WINNIPEG 99/4 USERS GROUP

Newsletter

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NOVEMBER 1984 EDITION

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New informative article written for the user in mind by our members.

SWAP&SELL:

Shop early before the Christmas rush and pick up those bargains in the Swap and Sell section.

TI-99/4A USERS GROUP EXECUTIVE 1984/85

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EDITORIAL:

Welcome to the second issue of the newsletter. This issue we have some interesting articles submitted by members of the club as well as the regular features of the newsletter. A hardy welcome to our new executive Dave Wood who has the title of Inter-Group Representative and the job of contacting other Texas Instruments Users Groups around the globe. Have fun Dave! An particular issue has risen within the depths of the Newsletter, the monthly publishing costs of the Newsletter have been stagering to the bank account of the club so we are now looking for an willing volunteer who will have the executive position of Newsletter Publisher and has access to a photo copying machine at either his/her work to publish the newsletter monthly. If you are willing to give up a few hours each month and help out with the newsletter, please contact the Newsletter Editor immediately. That about wraps up the editorial, until next issue, happy computing.

RAMBLINGS:

KNOW-WARE has released the software title Turbo Copy. Turbo Copy is a high speed copier and formatter for the 99/4A. It copies entire SS disk between two drives in less than one minute with full data verification on the copy diskette while DS diskettes take less than two minutes to complete, allows test option to compare copy to master, formats SS diskettes in 35 seconds and 70 seconds for DS diskettes, copies from drive one to drives two and three to allow quicker mass production of software, has special formatting option to use sequential track/sector arrangement for quicker disk I/O, works with E/A, MM, XB, TI WRITER, one or more disk drives and memory expansion. Its price is only $21.95 US. Send check or money order to:

KNOW-WARE
BOX 53674
LUBBOCK, TX 79453

Super Sketch is the name of a new graphics pad which is compatible with the TI-99/4A. The pad is about 10 inches wide and 14.5 inches long and is connected to the TI console via a cartridge plug. The pad come with an attached stylus arm on which graphics may be drawn. The only way to save your graphic creation is to take a photograph of it. Hopefully in the future they will implement an option to save the screen to disk or printer. The price is $59.95 US and for more information contact:

RC DISTRIBUTING CO.

Rumour has it that Corcomp is bringing out a mouse, koala pad, and modem expansion card for the TI-99/4A in 1985.

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Last month's demonstration of the club's BBS didn't get off the ground because we found out later that Sheldon's RS232 card was faulty. Since the last meeting Sheldon has sent off his card to TI for replacement. Hopefully next month we'll have an operational BBS.

.

In an effort to increase software development for the TI-99/4A, two ex-TI employees have formed a firm, Sunware, to convert disk- and cassette based software into cartridges. The firm will either market them or sell them back to the developers to market themselves. Sunware will produce two types of cartridges--a Peripheral Port cartridge which can duplicate the functions of a floppy disk (up to 48K ROM or RAM), and a Command Port cartridge, which has 32K ROM or RAM.

Sunware will also be releasing a version of Extended Basic in cartridge form in the near future.

POLICY CHANGE:

The executives have approved a policy change for the distribution of newsletters at each monthly meeting. The member requesting a newsletter in person must show his or her membership card to one of the executives in order to receive a newsletter. This does not apply to those people who receive their newsletters through the mail.

ARTICLE:
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Topic: Editor/Assembler as a Word Processor.

