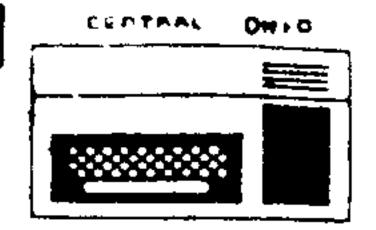


THE OFFICIAL NEWSLETTER OF THE CENTRAL OHIO NINETY-NINERS INC.

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C.O.N.N.I. meetings are held the Second Saturday of each month at the Martin Janis Senior Center on East Eleventh Ave. at the Ohio State fairgrounds.

Meeting time is at 9:00 AM. Meetings are open to the public. Membership dues \$20.00) are payable vearly to C.O.N.N.I. and cover the immediate family of the member. (An application has been placed

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PROGRAMS THAT WRITE PROGRAMS

Part 5 by Jim Peterson

In addition to writing programs in MERGE format, the same techniques can be used to analyze or modify programs which have been SAVEd in MERGE format. The D/V 163 file editor in Part 2 of this series was an example.

Here is a simple program to remove REM statements -

100 DISPLAY AT(3,5) ERASE ALL "REM REMOVER": : "Program must be SAVEd in": "MERGE for mat by": "SAVE DSK(filename), MERGE"

110 DISPLAY AT(12,1):"FILENA ME? DSK" :: ACCEPT AT(12,14)
:F\$:: DISPLAY AT(14,1):"NEW FILENAME? DSK" :: ACCEPT AT (14,18):NF\$

120 DPEN #1: "DSK"&F\$, VARIABLE 163, INPUT :: OPEN #2: "DSK" &NF\$, VARIABLE 163, OUTPUT 130 LINPUT #1: M\$:: A=POS (M\$, CHR\$ (131), 1):: B=POS (M\$, CHR\$ (131), 1):: A=MAX (A, B):: IF A=3 THEN 150 :: IF A=0 THEN PRINT #2: M\$:: GOTO 150 140 PRINT #2: SEG\$ (M\$, 1, A-1)& CHR\$ (0) 150 IF EOF (1) <>1 THEN 130 :: CLOSE #1 :: PRINT #2: CHR\$ (2)

The REM statement will begin with either a !, which is

CHR\$(131), or REM which is CHR\$(154). So, line 130 reads in the lines one at a time. A finds the position in the line of ! and B finds the position of REM; one or the other, or both, will not be present and will equal 0. Then MAX finds the larger of A and B, which will be whichever one is present, or 0 if neither.

If! or REM is in the 3rd position, immediately after the 2-byte line number, we want to delete the line entirely, so we do not reprint it. If A=0 then neither! nor REM is present, so we reprint the entire line in the new file.

Otherwise, the REM statement is obviously a tail remark, so we reprint to the new file the segment of it starting with the first character and consisting of the number of characters one less than the position of the ! or REM. And, since we have lopped off the end of the line, we do not forget to replace the end-of-line marker CHR\$(0).

If we have not reached the end of the file, we go back for the next line. Otherwise, we close the old file, but we remember to add the end-of-file marker to the new file before we close that too.





55) &CHR\$ (255):: CLOSE #2











DUES ARE DUE IN MARCH.

\$20.00 FULL MEMBERSHIP

\$15.00 NEWSLETTER FOR ONE YEAR

FROM THE PRESIDENT'S COMPUTER DESK



BY IRWIN HOTT

As most of you know the CONNI elections were held at the last meeting. I would like to welcome John Cummings as our new treasurer, and Chuck Grimes to the elected office of librarian. For years it had been assumed that librarian was an appointed position. This turned out not to be the case. Jim Seitz was re-elected as vice-president, and Vivian Prine as secretary.

I would like to express our thanks on behalf of myself and the other officers for your support.

This year Art Morgan chose not to run for treasurer. Thanks to Art for his years of service in an extremely important and thankless job.

I'm sure that we can count on his invaluable advice and support in the transition of the duties of the treasurer and beyond.

Thanks also to Dick Beery, Art Morgan and Jim Peterson for serving as the nominating committee for the preceeding elections.

I thought I would also give you an update on the BBS. As many of you know the BBS equipment was donated to the club by Mr. Zettler. This necessitated a change in the location and the phone number of the BBS. The new number is: 614-263-3412). The Spirit of #'99 TIBBS runs at 300/1200 baud. The BBS equipment is located at my house, so Dick Beery and I have traded rolls. I am SYSOP and Dick is assistant SYSOP.

