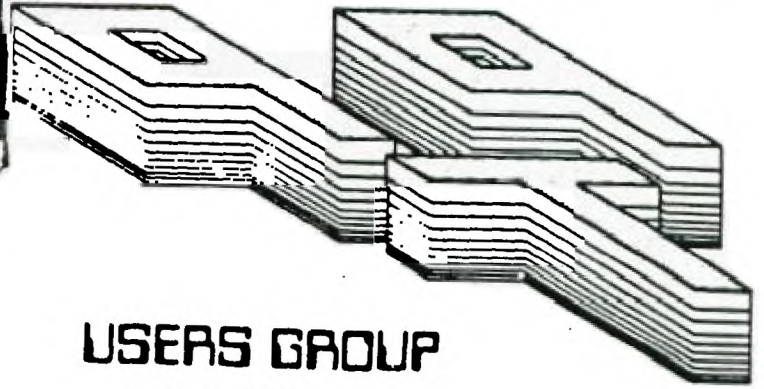


Newsletter

(062)
8812



USERS GROUP
TORONTO

DECEMBER 1988 ISSUE



Season's Greetings



From:

9T9 Users Group
109-2356 Gerrards St.E.
TORONTO, ONT., M4E-2E2
CANADA

TO:

Edmonton 99'er Users Soc
P. O. Box 11983
Edmonton, AL T5J 3L1



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MEMBERSHIP FEES

FULL MEMBERSHIP \$30.00 / year
NEWSLETTER SUBSCRIPTION \$20.00 / year

All memberships are household memberships. An newsletter subscription is only for those who do not wish to attend meetings, but wish to receive our newsletter and have access to our library. You are welcome to visit one of our general meetings before joining the group. If you wish more information contact either our president, in writing, at the club address on the front cover or phone him.

The meetings are usually held on the last Thursday of each month, unless stated otherwise. Consult this issue of Newsletter 9T9 for the date and time of the next meeting. Meetings are held at the third floor meeting room of Canada Remote Systems, 4198 Dundas St. West, (Dundas, one block east of Royal York Road), starting at 7:30 PM and ending at 10:30 PM. No meetings are held in the months of July and August. December's meeting usually takes place the second week of the month.

COMMERCIAL ADVERTISING

Any business wishing to reach our membership may advertise in our newsletter. The rates are as follows. (height by width):

FULL PAGE	(10" x 7")	\$50.00
HALF PAGE	(5" x 7")	\$25.00
QUARTER PAGE	(2 1/2" x 7")	\$15.00

Please have your ads camera ready and paid for in advance. For more information contact the editor.

Don't forget, that any member wishing to place ads, may do so free of charge as long as they are not involved in a commercial enterprise.

NEWSLETTER ARTICLES

Newsletter 9T9 is published ten times a year by the 9T9 users group. Members are encouraged to contribute to the newsletter in the form of articles, mini programs, helpful tips, hardware modifications, jokes, cartoons and questions. Any article may be submitted in any form by mail or modem. We welcome the reprinting of any article appearing in this newsletter providing credit is given to the author and 9T9. If more information is required, call the editor. The name 9T9, Nine-T-Nine, Newsletter 9T9, Nine-T-Nine Users Group, and 9-T-9 Users Group are Copyright, (c), 1986, 1987, 1988 by the 9T9 Users Group, all rights reserved.

DISCLAIMER

9T9 Users Group is an independent, non-profit association of Texas Instruments TI-99/4A and Myarc 9640 users, and is not a part of Texas Instruments. Opinions expressed in this newsletter are those of the writers and are not necessarily those of the 9T9 USERS' GROUP. 9T9 cannot assume liability for errors or omissions in articles, programs or advertisements. Any hardware modification or project is presented for informational purposes, and the author, newsletter editor, and/or 9T9 Users Group cannot be held liable for any damage to the user's equipment. All such projects are done at your own risk!

CLUB BBS

The 9T9 Users Group sponsors the TI Tower BBS, (416)921-2731, 300/1200/2400 BPS, 24 Hrs. Sysop: Gary Bowser.



Newsletter 9T9
109-2356 Gerrard St., East
Toronto, Ont., M6M-1C9, CANADA



Tid Bits

#24

-By Steve Mickelson, President 9T9 Users Group
Compuserve 76545,1255; Delphi SMICKELSON; GENIE S.MICKELSON
(Tid Bits is Copyright 1986,1987,1988 by Steve Mickelson)

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HO HO WHO?

I would like to thank Blair MacLeod for bringing last months newsletters and library updates to the last meeting. I had a family medical emergency and was not able to make the meeting. Unfortunately, I will be conspicuous in my absence at December's meeting, as well. It falls on the same Thursday that my children's "Deck the Halls" Christmas concert, and family does come first!

I've asked Blair to help out again bringing this issue of the newsletter to the meeting, December 15.

However, I intend to make the January meeting. A message from Randy informed me that Canada Remote Systems plans to relocate by March; which gives us the current meeting place for only January and February of 1989.

Unless we have a better offer, looks like I'll have to book the Gregory library again. If you know of a place that is available on a weeknight between 7:00 and 10:30 PM, and is centrally located, please contact one of the clubs executive members as soon as possible.

Renewals:

In case your's hasn't arrived, that renewals are due for 1989!

This month:

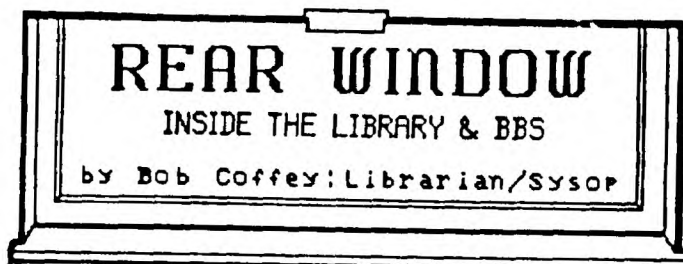
Thanks for Blair MacLeod, Steve Findlay, and Gary Bowser, for their respective contributions to this issue of the newsletter.

Speaking of contributions, not only did Gary have an update of the library listing, but he informed me of the Z80 Simulator Card now has a data spec. sheet. This is the same Z80 simulator, which began as a program written by Jim Ballantyne, mentioned in earlier Tid Bits. I downloaded this file from Gary's BBS and you can find it in this issue.

TASS 2001:

Gary's TASS 2001 graphic display program was mentioned in Bob Coffee's bi-line in the Western New York 99ER's Interface:

WESTERN NEW YORK 99ER'S INTERFACE



You remember a program called TASS (Tri Artist Slide Show), which performed a slide show on all Artist, Graphx, and Draw and Plot pictures on a series of drives, including RAM disks. Gary Bowser has updated the program to version 3.00.88, now known as TASS 2001. There are some improvements and one interesting addition. You now select the delay for each drive ahead of time, which can be handy for hands-off demonstrations.

