

8703/8704 (056)  
M.I.C.R.O.

MID-ILLINOIS  
COMPUTER RESOURCE ORGANIZATION  
P. O. BOX 766  
BLOOMINGTON, ILLINOIS 61701-0766

MICRO/99 Newsletter  
Volume 5, Number 2  
March - April 1987

MICRO/99 is a not-for-profit group dedicated to the sharing of information and public domain software for the Texas Instruments 99/4A home computer. Members have free access to our library of several hundred programs on cassette and diskette. Meetings are held at 7:00 p.m. on the third Thursday of each month at the Illinois Agriculture Association building, 1701 Towanda Avenue, Bloomington. Attendees sign in with the guard at employee entrance number 4 at the rear of the building. Turn left at the sign for the main reception area and go down the stairs on the far side of it. Visitors are especially welcome, and may attend one meeting free of charge. Annual dues are \$15 per family.

\*\*\* MEETINGS: MARCH 19 & APRIL 16, 1987 \*\*\*

At the March 19, 1987 meeting, Brian McFeeters will demonstrate GramPacker, a utility program for use with the GramCracker. We'll also take a look at Archiver, a program that combines files for convenience in upload/download from bulletin boards, and for organized backup copies of systems of programs. Others of you have also said they would have programs to demo. I hope you all remember who you are!

At all meetings members are encouraged to share any information gleaned from magazines, catalogs, bulletin boards, newsletters from other clubs, personal experience with products, etc. If you have a computer related question or problem, someone at the meeting may have an answer or suggestion for you. And, you are encouraged to bring and show any interesting program you found or wrote recently.

\*\*\*\* SMART REMARKS \*\*\*\*

Ryte Data, a Canadian company that has several hardware and software offerings for the TI99, also publishes the R/D Computing Newsletter. In exchange for publishing their advertisement in our newsletter, they will supply a subscription for one of our members in addition to the exchange copy sent to the club. We will hold a DRAWING for this subscription at the March meeting. Only those present with 1987 dues paid will be eligible.

LOOK AGAIN AT YOUR MAILING LABEL ON THIS ISSUE. Those who have not paid 1987 dues should find a red mark on the label. That means this will be your last MICRO/99 newsletter unless you pay now. Our 1987 renewals thus far are adequate to keep us going for the year, but we always need more.

Sid Smart, President

# MATH PROBLEMS

by Brian McFeeters

My third grade daughter is constantly doing math speed tests. To give her more practice, I wrote the following program which prints out random problems. In it's present form, it will print out seventy add and subtract problems with the numbers ranging from 0 to 99. It would be relatively easy to change the numbers to some other range.

Lines 240 and 250 control the range of the numbers. If larger numbers were to be used, lines 420 thru 460 would have to be changed. The program could easily be changed for multiplication or division. Line 260 generates either a 1 or 2. Depending on the value, line 270 sets the next problem to either add or subtract (which could be multiply or divide). If the problem is subtraction, then lines 290-320 switch the two numbers if the second is larger.