I have made several changes to the board. Here is a partial list.

If you leave a program description after uploading a program, or leave a private message to me at sign-off you now have full editing capability.

If a line in a message is over 40 characters in length, the line will be shortened to the last space before the 41st character. Before, the line was truncated to the 40th character whether or not that character was in the middle of a word.

There is now an alphabetical list of users, that is available with the "L" command. WHEN A NEW USER SIGNS ON his or her name is automatically added to the list after logoff.

Press "T" if you wish to check or change your phone number.

If you leave a message to an individual you may check the spelling of the name. If the spelling is incorrect and the message is private, the user will not receive it.

IF YOU PRESS ENTER AT "to whom" the default is "Everyone". IF THE "NAME" does not contain a space you will skip the spelling check and the private option.

As many of you know I am blind. That makes some work on the TI difficult and some nearly impossible. Because of the size of the BBS program, I cannot run TEXT-TO-SPEECH concurrently. That made it necessary to eliminate CHAT mode. CALL SAY is just too slow. It might take several minutes to read a message one letter at a time. The other alternative is to add an external speech synthesizer to the RS232 port. This is practical but somewhat expensive. I hope to experiment with an external synthesizer sometime in the future.

If you download a D/V 80 file from X-MODEM downloads you now have the choice to read it or download it.

Incidentally, thanks to Jim
Peterson for the spelling check
routine. It is a binary search routine
which will be included in NUTS&BOLTS 3.

This would be an appropriate time to say thanks to Dick Beery, Chuck Grimes, Jim Peterson and Bud Wright for their help in testing and making changes in the BBS program. It has been quite a challenge to run and modify the BBS program. I have deleted several items included for the convenience of the SYSOP but not accessible to me without speech. I have made several options accessible to the SYSOP on-line (cataloging disks, reading

files) etc. I find it easier to do much work on-line rather than directly from the BBS console.

I have written some EX-BASIC programs with speech to update the user file as well as some other functions.

The comments and suggestions of other users have been of great help. Such support makes all of the work worthwhile.

I would also like to thank Bud Wright and Curt Borders for their recent help when the Micro-Expansion disk controller quit working.

It turned out that the TMS9901 chip went out and the power supply was putting out 4.6 volts instead of 5 volts. Curt donated the TMS9901 and Bud donated the voltage regulator, his time and expertise to the club in repairing the Micro-Expansion system.

During that time the BBS was running on my system so I could not access several functions easily. Dick Beery effectively took over as SYSOP during that time. Thanks Dick for your help.

See you next month.

X X BBBB X X BBBB X X B B X X BBBB # 1 to 4

By Jim Swedlow

(This article is a summary of four XB columns that originally appeared in the User Group of Orange County, California ROM)

IF THEN

The incompatibility between FOR NEXT and IF THEN statments can cause your program to be awkard. The MAX and MIN statements will often work. For example, instead of this:

IF AK6 THEN A=6

Trys

A=MAX (A, 6)

TOO MANY GO TO'S

I was looking at a text only adventure game and found the following code:

370 FOR B=1 TO 58 :: IF A(B)=L THEN C=C+1 :: GOTO 372

371 NEXT B :: GOTO 374

372 IF C=1 then PRINT "You See:"

373 PRINT A\$(B) ::

374 ! Program Continues

Note that in line 370 the program leaves the loop to print the message and then returns. Then it skips over the print instructions to continue.

This is simpler:

370 FOR B=1 TO 58 ::

IF A(B)=L THEN C=C+1 ::

IF C=1 THEN PRINT "You See:":A\$(B)

ELSE PRINT A\$(B)

371 NEXT B ! Program Continues

This saves 25 bytes of memory

MORE IF THEN

Suppose that C\$ can be only "Y" or "N" and that you want to write a routine to change C\$ without knowing its current value.

You might do this:

100 IF CS="Y" THEN CS="N" ELSE CS="Y"

You don't need to use IF THEN:

100 C##CHR#(167-A8C(C#))

Enjoy.



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For descriptions of these send a dollar for my catalog!

Another 62 programs, # I'm going to mail out the July and August Tips at the end of June, and go fishing. Imagine, a TI publication AHEAD of schedule! However, in the unlikely event that anyone should send se an usual one-day service.