The addition that I noticed was, if you specified drive #0 in your drive list, it will perform a lines demo or 40 pictures. The one thing different about this lines demo is that you select your own time delay between pictures, and each picture comes up completed, so you don't get to watch it draw. Also, you can at any time (even during the lines demo) stop the slideshow and save the picture to disk in either Artist, Graphx, or RLE format. It claims to have a true RLE format, unlike MAX-RLE. I have been unable to confirm that claim at this time, but this new version of TASS is much nicer than before, and loads quite quickly. For those who have been using TASS, you'll want this new version! Like CSE and DL99, this is also in our library, for \$1.



"Silent night, holy night..."

COMPFEST Revisited:

Speaking of the Compufest, I was asked whether I knew of a user group for the TI Pro. Well thanks to Ed Cameron, Delphi Sysop for the TI Pro, I am pleased to print his reply:

FORUM>Reply, Add, Read, "?" or Exit> >> FORUM>Reply, Add, Read, "?" or Exit>
7877 9-NOV-22:20: Professional TIPC)
RE: TI PRO (Re: Msg 7873)
From: ENCAMERON To: SMICKELSON (NR)

Steve,

The Chesapeake Bay is a long way from Canadian TI PRO Users, but we do have one Canadian member. I am, in addition to the "keeper" of PRO goings-on here, the president of the Chesapeake TIPC UG. We are in the process of trying to get a national (why not international?) TIPCUG off the ground. I'd be delighted to entertain any questions about our "small" local TIPCUG, or some of the other, larger groups in the States. TIMIX has returned to the picture with regard to the national effort owing to their more direct affiliation with TI and so forth. My address, and that of the Chesapeake TIPC Users, is:

TIPC Users
2272 Four Seasons Dr.,
Gambrills, MD 21054,
USA

Would love to see some of these folks join us here on TI NET. Cheers!

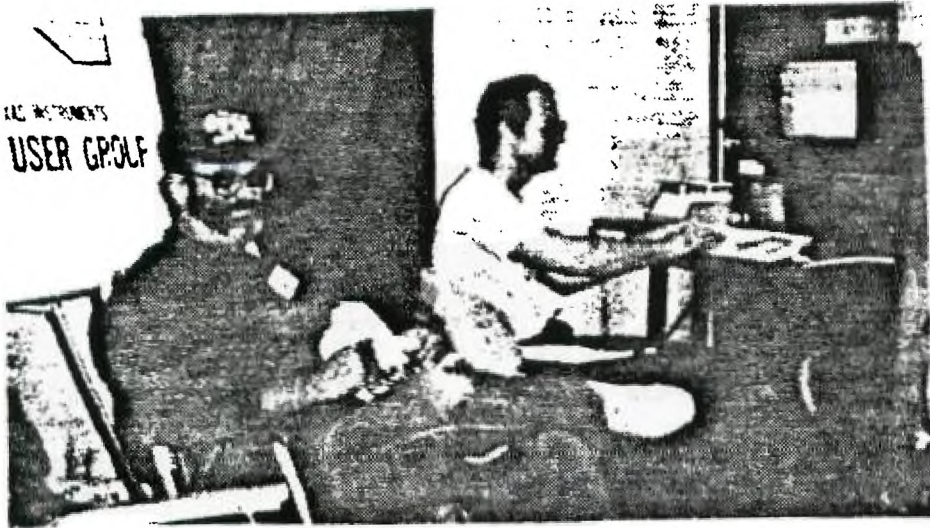
Ed Cameron

As far as the show is concerned, I took a few snapshots at the COMPUFEST '88, reported in October's TId Bits, (#22). Two of the pictures turned out well enough to be :dot screened" and printed:

Steve Mickelson, Athena Mickelson, Randy Rossetto, and Blair MacLeod at the 9T9 . Booth. Athena is using Mark Gregory's TI system & Steve's Myarc HFDC with a Seagate ST 251 Hard Drive.

9T9 TI USERS GROUPE





Randy Rossetto and Steve Mickelson with Gary Bowser's 9640 card in the clubs system.

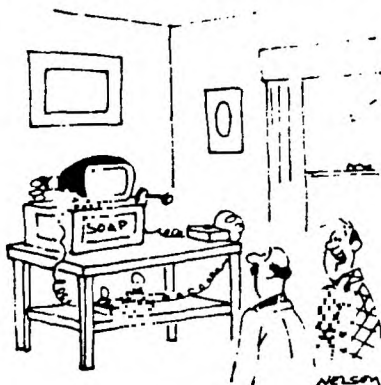
Shopping List:

This issue is full of mini reviews and press releases for various items for both the TI and 9640 systems. I've included an interesting item, below, which was developed by a professor at U.B.C. and is now available for the TI gamer "who has everything". You need a WICO joystick adapter or to make one yourself, (a project covered several times in past issues of the newsletter). This unit has been discounted to around \$50.00 at Consumer's Distributing/Toy City Stores.:



Camera Corporation: For the latest in high tech, the *Freedom Stick*, developed in Canada, "liberates" video game play. The first wireless infrared joystick, it is compatible with all video game systems including Nintendo, Sega, Atari and Commodore. Features include arcade style design and switches for automatic rapid-fire or manual action. It is suitable for 1 or 2 players and simultaneous two-player games. While your child will be enthralled, you may blanch at the price: \$79.95.

Freedom Stick,
an addition to your computer games



I built the TV myself from a kit.

Bent Offerings



User Notes

Convert XB screens to TIA Instances

Here's a program that runs in Extended BASIC that converts Extended BASIC screens into DV/80 files that can be read by TI-Artist V2.0. The utility was written by Terry Atkinson of Dartmouth, Nova Scotia, and appeared in the 9T9 newsletter of the TI Users Group of Toronto.

While its primary use is to convert Extended BASIC graphics for use by TI-Artist, it will convert any Extended BASIC screen into a DV/80 format, doing this by scanning the entire screen one character at a time starting at the upper left corner and working down to the lower right. Following is Atkinson's program and explanatory text.

This program was created to ease the pain of converting TI Extended BASIC screens to a DV/80 format which can be loaded by TI-Artist 2. With this version, the process takes about 25 minutes to convert a screen to disk, depending on how many characters are on the screen. The maximum sector size the program will take is 58 sectors. (Atkinson has a second version for use with a CorComp disk controller that takes about seven minutes to convert a screen using the disk controller's "toolshed" utilities.)

There are two ways to run the program: Either as a subprogram merged within a program or as a program run from Extended BASIC at the appropriate break point. Instructions are geared toward that end.

To use this program, first run your program that contains the graphics you want to convert, BREAK the program and look at the breakpoint in the program, making sure it does not contain a FOR-NEXT loop. Replace this line with the statement "RUN DSK1.XB2ART" or whatever you have named the conversion program.

In the case of a FOR-NEXT loop, it would be better to select another line located before or after the breakpoint line.

