PAIL
SCORE	PASSage
SEARCh	PICTure
SHAKE	PLASTic
SHOVE	PROjector
SIT	RADIation
SMASH	RECORDer
SPIT	RED
STAY	SABoteur
SUI?	SOUTH
TAKE	SUIT
TOUCh	TAPe
UNA?	THE
UNBolt	UP
UNLOCK	VAT
WAIT	WAlI
WALK	WATER
WEAR	WEST

WITH
 WHITE
 WINDOW
 WIRE
 YARN
 YELLOW

Charles Good

Shortly after writing "A Tale of Two Printers", I read of an interesting product that gives GEMINI (and DELTA) printers the ability to produce Near Letter Quality print. The product is a ROM chip which replaces one of the ROM chips in the printer. With this new ROM the GEMINI loses its ability to print in italics, and in NLQ mode it only prints at 14cps (NLQ mode with the SG10 is at 40cps). The new ROM chip lists for \$57.50 and is manufactured by ESP Corporation, 7900 N. Tamiami Trail, Sarasota FL 34243 (phone 813-355-6797). This product is reviewed on page 62 of the Feb. 86 issue of AHOY (a Commodore users magazine). C. Good

CHEAP COMPUTER PRODUCTS CURRENTLY
 AVAILABLE IN THE LIMA OHIO AREA

C60 tapes WITH PLASTIC BOXES can be purchased for 34¢ each at the ODD LOTS store in the Northland Shopping Center.

BONUS disks are on sale at Service Merchandise until Feb 9, 1986. The price is \$7.96 for a box of 11 disks. That is less than 73¢ per disk.

DATA CASE disk storage files are also on sale at Service Merchandise for \$6.86. Each plastic case holds 50 disks.

All computer BOOKS and MAGAZINES are 20% off list price at the Brunner News Agency, 217 Flanders. This is not a sale, this is their standard discount. It is sometimes cheaper to purchase magazines at Brunner than it is to subscribe.



Sorry, we are unable to include the usual TIPS FROM THE TIGERCUB column in this newsletter. We will have two TIPS columns next month. Hang in there!

Bumper Stickers similar to that shown below are available from the address shown for \$1.50 each or \$1.00 each in lots of 10 or more.

TI-Booster
 3506 Garden Drive
 Knoxville TN 37918

Actual size is 3½ x 7 5/8 inches.

I'M A 99/4A **BOOSTER**
 "I LOVE MY TI-99/4A"

 "WE EAT APPLES FOR LUNCH"

TI TIP

Kent Sheets 12/85

OH-MI-TI

From: AVTI NEWSLETTER 9/85

When using TI Writer, sometimes trying to read a file is impossible because an error command is displayed, stating that the buffer is full. Or sometimes when writing a file, you might wonder how large can I make this file before obtaining a buffer full. In the F1 mode, you'll get a buffer full at 92 sectors (about 3600 words). In NF mode, you'll get a buffer full at 119 sectors (3900 words). By using a catalog program to check the number of sectors, you'll be able to determine how much memory is left.

ANNOUNCING THE TI-99/4A TRAVeLER!

An exciting new magazine-on-disk, which will include over 700 sectors of programs and articles in each issue, featuring authors like Mack McCormick, Jonathan Zittrain, Tom Weithofer, Tom Kenedy, Todd Kaplan, and Barry Traver.

The first issue (September 1985) -- which has already appeared -- includes an article on TI ARTIST and GRAPHX by Ron Albright, assembly language articles by Mack McCormick on accessing the RS232, an article "TI&ME: Saving Tips on CompuServe" by CIS Wizop Jonathan Zittrain, two utilities by Tom Freeman (one to print DVBO files sideways on your dot matrix printer, and the other to print two-column newsletter-style sheets with full justification), a versatile assembly language utility accessible from Extended BASIC called "RAW" (for "Read And Write") for single-sector disk access by Barry Traver, another utility by Barry to show DVBO files on your screen in 40-column text mode, a colorful game called HoleyMoley by John Behnke, plus much, much more.

