West Jax 99er News

MAY 1988

The WEST JAX 99'ERS is a non-profit computer users group for the TI-99/4A Home Computer. NOT affiliated in any way with Texas Instruments. The club's mailing address is PO BOX 176 Orange Park Florida 32067.

MEETINGS are held on the Second and Fourth Tuesday of each Month in the auditorium of the Webb Library. It is located two lights west of Blanding Boulevard on 103rd Street. The first meeting of the month is the Business meeting with workshop time after adjournment. The second meeting is strictly workshop time.

OFFICERS

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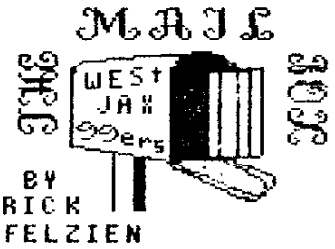
For newsletter suggestions and submissions, contact Rick Felzien.

This month we have our usual mailbox column along with our Basic Assembler installment.



NOTE!! started adding Author's names.

LA 99er Topics Mar 89
1. Nice menu prog. for TI-Base
   (Alan Coleman)
2. TI-Base tutorial
   (Bill Gaskill)
3. Combining ExBasic with Assy.
   (George Steffen)
4. TI-Multiplan tutorial
   (Peter Gleed)
5. TPA tutorial

Hoosier 99ers Apr 89
1. Review of macflix
   (Deanna Sheridan)
2. Maze maker prog.
   (Steve Karasek)

Erie 99ers Apr 89
1. Multiplan tutorial
   (Audrey Bucher)
2. Number Game for Kids
   (Micheal Ecker)
3. Kids Stories prog.
   (Chick DeMarti)
4. How to cook a Frog??
   (Chet Magee)

Spirit of 99 Mar 89
1. Speech part 2
   (Irwin Hott)
2. Getting most form cassette
   (Mickey Schmitt)
3. Impact 99
   (Jack Sughrue)

Greater Tampa Bay 99ers Apr 89
1. Speaking about Speech
   (Charles Kinsey)

Portland 99ers Apr 89
1. DF 128 to DV 80
   (Author Unknown)
2. Printing calculator
   (Ashley Read)

ROM Newsletter Mar 89
1. And so FORTH
   (Earl Raguse)
2. TI bits number 25
   (Jim Swedlow)

The Otawa 99ers Apr 89
1. A look at Assemmbly
   (R. A. Green)
2. Fast ExBasic
   (Lucie Dorais)

North Jersey 99ers Apr 89
1. XB
   (Jim Swedlow)

CPUG Newsletter Feb 89
1. TI-Base tutorial
   (Barry Long)
2. Getting most from Cassette
   (Mickey Schmitt)

CIN-DAY news Mar 89
1. User's Group listing
2. Getting most from Cassette
   (Mickey Schmitt)

Spirit of 99 Apr 89
1. TI-Base tutorial
   (Martin Smoley)

PUG peripheral Mar 89
1. TI-Artist for beginner no.2
   (Don McCalla and Evelyn Pacinda)
2. CS1 Findex(cassette cat)
   (Joseph Bartle)

Boston computer Society Mar 89
1. USCD Pascal tutorial
   (Ron Williams)
2. c column
   (Donald Mahler)

Rocky Maountain 99ers Mar 89
1. Little used Basic commands
   (Richard Gieseler)

Cleveland Area 99ers Mar 89
1. Text drawing with Plus
   (Paul Newmeyer)
2. Funnelweb/TI-Base
   (Martin Smoley)

SFV 99ers Apr 89
1. TPA tutorial
   (Ken Gilliland)

NewJug North Apr 89
1. Tech Talk (very interesting)
(Mike Maksimi)

VAST U. G. Mar 89
1. Elements of basic
(Erie 99er)
2. Sounds Abound
(Stephen Shaw)

Ozark 99ers Mar 89
1. TI keyboard repair

Sooner 99ers Feb 89
1. Computer Definitions
(mike Wright)e

CIN-DAY news Apr 89
1. Utilizing Merge format
(R. Petrocome)

Ozark 99ers Apr 89
1. Bitmaps
(Bob Demeter)

T H E B A S I C A S S E M B L E R #9 By Steve Peacock

COUNT FROM 0 TO 999,999

This program will demonstrate the difference in the speed of Extended Basis and Assembly. I am presenting a counting routine that will count, and display the number 000,000 to 999,999. Let me say that this program is written to show the difference in speed. There are more efficient way to count, but that is not the purpose of this program.

The first part of BA9A, loads registers 4 to register 9 with the number zero. The second part then prints each of these registers to the screen. In order to add to a register the number is added to the right byte. However when you print to the screen, the left byte is used. This requires the use of the command SWPB, and the routine CNG (ChaNGe back) -- SWPB. This allows you to add, then print then add again.