Written by: Sheldon Itscovitch

The Editor/Assembler can be used as a word processor in the absence of a real one. Do not under estimate the editing power of the edit program that comes with the Assembler Cartridge. Like with Basic words or sentences can be inserted, or words and letters deleted by using FCTN 1 or FCTN 2. Some new added tricks are Delete line FCTN 3 and Insert line FCTN 8. The EDIT function accepts 80 characters across the screen. Of course only 40 columns can be seen at a time but as you type the screen will shift to the left automatically. When reviewing your text you can move to the right FCTN 5 will shift the screen to the right in big chunks. Three presses will take you back to the left margin. There is a built in TAB function but many may find its use limited because it is preset for the object fields used in writing Assembly Language. One must use the Space Bar or FCTN D to move column wise. The advantage to the EDITOR is that you need not press ENTER to register your line into memory. SO WHAT!!! Well to enter columns of data you would just use the FCTN X key to go down to the next line and use the FCTN S and the FCTN D keys to reposition yourself for the next piece of data. Ok this is so so.... Well you can also scroll the screen up FCTN E or down FCTN X. Ok now you have typed in 60 lines of text and you think you forgot something... You want to read the 10th line. The FCTN E will scroll you up there but you are in a hurry. WHAT TO DO? Fear not FCTN 6 will scroll you up 24 lines in the blink of an eye. Well so much for the boring stuff, now how about the REAL EDITING POWER of a Word Processor.
How about the sentence that's in the wrong place or the entire paragraph that needs to be moved up 30 lines, or step 9 that should be before 10 and not after. NO PROBLEM !!!! The editor generates line numbers that should not be visible when you are composing your text. They will not be printed when you print the typed file on the printer. But if it weren't for these little darlings we couldn't do neat stuff like this. If you have the numbers showing on the screen you will not get 80 characters across the screen. Now how do we get to this neat stuff, simple? Press FCTN 9 once. Across the top of the screen will appear 11 options (only some will be visible without pressing FCTN 5.) We will not concern ourselves with E(dit, A(djust, H(ome, and I(nsert. The rest however are very useful. They will allow us to do things like:

a) Replace strings. Comes in handy in personal FORM letters.

b) Move paragraphs or sentences around.

c) To show a specific line (called by number.)

d) Copy a phrase or paragraph over to different places in your text. This will save you time if your text is

repetitive.

    e) Delete a paragraph or section of text.

    f) Tabulate function to reset your own tabs.

If this has aroused your interest just check page 24 to 31 in the manual that comes with the Editor/Assembler cartridge. Have FUN !!

TECHNICIANS CORNER:
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    Tired of the plain, blinking square called a cursor? Like to see something in a designer cursor? Perhaps in the shape of the state of Texas? According to the Columbus (Ohio) 99/4A Users Group, you can do this with a series of CALL LOADs. This transformation requires a memory expansion and Extended Basic. Here's the program:

```
1 CALL CLEAR :: CALL INIT
2 CALL LOAD(8196,63,248)
3 CALL LOAD(16376,67,85,82,83,79,82,48,8)
4 CALL LOAD(12288,48,48,63,255,254,124,24,12)
5 CALL LOAD(12296,2,0,3,240,2,1,48,0,2,2,0,8,4,32,32,36,4,91)
6 CALL LINK("CURSOR") :: END
```

    Enter RUN and the program loads the redefined cursor into high memory where it will remain until you QUIT or type BYE. Other Extended Basic programs may be loaded and the cursor will remain in its redefined shape. Line 4 carries the workload here. CALL LOAD(12288,0,0,0,0,0,0,0,252) results in a flat line cursor. Deleting line 4 results in a invisible cursor.

——

    The following are for use with the Editor Assembler Module in Basic. These are not guaranteed to work on all versions of the module or the TI-99/4A itself. Play with them and please let me know if you get them to work.

```
CALL POKEV(-32768,0) Normal mode
CALL POKEV(-32352,0) Screen Transparent
CALL POKEV(-32272,0,"",-30945,0) 40 Column Screen
CALL POKEV(-32280,0) Multiple Colors
CALL POKEV(-32766,0) Bit Map Mode
```

    By the way, does anyone know how to get a 40 column screen from Extended Basic using a CALL LOAD?

ARTICLE:
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Topic: Modular Arithmetic and Computer Art.

Taken from: Creative Computing, October 1983.
Written by: Matthew Walling and David Meger

For thousands of years people have been using mathematical
shapes based on presise mathematical formulae to generate
artistic designs for everything from architecture to pottery. So
it is not surprising that we should find art in number
patterns--an art which is created by the direct substitution of
colors for numbers. The number patterns that we have chosen to
investigate are produced using modular arithmetic.