> Here's another tune for the dulcimer player in the last Tips. Change the TO value to 94 -350 DATA 9, 11, 13, 13, 13, 13, 13

,16,16,13,13,11,11,11,11,11,11, 360 DATA 16,18,14,21,18,18,1 6, 13, 9, 11, 9, 9, 9, 9, 9 370 DATA 21,20,18,18,16,13,1 6, 16, 9, 11, 13, 11, 13, 14, 13, 13 380 DATA 21,20,18,18,16,13,1 6, 16, 9, 13, 11, 9, 8, 6, 4, 4 390 DATA 9,11,13,13,13,13,13 ,16,16,13,13,11,11,11,11,11 400 DATA 16,18,14,21,18,18,1

6,13,9,11,9,9,9,9,9 Here's one for those who like graphics, and those who make a living designing floor tiles. It borrows a bit from a Renko & Edwards prograe -100 CALL CLEAR :: F=2 :: BC= 16 :: RANDOMIZE :: DISPLAY A T(2,10): "ESCHER ART": : TAB(1 4): "by": :TAB(9): "Jim Peters on* 110 DISPLAY AT(12,3): "Press R to change colors":" C for new colors": :" Any key to start" 120 CALL KEY(0,K,S):: IF S=0 THEN 120 ELSE CALL CLEAR 130 DATA 8080808080808080FF0 000000000000001010101010101010 100000000000000FF 140 DATA 2020202020202020000 OFF0000000000040404040404040 40000000000FF0000 150 DATA 1010101010101010000 000FF00000000080808080808080808 00000000FF000000 160 DATA COCOCOCOCOCOCOCFFF F000000000000030303030303030 300000000000FFFF 170 DATA FOFOFOFOFOFOFFF FFFFF000000000F0F0F0F0F0F0F0 F00000000FFFFFFF

180 DATA 8040201008040201010

2040810204080804020100804020

190 DATA 101020C0000000000808

040300000000000000003040808

200 DATA FFFEFCF8F0E0C0B0FF7

F3F1F0F0703010103070F1F3F7FF

210 DATA FOFOFOFOOOOOOOOFO

F0F0F000000000000000000F0F0F0

220 DATA 80C0A090888482FFFF8

2848890A0C080FF4121110905030

10102040810204080

000000000C0201010

FB0C0E0F0F8FCFEFF

F00000000F0F0F0F0

101030509112141FF 230 DATA 8142241818244281814 2241818244281814224181824428 18142241818244281 240 DATA 08080808FF080808101 01010FF101010101010FF1010101 0080808FF08080808 250 DATA AA55AA55AA55A555A A55AA55AA55AAA55AA55AA5 555AA55AA55AA55AA 260 DATA FOFOFOFOFOFOFOFO FOFOFOFOFOFOFOFOFOFO FOFOFOFOFOFOFO 270 CALL CHAR(84, RPT\$(*0*, 64)):: FOR CH=88 TO 140 STEP 4 :: READ CH# :: CALL CHAR(CH .CH\$) II NEXT CH II CALL SCRE EN(5) 280 A=INT(61RND+3):: H=INT(2 4/A):: HC=INT(28/A):: W=ABS(HC/2=INT(HC/2)):: DIM H(8,8) :: FOR P=1 TO A 290 D(P)=INT(15#RND+21)#4 300 NEXT P :: 60SUB 370 310 CALL KEY(3,K,ST):: IF K< >81 THEN 330 320 CALL SOUND (50,500,5):: F OR J=1 TO 4 :: FOR JJ=1 TO A :: M\$(J,JJ)="" :: NEXT JJ : : NEXT J :: 5010 280 330 IF K(>67 THEN 360 :: F=1 NT(158RND+2) 340 BC=INT(15\$RND+2):: IF BC =F THEN 340 350 FOR S=7 TO 14 :: CALL CO LOR(S,F,BC):: NEXT S :: 6010 310 360 IF K(>ASC("R") THEN 310: : T=F :: F=BC :: BC=T :: 60T 0 350 370 ON A-2 GOSUB 380,390,400 ,410,420,430 :: 60TO 520 380 RESTORE 440 :: RETURN 390 RESTORE 450 :: RETURN 400 RESTORE 460 :: RETURN 410 RESTORE 470 :: RETURN 420 RESTORE 480 :: RETURN 430 RESTORE 500 :: RETURN 440 DATA 1,2,1,2,3,2,3,1,3 450 DATA 1,2,2,1,2,3,3,2,3,4 ,4,3,4,1,1,4 460 DATA 1,2,3,1,2,2,3,4,3,2 ,3,4,5,4,3,4,5,1,5,4,5,1,2,1 470 DATA 1,2,3,3,2,1,2,3,4,4 , 3, 2, 3, 4, 5, 5, 4, 3, 4, 5, 6, 6, 5, 4 ,5,6,1,1,6,5,6,1,2,2,1,6 4B0 DATA 1,2,3,4,3,2,1,2,3,4 ,5,4,3,2,3,4,5,6,5,4,3,4,5,6 ,7,6,5,4