The "diskazine" is actually priced less than some "freeware": you get a six-issue subscription for only \$30 (that's over 4000 sectors, so that you are only paying less than 3/4 of a penny per sector!). This special price is only guaranteed through the end of 1985, after which time subscription rates may increase, so now is the time to send in your check!

The TI-99/4A TRAVeLER is edited by Barry Traver, whose programs have appeared in various publications ("Giant and Dwarfs" in 99'er Dome Computer Magazine, "Merge/Read" in Craig Miller's Smart Programmer, and "Numb/Conv" in Super 99 Monthly, where he is now a regular contributing staff writer). He was recently made a full sysop on the TI FORUM on CompuServe, where he earlier received the honor of being asked to serve as Chairman of the Expert Member Board.

The "diskazine" is being "published" on commercially-made 5B/5D "flippies," so that the same format will work on everyone's disk system. Because of the medium employed (disk rather than cassette), it will be assumed that most subscribers will also have at least a 32K RAM card, Extended BASIC, and probably Editor/Assembler as well, and the contents of TRAVeLER will be chosen accordingly. (In other words, you can expect something a bit more sophisticated than the TI BASIC programs which are generally all that is available in magazines and books in bookstores!)

DISKAZINE SUBSCRIPTION FORM

Name _____

Address _____

City _____ State _____ Zip Code _____

Please send your check to the following address: Barry Traver, Editor, GENIAL TRAVeLER, 835 Green Valley Drive, Philadelphia, PA 19128. Thanks!

LETTER FROM THE EDITOR

Here (finally!) is your first issue of the GENIAL TRAVeLER. I hope that you find that it was well worth waiting for. I'm sorry for the delay, but you'll be glad to hear that most of the reasons involved should not affect future issues.

I'm now beginning to see why a printer may charge so much for "initial set-up" and less for additional copies. My "initial set-up" included deciding upon (and locating the best sources for) the materials needed (disks, nullers, labels, etc.), as well as making some major decisions on the best format.

For those of you who have double-sided drives, I regret to announce that -- for reasons to be mentioned in a moment -- a decision has been made to publish the TRAVeLER only on 5B/5D "flippies." I know, I myself prefer 5B disks and I dislike "flippies," but there are over-riding considerations that make producing the "diskazine" in two different formats just too difficult to do without its having a negative effect upon service and the quality of the content.

It's not just the Henry Ford principle that life is much easier when "one size fits all" (although I know that if I had two different formats, some of you would get sent the wrong one), but there are considerations that have to do with the organization of the diskazine, which is intended to be an integral entity and not merely a miscellaneous collection of files.

With 5B/5D, I would have to sacrifice the convenience of having two different auto-LOAD programs from Extended BASIC. Likewise all files would, so to speak, be piled into one large "miscellaneous" pile (so far as a disk catalog is concerned, for instance) rather than allowing me to make two smaller separate piles, meaningfully divided (e.g., "articles" and "programs," as in the current issue). Finally, in certain instances the physical location of files on a disk will be crucial (e.g., future FORTH screens), and that would be difficult with two different formats.

Incidentally, when you make a backup of this disk for your own personal software library, you should always use a sector-copier program and not a file-copier program, since the latter (e.g., the falsely-called "backup disk" function of the TI Disk Manager) usually will not produce a true clone of the original disk.

I have made it possible for you to make a backup, because I am trusting you as a friend and am trusting you not to misuse this convenience. Please do not make a copy for friends (and don't let them make a copy for themselves); instead, invite them to become paid subscribers (just like you are!). Thank you.

Many individual articles and programs may -- with minor changes (e.g., removing "RUN DSK1.MENU") -- be used as self-sufficient stand-alones. Unless, however, it is

known to be public domain material (like the excellent things from John Clulov of the New Horizons Users Group in Ohio), you are expected to restrict use of this material to your own private use unless you have checked either with me or with the author of the material. Some things we don't mind being distributed around, but we do like to be asked!

The bonus disk of "fairware" (sometimes mistakenly called "freeware") included in this mailing can, on the other hand, be freely given out. Feel free to share the programs on that disk (CATALOG, DISK MANAGER 1000, FAST-TERM, and TK-WRITER) with your friends (and encourage them -- if they like the programs -- to send a contribution to the respective authors).