Although the term modular (or remainder) arithmetic may not
be immediately familiar, we use it every day to tell time. The
clock is a "mod twelve number system." For example, three hours
past ten o'clock is not thirteen o'clock but one o'clock. One is
the remainder when thirteen is divided by twelve. In the clock
example, zero is the remainder when twelve is divided by twelve,
therefore the twelve in the clock should more properly be
replaced by zero. Any mod number system, regardless of the
dividend, should contain only numbers from Ø to mod-1, and
therefore will have repetitive patterns of numbers.

The study of modular (or remainder) arithmetic dates back to
the first century A.D. and the Chinese mathematician Sun-Tsu.
Recently teachers have been introducing modular arithmetic to
junior high students as art in an attempt to generate more
enthusiasm for mathematics. The technique involves the use of
graph paper, and felt tip pens, crayons, colored pencils, or
construction paper.

The students use remainder arithmetic to make a number table
of remainders on the graph table. Number tables are formed by
first labelling rows and columns on the graph paper, then
filling in the rest of the blocks with the numbers which are the
remainders when the row is either added or multiplied by the
column and divided by the chosen mod. The remainders are then
replaced by colors. Using this technique, one design can take
more than an hour to complete. With a personal computer,
however, designs can be turned out is rapid sucession.

The process of generating remainder number tables is very
simple for the computer. With an input statement, the mod is
chosen. Then an array of colors versus remainders is formed with
another input statement. Two FOR-NEXT loops count rows and
columns up to the size of the computer screen. The rows and
columns are either added or multiplied. Next the remainder is
calculated, the color is set and the point plotted.

The TI-99/4A can plot any shape that can be designed in an
eight by eight grid. The block itself can be represented as two
colors, one for the background and one for the foreground. With
this machine, modular arithmetic art can become quite complex.

The following program represents this idea.

LISTING TI-99/4A BASIC PROGRAM

```
1 REM MOD ARITHMETIC AND COMPUTER ART
5 REM TI-99/4A VERSION BY P. WALLING
10 DIM CLS(20),CRS(20),A$(20),BKG(20),FRG(20)
15 CALL CLEAR
25 CODE=32
440 INPUT "WHAT MOD WOULD YOU LIKE TO TRY(1-12)?: ":MOD
445 IF MOD < 1 THEN 440
447 IF MOD > 12 THEN 440
620 PRINT "ENTER THE COLORS THAT YOU WANT FROM THE TABLE BELOW:"
630 PRINT
640 PRINT "1 TRANSPARENT";TAB(15);"9 MEDIUM RED"
650 PRINT "2 BLACK";TAB(15);"10 LIGHT RED"
660 PRINT "3 MEDIUM GREEN";TAB(15);"11 DARK YELLOW"
670 PRINT "4 LIGHT GREEN";TAB(15);"12 LIGHT YELLOW"
680 PRINT "5 DARK BLUE";TAB(15);"13 DARK GREEN"
690 PRINT "6 LIGHT BLUE";TAB(15);"14 MAGENTA"
700 PRINT "7 DARK RED";TAB(15);"15 GREY"
710 PRINT "8 CYAN";TAB(15);"16 WHITE"
720 PRINT::
730 FOR I=0 TO MOD-1
735 CLS(I)=I+2
736 CODE=CODE+8
737 CRS(I)=CODE
740 PRINT "CHARACTER CODE: ";I;
742 INPUT A$(I)
745 PRINT "BACKGROUND COLOR: ";I;
746 INPUT BKG(I)
748 PRINT "FOREGROUND COLOR: ";I;
749 INPUT FRG(I)
770 NEXT I
780 CALL CLEAR
785 CALL SCREEN(16)
800 FOR ROW=1 TO 24
810 FOR COL=1 TO 32
820 ANS=ROW*COL
830 R=INT((ANS/MOD-INT(ANS/MOD))*MOD+.5)
840 CALL HCHAR(ROW,COL,CRS(R))
845 CALL CHAR(CRS(R),A$(R))
848 CALL COLOR(CLS(R),FRG(R),BKG(R))
860 NEXT COL
870 NEXT ROW
910 GOTO 910
```

COMMING UP:
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1) What happened during November.