The program is set to work on a Prowriter printer. Change line 390 if you have a different printer. Line 390 causes large and boldface print. Following the program listing is an example of a printout.

```
100 CALL CLEAR
110 REM ADD & SUBTRACT
120 REM By Brian McFeeters
130 DISPLAY AT(5,2):"DO YOU
WANT A PRINTOUT?"
140 CALL KEY(0,K,S)
150 IF S=0 THEN 140
160 IF K=78 OR K=110 THEN 57
0
170 CALL CLEAR :: DISPLAY AT
(5,6):"WAIT FOR OUTPUT"
180 DIM N(2,70)
190 DIM P(70)
200 DIM B$(70)
210 DIM N$(70)
220 RANDOMIZE
230 FOR I=1 TO 70
240 N(1,I)=INT(RND*100)
250 N(2,I)=INT(RND*100)
260 P(I)=INT(RND*2)+1
270 IF P(I)=1 THEN B$(I)="+"
ELSE B$(I)="-"
280 IF P(I)=1 THEN 330
290 IF N(1,I)>=N(2,I) THEN 33
0
300 A=N(1,I)
310 N(1,I)=N(2,I)
320 N(2,I)=A
330 IF N(2,I)<10 THEN 350
340 N$(I)=B$(I)&STR$(N(2,I))
:: GOTO 360
350 N$(I)=B$(I)&" "&STR$(N(2
,I))
360 NEXT I
370 OPEN #1:"PIO"
380 REM FOR PROWRITER; ENLAR
GERD & BOLDFACE PRINT
390 PRINT #1:CHR$(14);CHR$(2
7);CHR$(33)
400 I=1
410 FOR X=1 TO 10
420 IMAGE " ## ## ##
## ## ## ##"
430 IMAGE "### ### ###
### ### ### ###"
440 PRINT #1,USING 420:N(1,I
),N(1,I+1),N(1,I+2),N(1,I+3)
,N(1,I+4),N(1,I+5),N(1,I+6)
450 PRINT #1,USING 430:N$(I)
,N$(I+1),N$(I+2),N$(I+3),N$(
I+4),N$(I+5),N$(I+6)
460 PRINT #1:TAB(2);"--";TAB
(8);"--";TAB(14);"--";TAB(20
);"--";TAB(26);"--";TAB(32);
"--";TAB(38);"--"
470 PRINT #1:" "
480 PRINT #1:" "
490 PRINT #1:" "
500 I=I+7
510 NEXT X
520 CLOSE #1
530 DISPLAY AT(5,2):"DO YOU
WANT ANOTHER PRINTOUT?"
540 CALL KEY(0,K,S)
550 IF S=0 THEN 540
560 IF K=78 OR K=110 THEN 57
0 ELSE 170
570 END
```

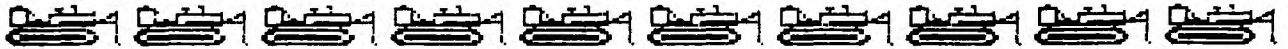
92	42	94	10	98	50	57
-85	+28	+91	+68	-78	-37	5
--	--	--	--	--	--	--

# AN IMPRESSION OF FONT WRITER

Asgard Softwares newest piece of Software is a "PRINTSHOP" type program by Peter Hoddie (the same guy that is writing much of the system software for the new Myarc Geneve computer) This piece of software lets you mix text,graphics and fonts on a page to create anything from visually pleasing letters to cards,greetings,bullitens and even club NEWSLETTERS!



The program uses TI-ARTIST or CSGD graphics and when you mix these with a TI-WRITER file through the Formatter of Font Writer you have the ability of mixing graphics and text.



You can create a row of pictures or just a single font anywhere on the page



Font Writer is three programs in one. The first is a graphic EDITOR where you can create or edit pictures. The second is the Manager. This program lets you convert TI-ARTIST images to CSGD pictures or vice versa and also manage your disk needs such as delete,catalog,merge fonts,purge,save,ect



The third program is the formatter where you combine your text and graphic files into the final product. The formatter reads standard text files created by TI-WRITER or a similiar program. All you do is write your file and when ever you wish to include a font just type on a seperate line something like this (.II DSK2.DOLL\_I the .II means include image or if you type .IR DSK2.ROCKER\_I that will include a row of graphics LIKE THIS:



Simple isn't it! IT is very easy to learn and use. The program is written in Assembly AND Extended Basic,hence my only complaint.The printing can be slow. To make this a perfect program I would like to see ASGARD SOFTWARE convert it to 100% Assembly Language. But I'm not going to complain to loud since I'd been asking for this type of program for years. Just think TI users no more "cut & paste" And to watch the printer jump from text to graphics to text is impressive. In all I give FONT WRITER an A+ and you should to.

STEVE MAUPIN

NEW FROM MONTY SCHMIDT: **GPL LINKER V1.1 RunTime Version**

now \$49.95  
w/Linker \$59.95  
plus Intern \$69.95  
add \$3 shipping

GPL Linker is an ingenious program that places the power of Graphics Language Programming (GPL) at your command. No extra hardware is required beyond standard 32k and disk system. In short, Linker creates runnable program files from compressed (or uncompressed) GPL Assembler object files. You can then run these programs with "Option 5 Run Program Files" of the Editor Assembler Module.

Up to 24k GPL programs can be developed and run on standard 32k systems. Included in the run time version are two demonstration programs and "CONVERT," a public domain conversion program that converts MS BASIC statements to TI BASIC statements. Price: \$21.00 CDN funds \$15.00 US funds.

