



**PITTSBURGH
P.U.G.
USERS GROUP**

PERIPHERAL

VOLUME 2

AUGUST 1983

NUMBER 13

AUGUST MEETING

The next regular meeting of the Pittsburgh Users Group will begin at 6 p.m. on Sunday, August 21, 1983 at the Community College of Allegheny County's South Campus.

The P.U.G. Program Library will be open for copying programs or to accept returns of borrowed items between 5 p.m. and 6 p.m.

Following the general business meeting, the members will split up into three smaller interest groups: Basic, Extended Basic and Assembly Language.

LAST MEETING

The P.U.G. has ordered a Teac Disk Drive, which should arrive in time for the next meeting. It looks like we are on our way to reaching our goal of a complete TI 99/4A Home Computer System.

Texas Instruments has published a new software directory, which is being sold for \$5.00, and includes most of the software now being sold to run on the TI 99/4A.

We will soon be seeing a new TI display at the local stores. We can only hope that the software will follow.

The Group membership discussed ways to encourage members who have been delinquent in returning books and programs borrowed from the Program Library, to bring them back.

DOOR PRIZE: was awarded to P.U.G. member Stanly R. Grove. He took home TI-Asteroids.

A demonstration was given of a Magic Software Disk, which included: Bomber, Boxer, Cat & Mouse and I'm Lost 3D Maze. Boxer was rated as "Hilarious" by the younger members of the Group. Cat & Mouse was

rated excellent for action. The best of the cat & mouse games on the market. Some other Groups have tried the 3D Maze and have reported that it is excellent. We did not see that game due to technical difficulties.

RE-ORGANIZATION

The Pittsburgh Users Group was formed on January 1, 1981 by a few individuals who shared a common interest in a new computer which was introduced by Texas Instruments. This was the TI 99/4 and like most things, it has been refined and improved upon until it became the TI 99/4A, which is the computer that the majority of our members use today.

Just as the computer has changed, and grown over the past two and one-half years, so must our Group.

The original By-Laws of the P.U.G. no longer apply to some of the new directions of the Group. Some of the Articles should be deleted and modified to reflect the changes which have been voted on by the members during general meetings.

The P.U.G. Secretary, John Asmonga will act as Chairman for a Committee to review the By-Laws and make recommendations to the Executive Board on implementing changes to the By-Laws. The new By-Laws will be made available to members in good standing prior to a discussion and a vote on revised By-Laws.

Any P.U.G. member in good standing who wants to serve on this committee can contact John Asmonga.

Amendments to the By-Laws will be considered by the Committee if presented in writing before the final recommendations are presented to the Executive Board.

If everything goes as planned we will have at our Sept. 18th group meeting, Ed Wiest, the TI User's Group Coordinator. Here is your opportunity to see and hear the latest news from Texas. If they present the kind of show they had in the spring it should be a very informative meeting. Watch next month's newsletter for the starting time.

IS IT OR ISN'T IT

John Dow has been doing some comparing of information on the speed of different Disk Systems with the TI and is coming up with some confusing figures. We hope to have more on this at the meeting or in the next newsletter.

FREE SAMPLE

We would like to thank the people at MAGIC Software for the free disk of their new games we demonstrated at the last meeting. Here is their ad if you would like to order.

MAGIC Software, Inc.
Presents

All new - Assembly Language Games for the TI99/4 with Mini Memory or expansion RAM. Fast - Fun - Fairly Priced. Available on disc or cass.

**BOMBER
BOXER
Cat & Mouse
3DMAZE
and more....**

	cass.	disc
Pricing: 1 game	\$12.00	\$14.00
2 games	\$22.00	\$24.00
3 games	\$31.00	\$32.00
4 games	\$40.00	\$40.00

For descriptions - send lg. S\$AE
To ORDER - send check to:

MAGIC Software, Inc.
3148 South 14th Street
Milwaukee, Wisconsin 53215

PONY EXPRESS

The U S Post Office did a royal job of delivering last month's newsletter, some taking two weeks after the meeting. We will try to see that this does not happen again, but if you find that your newsletter is not getting to you on time, or not at all, please call them and complain. The number to call is 359-7844.

