# West Jax 99er News

Dedicated to the TI-99/4A Users

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.

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For newsletter suggestions and submissions, contact Rick Felzien.

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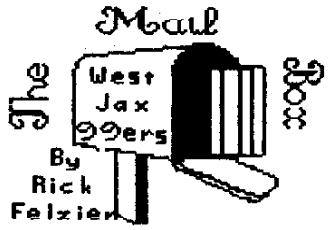
## ( JUNE 1988 )

This month I have included the mailbox column but didn't get the TPA article finished as my trusty Gemini bit the dust and it was a couple days before I could get another, which was another fine Star Micronics Product. The SG-10. With the kind permission of our ex-member Steve Peacock, we are starting a series of reprints of his great Basic Assembler articles. Richard Kortba has submitted a very nice demo of Font Wrriter ii.




Ottawa 99er May88
1. Expansion port interfacing
2. Fast ExBasic

Erie 99er May88
1. Elements of Basic
2. Getting mose from cassette

Oxnard 99er May88
1. A single chip 32K expansion

Philadelphia area 99ers Apr88
1. Videoflex(computer/VCR)

Boston Computer Society Apr88
1. Video interfacing
2. 'c' tutorial

Kansas City 99er May88
1. Shrink(program to condense prog)
2. Cradle Song(program)

QB Monitor May88
1. TI-Writer tool box
2. Colorific(program)

PUNN newsletter May88
1. NX-1000 printer review
2. Bees(program)
3. Cryptogram(program)

NOVA Newsletter Apr88
1. Install an IBM pwr.supp. in PEB

NUTMEG 99ers Apr88
1. Configuring FUNNELWEB
2. Convert Artist inst. to TIW files

Front Ranger Apr88
1. TI-Runner tips
2. TELCO review
3. Basics of the RS-232
4. Listing of MICROpendium art.

N.Y. Interface May88
1. Basic Basics
2. Intro. to TI Assembly Lang.

Suncoast Beeper Apr88
1. Review of Print Wizard
2. List of TI-Artist functions

The Computer Bridge May88
1. Zodiac Wheel of Fortune(review)
2. Redesigning the PE-box pwr. supp.

HUG newsletter Apr88
1. PR-Base enhancement
2. Tips for beginners

HUG newsletter May88
1. Telco review
2. TI-Writer tips

Cleveland Area 99ers May88
1. Gobbler (game program)
2. Hardware tips(ExBasic problems)
3. The NX-1000 (Review)

k*3 99ers May88
1. Print Postcards(program)
2. Troubleshooting the 32K expansion

SFV 99ers May88
1. Videoflex(Review)
2. Peeks and Pokes
3. TI-Echo

Decatur area 99ers May88
1. Advice to beginners
2. Tips for beginners
3. Programs that write programs
4. NX-1000 Review

News Net 99er Apr88
1. Assembly language humor
2. List of TI suppliers

Alpha 99ers May00
1. Random word generator(program)
2. List of GROMS and prices

Upper Pinellas 99ers May88
1. Multiplan uses

PUG Peripheral May88
1. Let's talk RAM disks partVI
2. Getting most from cassette
3. TI-Writer part 5
4. Tips for beginners
5. Multiplan
6. Future of PR Base

# T H E  B A S I C  A S S E M B L E R  #1 By Steve Peacock

## FILL SCREEN WITH QUESTION MARKS THEN ERASE THEM

This is the first of many (I hope) articles that will help you learn how to program in TI assembly. What I will do is present a short idea in TI Basic and the same idea in TI Assembly. These will not be a 'game' or a 'utility' but will be an idea that you can use to create you own long program. One of the first things you must know is how the screen is addressed. There are 768 positions, starting at the upper left corner with 0 and ending in the bottom right corner with 767. If you want to print a letter on the screen in assembly you give the screen address (0 to 767). Here is a chart showing the location. Please save this chart for future reference.

```
  0   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31
 32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54  55  56  57  58  59  60  61  62  63
 64  65  66  67  68  69  70  71  72  73  74  75  76  77  78  79  80  81  82  83  84  85  86  87  88  89  90  91  92  93  94  95
 96  97  98  99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127
128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159
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576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607
608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639
640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671
672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703
704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735
736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767
768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787
```

The first programe example I will present is how to fill the screen with a character, and then erase that character.

I will assume that you know how to load and run a Basic program and not explain that. I will explain how to use the TI Assembler.