2) Review of the Companion Word Processor.

3) The ethical questions of is it right or wrong to pirate software.

4) New releases of software and hardware for the TI-99/4A.

ARTICLE:

Topic: Single Key Inputs In Extended Basic.
Written by: Doug Holdham

In the letters column of a recent COMPUTE magazine issue, it
was pointed out that you can use the control key to input
certain commands in program lines when using extended basic. By
holding down the control key, much as a shift or function key,
and touching another key, you can put in a command with one
keystroke. This is a quirky thing because you can only put one
such command per program line and when you type in the [CTRL]
[letter] combination, nothing shows up on the screen but a blank
space! To see what you have typed in on the line, you have to
give a LIST command for that line.

Here is a list of keys and the commands they generate when
using the control key in program mode:

1	TO	Q	UNTRACE
2	STEP	W	READ
3	,	E	GO
4	;	R	INPUT
5	:	T	RESTORE
6	)	Y	DELETE
7	(	U	RANDOMIZE
8	OPTION	I	DEF
9	OPEN	O	UNBREAK
Ø	THEN	P	TRACE
=	CALL	/	AND
A	ELSE	Z	REM
S	DATA	X	STOP
D	IF	C	!
F	GOTO	V	NEXT
G	GOSUB	B	::
H	RETURN	N	BREAK
J	DIM	M	LET
K	END	,	Ø2 "¦
L	FOR	.	ON
;	PRINT		

Note that holding down the control key and the shift key
before hitting one of the other keys does not produce a
different result. Some of these key sequences do not produce a
'command' like [CTRL][3] which just gives you a comma. Also, I
do not know what the [CTRL][,] sequence means, but this is the
only unrecognizeable result.

To summarize, here are the important points:

1. You must be using Extended Basic
2. You must be in program mode (i.e. with a line number
   preceding the command.
3. Only one such command can be entered per line.
4. To see the command, the line must be listed.

CLUB PROGRAM LIBRARY REGULATIONS

1) The Club Program Library shall consist of owner written and/or translated programs. Programs copied from any magazine will not be accepted.

2) The Club Program Library will not be responsible for any bugs in any program submitted, nor shall the Club Program Library make changes to any program. Corrections will be the responsibility of the owner and it will be the responsibilty of that person to send a corrected version of that program.

3) The Club Program Library shall charge :

    $2.00 for the program (goes to author)
    $1.00 for cassette or provide replacement cassette
    $4.00 for diskette or provide replacement diskette

4) Instead of paying for a program a member may use the software exchange program. Any member that submits a program to the Club Program Library will receive three programs in exchange.

5) The Club Program Library is open to any member of the Winnipeg 99/4 Computer Club.

6) Any member found pirating another member's program will be asked to leave the group.

7) The Winnipeg 99/4 Computer Club is not responsible for the content of any program in its library.

PUBLIC DOMAIN LIBRARY:

    This segment of the library cosists of programs which have been published in a magazine, such as 99'er, and belong in the public domain. In addition, certain individuals have decided to submit their programs to the Public Domain library instead of the main club library where there is a royalty fee.

    The Public Domain library now has almost every game published in 99'er as well as some programs from COMPUTE and other magazines. For those of you whose interests lie' in applications rather than games, we have a small selection of those. Now is the time to contribute to the Public Domain library.

    Remember, you may receive a copy of any program in the Public Domain library at no charge. All we ask is that you contribute a program if you have one that the Public Domain library does not have.

CLUB BOOK LIBRARY:
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The following books are available for use by Club Members
only and are normally only available at each monthly meeting by
requesting them from Book Librarian, Doug Howe. Because we have
had problems with some members not returning a book to the
Librarian by the following meeting there will be a future
penalty for late returns. Here again is the list of books
available for a one month period:

1) Programmer's Reference Guide to the TI-99/4A
                                    by C. Regena

2) Terrific Games for the TI-99/4A
          by Hal Rendo & Sam Edwards

3) Time Lost - A Computer Adventure
                  by Que Corporation

4) Programs for the TI Home Computer
                  by Steve Davis

5) TI-99/4A Game Programs
          by Frederick Holtz

6) Smart Programming Guide for Sprites
                  by Craig Miller

7) The Source User's Manual (1983)
     by The Source Telecommunications Network

8) Compute's First Book of TI Games

9) TI-99/4A Console Technical Data

10) Best of 99er
     by Home Computer Magazine

SPECIAL THANKS:
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A special thank you for supporting this issue of the
newsletter:

Creative Computing; T.L. Atkinson; Sheldon Itscovitch; Doug
Holdham; and MICROpendium.