The "bonus disk," by the way, is a true "extra": it is not part of the six issues that make up a regular subscription to TRAVeLER. The physical disk is my personal gift to you, in gratitude for your patience in awaiting the first issue of TRAVeLER.

For those who began with a sample issue of TRAVeLER for \$7.00, I have a special offer for you: if you send me a check for \$23.00 within the next month, I'll love you over to the regular subscribers' list, so that you -- like them -- will be receiving the next five issues (and at the same total cost, viz., \$30.00!).

By the way, I've decided to continue the \$3.00 subscription price at least through the end of 1985, so if you like TRAVeLER, please tell your friends about it and tell them that there has not yet been a price increase (and may not have to be, if the diskazine continues to attract increasing subscribers).

The price (essentially \$5.00/disk for full subscribers) is actually no more than the price per disk for public domain material from a deservedly popular "free" library of TI software, and our diskazine offers twice as much material (700+ sectors per issue) as well as (we believe) superior and unique material.

TRAVeLER, of course, will be dependent upon your friendship in many ways (and not just to help us defeat the software pirates!). Tell us what you like and what you don't like about the diskazine. (Constructive criticism is always welcome, although it's easier to take if you can include some praise as well.)

Since we can't afford to pay contributors at this stage (are you kidding? -- if my wife weren't working, we wouldn't have enough money for groceries), we greatly appreciate the generosity of those software authors and computer journalists who have made this issue a success, and -- if you'd like to share with us some of your own articles or programs for possible future use -- that would be received with gratitude as well. TRAVeLER is a labor of love, because we love our TI and we love the friends we have made through this machine.

Barry A. Traver, Editor

GENIAL TRAVELER
 GENIAL COMPUTERWARE
 835 Green Valley Drive
 Philadelphia, PA 19128
 (phone) 215/413-1379

Here are some p/reviews of the September 1985 issue
 TRAVELER:

GENIAL TRAVELER DISK CATALOG
 VOL. 1, NO. 1 SIDE 1

TRAVELER11 AVAILABLE= 0 FILENAME	SIZE	ARTICLES USED= 360 TYPE	P
2FONTS/S1	24	DIS/VAR BO Y	
2FONTS/S2	26	DIS/VAR BO Y	
ARTICLES	8	PROGRAM Y	
ARTICLES/O	20	DIS/FIX BO Y	
ARTSTGRPHX	28	DIS/VAR BO Y	
DOUBLETXT	24	DIS/VAR BO Y	
DSRLNK/S	13	DIS/VAR BO Y	
FRIEND	6	DIS/VAR BO Y	
GENIAL	8	DIS/VAR BO Y	
GOOD/GUYS	18	DIS/VAR BO Y	
LOAD	5	PROGRAM Y	
MENU	4	DIS/VAR BO Y	
RAW/S	28	DIS/VAR BO Y	
RS232/AL	25	DIS/VAR BO Y	
RS232/TXT1	27	DIS/VAR BO Y	
RS232/TXT2	15	DIS/VAR BO Y	
SIDEWYSTXT	18	DIS/VAR BO Y	
TIMESAVING	16	DIS/VAR BO Y	
WELCOME/O	7	DIS/FIX BO Y	
WELCOME/S	19	DIS/VAR BO Y	
XBALT/DIR	19	DIS/VAR BO Y	

2FONTS/S1 and 2FONTS/S2 together make up the source
 for 2FONTS. If you want to assemble them yourself,
 just either combine them (using an appropriate
 or) into one file 2FONTS/S and assemble that, or else
 rt the notation COPY "BSK1.2FONTS/S" at the
 ning of 2FONTS/S2 and then assemble BSK1.2FONTS/S2.
 assembling for use in IB, in general always choose
 R option and omit the C option.