The resultant file obtained after running this program can be loaded directly into TI-Artist as an Instance. After the Instance is altered, you can save it as a TI-Artist program file.

The filename under which the screen is saved is in line 4. You may use any

filename you wish.

1 ! Terry Atkinson, 28 Savon
a Court, Dartmouth, NS B2W 4
R1 (voice 1-902-434-1346) !1
61

2 !This program may be freely
y distributed. Please do not
remove the author's name. !
056

3 DATA 1,24,1,32 !255

4 DATA DSK1.SCREEN !03

5 READ SROW,EROW,SCOL,ECOL,0
UT\$: :: IF FOX(OUT\$, "I", 1)=0
THEN OUT\$=OUT\$+"I" !026

6 IF SFOX(OUT\$, 1, 3)="DSK" AN
D LEN(OUT\$)<16 THEN 8 !053

7 CALL CLEAR :: PRINT "Pleas
e check filename in DATA sta
tement in program" :: END !0
03

8 FOR E=0 TO 14 :: CALL COL
R(E, 2, 8) :: NEXT E :: CALL DE
LSprite(ALL) :: CALL MAGNIFY(
1) :: CALL SCREEN(8) :: CALL S
PRITE(#1, 32, 16, 1, 1) !252
9 H\$="123456789ABCDEF" :: OP
EN #1:OUT\$: !0B3

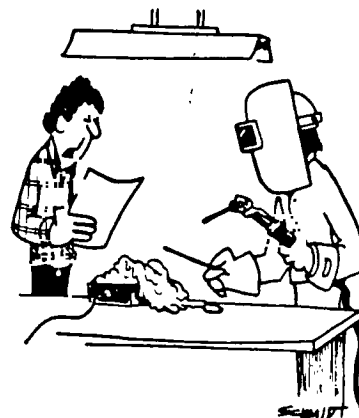
10 PRINT #1:STR\$(ECOL+SCOL+1
)&","&STR\$(EROW-SROW+1) :: FO
R F=SROW TO EROW :: FOR G=SC
OL TO ECOL :: CALL GCHAR(F, G
, H) :: IF H>32 THEN I=H ELSE
I=95 !105

11 CALL LOCATE(#1, F*8-7, G*8-
7) :: CALL PATTERN(#1, I) :: CA
LL CHARPAT(IH+AH*(H-31), C\$) ::
GOSUB 13 :: NEXT G :: NEXT
F :: CLOSE #1 !148

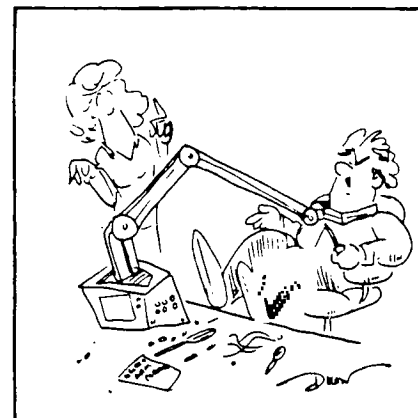
12 CALL SOUND(4000, 400, 1) ::
CALL CLEAR :: END !015

13 FOR E=1 TO 15 STEP 2 :: D
\$=SFX\$(C\$, E, 2) :: ES=ES&STR\$(
POS(I\$), SFX\$(D\$, 1, 1), 1)+POS(I
\$, SFX\$(D\$, 2, 1), 1)&". " :: NE
XT E !022

14 ES=SEG\$(ES, 1, LEN(ES)-1) ::
PRINT #1:ES :: ES="" :: RET
URN !073



*I'm not surprised that you're having
problems. The plan says "solder"—not
"weld"!*



©1986 JAMES DAVID DEAN

*Yeah, yeah... it works! Now disconnect
the battery!*



The other version of this utility, which requires the Corcomp disk controller and "Tool Shed Utilities", may be found in the December '86 Issue of the newsletter. Check with Steve Findlay for that issue in a binder, if you don't have that particular copy.

To subscribe to MICROpendium, which is a fine 40-50 page publication dedicated to our computer, see mailing address in Stephen Shaw's "Ramblings", this issue.

Computer Shopper's Canadian Connection:

The last couple of TI'd Bits have had reprints of articles, from Asgard News and Computer Shopper, stressing the importance of cultivating new memberships, to user groups, from the population of users having unexpanded systems.

I would like to conclude this series with a reprint from December's Computer Shopper's, "TI Forum". By the time you receive this newsletter this magazine will be off the newstands. I've reprinted only a small portion, which deals with Canadian software author's, and the unexpanded system. Also mentioned, is Art Green's utility, which transfers an E/A #5-type program, to cassette. A 32K memory expansion, and either Extended BASIC or Editor Assembler cartridge is required:

TEXAS INSTRUMENTS

TI Forum

by Jonathan Zittrain and Barry Traver

TI Forum continued from page 297

Canadian 99'ers Update

Charles Earl's outstanding terminal emulator program Telco (reviewed in a previous issue) continues to improve. Those who have Version 2.1 should replace that with the newer Version 2.2, which includes HFDC (Hard/Floppy Disk Controller) support, bug fixes, xmodem support for TIBBS, an improved autodialer and PC-Pursuit dialer, and possibly other changes as well. Perhaps because of the thoroughness of the revision, as far as I know there is no way to upgrade from Version 2.1 to Version 2.2 other than by replacing the entire package. (If you cannot find this Fairware program elsewhere, you can order it from the author directly. His address is Charles Earl, 34 McLeod Street, Ottawa, Ontario, Canada K2P 0Z5, and the registration fee is \$20.00.)

Canada is indeed noted for a number of proficient programmers. Others include Clint Pulley (author of c99) and R. A. Green (author of RAG Assembler

and RAG Linker). Art has also written another program that deserves wider circulation: a useful program to transfer a program from disk to cassette. (If you can't find it elsewhere, you may want to get in touch with Art at this address: R. A. Green, 1032 Chanenay Drive, Gloucester, Ontario, Canada K1C 2K9.)

Why is such a program important? After all, we're not doing badly for a computer that has been orphaned for five years. In the Philadelphia Area Computer Society, for example, the TI user group is the fourth largest group (IBM, Apple, and Macintosh have more members than we, but we have more members than Atari, Commodore, Radio Shack, or any other group). In addition, perhaps 95% of our TI group have disk systems (and some have upgraded recently to a hard drive). Why then is it important, in my opinion, to support cassette users?

A community survives and thrives as it brings in replacements to take the place of those people it may lose in the process of time. Since new TI-99/4As are not presently being produced, this means that we must find those people who are closet Tiers, i.e., who may already have a TI in the closet, but who have not used it much because of not knowing how much can really be done with it, particularly with a rather modest financial investment.