The Pittsburgh Users Group, annual membership dues of \$12.00, entitles an individual to receive the Monthly Newsletter, a Membership Card to admit him/her to the Monthly Meeting and to the Bulk Purchasing Power of the Membership.

Non-participating members can receive the Monthly Newsletter for an Annual Fee of \$5.00, if they want to stay in touch but cannot attend our meetings.

All Annual Dues and Fees are payable on or before the Annual Renewal Date. A 30-Day Grace Period may be given by the officers prior to terminating a members Group affiliation.

A Paid-Up Membership Card must be presented at the door to attend the Monthly Meeting.

BOOK REVIEW

BY: Ed York

The book entitled the "Smart Programming for Sprites" by Craig Miller was one that I have both enjoyed reading and using. I will admit that I really didn't expect much from a book that only cost \$5.95 plus \$1.50 for shipping and handling. I thought that this had to be a rip-off scheme but that was before I had the chance to review the software from Millers Graphics. After I had the chance to review the software, my attitude then changed in a positive manner. I then waited patiently for the book to arrive. I was not disappointed but on the contrary very much surprised and glad that I had ordered the book. The information and explanations are worth their weight in gold. If you have Extended Basic and don't have this book yet, then what are you waiting for?
(CIN-DAY USER GROUP)

```

L0      JMP     L1
        SWPB  R1
        CLR  R2
        MOVB R1,R2
        SWPB R2
L1      MOV   R2,@N
TOP     SRL  R2,1
        JEQ  DONE
        MOV  R2,R9      M8=INT(N/2)
        MOV  @N,R3      R3=N-M8
        S    R2,R3
        LI  R8,1        J8=1
L2      MOV  R8,R7      I8=J8
L3      MOV  R9,R6
        A    R7,R6      L8=I8+M8
        MOV  R7,R0
        LI  R1,2
        BLWP @NUMREF   FAC=A(I8)
        LI  R4,FAC
        LI  R5,XI8
        MOV *R4+,*R5+  XI8=FAC
        MOV *R4+,*R5+
        MOV *R4+,*R5+
        MOV *R4,*R5
        MOV  R6,R0
        BLWP @NUMREF   FAC=A(L8)
        LI  R0,4
        LI  R4,FAC
        LI  R5,XI8
COMPAR  C    *R4+,*R5+  COMPARE FAC WORD TO XI8 WORD.
        JGT  L4
        JNE  LPO
        DECT R0        4TH WORD YET?
        JOC  COMPAR    NO.
        JMP  L4        YES, ALL EQUAL.
LPO     MOV  R7,R0      FAC IS > XI8. SET A(I8)=FAC
        BLWP @NUMASG
        LI  R4,FAC
        LI  R5,XI8
        MOV *R5+,*R4+  FAC=XI8
        MOV *R5+,*R4+
        MOV *R5+,*R4+
        MOV *R5,*R4
        MOV  R6,R0
        BLWP @NUMASG   A(L8)=FAC
        S    R9,R7      I8=I8-M8
        JGT  L3        IF I8>0 GO TO L3
L4      INC  R8        FAC<XI8. SET J8=J8+1.
        C    R8,R3
        JLE  L2        IF J8<=R3 GO TO L2
        JMP  TOP       GO TO TOP
DONE    B    *R11
N       BSS  2
XI8     BSS  8
        END

```

AN ASSEMBLY LANGUAGE SUBROUTINE (CONTINUED FROM LAST MONTH)

By John Dow

The last newsletter included a listing of a subroutine which is called from Basic (using the Mini Memory Module) to sort a numeric array. Below is a modified version of that subroutine. It has been revised to be assembled with TI's Editor/Assembler. It is now designed to be called from Extended Basic. It therefore has been renamed XBSORT.

I made a few additional changes. For instance, I eliminated the variables M8, J8, I8, and L8 in favor of registers R6 through R9. Also, at our meeting last month (Sunday before the PUG meeting), we decided that there were two bugs in Jerry's version: change 712A to 712C at locations 08A and 0C6. (In the version listed here, I eliminated those statements altogether by having multiple move statements.)