490 DATA 5,6,7,1,7,6,5,6,7,1 ,2,1,7,6,7,1,2,3,2,1,7 500 DATA 1,2,3,4,4,3,2,1,2,3 , 4, 5, 5, 4, 3, 2, 3, 4, 5, 6, 6, 5, 4, 3 ,4,5,6,7,7,6,5,4 510 DATA 5,6,7,8,8,7,6,5,6,7 ,8,1,1,8,7,6,7,8,1,2,2,1,8,7 ,8,1,2,3,3,2,1,8 520 FOR J=1 TO A :: FOR JJ=1 TO A :: READ M(J, JJ):: NEXT JJ :: NEXT J 530 X=A+1 :: FOR J=1 TO A :: FOR JJ=1 TO A :: M\$(1,J)=M\$ (1, J) &CHR\$ (D(M(J, JJ))) 540 Ms(2,J)=Ms(2,J)&CHRs(D(M (JJ, X-J))+1)550 Ms (3, J) =Ms (3, J) &CHRs (D(M (X-J, X-JJ))+2)560 M\$ (4, J) =M\$ (4, J) &CHR\$ (D(M (X-JJ,J)+3)570 NEXT JJ :: NEXT J 580 CALL CLEAR :: FOR R=1 TO ASH STEP A :: FOR C=1 TO AS HC STEP A 590 CALL KEY(0,K,ST):: IF K= 81 THEN 320 600 V=V+1+(V=4) #4 :: FOR T=1 TO A :: DISPLAY AT (R-1+T,C) TRACE IT TRANSPORTED TO :: Y=V+H+(V=4) #4 :: NEXT R 610 RETURN

This routine will search a disk file for up to 10 keywords in one pass - more if you DIM K\$() - and you may elect to find all records which contain the keyword or only those which contain it in combination with one of 1 or more secondary keywords. 100 CALL CLEAR 110 Y=0 :: DISPLAY AT(3,5): TIGERCUB KEYSEARCH" :: DISPL AY AT(6,1): "Filename? DSK" : : ACCEPT AT(6,14)BEEP:F\$:: OPEN #1: DSK #F\$, INPUT 120 DISPLAY AT(8,1): "Output to": (1)Screen": (2)Printe r":" (3) Both" :: ACCEPT AT(8 ,11) VALIDATE (*123*) SIZE (1) BE EP:0 130 IF Q>1 THEN DISPLAY AT(1 3,1): "Printer name?" :: ACCE L: "TIGERCUB": : KEYWORD I PT AT(13,15):P\$:: OPEN #2:P 140 DISPLAY AT(15,1): "Search for":" (1)First match":" (2) All eatches* :: ACCEPT AT(1 5, 13) VALIDATE (*12*) SIZE (1) BE