ARTICLES is a specialized version of SHOW/DVBO on
 other side of the disk, with two main changes: the
 ably language routines are loaded in with a standard
 LOAD("BSK1.ARTICLES/O") (slower than the XBALT
 oach, but a bit safer), and (2) a specific BV/BO MENU
 should I say "table of contents?") is being accessed
 ren the reading of DV/BO articles

ARTSTGRPHX is an article by Ron Albright, telling
 TI ARTIST and GRAPHX can work together. (In a future

issue, we hope to have Chris Faherty telling us a little
 about TI ARTIST II, which I saw demonstrated a short
 while ago a great program with great enhancements!)

DOUBLETXT is an article by Tom Freeman, telling you
 how to set up a two-column newsletter like this one.
 (DOUBLETXT on the other side gives you the actual
 program needed.)

DSRLNK/S is public domain source code from Texas
 Instruments and modified by John Clulow. It is needed
 for RAW/S and is useful for other a/I programs intended
 for use with Extended BASIC, which does not have a DSRLNK
 of its own.

FRIEND and GENIAL are just two "friendly" letters
 from the editor to let you know that this distazine is
 not intended so much for computers as it is for the very
 important people who use them, viz., our subscribers.

GOOD/GUYS is a very personal list of reputable
 dealers and publications. It makes no pretense at being
 complete, but it is a start for those who want
 suggestions on where to get things.

LOAD loads in the opening WELCOME screen, so that we
 can all start out with smiley faces!

RS232/AL, RS232/TXT1, and RS232/TXT2 are assembly
 language tutorials on the RS232 by Mack McCormick. They
 may be too technical for some, but -- perhaps like some
 other material in this distazine -- keep them
 around; you'll grow into them!

SIDEWYSTXT is another fine brief article by Tom
 Freeman: telling how to print out text sideways on an
 Epson-compatible dot matrix printer. MAKE/DATA,
 SIDEWYS/CH, and SIDEWYS/SC on the other side go with this
 article.

TIMESAVING is an excellent short article by Jonathan
 Zittrals, one of the viz sysops of TI FORUM, on how to
 save time and money on CompuServe.

WELCOME/O and WELCOME provide the object and source
 code for the "bouncing ball" screen brought in with LOAD.

XBALT/DIR contains the directions for XBALT/O, an
 exciting new IB-A/I utility by Todd Kaplan, the source
 code to which will be on disk in the next issue of
 TRAVELER (along with, we hope, some answers concerning
 its occasionally unpredictable behavior).

GENIAL TRAVELER DISK CATALOG
 VOL. 1, NO. 1 SIDE 2

TRAVELER12 AVAILABLE= 0 FILENAME	SIZE	PROGRAMS USED= 360 TYPE	P
2DRIVECOPY	9	PROGRAM Y	
2FONTS/O	25	DIS/FIX BO Y	
2FONTSDEMO	6	PROGRAM Y	
CATALOG	18	PROGRAM Y	
CHAR/O	4	DIS/FIX BO Y	

CHARDEMO	5	PROGRAM Y	
CHGE/TO/O	7	PROGRAM Y	
DEFTABLE	15	PROGRAM Y	
DOUBLEPRNT	6	PROGRAM Y	
FIREBUTTON	19	PROGRAM Y	
HIDSECTOR	14	PROGRAM Y	
HOLEYNOLEY	28	PROGRAM Y	
LOAD	13	PROGRAM Y	
LOCKITUP	7	PROGRAM Y	
MAKE/IATA	4	PROGRAM Y	
MENU	7	PROGRAM Y	
MULTIPLIBI	23	PROGRAM Y	
PENNEYTOSS	25	PROGRAM Y	
PROTECTOR	8	PROGRAM Y	
RAW	9	PROGRAM Y	
RAW/MENU	5	PROGRAM Y	
RAW/O	12	DIS/FIX BO Y	
SEARCHMAZE	16	PROGRAM Y	
SECTORZERO	20	PROGRAM Y	
SHOW/DVBO	18	PROGRAM Y	
SIDEWYS/CH	9	PROGRAM Y	
SIDEWYS/SC	9	PROGRAM Y	
SWEEP/DISK	10	PROGRAM Y	
XBALT/O	6	DIS/FIX BO Y	

2DRIVECOPY is a simple (and slow) practical
 application of "RAW." With a few minor changes, it could
 be turned into a "nibbler" to copy selected sectors.