Last month's version was produced with the Dow Editor/Assembler. You can compare that listing with the one below to see how easy it is to convert from using the Mini Memory Module to a full system (with disk and expansion memory).

```
* CALL LINK("XBSORT",N,A())
*
* DERIVED BY JOHN DOW FROM JERRY ROWELL'S SHELL SORT
* SUBROUTINE WRITTEN FOR THE MINI MEMORY MODULE.
*
* THIS VERSION IS TO BE USED WITH EXTENDED BASIC.
*
* REGISTER USAGE:
* R0 TEMP FOR SUBSCRIPTS ETC
* R1 =2 FOR NUMREF
* R2 N/2 ETC
* R3 N-M8
* R4 FAC POINTER
* R5 X18 POINTER
* R6 L8
* R7 I8
* R8 J8
* R9 M8
*
      DEF XBSORT
FAC EQU >834A
NUMREF EQU >200C
NUMASG EQU >2008
XBSORT CLR R0          GET 1ST ARGUMENT: SIZE OF ARRAY
      LI R1,1
      BLWP @NUMREF
      MOV @FAC,R1      CONVERT TO INTEGER
      CLR R2
      MOVB R1,R2
      SWPB R2
      CI R2,>41
      JNE L0
      SWPB R1
      CLR R2
      MOVB R1,R2
      SWPB R2
      LI R4,100
      MPY R4,R2
      MOV R3,R2
      MOVB @FAC+4,R0
      SWPB R0
      A R0,R2
```


	D1 BOOGLER	D6 ASPIC	D10 CYBERDICE
	D1 CHECKER	D6 BONES	D10 DEFINECHAR
	D1 CRYPTOGRAM	D6 COUNTING	D10 FORCE1JOY
	D1 KENO	D6 DRAW	D10 GIANTS
C1	D1 KNIGHTOUR	D6 FLAGS	C10 D10 JUMPJACK
	D1 ONEARM	D6 LETTERQUIZ	D10 LIFE2TITAN
	D1 OTHELLO	D6 SPEAKSPEL2	D10 PIERINGSQD
	D1 ROBOT	C6 D6 SPEAKSPEL4	D10 TRUCKER
	D1 SIMON	D6 SPEAKSPEL5	
	D1 YAHTZEE	D6 SPELL 200	D11 BALMATH
		D6 SPELL 33	D11 CODEOFLIFE
	D2 AIRCRAFT	D6 TESTQUEST	D11 CONVERSION
	D2 ARTILLERY	D6 TRUEFALSE	D11 FIREBALL
	D2 BATTLEFORI	D6 VOCABTEST	D11 NUMCONVERT
	D2 CANNON		C11 D11 SIGMA
C2	D2 CHOPERESCU	D7 ASTEROIDS	D11 STATECAPS1
	D2 LASERWARS	D7 CHIC	D11 STATECAPS2
	D2 NIGHTBLOK	D7 DOGEM	D11 TRIGTRIANG
	D2 SPACESCOUT	D7 DOGEM	D11 WORDWORLD
	D2 SPACEWAR	D7 EGGWARS	
	D2 STARFIGHT	D7 GOLDRUSH	D12 BUMBLEMUSI
	D2 TERMITE	D7 JAWS	D12 CHRISTMAS
		D7 NIGHTBLOCK	D12 GODFATHER
	D3 AUTOBAHN	C7 D7 SHOOTING	D12 HOTLUNCH
	D3 CAMEL	D7 SPACEJUNK	D12 MUSICDEMO1
	D3 CAPTURE	D7 SWORDS	C12 D12 MUSICEDIT
	D3 CIVILWAR	D7 TRAPSHOOT	D12 MUSICSYN
	D3 HAMURABI	D7 WAGONWHEEL	D12 PINKPANTHR
	D3 INDIAN	D7 XRESCUE	D12 SEAHORSE
	D3 LUNARLAND	D7 XTICTAK	D12 SINEWAVE
C3	D3 OBSTACLE		D12 STILL
	D3 ROADRACE	D8 ALIEN	D12 STRAUSS(1)
	D3 SANFRAN	D8 ATTACKER	
	D3 STARTREK	D8 BATLSTAR	D13 BOAT-SONG
	D3 TOURING	D8 CORNERWAR	D13 HOLY
	D3 WUMPUS	D8 CRAZYCLOWN	D13 LOAD
		D8 DOGFIGHT	D13 MAINSCREEN
	D4 CRAZYLINES	D8 MARSLANDER	D13 ORGAN
	D4 ELIZA	C8 D8 REBELPILOT	C13 D13 PUPPY-TOWN
	D4 FRAMEUP	D8 RUSSIANWAR	D13 R-BOOGIE
	D4 MASTERMIND	D8 SPACEBATT	D13 VENUS
C4	D4 MEMFULL	D8 SPRITER	D13 W-BOOGIE
	D4 MINER	D8 TWRHANOI	
	D4 MOTORCROSS	D8 UPSCOPE	
	D4 REBOUND		D14 ADDRESSES
	D4 SECRETARY	D9 CALENDAR	D14 CHECKBOOK
	D4 UFO	D9 CALENDARPT	D14 CHISQUARE
		D9 GRAPHBARS	D14 CPM
	D5 COUNTDUCKS	D9 HOMESEC	D14 EFILE
	D5 GUESSPRESI	D9 LIBRARIAN	D14 ESTATE
	D5 LIFEEXPECT	D9 MARKET	D14 EWORD
	D5 LOWCASMATH	D9 MORTGAGE	D14 FINANCIALM
C5	D5 NAMETREES	C9 D9 OVERFLOW	C14 D14 HOUSECOST
	D5 SAYNUMBER	D9 RULE78	D14 INVENTORY
	D5 TELLTIME	D9 TEXT	D14 LINEARREGR
	D5 TYPETEACH	D9 TEXTEDITOR	D14 LOANANALYS
	D5 WORDQUIZ	D9 TIMECLOCK	D14 PAYMENT
	D5 WORLDBIRDS	D9 WINDCHILL	D14 PERT
			D14 RECEIPTEXP
			D14 STOCKRECOR
			D14 STOCKTRANS
			D14 STOCKTREND