The important news to get out, I believe, is that you do not have to have a disk system to run assembly programs. What you need is a cassette recorder and 32K memory expansion. The cassette recorder is easy, since the TI-99/4A (unlike many other computers) will work with almost any cassette recorder (which the same family is likely to already have also in the closet!). So for most people, all that is necessary is a cassette cable costing a few dollars.

Likewise, it shouldn't cost much to add 32K memory, a project in which many 99er's have indicated great interest. We hope in a future issue to publish more information on adding 32K internally to the console (many have found different ways to do this, including Bernie Elsner, Mike Ballman, and Joe Spiegel, and the cost may be as low as \$20 to \$25), but fairly inexpensive add-ons plugging directly into the console are also available at a cost as low as perhaps \$50 to \$60. (One recommended source for such is The Captain's Wheel, 17295 Chippendale Avenue, Farmington, MN 55024).

What is needed, then is the ability to transfer disk-based "EA5" (i.e., Editor/Assembler, option 5) programs to cassette. A number of people have written programs to accomplish exactly

continued on page 493

that, including Walt and Tony McGovern in Australia, and J. Peter Hoddie, but one of the best is the one done by Art Green. (I understand that Stephen Shaw in England—where disk systems are not as common as they are here—has also had substantial experience in making assembly programs available to cassette TI'ers.)

Such programs may be loaded, I'm told, using the Editor/Assembler cartridge (which I haven't tried), or with the Extended BASIC cartridge using an XT "EA5" loader program (something that I have personally verified). Even multi-file assembly programs can be run, but there is a trick to it because of TI's practice of auto-incrementing the last character of the supplied device name. "CS1" won't work, because the loader looks to "CS2" for the second file. "CS1." won't work, because the loader looks to "CS1/" for the second file. "CS1.X" will work, because "CS1.Y" will also access CS1 for the second file. (With cassette usage, the loader ignores anything after the "." in the filename.)

At any rate, those TIers who have only a minimal system can get a lot more out of it as they realize how easy it is to access EA5 assembly programs at little or no cost. In addition, some of these newly enthusiastic TIers, as a result of seeing what their computer will do, may go on to further upgrade their systems. Either way, if TI user groups remember to support novice TIers, I believe our community as a whole will gain the benefit. (Let us know what you think of this subject, and whether you would like to see more similar material directed toward helping new TIers.)



We have the Art Green utility package in our club's library. I hope to see that Mark Gregory gets a copy of this package to help build our cassette library. Our club will undertake to pay the requested Fairware donation, if the package delivers "as advertised". Even though I downloaded the Art Green conversion package for the club library, I've yet to dearchive and test the package. Will update you later.

The December '88 issue of the Shopper's "TI Forum" was loaded with other "TId Bits". If you are interested in subscribing to this, the worlds biggest computer magazine, which covers, also, news and views of Commodore, Atari, Adam, Heath/Zenith, IBM, Apple, MacIntosh, Amiga, Atari ST, computer peripherals, to the tune of 600-700 pages, Canadians send \$60.97US, (US Subscription rate of \$29.97 plus \$31.00 additional Canadian/foreign postage, to Computer Shopper, P.O. Box 51020, Boulder, Colorado, 80321-1020, USA. If you find these prices a bit out of line, you can pick up a copy for \$3.50+tax, Canadian, an issue, at many of the better-stocked magazine/bookstores, (Lichtmans, W.H. Smith, some Eaton's Stores).

Turbo Pascal:

I was off re: a "Fairware" version of Turbo Pascal. It seems what I downloaded from Delphi was a package of utilities for the TI P-code card. See the Stephen Shaw article for the source and price for the L.L.Conner Turbo Pascal package. This was released from Texaments, (but NOT any longer), and the final product, which I have purchased from L.L. Conner may be somewhat different, though the final product may be converted, using a utility included in the package, from a

Turbo Pascal program, to a EA #5 file.:

TI-99/4A TURBO PASCAL The New Compiler package You've Been Waiting For

The wait is over. No longer will you need to use the awkward, expensive, and sluggish PASCAL system Texas Instruments introduced years ago for the TI-99/4A computer. Its finally arrived, TURBO-PASC 99. TURBO-PASC 99 is an integrated software package that includes a command processor, full featured editor, lightening-fast single-pass compiler, and a linker. With this highly advanced compiler system you can use existing standard PASCAL programs, or write your own. Its your choice, and its easy.

SO WHAT ARE THE SPECIFICATIONS?

Much thought went into the design of TURBO-PASC 99. We knew the package had to be easy to use, yet exploit a full implementation of PASCAL, with a moderately expanded TI-99/4A system. Success didn't come easy. Both the editor and compiler reside in memory during an entire programming session. Programs can be compiled in memory, on the fly, without code generation. Of course permanent compilation can always be directed to disk, and files are saved in the popular Display Variable 80 format.

TURBO-PASC 99 EDITOR: Full screen(22 rows, 80 columns). Keywords are automatically detected and converted to capitals to avoid common syntax errors. Automatic indentation. All common editing functions are available; delete and insert character/line, move/copy/delete lines, goto specified line number, and find string.

TURBO-PASC 99 COMPILER: Generates pure TMS9900 machine code efficiently in single pass at a rate up to 80 lines per second. Compiled programs run up to 50% faster than the C99 program, and countless times faster than interpreted BASIC. Compiled code is relocatable and can be interfaced with assembly language routines. And with the TURBO-PASC 99 Linker, modules can be linked together and executable RUN PROGRAM FILES (editor/assembler option 5) can be generated.

WHAT CAN BE EXPECTED OF THE LANGUAGE ITSELF?

Almost as much as you can expect from a full blown PASCAL compiler system used by those "other" computers. TURBO-PASC 99 features INTEGER, REAL, BOOLEAN, STRING, and ARRAY data types, automatic arithmetic data type conversion, procedures and functions with dynamic storage allocation, external declaration and standard parameter passing, STREAM, BLOCK, and RELATIVE file management functions, and standard PASCAL statements like FOR, IF, CASE, WHILE, and REPEAT.

IS THERE ANYTHING ELSE?

To start using TURBO-PASC 99 you will need a disk system, 32k memory expansion, Editor/Assembler cartridge, and, of course, TURBO-PASC 99. Included with your TURBO-PASC 99 system disk will be an extensive user manual and Windows 99 (window management program). Future applications and programming aides, which include a graphics programming toolbox, will become available in the near future.

L.L. CONNER ENTERPRISE
Computer Electronics
1521 Ferry St., Lafayette, Indiana
47904, U.S.A. (317)742-8146

Contest:

Andy Parkinson has requested that I report the 1989 Edition of the 9T9 Software Contest is officially underway! The simple rules are:

- * The program can be written in any language used on the TI-99/4A.
- * Must be "user friendly."
- * Must be useful.
- * Must bear the name of the author and the 9T9 Users Group.
- * Closing date: the March, 1989 meeting.
- * Multiple entries are O.K.