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2	ATLANTIS	K.MCDOWELL	BASIC	...	JOYSTICK	2	ARCADE
3	BATTLESHIP	J.BAINARD	XBASIC		MODEM	3	GAME
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5	CAVERNQUEST	K.MCDOWELL	XBASIC	DISK	32K,DISK	5	ARCADE
6	CHECKERS	M.SWIRIDENKO	BASIC	NONE	JOYSTICK	6	BOARDGAME
7	DEATHSHIP	J.HOWE	BASIC	NONE	NONE	7	ADVENTURE
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9	GRAND PRIX	M.SWIRIDENKO	XBASIC	NONE	NONE	9	ARCADE
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23	SAY & PRINT	D.JASPER	BASIC	NOT DISK	TEII	23	EDUCATION
24	SCREEN MAKER	R.JACKSON	XBASIC	$5.00+DISK	DISK	24	UTILITY
25	SOUND EFFECTS	D.JASPER	XBASIC	NONE	NONE	25	UTILITY
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1	ALIEN CHALLENGE	CASSETTE	XBASIC GAME	$16.00	555-1346
2	CAR WARS	MODULE	GAME	$30.00	666-1781
3	DEMON ATTACK	MODULE	ARCADE	$25.00	...1346
4	FIREBALL	DISK	E/A OR MM GAME	$18.00	888-1346
5	GRAPH CODE GEN	XBASIC DSK	DRAW GRAPHICS	$15.00	689-9988
6	HOPPER	MODULE	ARCADE	$20.00	888-1346
7	HUNT THE WUMPUS	MODULE	GAME	$30.00	666-1781
8	KILLER CATIPILR	DISK+32K	XBASIC GAME	$25.00	888-1346
9	KLAATU BOMBARD.	DISK+32K	XBASIC GAME	$15.00	888-1346
10	MULTIPLICATION1	MODULE	EDUCATION	$42.00	389-9988
11	MUSIC TRAINER	CASSETTE	4 MUSIC DRILLS	$15.00	689-9988
12	PAPER-FANFOLDED	2600 SHEET	CLUB MEMBR.ONLY	$55.00	775-7816
13	PEB WITH CARD	PERIPHERL	EXPANSION SYS	250.00	255-1470
14	PROGRAM AIDS#1	CASSETTE	APPLICATIONS	$15.00	389-9988
15	SIGNALMAN MARK7	...	TELECOMMUNICATE	$100.0	596-6567
16	SPEECH SYNTHESR	PERIPHERAL	SPEECH	139.00	17362391
17	SUPER FROGGER	CASSETTE	XBASIC GAME	$16.00	555-1346
18	TEACH SELF XBAS	CASSETTE	TUTORIAL XBASIC	$20.00	666-1751
19	TEACH SELF XBAS	CASSETTE	TUTORIAL XBASIC	$25.00	666-4834
20	TEACH SELF TI-1	CASSETTE	TUTORIAL XBASIC	$18.00	888-1346
21	TEACHSELF BASIC	2 CASSETTE	TUTORIAL BASIC	$20.00	666-4834
22	TEACHSELF BASIC	CASSETTE	TUTORIAL BASIC	$23.00	632-4987
23	TI CONSOLE	TERM EM II	SPEECH SYNTHZR	175.00	869-2043
24	TI INVADRS	MODULE	ARCADE	$20.00	269-1771
25	TI JOYSTICK	PERIPHERAL	JOYSTICKS	$25.00	637-7756
26	TI-TREK	DISK	GAME	$12.00	566-4834

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