PITTSBURGH USERS GROUP PROGRAM LIBRARY JUNE 1983

Each group of numbers represents the programs listed.
(Example: D1 = 10 Programs on one disk).

BOOK REVIEW

Name: USING & PROGRAMMING
THE TI 99/4A, INCLUDING
READY TO RUN PROGRAMS.

Author: FREDERICK HOLTZ

Publisher: TAB BOOKS, INC.
BLUE RIDGE SUMMIT, PA.
17214

Available: B-DALTON BOOK STORES
AND WALDEN BOOK STORES

Cost: \$9.95

(99'ERS CLUB)

Pages: 216

USING AND PROGRAMMING the TI 99/4A is a very useful tool for hands on experience on their home computer. The book has eleven chapters and also has a very useful glossary. The first three chapters are actually spent introducing the TI 99/4A to the user. Most of this information was provided to the buyer in the TI "Users Reference Guide" that accompanied the computer in packaging.

The next three chapters cover the basic language that was built into the TI home computer. There is more information on graphics in these chapters than in the "Users Reference Guide" and I found much of the information to be very helpful to me several times since I first read it.

In the eighth chapter, there are twelve basic ready to run programs, that you may key into your TI. These programs are relatively simple to enter and are also very simple to run. There are not any good graphics and they don't have any arcade quality games, however, I do feel that the beginner would enjoy typing these in and also spending some time watching how they run.

The ninth chapter explains the additional languages that the TI 99/4A is compatible with such as: Extended Basic, Assembly Language and TI Logo.

The last two chapters are devoted to introducing the different types software that are available to use with the TI, and these chapters also explain how common basic applications can be adapted to TI basic so you may run them for your own use.

The NATIONAL 99'ERS CLUB, highly recommends that all new users of the TI 99/4A pick up a copy of this book, we think that you will find it to be a very helpful guide.