The winning entries will fall under the following guidelines:

- * Winning entries will become the property of the 9T9 Users Group.
- * Winning entries to be demonstrated, by the author, to the club.
- * Winning entries to be featured on a future "Disk of the Month".

Prizes:

First -Fifty diskettes.
Second -Thirty diskettes.
Third -Ten diskettes.

Wrap Up

Well that about does it for my TId Bits, this month and this year! I would like to wish all members and their families all the best wishes of the season and a safe and prosperous 1989!



HARDCOPY

-by Steve Findlay

Well, not too much time this month for completing my column so I'd just like to mention that Wes Shunk has kindly donated a book to the HARDCOPY library. Thanks Wes! I would also like to thank Steve Mickelson, our editor, for those kind words following my last column.

Hope everyone has a great Christmas season!

BINDER #7 (supplemental)

- * PULSAR assembly language utilities tutorial. We have a copy of this fairware disk in our library. It is very handy for those who want to incorporate generic prewritten assembly language routines in their machine code programs. (Network - Dec 85)
- * a disk controller tutorial which includes a hardware modification to disable the write verification at the chip level.
(QB Monitor - Summer 87)
- * a good FORTH introduction called Forthward HO! (QB Monitor - Sep 87)
- * an excellent keyboard layout sheet that you use to enter all the special function keys in your favourite program. This is NOT a function/control key strip sheet, it lists ALL the keys. Great for photocopying for your own personal use. (QB Monitor - Fall 87)
- * a tutorial on setting up a Cheque Reconciliation Template for Multiplan.
(QB Monitor - Fall 87)
- * an Extended BASIC program called COLISTER. A so-called Tinygram program for custom column listing. (QB Monitor - Fall 87)

BINDER #9

- * PILOT 99 programming command list. (Cin-Day - May 88)
- * a number of articles on PRBASE that include a bug fix by the author William Warren. He has stated that he has no plans for further updates and bug fixes. (Cin-Day - May 88)
- * an interesting article on a school girl that takes notes at school on a Tandy Model 100 laptop computer and then transfers the files to the TI for manipulation and storage using TI Writer. (Cin-Day - May 88)
- * an Avatex modem review and cable pinouts. (Cin-Day - Jul 88)
- * an amusing article that compares Shakespeare passages to the TI community.
(QB Monitor - Feb 88)
- * an Extended BASIC sprite demo called ARROW. (QB Monitor - Apr 88)
- * a mention of a new cartridge coming soon for "Assembly Language Development". Purportedly for advanced assembly language programmers from Databiotics. The release name will probably be TI Workshop and is to open up some of the "in-accessible" memory areas. (HUG - Feb 88)
- * a comprehensive review of Databiotics' WORDWRITER word processor cartridge for console only TI users. (HUG - Feb 88)
- * PRBASE tips and enhancements. (HUG - Apr 88)
- * a excellent two part article of TI Writer tips by Bob Seddon.
(HUG - May 88 and Jun 88)
- * an Extended BASIC shortie called the Black Box Loader. It uses CALL LOADs to load sounds into the sound chip. Might be interesting for some.
(Marion - Oct 84)
- * a FORTH "power editor" (WestPenn - Apr 86)
- * a command function strip for the Companion word processor.
(WestPenn - Apr 86)
- * a hardware modification to add 32K memory expansion to your system using the speech synthesizer. (WestPenn - Apr 86)

- * a modification to add a clock/calendar circuit to the new Proto-board. This board for the PE box is available from West-Penn for \$35. (West-Penn - May 88)
- * another hardware modification to add a real time clock to your system using the speech synthesizer. (WestPenn - Jun 88)
- * an article on constructing an RGB analog interface for the TI 99/4A. (WestPenn - Jul 88)
- * another hardware article on adding 32K to the system by installing a 32K chip within the console. (WestPenn - Jul 88)
- * an Extended BASIC communications terminal program using CALL LOADs. (WestPenn - Aug 88)
- * the mention of the new AVANTI-99 FORTH card for the expansion box by Mike McCann. This card really sounds amazing! The article mentions speed in the order of 5 MIPS (million instructions per second)! (WestPenn - Aug 88)
- * an article on packet radio usage for the TI 99/4A. Bernie Roche did a demo of the same sort of system for our group a number of months ago. (WestPenn - Aug 88)

BINDER #10

- * a TI LOGO editor command list. (The Printout - Jun 85)
- * a FORTH clock program. (The Printout - Jun 85)
- * an article that discusses BAUD rates and what they mean. (The Printout - Jun 85)
- * a mention of an "upcoming" software release for the TI (before we became orphans). The game programs CHOPLIFTER and DAVID'S MIDNIGHT MAGIC were to be released in the fall of '83. I personally remember an ad in the SEARS FALL and WINTER '83 catalog. Anybody ever see or hear about these programs? (Kawartha - Sep 83)
- * a listing of all the function and control keys for the Companion word processor. (Kawartha - Vol 5 No 6)
- * a TI Artist function key list. (Oshawa - May 88)
- * a 5 page tutorial on Multiplan by Tom Kennedy. (Sudbury - May 87)
- * a good article on buying and installing a RAVE 105 keyboard. (Sudbury - Sep 88)
- * a clear and concise article on installing the speech synthesizer in the console. (The Informer - Mar 87)
- * an Extended BASIC program called Crazy Titles. (The Informer - Apr 87)
- * a computer diagnosis BASIC program. (The Informer - May 88)

'TIL NEXT MONTH... CALL LOAD(-31932,32)

Oasis
Pensive
Abacutors

OPA INFO SHEET on the OPA Co-Processor Card

-by Gary Bowser
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(416) 960-0925
DECEMBER, 1988

Specializing in 9900 based Software Hardware
Home of the Phoenix 2001 series of software

Hi everyone , I decided to write this INFO SHEET on my company's Co-Processor card to answer the many "What is it What does it do" questions about the new Z80 card for the TI and GENEVE computers. Well, in short, the card will allow a user to run Z80 Assembly code plus the COLECOVISION game cartridges, with a big increase of speed compared to other Z80 computers. This is so because the CPU used on this card can run up to 25 Mhz, which is about six times faster than the most common Z80 chip in use (running at 4 Mhz).

Now a lot of you are also wondering what can Z80 running on my TI at 25 Mhz do for my TI system: Well, to answer that, the card is designed to fully interface with the TI 9900 processor in a Co-Processor/Multiprocessor type system to give you increased speed and memory in TI programs designed with Z80 code, making use of the many possible functions with the card's CPU and memory.

The next big question is what programs can I use with the card & what will be written for the card: Well currently, OPA is working on a new BASIC with many more commands than the TI Extended BASIC, plus increased speed and memory space. This BASIC will be included when you buy the card.

The current TI Assembly programs will not run faster or use the extra memory since they were not written to interface with a Z80 card, but future programs from either OPA or other third-party software authors will certainly make use of the many features of the card.