**ENHANCED  
GPL Assembler v2.1**  
NOW with high memory loader package

**UNLOCK ALL THE SECRETS!** New GPL Assembler Version 2.1 available exclusively through RYTE Data.

This program provides the power to write, edit and assemble true GPL programs for the TI 99/4A. Create code that accesses console operating system routines directly. Develop programs that use the GPL interpreter and all the features of the TI 99/4A.

This package includes the GPL Assembler disk, printed documentation, GPL tips and hints, update support service and commented GROM/ROM listings (with the book "INTERN"). An example for a command module type GPL program is included with source, object and list files on disk.

Requires: 32k memory, disk drive(s), TI Editor Assembler package. Printer/RS-232 recommended.

# GPL price Reduction

## R/D COMPUTING Technical Newsletter

with Bill Gronos on assembly!

We have a vision. Our vision is one of continued TI 99/4A support. We're dedicated to the power of the machine. From the novice to the experienced computer user; for management, home, education, entertainment or advanced applications our publication "R/D COMPUTING" is for you. TI never revealed all the important inner workings of the 99/4A. We bring you this vital information every month.

A major feature of R/D COMPUTING is the regular "upgrade projects." These electronic construction projects are designed to give the 99/4A owners more features and improvements. For example, it is possible to increase the speed of your computer with a very simple part and switch. Each month we present new circuits, diagrams and projects for your computer.

From the moment your new subscription arrives at your home, you will have access to critical technical information that makes your computer more valuable, powerful and versatile.

We believe that the TI 99/4A deserves new products, innovative hardware, software, information and a dedicated technical publication. This is what makes a computer "viable" in the fast paced microcomputer industry. Now that the 99/4A has been "opened up," all the secret information is available. You can have all these benefits and more each month. **SUBSCRIBE NOW!**



Designed for the CorComp Clock Peripheral—Triple Tech Card or Stand-alone models. This utility package provides more functions for use in your Extended Basic programs. Direct access to the clock ROM at assembly speed gives you these features: three independent timers to set and read; alarm function; two interrupt routines to display time and date on screen with CTRL T—continuously or on your

command; all time and date displays are in 12 or 24 hour format using TEXT. This program also allows the week, date and time to be set independently rather than all together.

Program disk is not copy protected to allow you full use in your Extended Basic programs. Package includes disk and instructions. Only \$17.95 plus \$2

## XBII plus

As reviewed in Micropendium October 1985. This command module gives you all the features of Extended Basic PLUS 40 new commands.

Totally compatible with TI's XB, this enhanced version gives your programs more power to access your 99/4A. Commands such as MLOAD, MSAVE, VPEEK, VPOKE, GPEEK are superior to most other Basic environments. Various demo programs and new applications using high resolution graphics make this module a "must" for Extended Basic users. Comes complete with a 95 page manual. Requires console and 32k. \$75.00 (US) plus \$2 shipping.

## BASIC V1.1 Compiler

New Basic Compiler that is finally easy to use! Supports virtually all Basic and Extended Basic commands in

existing programs. Simply load and compile programs from a menu driven directory on your screen. No extensive re-writing, variable declarations or conversions are required. Compiler produces code-list in one pass containing all variable addresses and jump list. Package includes Extended Basic Loader, Floating Point Loader, Integer Loader, Disk Menu program and DSR program for the Compiler support. This Compiler cannot unravel DEF statements and stops on the END statement—no SUB's allowed. TRACE, BREAK, ON ERROR, CALL LOAD and CALL LINK may produce execution errors. Requires 32k. disk. Price: \$20.00 plus \$2 shipping (US funds).

19

**\$14/year - back issues 3 - 15 available**

THANK YOU! Our business has grown 300% this year. To show our appreciation we are giving away hundreds of dollars in TI products to 99/4A owners or users groups. To enter drawing, (no purchase necessary) send your name and address on a postcard to RYTE Data. For subscribers to R/D Computing we are giving away XBII plus, 32k memories, GPL Assembler package, etc. Enter your subscription today!

Prices listed in U.S. funds.

New catalogue available.