REVIEW - NIT WIT & THE GAME OF WIT

BY: Ross Sabolcik

Both of these games are in extended basic and are word games. In the game "NIT WIT" you are controlling a drain stopper and you try to catch letters in order to form words. There are six drain pipes in three rows, and two letters fall through the drain pipe. You must move your drain stopper to block a pipe and catch a letter. When you are finished the other player gets a chance to see if your word is spelled correctly. This is a fun game to play with a friend.

The other game, called "THE GAME OF WIT" is a word scrabble game. It is not a bad game and plays just like Scrabble, except you can lay letters over top of letters already on the board.

Both of these cassette games are manufactured by:

TEXWARE ASSOCIATES
350 First North Street
Wellington, Illinois 60973

The programs listed below have been revised but the originals were taken from the T.I.U.P. (The TI-99/4(A) Home Computer Users Group of Perth, Western Australia) newsletter with credit going to Lindsay Preece.

SPRITE CHASE-JOYSTICK This program sets two sprites chasing a third that you control with a joystick.

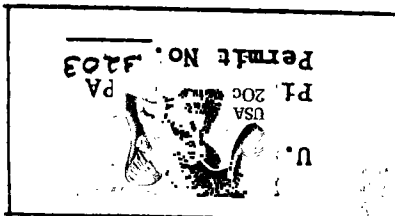
```
100 ! SPRITE CHASE-JOYSTICK
110 CALL CLEAR :: CALL MAGNIFY(2):: CALL SPRITE(#1,96,3,96,128,#2,104,10,1,1,#3,
104,10,192,256)
120 CALL SCREEN(16):: CALL CHAR(96,"383890FE3A38386C",104,"3C7EDB99FFC3663C")
130 CALL JOYST(1,A,B):: CALL MOTION(#1,-3*B,3*A):: GOSUB 140 :: GOTO 130
140 CALL POSITION(#1,C,D,#2,F,G,#3,H,I):: J=SGN(C-F):: K=SGN(D-G):: L=SGN(C-H)::
M=SGN(C-I)
150 CALL MOTION(#2,10*J,10*K,#3,10*L,10*M):: RETURN
```

FOLLOW THE LEADER This program produces an interesting effect by linking several sprites in a circular dancing movement.

```
100 ! FOLLOW THE LEADER
110 CALL MAGNIFY(1):: CALL CLEAR :: CALL SCREEN(4):: CALL CHAR(92,"3C7EFFFFFFF7
E3C")
120 CALL SPRITE(#1,92,16,28,60,#2,92,16,1,128,#3,92,16,28,196,#4,92,16,96,224)
130 CALL SPRITE(#5,92,16,164,196,#6,92,16,192,128,#7,92,16,164,60,#8,92,16,96,32
)
140 CALL POSITION(#1,R1,C1,#2,R2,C2,#3,R3,C3,#4,R4,C4,#5,R5,C5,#6,R6,C6,#7,R7,C7
,#8,R8,C8):: A=5
150 AA=SGN(R2-R1)*A :: AB=SGN(C2-C1)*A :: BA=SGN(R3-R2)*A :: BB=SGN(C3-C2)*A ::
CA=SGN(R4-R3)*A :: CB=SGN(C4-C3)*A
160 DA=SGN(R5-R4)*A :: DB=SGN(C5-C4)*A :: EA=SGN(R6-R5)*A :: EB=SGN(C6-C5)*A ::
FA=SGN(R7-R6)*A :: FB=SGN(C7-C6)*A :: GA=SGN(R8-R7)*A :: GB=SGN(C8-C7)*A
170 HA=SGN(R1-R8)*A :: HB=SGN(C1-C8)*A :: CALL MOTION(#1,AA,AB,#2,BA,BB,#3,CA,CB
,#4,DA,DB,#5,EA,EB,#6,FA,FB,#7,GA,GB,#8,HA,HB):: GOTO 140
```

EDMONTON ALBERTCANADA T5A3L1
EDMONTON USER GROUP
P.O. BOX 11983

TIME SENSITIVE MATERIAL



PITTSBURGH USERS GROUP
P.O. BOX 18124
PITTSBURGH, PA. 15236