Future progs. could be new DATABASES/SPREADSHEETS/TEXT EDITORS with increased speed in calcs, sorts, searches etc., and more memory to work with since the card can be expanded from the basic 128K to a full 16 MEGABYTES!!

I hope the above answered some of your many questions, but if not you can write to me at the address on top of the info sheet.

Now, I have a some questions for you: I am looking for anyone with info on and/or who has one of the MORNING STAR CP/M CARD which was reviewed in MICROpendium Mar. 85 and the HOME COMPUTER MAGAZINE v5 #2. If you can help me in my search, please write me, as I want to make my card handle CP/M software and be able to Read Write CP/M disk formats like the MORNING STAR system.

You may have some ideas if so I am looking for software ideas which can use my card's features and/or hardware add-ons which you may like to see for the TI or GENEVE computers. If you believe you have a great idea, please write to me.

Well that about wraps it up for now, except> Watch for more INFO within the new year; We plan to get production of the hardware underway within the next couple of months, but we mainly need more financial backers. Oh, that's another thing, if you think you can help me in marketing or financial needs please let me know by phone or a letter. Well, gotta run, but before I go, here is a list of features so far planned for the card:

FEATURES OF THE OPA CO-PROCESSOR CARD:

- * Special custom designed multiprocessor interface for High Speed data transfer and I/O operations between the Z280 and 9900 CPUs.
- * Cartridge port for Colecovision or DSR modules.
- * MPU expansion port for future memory or OPA peripherals.
- * 128k of MPU memory expandable to 512k on-board and expandable to a full 16 Megabytes thru the MPU expansion port.
- * 32K of Battery-backed RAM for 9900 control programs, expandable to 64k thru the Cartridge port.

Z280 Microprocessor unit (MPU) with the following features:

- * Enhanced Z80 CPU instruction set that maintains object-code compatibility with Zilog's Z80 series of microprocessors.
- * Three-stage pipelined, 16 bit CPU architecture with user & system modes.
- * Memory Management Unit (MMU) which can addressed up to 16 Megabytes.
- * 256-byte instruction and data associative cache memory.
- * Three 16-bit counter/timers.
- * Four DMA (Direct Memory Access) channels.
- * Full duplex UART (Universal Asynchronous Receiver/Transmitter).
- * Refresh controller for dynamic RAMs.

FEATURES OF OPA SOFTWARE INCLUDED WITH THE CO-PROCESSOR CARD:

OPA O.S. which allows the card to be used in the following ways:

- * Running ColecoVision Modules thru the Cartridge port.
- * Loading and Running of Z80 programs with interfaces to the O.S. for all TI99 peripherals including direct interface to the Video, Sound and keyboard.
- * Running 9900 programs with Z80 code in a co-processor type system to enhance the speed and size of a new TI program designed to interface with the card.
- * Using the card's on-board and/or expansion memory as a RAMDISK type system for both TI99 programs or Z80 programs.
- * User selectable speeds from single-step to full 25 Mhz operation of the MPU.

OPA PROGRAMMER'S PACKAGE:

This package will contain complete software to assemble, debug, edit, link, and disassemble any Z80 program you want to write, etc. Also included is a complete set of manuals on the Z80 Assembly Language and peripherals which can be interface with thru Z80 and/or 9900 code.

OPA BASIC:

A new enhanced TI Extended BASIC which will have more memory space for data and programs plus a big increase in speed of up to ten times the normal TI speed in running a BASIC program.


```

100 CALL CLEAR
110 CALL SCREEN(6)
120 OPEN #1:"SPEECH",OUTPUT
130 PRINT #1:"//39 60"
140 PRINT : "A VISIT FROM SAINT NICKOLAS -----"
150 PRINT #1:"A VISIT FROM SAINT NICK ALAS"
160 FOR D=1 TO 399
170 NEXT D
180 CALL SCREEN(9)
190 AS="TWAS THE NIGHT BEFORE CHRISTMAS, WHEN ALL THROUGH THE HOUSE"
200 GOSUB 1380
210 AS="NOT A CREATURE WAS STIRRING, NOT EVEN A MOUSE;"
220 GOSUB 1380
230 AS="THE STOCKINGS WERE HUNG BY THE CHIMNEY WITH CARE,"
240 GOSUB 1380
250 AS="IN HOPES THAT SAINT NICKOLAS SOON WOULD BE THERE;"
260 GOSUB 1380
270 AS="THE CHILDREN WERE NESTLED ALL SNUG IN THEIR BEDS,"
280 GOSUB 1380
290 AS="WHILE VISIONS OF SUGAR PLUMS DANCED IN THEIR HEADS;"
300 GOSUB 1380
310 AS="AND MOMMA IN HER KERCHIEF & I IN MY CAP,"
320 GOSUB 1380
330 AS="HAD JUST SETTLED OUR BRAINS FOR A LONG WINTERS NAP,"
340 GOSUB 1380
350 AS="WHEN OUT ON THE LAWN THERE AROSE SUCH A CLATTER,"
360 GOSUB 1380
370 AS="I SPRANG FROM THE BED TO SEE WHAT WAS THE MATTER."
380 GOSUB 1380
390 AS="AWAY TO THE WINDOW I FLEW LIKE A FLASH,"
400 GOSUB 1380
410 AS="TORE OPEN THE SHUTTERS AND THREW UP THE SASH."
420 GOSUB 1380
430 PRINT : "THE MOON ON THE BREAST OF THE NEW FALLEN SNOW"
440 PRINT #1:"THE MOON ON THE BREAST OF THE NEW FALLEN SNOW"
450 AS="GAVE THE LUSTER OF MID DAY TO OBJECTS BELOW,"
460 GOSUB 1380
470 AS="WHEN, WHAT TO MY WONDERING EYES SHOULD APPEAR,"
480 GOSUB 1380
490 AS="BUT A MINIATURE SLEIGH, AND 8 TINY REINDEER,"
500 GOSUB 1380
510 PRINT : "WITH A LITTLE OLD DRIVER, SO LIVELY AND QUICK,"
520 PRINT #1:"WITH A LITTLE OLD DRIVER, SO LIVELY AND QUICK,"
530 AS="I KNEW IN A MOMENT IT MUST BE SAINT NICK."
540 GOSUB 1380
550 AS="MORE RAPID THAN EAGLES HIS COURSERS THEY CAME,"
560 GOSUB 1380
570 AS="AND HE WHISTLED, AND SHOUTED, AND CALLED THEM BY NAME:"
580 AS="NOW, DASHER! NOW, DANCER! NOW, PRANCER AND VIXEN!"
590 GOSUB 1380
600 AS="ON, COMET! ON, CUPID! ON, DONNER & BLITZEN!"
610 GOSUB 1380
620 AS="TO THE TOP OF THE PORCH! TO THE TOP OF THE WALL!"
630 GOSUB 1380
640 AS="NOW DASH AWAY! DASH AWAY! DASH AWAY ALL!"
650 GOSUB 1380
660 AS="AS DRY LEAVES THAT BEFORE THE WILD HURRICANE FLY,"
670 GOSUB 1380
680 AS="WHEN THEY MEET WITH AN OBSTACLE, MOUNT TO THE SKY,"
690 GOSUB 1380
700 AS="SO UP THE HOUSE TOP THE COURSERS THEY FLEW,"
710 GOSUB 1380
720 AS="WITH THE SLEIGH FULL OF TOYS, AND SAINT NICKOLAS TOO."
730 GOSUB 1380
740 AS="AND THEN, IN A TWINKLING, I HEARD ON THE ROOF"
750 GOSUB 1380
760 AS="THE PRANCING AND PAWING OF EACH LITTLE HOOF."
770 GOSUB 1380
780 AS="AS I DREW IN MY HEAD, AND WAS TURNING AROUND,"
790 GOSUB 1380
800 AS="DOWN THE CHIMNEY SAINT NICK-OLAS CAME WITH A BOUND."
810 GOSUB 1380
820 PRINT : "HE WAS DRESSED ALL IN FUR, FROM HIS HEAD TO HIS FOOT,"
830 PRINT #1:"HE WAS DRESSED ALL IN FUR, FROM HIS HEAD TO HIS FOOT,"
840 PRINT : "AND HIS CLOTHES WERE ALL TARNISHED WITH ASHES AND SOOT;"
850 PRINT #1:"AND HIS CLOTHES WERE ALL TARNISHED WITH ASHES AND SOOT;"
860 AS="A BUNDLE OF TOYS HE HAD FLUNG ON HIS BACK,"

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870 GOSUB 1380
880 PRINT : "AND HE LOOKED LIKE A PEDDLER JUST OPENING HIS PACK."
890 PRINT #1: "AND HE LOOKED LIKE A PEDDLER JUST OPENING HIS PACK."
900 AS= "HIS EYES- HOW THEY TWINKLED! HIS DIMPLES HOW MERRY!"
910 GOSUB 1380
920 AS= "HIS CHEEKS WERE LIKE ROSES, HIS NOSE LIKE A CHERRY!"
930 GOSUB 1380
940 AS= "HIS DROLL LITTLE MOUTH WAS DRAWN UP LIKE A BOW,"
950 GOSUB 1380
960 AS= "AND THE BEARD OF HIS CHIN WAS AS WHITE AS THE SNOW;"
970 GOSUB 1380
980 AS= "THE STUMP OF A PIPE HE HELD TIGHT IN HIS TEETH,"
990 GOSUB 1380
1000 PRINT : "AND THE SMOKE IT ENCIRCLED HIS HEAD LIKE A WREATH;"
1010 PRINT #1: "AND THE SMOKE IT ENCIRCLED HIS HEAD LIKE A WREATH;"
1020 PRINT : "HE HAD A BROAD FACE AND A LITTLE ROUND BELLY,"
1030 PRINT #1: "HE HAD A BROAD FACE AND A LITTLE ROUND BELLY,"
1040 AS= "THAT SHOOK, WHEN HE LAUGHED, LIKE A BOWLFUL OF JELLY."
1050 GOSUB 1380
1060 AS= "HE WAS CHUBBY AND PLUMP, A RIGHT JOLLY OLD ELF,"
1070 GOSUB 1380
1080 AS= "AND I LAUGHED WHEN I SAW HIM, IN SPITE OF MY SELF;"
1090 GOSUB 1380
1100 AS= "A WINK OF HIS EYE AND A TWIST OF HIS HEAD,"
1110 GOSUB 1380
1120 AS= "SOON GAVE ME TO KNOW I HAD NOTHING TO DREAD;"
1130 GOSUB 1380
1140 AS= "HE SPOKE NOT A WORD, BUT WENT STRAIGHT TO HIS WORK,"
1150 GOSUB 1380
1160 AS= "AND FILLED ALL THE STOCKINGS; THEN TURNED WITH A JERK,"
1170 GOSUB 1380
1180 AS= "AND LAYING HIS FINGER ASIDE OF HIS NOSE,"
1190 GOSUB 1380
1200 AS= "AND GIVING A NOD, UP THE CHIMNEY HE ROSE;"
1210 GOSUB 1380
1220 AS= "HE SPRANG TO HIS SLEIGH, TO HIS TEAM GAVE A WHISTLE,"
1230 GOSUB 1380
1240 PRINT : "AND AWAY THEY ALL FLEW LIKE THE DOWN OF A THISTLE."
1250 PRINT #1: "AND AWAY THEY ALL FLEW LIKE THE DOWN OF A THISTLE."
1260 PRINT : "BUT I HEARD HIM EXCLAIM, ERE HE DROVE OUT OF SIGHT,"
1270 PRINT #1: "BUT I HEARD HIM EXCLAIM, ERE HE DROVE OUT OF SIGHT,"
1280 AS= "'HAPPY CHRISTMAS TO ALL, AND TO ALL A GOOD NIGHT.'"
1290 GOSUB 1380
1300 CALL SCREEN(3)
1310 FOR D=1 TO 700
1320 NEXT D
1330 AS= "WRITTEN BY: CLEMENT CLARKE MOORE"
1340 GOSUB 1380
1350 AS= "99/4 PROGRAM BY: SAM MOORE, JUNIOR"
1360 GOSUB 1380
1370 END
1380 PRINT : AS
1390 PRINT #1: AS
1400 RETURN

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Downloaded from Compuserve:

The Central PA TI Users Group 1988 TI Exposition

October 16, 1988

Today I attended the Central TI User's Group annual exposition, in Carlisle, PA. The exposition was combined with a local TI fest, which combined with a beautiful autumn day, provided for a lively day for all.

Somewhat strange where the hours of the exposition, 7 am to 2 pm. I arrived at about 9:30 am (no, I didn't get up THAT early). The TI portion of the show was contained in a single fair building.

Located within were thirteen strictly TI-99 and MYARC Geneve related organizations, including the host CPUG (Central PA Users Group), MYARC, Disk Only Software, Asgard Software, Genial Computerware, Rave 99 Co., Bud Mills Services, The Reading-Berks Users Group, the York Area Ninety-Niners U.G., Great Lakes Software, INSCEBOT Inc., and the Boston Computer User Society.

What was new at the fair? Asgard had several new products shown either for the first time at this fair or released very recently, including:

o PREDITOR - A super programmer's editor with can view multiple files, provides 80-column support with MYARC Geneve, and much more,

o BATCH-IT - A new BATCH processor for the typically menu oriented TI-99/4A (note: this is strictly for the 4/A with a super-cart or other extended memory cartridge, it is not for the GENEVE using MDOS, which has its own batch process).

o PRESS - A new word-processor for the TI-99/4A and GENEVE. Capabilities claim use of extra memory on SuperCart and Mini-Memory, or Horizon RAM-Disk, 250 page manual, 5 disks, tutorial, and appears to be VERY powerful (like picture inclusion with text). Written by Charles Earl (author of TELCO).

Interestingly, Chris Bobbitt, owner of Asgard, said that one of his best selling disks is the "Disk of Dinosaurs", a two-disk collection of dinosaur collections. Chris went on to say that the author of this disk will be shortly issuing a sequel, a disk of pirate pictures. Another interesting comment from Chris was that cassette sales still outsell disk sales, probably on the order of 10 to 1. This shows that most TI-99 owners out there are still using the cartridge/cassette system.