EP:S 150 DISPLAY AT(12,1) ERASE AL L: Press ENTER when all key-": "words have been entered," 160 DISPLAY AT(17,1): *Press ENTER if none -* 170 Y=Y+1 :: DISPLAY AT(15,1): "Keyword? "; CHR\$(127):: AC CEPT AT (15, 10) SIZE (-28) BEEP: K\$(Y):: IF K\$(Y)=CHR\$(127)TH EN 190 180 W=W+1 :: DISPLAY AT(19,1): "With? "; CHR# (127):: ACCEP T AT(19,7)SIZE(-21)BEEP: W\$(Y , W) :: IF W\$(Y, W) = CHR\$(127) TH EN W=0 :: 60TO 170 ELSE 60TO 180 190 Y=Y-1 200 LINPUT #1:M\$ 210 FOR J=1 TO Y :: IF POS(M \$,K\$(J),1)*0 THEN 290 220 IF W\$(J,1)=CHR\$(127)THEN 250 230 W=W+1 :: IF W\$(J,W)=CHR\$ (127) THEN W=0 :: 60T0 290 240 IF POS(M\$, W\$(J, W), 1)=0 T 210 60TO 130 HEN 230 250 IF @>1 THEN PRINT #2: M\$ 260 IF B()2 THEN PRINT MS 270 IF S=1 THEN 310 280 IF W\$(J.W)<>CHR\$(127) THE N 230 290 NEXT J 300 IF EOF(1)(>1 THEN 200 310 CLOSE #1 :: DISPLAY AT(2 4,1): FINISHED - PRESS ANY K EY* :: CALL SOUND (200, 500, 5) 320 CALL KEY(0, K, ST):: IF ST =0 THEN 320 ELSE CALL CLEAR :: 60TO 110

You can set up a keyfile in TI-Writer - just remember that each 80-character line is a separate record, and keep the Alpha Lock down!

However, this is the program that I plan to use to set up a keyfile index of all the newsletters you have sent me, if I ever find the time -

NDEX WRITER" !by Jim Peterso

110 DISPLAY AT(8,1): Filenam #? DSK" :: ACCEPT AT(8,14):F \$:: OPEN #1: DSK ##F\$, APPEND :: CALL KEY(3,K,S)

120 P\$="##### :: Y=00 :: M\$ ="##" :: P=00 130 DISPLAY AT (12, 1): "NEWSLE TTER? ":P\$:: ACCEPT AT(13,1) SIZE (-28) : P\$ t: IF SEG\$ (P\$, 1,3) = "END" THEN CLOSE #1 :: STOP 140 DISPLAY AT(14,1): "YEAR?" ;Y :: ACCEPT AT (14,7) VALIDAT E(DIGIT)SIZE(-4):Y 150 DISPLAY AT (14, 13): "HONTH ? "### 1: ACCEPT AT(14,20)SI ZE(-9);M\$ 160 DISPLAY AT(16,1): "PASE?" IP :: ACCEPT AT(16,7) VALIDAT E(DIGIT)SIZE(-3):P 170 DISPLAY AT(18,1): ARTICL E? " :: ACCEPT AT(19,1):A\$ 180 DISPLAY AT (20,1): AUTHOR ?" :: ACCEPT AT(21,1):AU\$ 190 DISPLAY AT(22,1): "KEYWOR DS?" :: ACCEPT AT(23,1):K\$ 200 PRINT #1:P\$&" "&STR\$(Y)& " "EMSE" "ESTRS(P)&" "&ASE" "&AU\$&" *&K\$

Here's one to have fun with, from an ingenious Serman programmer. I just couldn't resist adding a tuba to his band. 100 'BY TORSTEN NIEWIETZ, MA RBACHER WEG 3, D-2800 BREMEN 1, WEST GERMANY 110 FOR J=1 TO 10 :: READ T(120 NEXT J :: E=330 :: A=440 :: H=494 :: C=554 :: K=659 :: F=740 :: 6≠831 130 DISPLAY AT (3,8) ERASE ALL :"S - 0 - L - 0": :TAB (10); "MIT GOMPAH": :RPT\$("=" ,28): : : BY": TORSTEN NIEM IETZ": :"eit Oompah by Tiger cub* 140 DISPLAY AT(18,1): "MAKE U P YOUR SOLO WITH": "KEYS 1 TO 9 ... COME ON !!!* 150 FOR S=1 TO 2 :: CALL SOU ND(200, E, 3, H, 3): CALL SOUND (200, E, 3, H, 3)100 DISPLAY AT (3,10) ERASE AL 160 CALL SOUND (200, E, 3, C, 3); : CALL SOUND (200, E, 3, H, 3):: NEXT S 170 M=E :: N=H :: D=C :: D=8 :: GOSUB 210 :: M=A :: N=K :: O=F :: D=4 :: 60SUB 210 : : M=E :: N=H :: 0=C :: 60SU8 210 :: M=H :: N=F :: 0=6 ::