2FONTSDEMO is a demo program for 2FONTS/O, and
 CHARDEMO is a demo program for CHAR/O, both of which
 offer alternative character sets for IB (true lower case
 with 2FONTS, and large caps with CHAR).

CATALOG is an IB-AL utility by Todd Kaplan that
 allows you to catalog a disk at any time to screen --
 plus to printer, if you so desire -- while you are in an
 Extended BASIC program or in immediate mode in Extended
 BASIC. (Caution: since the "TEST" is generic, it can
 tell you whether an a/I program was loaded in via Todd's
 XBALT approach, but not whether that program is in fact
 the CATALOG code. If it's not working, just turn off
 console and P.E. box and reboot.)

CHGE/TO/O creates a program line in MERGE format, so
 that you can include a line 0 in your IB programs.

DEFTABLE is a useful public domain utility by John
 Clulow of the New Horizons group in Ohio. Among other
 things, it tells you what a/I programs have been loaded
 into memory (via their program entry points and names).

DOUBLEPRNT has the necessary docs (DOUBLETXT) on
 the opposite side of the disk.

FIREBUTTON is a simple "micro-tutorial" on a
 somewhat neglected topic. If the response is good,
 "micro-tutorials" like this and SECTORZERO may make a
 regular appearance in TRAVELER.

HIDSECTOR is not only for "hiding" information on
 disks (e.g., serial number information on commercial

disks); it can also be used to copy a sector from one
 disk to another when useful (e.g., Sector 0, for disk
 repair). The program represents a more detailed
 application of RAW.

HOLEYNOLEY is a colorful game by John Behnke. In
 this improved version, it doesn't matter which joystick
 you use.

LOAD is a program that I couldn't resist including,
 even though it's been around for a while. If you haven't
 come across the infamous "TRAVELER/TRICKLOAD" before, I
 hope you like it!

LOCKITUP is another RAW application program. Its
 use will prevent unsophisticated unauthorized people from
 accessing information or programs on your disks.

MAKE/DATA allows you to design your own character
 sets for Tom Freeman's sideways print program. Just
 insert the appropriate CALL CHARs before the first line
 of this program, run it, and you're in business!

MENU is just what it says.

MULTIPLIBI is a "new" way to MULTIPLY what is in
 last analysis a Binary approach to MULTIPLICATION.

PENNEYTOSS could perhaps use some fancier graphics,
 but -- as with MULTIPLIBI -- you may find the
 mathematical concepts of interest.

PROTECTOR is another somewhat more involved
 application of RAW. Sector 1 is checked to find where
 the file headers are located, and the file headers are
 checked to see whether the file is write-protected. If
 it isn't, bit 3 of byte C (the file status flag) is
 flipped.

RAW is a XBALT version of RAW (see other side of
 disk for RAW/S, the source code), and RAW/MENU gives you
 a menu of just a few application programs possible.

SEARCHMAZE needs a more work to fully realize the
 possibilities (e.g., the maze needs a better design, and
 score-keeping should be speeded up), but the concept of a
 spilt-style TI BASIC game may interest some.

SHOW/DVBO. See the September 1985 issue of Sheet 22
 Monthly for source code on how to access 40-column text
 mode from Extended BASIC.

SIDEWYS/CH and SIDEWYS/SC allow you to print
 sideways using either the (TI-Writer) Charal lower case
 character set or the normal (Small Caps) character set.
 (Use MAKE/DATA to create your own versions of SIDEWYS.)

SWEEP/DISK does what the same function on the DISK
 MANAGER 1000 does, but gives you a chance first to see
 what files are on the disk.

XBALT/O is not accessible from the main MENU, but
 can be accessed from Extended BASIC using the directives
 in XBALT/DIR on the opposite side of the disk.

—Barry A. Traver

P.S. "We take requests." Please let us know what
 you would like to see in future issues of the TRAVELER.
 With your help, this can be the best thing going.

Contents of first volume of "Genial Traveler"