When I ran both versions I found that the Extended Basic version took 2min. 50sec. to count from 0 to 1000. The Assembly version took 1.05sec. Assembly ran 161.9 times faster! OK Robbie, how fast can you count and display in FORTH, using the same inefficient program?

```
*PROGRAM BA9A-->Basic Assembler #9 Assembly Version
*COUNT FROM 0 TO 999,999
*(C)1985 S. PEACOCK
*
*****************************************************************
       REF  VSBW          *REF TO VIDEO SINGLE BYTE WRITE
       DEF  START         *START OF PROGRAM
START  LI   R4,>3000      ****
       LI   R5,>3000      *
       LI   R6,>3000      *LOAD REG. 4 TO REG. 9 WITH ZERO
       LI   R7,>3000      *
       LI   R8,>3000      *
       LI   R9,>3000      ****
PRINT  LI   R0,403        ****
       MOV  R4,R1         *PRINT A ZERO AT SCREEN LOCATION 403
       BLWP @VSBW         *THEN DECREASE THE SCREEN LOCATION
       DEC  R0            *BY ONE AND PRINT ZERO AGAIN. DO
       MOV  R5,R1         *THIS A THIRD TIME, THEN PRINT A
       BLWP @VSBW         *COMMA. THEN PRINT THREE MORE
       DEC  R0            *ZEROS.
       MOV  R6,R1         *
       BLWP @VSBW         *EACH TIME THE PROGRAM LOOPS THE PRINT
       DEC  R0            *ROUTINE WILL BE UPDATED AND WRITTEN
       LI   R1,>2C00      *TO THE SCREEN.
       BLWP @VSBW         *
       DEC  R0            *
       MOV  R7,R1         *
       BLWP @VSBW         *
       DEC  R0            *
       MOV  R8,R1         *
       BLWP @VSBW         *
       DEC  R0            *
       MOV  R9,R1         *
       BLWP @VSBW         ****
*******************************
       SWPB R4            *REVERSE BYTES IN REG. 4 >3000 TO >0030 ETC.
       INC  R4            *INCREASE REG. 4 BY ONE
       CI   R4,>0039      *COMPARE REG. 4 TO 9, >0039
       JLE  CNG4          *IF LESS THAN OR EQUAL
       LI   R4,>0030      *   THEN RESET TO ZERO
       SWPB R5            *
       INC  R5            *IN ORDER TO INCRIMENT A REGISTER, THE
       CI   R5,>0039      *NUMBER MUST BE IN THE RIGHT BYTE.
       JLE  CNG5          *
       LI   R5,>0030      *IN ORDER TO PRINT A NUMBER, IT MUST BE
       SWPB R6            *IN THE LEFT BYTE.
       INC  R6            *
       CI   R6,>0039      *THIS SECTION COUNTS - 000000 / 000001 / 000002 ETC.
       JLE  CNG6          *BY INCREASING EACH REGISTER SEPARATELY. THIS
       LI   R6,>0030      *IS NOT AN EFFICIENT WAY TO DO IT, BUT IT WORKS.
       SWPB R7            *
       INC  R7            *
       CI   R7,>0039      *
       JLE  CNG7          *
       LI   R7,>0030      *
       SWPB R8            *
       INC  R8            *
       CI   R8,>0039      *
```

```
       JE   CNG8          *
       LI   R8,>0030      *
       SWPB R9            *
       INC  R9            *
       CI   R9,>0039      *
       JLE  CNG9          ****
       JMP  $             *WHEN DONE (999,999) JUMP TO SELF
CNG9   SWPB R9            ****
CNG8   SWPB R8            *IN ORDER TO PRINT THE NEW
CNG7   SWPB R7            *NUMBER THE BYTES MUST BE
CNG6   SWPB R6            *SWAPPED BACK - >0033 BECOMES >3300 ETC.
CNG5   SWPB R5            *THEN THE NUMBER CAN BE PRINTED.
CNG4   SWPB R4            ****
       JMP  PRINT         *JUMP TO PRINT ROUTINE
       END
```

```
100 REM PROGRAM BA9B==>Basic Assembler #9 Basic Version
110 REM COUNT FROM 0 TO 999,999
120 REM (C)1985 S. PEACOCK
130 REM YOU MAY WANT A 'CALL CLEAR' HERE
140 R4=0
150 R5=0
160 R6=0
170 R7=0
180 R8=0
190 R9=0
200 CALL HCHAR(20,15,R4+48)
210 CALL HCHAR(20,14,R5+48)
220 CALL HCHAR(20,13,R6+48)
230 CALL HCHAR(20,12,44)
240 CALL HCHAR(20,11,R7+48)
250 CALL HCHAR(20,10,R8+48)
260 CALL HCHAR(20,9,R9+48)
270 R4=R4+1
280 IF R4<=9 THEN 450
290 R4=0
300 R5=R5+1
310 IF R5<=9 THEN 450
320 R5=0
330 R6=R6+1
340 IF R6<=9 THEN 450
350 R6=0
360 R7=R7+1
370 IF R7<=9 THEN 450
380 R7=0
390 R8=R8+1
400 IF R8<=9 THEN 450
410 R8=0
420 R9=R9+1
430 IF R9<=9 THEN 450
440 GOTO 440
450 GOTO 200 !CHANGE BACK IS NOT NEEDED IN BASIC. THIS GOTO IS NEEDED TO KEEP TH
E CORECT COUNT IN R1 TO R9.
460 END
```