Put the Assembler cartridge in, and the disk in your drive, power up and select 1 for EDIT then 2 for EDIT. Press FCTN X and then type your program. Now you are ready to save, to do this press FCTN 9 then FCTN 9. Select 3 for SAVE. Answer Y for the question 'DV80?'. Next you will need to give a file name. I try to end the file name with an 'S' to signify 'source' code. Now press FCTN 9 to return to the main EA screen. Select 2 for Assemble. With the disk in your drive answer Y to the question 'load assembler', then type your source file name and then a NEW name for the 'object' code. I try to end the name with an 'O'. Next you will be asked for a list file, for now just press ENTER. For options press 'R' and then ENTER. At this point the assembler will take over. If you do not have any errors you will be told, if you have errors you must go back and edit the source code. If no errors press ENTER then 3 for load and run. Type your object file name then ENTER for the next name just press ENTER. For the program name type and enter the name you gave as the start in the source code. The program will then run.

```
*****************************************************************************
*
*
*PROGRAM BA1A==>Basic Asembler #1 Assembly Version
*FILL SCREEN WITH QUESTION MARKS THEN ERASES THEM
*(C)1985 S. PEACOCK
*
*****************************************************************************
       REF  VMBW          *REFERENCE TO VDP MULTIPLE BYTE WRITE
       DEF  START         *DEFINE THE START OF THE PROGRAM (CAN BE ANY NAME)
QM     TEXT '?'           *TEXT TO PRINT '?' TO SCREEN
SP     TEXT ' '           *TEXT TO PRINT SPACE TO SCREEN
START  LI   R0,0          *LOAD IMMEDIATE REG. 0 WITH START POSITION-ZERO
LOOP1  LI   R1,QM         *LOAD IMMEDIATE REG. 1 WITH TEXT TO PRINT
       LI   R2,1          *LOAD IMMEDIATE REG. 2 WITH # OF BYTES TO PRINT-ONE
       BLWP @VMBW         *BRANCH AND LOAD WORKSPACE POINTER AT VMBW
       INC  R0            *INCREMENT REG. 0 BY 1 (THE POSITION TO PRINT)
       CI   R0,767        *COMPARE REG. 0 WITH 767 (THE LAST SCREEN POSITION)
       JLE  LOOP1         *JUMP IF LESS OR EQUAL TO LOOP1 THEN PRINT THE NEXT '?'
**************************IF GREATER THAN MOVE TO THE ERASE PART OF PROGRAM
       LI   R0,0          ***
LOOP2  LI   R1,SP         *THE SAME THING ONLY PRINT A
       LI   R2,1          *BLANK SPACE ON THE SCREEN
       BLWP @VMBW         ***
       INC  R0            ***
       CI   R0,767        ***
       JLE  LOOP2         ***
       JMP  START         *WHEN DONE THIS JUMPS TO START (ENDLESS LOOP)
* ALWAYS END WITH THE 'END' STATEMENT
       END
```

```
00034         A0000B3F20B0200B0000B0201C0000B0202B0001B0420B00007F393F        0001
A0012B0580B0280B02FFB12F6B0200B0000B0201C0001B0202B0001B04207F339F        0002
A0028C0010B0580B0280B02FFB12F6B10E77F82FF                                 0003
30028VMBW  50002START 7FAABF                                              0004
:        99/4 AS                                                          0005
```

```
100 REM PROGRAM BA1B==>Basic Assembler #1 Basic Version
110 REM FILL SCREEN WITH QUESTION MARKS THEN ERASE THEM
120 REM (C)1985 S. PEACOCK
130 QM$="?"
140 SP$=" "
150 FOR ROW=1 TO 24
160 FOR COLUMN=1 TO 32
170 CALL HCHAR(ROW,COLUMN,ASC(QM$))
180 NEXT COLUMN
190 NEXT ROW
200 FOR ROW=1 TO 24
210 FOR COLUMN=1 TO 32
220 CALL HCHAR(ROW,COLUMN,ASC(SP$))
230 NEXT COLUMN
240 NEXT ROW
250 GOTO 150
260 END
```

# FONT WRITER II

FONT WRITER II IS A PRINTSHOP TYPE UTILITY WRITTEN IN EXTENDED BASIC BY J.PETER HODDIE. THIS PAGE IS COMPOSED WITH FONT WRITER II AND PRINTED ON THE NX-1000 PRINTER. I WILL ATTEMPT TO SHOW SOME OF THE POSSIBILITIES USING THIS COMBINATION.

THIS IS A FAT CAT

A BOX CAN BE DRAWN AROUND ANY PART OR PARTS OF THE PAGE.

BOXES...

BOXES...

HHO'S

GOT

THE

BOXES?

IMAGE AND TEXT ON THE SAME LINE

LETTER SPACING CAN BE CHANGED WITH ONLY ONE COMMAND.

BOTH LEFT AND HIGHT SIDES ARE JUSTIFIED

A CENTERED LINE.

TO BE CONTINUED... NEXT TIME WE'LL GO INTO SOME OF THE COMMANDS USED IN FONTWRITER II. RICHARD KOTNIK, WEST JAX 99ER USERS GROUP.