If there was a theme for this fair, it had to be Jim Horn's, Barry Traver's, and Jerry Coffey's agreement that the future of the TI-99 rests with new users. All three agreed that it is necessary for user groups to take an active roll in "getting the TI-99's out of the closet", and pursuing cassette based or cartridge based solutions. Jim Horn presented a talk (which I missed, unfortunately), concerning his efforts to get former or mildly interested TI-99 users to donate their equipment to schools. The emphasis, as he stated, should be on "solution machines", i.e. a machine that teaches spelling, a machine that does word-processing, etc.

Another presentation, which I did attend, was of Wayne Stith's new program, TRIAD (marketed by Genial Computerware). TRIAD was interesting in that it combines several, typically separte, functions into an integrated package. The functions include a terminal emulator, a disk manager, and an editor. One real use I saw for this package was to capture a set of messages to a buffer, edit the buffer to form a response, and send the response back to the BBS or network service. Another unique feature was the ability to set the "breakpoint" during XMODEM transfers. Fasterm always dumps it's XMODEM buffer at 64 sectors, which sometimes when writing to floppy drives, causes the XMODEM transfer to timeout on some services or BBS's. By making the dump threshold smaller, sometimes these timeouts can be avoided.

The Boston Computer User Society was on hand as usual with their library of public domain, shareware, and fairware programs. Some new disks on the list include C99, version 4.0 (for the GENEVE), an enhanced graphics system for the MYARC, and PLUS-1/PLUS-2, two new add ons for FunnelWeb.

Rave 99 Company was on hand with their enhanced keyboard system for the TI-99. An interesting new card was the speech synthesizer card for the TI-99 and GENEVE. This card allows you to remove the "innards" from your speech synthesizer, and plug it into the Peripheral Expansion Box (PEB). This is a convenience for the TI-99, and is a must if you want to do speech on the GENEVE.

I meet many new people today, and had some interesting discussions on various programming topics. I know I have missed a lot that happened in this "mini-report", but I have tried to cover the important events that I participated in.

All in all an enjoyable day. It was GREAT to see everyone again. Jerry Coffey promises a Washington D.C. Show in December, hope to see everyone then.

A.L.Beard
16-Oct-1988

BATCH-IT
-by Charles Earl Tom Bentley

Asgard Software is very pleased to announce the release of Batch-It, by Charles Earl (author of Telco) and Tom Bentley.

Batch-It is a remarkable program that allows you to "program your programs", and ultimately, do more on your computer with less work.

Batch-It is a programming language that runs programs in a separte area of memory, outside of the area normally used by application software. These programs can be used to monitor your applications, add features to them, move data between two or more, do things to the application at a user command, and even run them. Because of its unique design, Batch-It programs run at the same time as your application does, with little discernable reduction in speed.

The things you can do with Batch-It are really only limited to your imagination. However, Batch-It can aid the following people:

*** If you are a program user: Batch-It runs behind many popular application programs, including Funnelweb, Telco, BA-Writer, DM1000, numerous databases, drawing programs, and most program-image assembly programs ("E/A option 5 programs").

*** Batch-It can be used to add macros to any of these programs (single keystrokes which perform anywhere from a few dozen to a few-hundred commands), make "help" screens for them, or make desk-accessory type programs that run behind your application and pop-up at a given keystroke. Also, Batch-It programs can run several applications in a row, be set to answer common questions, and even take data from one application and put it in another (for instance capture a TI-Writer screen and put it in Telco). Batch-It can even send any key command to these programs, in any order that you like - including function key presses, cursor commands and control keys. Batch-It supports variables, variable-testing, key scans, and routines that allow you to look at a screen and capture part or all of its contents.

*** The technical stuff aside, what "real" stuff can it do for you? Well, you can easily create a Batch-It program that sits behind TI-Writer, and on a key-press saves the file you are currently working on (even have it ask you for the filename), quits from the editor, loads the formatter, prints the file, and then returns to the editor and loads your favorite template for the next letter - all automatically and with no more effort than your initial key-press!

*** You could create a Batch-It program that runs behind DM1000 and allows you to make 100 copies of a disk simply by swapping the copy disks and pressing a single key each time.

*** You could create a Batch-It program for Telco that calls up your favorite bulletin board, signs you in, takes you to the area that you want to go, and downloads your messages, or new programs, or anything else you can think of.

You probably have the idea by now.

And because Batch-It programs can run other Batch-It programs, the only limit to the capability and size of your Batch-It programs is your disk space.

For the Programmer: Batch-It makes any boring, repetitive programming task simple. In fact, it can almost be called the "Programmer's Apprentice". You can create batch programs that on the touch of a key compile, link and run hundreds of source files - whether you are using c99, Fortran 99 or assembly. You can create batch procedures to merge dozens of files, edit out the same bad piece of code that is in 20 files automatically, or do a global search and replace of a variable name in 50 source files, all automatically, and painlessly. Imagine pressing a single key to automatically save, compile, link, load and run your program, while you are away ordering pizza or picking up your favorite programmer fuel.

That isn't all, since Batch-It can send any keystroke from ASCII 0 to 255 to your program, you can easily create in a few hours a demo version of a program that would otherwise take you WEEKS to custom-write! Create a demo that automatically runs all the menus through their paces, inputs sample data and even prints out results while you are in the back counting your sales figures. Of course this applies to ANY program-image application (that uses a standard key scanning method that is), and not just your own.

Batch-It can even be used to patch your code for you automatically - change as little as 2 bytes and as much as you like.

To summarize, Batch-It is a remarkable program which makes other programs easier to use, and makes many tasks much lighter. It is an entirely unique program in the TI world, and there isn't anything quite like it anywhere else in the micro world.

The program includes a disk with example files, a thorough manual, and a limited free subscription to a user magazine, Key Notes, which features sample batch files, as well as articles on using Batch-It effectively.

The program requires a 99/4A with 32K, disk system, and either a Mini-Memory or Superspace/supercart module or GRAM device, or a Myarc Geneve 9640.

The retail cost is \$19.95(U.S.) plus \$.75(U.S.) S&H.

Send orders to:

Asgard Software
P.O. Box 10306
Rockville, MD 20850
U.S.A.