**Ryte Data** (705) 457-2774



MILLENNIUM COMPUTERS  
210 MOUNTAIN STREET,  
HALIBURTON, ONTARIO K0M 1S0  
TELEX 06-986766 TOR. ATTN: RYTE DA

PILOT/99 LANGUAGE REFERENCE SUMMARY  
by  
Sid Smart  
MICRO/99 Users Group, Bloomington, IL

LANGUAGE ELEMENTS

Statement form:

op-code[modifier]: operands

where:

- op-code is 1 or 2 characters telling what the statement does, e.g., CS for Compute String, DC for Draw Circle.
- modifier is an optional true or false logical expression, e.g., Y for yes, N for no, (#A>0).
- operands are data required by the op-code, e.g., sprite numbers, variable names, literals.

User variables:

26 numeric variables, #A thru #Z  
13 character variables, \$A thru \$M

Answer buffer:

A system variable filled by Accept, Accept Single, or REad, and which is examined by any form of the Match statement.

Yes flag:

A system true/false variable set by any form of the Match statement or by Fire Button or Sprites Atouch statements. Modified statements will be executed only if the modifier matches the yes flag.

Labels:

\*name where name is 1 to 10 upper case alphabetic characters.  
@A targets the most recently executed Accept statement.  
@M targets the next Match statement.  
@P targets the next PROblem statement.  
A label occupies a line by itself, and is a target for jumps.

STATEMENT FORMATS

Primary statements:

A:	[variable]	Accept input data from keyboard
AS:	[variable]	Accept Single character from keyboard
C:	#A <- expression	Compute numeric variable
CH:		Clear screen, Home cursor
CS:	\$A <- expression	Compute String
E:		End program or subroutine
J:	label	Jump
JM:	label[,label,...]	Jump on Match to corresponding label
M:	string[,string,...]	Match answer buffer to strings
MJ:	string[,string,...]	Match or Jump to next match statement
PR:		PROblem starting point
R:	remark	Remark
T:	data	Type to the screen
TH:	data	Type and Hang cursor
TP:	data	Type to Printer
U:	label	User subroutine invocation

Character graphics statements:

CC: charset,color,color	Character Color
CP: code,pattern	Character Pattern
HC: row,col,code,repeat	Horizontal Character output to screen
IT:	Initialize Text mode
SN: color	Screen color
TC: row,col	Text Cursor positioning
VC: row,col,code,repeat	Vertical Character output to screen

Sprite control statements:

GP: sprite,pattern	Graphic Pattern
SA:	Sprites Atouch
SC: sprite,color	Sprite Color
SD: sprite	Sprite Delete
SG:	Sprites Gone
SH: sprite, sprite	Sprite Hit
SL: sprite,row,col	Sprite Location
SM: sprite,row-vel,col-vel	Sprite Motion
SP: sprite,code	Sprite Pattern
SS: size	Sprite Size (1-4)

Bit map graphics statements:

DC: row,col,radius	Draw Circle
DL: row1,col1,row2,col2	Draw Line
DR: row1,col1,row2,col2	Draw Rectangle
GC: color,color	Graphic Color
IG:	Initialize Graphics mode
PP: row,col	Plot Point
TG: row,col,characters	Type in Graphic mode
UP: row,col	Unplot Point

File control statements:

CF: filename	Close File
OF: filename	Open File
RE: {variable}	REad file
RF: {rec#}	Restore File
WA:	Write Answer buffer to file
WR: data	WRite data to file

Miscellaneous statements:

LP: count	Loop
EL:	End Loop
BW:	Begin While control loop
WH: expression	WWhile
JS: #,x,y	Joy Stick
FB: #	Fire Button
S: duration,freq,vol,voice	Sound

MID ILLINOIS COMPUTER RESOURCE ORGANIZATION  
P.O. BOX 766  
Bloomington, IL 61701-0766



EDMONTON 99'ERS USER SOCIETY  
P.O. BOX 11983, EDMONTON  
ALBERTA, CANADA T5J-3L1

```
*****
*      MMM   MMM   IIIIII   CCCCCC   RRRRRRRR   00000000   *
*      MM M M MM   II       CC       RR       RR   00   00   *
*      MM M M MM   II       CC       RRRRRRRR   00   00   *
*      MM  M  MM   II       CC       RR       RR   00   00   *
*      MM      MM   II       CC       RR       RR   00   00   *
*      MM      MM   IIIIII   CCCCCC   RR       RR   00000000   *
*
*
*      The MID ILLINOIS COMPUTER RESOURCE ORGANIZATION   *
*****
```