D*2 180 60SUB 210 :: M=A :: N=K :: 0=F :: 60SUB 210 :: M=E : : N=H :: 0=C :: 60SUB 210 :: M=H 1: N=F :: 0=6 :: 60SUB 210 190 FOR X=10 TO 3 STEP -1 :: CALL SOUND (200, E, 3, H, 3, T(X) ,0} 200 NEXT X :: CALL SOUND (800 ,E,3,H,3,K,0):: 60TQ 150 210 FOR X=1 TO D :: FOR Y=1 TO 2 1: 60SUB 280 220 CALL SOUND (200, M, 3, N, 3, T (R-48-(R=48)) 1.9375,30,-4,0) 230 NEXT Y :: 60SUB 280 240 CALL SOUND (200, h, 3, 0, 3, T (R-48-(R=48))1.9375,30,-4,0) :: GOSUB 280 250 CALL SOUND (200, M, 3, N, 3, T (R-48-(R=48))1.9375,30,-4,0) 260 NEXT X :: RETURN 270 DATA 587,650,784,880,988 ,1175,1319,1568,1760,44733 280 CALL KEY(0,R,S):: IF S() 0 AND R>48 AND R(58 THEN RET URN ELSE R=57 :: RETURN

1 !ONE-LINER universal calen dar for day of week of any d ate since 1905 - by Dennis H odgson in Sydney News Digest 2 linput day, month, year as for instance 30,4,1986 100 A=1 :: IMPUT D, M, Y :: F0 R T=A TO M-A :: H=H+29+VAL(S EG\$("20212122121",T,A)):: NE XT T :: J=H+(Y/4<>INT(Y/4)AN D M>2)+INT((Y-A) #365.25)+D : : PRINT SEGS ("SASUMOTUMETHER ",(J-INT(J/7)\$7)\$2+A,2):: RU

Yes, there are legitimate uses for GRAM copiers and track copiers and such but there is no way to get these utilities into the hands of the few who will only use them honestly, without also getting them into the hands of the many who will use them as burglar tools. And so, a few more nails are driven into the coffin...

MEMORY FULL

Jim Peterson

Listed below is a sample of a spreadsheet that computes the joint tax on 1986 rates for both Federal & Ohio State income tax. To begin, you insert in R2C2 the amount withheld by Federal Government, the amount listed on your form #1099 that you will receive on February 1st. Insert in the next two rows below, the state and county withholdings. Next, select the larger of your incomes and fill the correct amounts in Column #3: use Column #4 for the smaller of the two family incomes. Notice that if you are Self-employed, filing a Schedule C in Tax Line #12, the tax for this is computed in R39C4 (TaxLine#51). This amount is be added to R36C4 (Total Federal Tax) and printed in R41C5, R8C2 and R17C7. This template has been designed for joint AGI from \$21,801 to \$32,270; the amount appearing in R36C4. If your AGI is between \$32,271 and \$49,420, use the amount in R37C4 or if your joint income is between \$49,421 and \$92,370, use R38C4. These three cells use the new tax rates as on page 43 of 1986 Form 1040 instructions. Revise "fedtaxtopay" R41C5 to read: R37C4 + R39C4 or R38C4 + R39C4.

If you are filing as a single taxpayer (Schedule X), a head of household (Schedule Z) or married filing separate returns, you must call me for rate modifications.

Your Ohio State Income Tax is simultaneously computed at R67 through R73 in Column #5. You must insert the correct number of dependents times \$650 in R68C4 as well as in Row 34 for Federal Exemptions (\$1,080 each). The amount of STateTAXTOPAY will appear in R73C4, R9C2 and R21C7.

The summary of this computation of Federal & Ohio State income taxes will appear in two windows:

The first appears in Column #2 Rows 2 through 9, to the left of the Named Cells description. Control #1 returns you to RIC1 where this is shown.

The second appears in Columns 6 & 7 Rows 15 through 25. When you are sculpturing your income and deductions, this lets you watch the changes as you recalculate your latest data inputs. Before recalculation, have Columns #4 through #7 on your screen beginning with Row #12 or #14.

This feature tells you if you have a Refund coming when minus (-) signs appear in Rows #20 / #22 Column #7.

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PAGE 8

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66 67 L3 68 L4 69 L6 70 L7 71 L12 72 L13 73	OHIO TAXABLE INCOME OHIO EXEMPTION @650EA. OHIO TAXABLE INCOME TAX BEFORE CREDITS JOINT FILING CREDIT OHIO 85 INCOME TAX OHIO TAX WITHHELD			33824.00 1300.00 32524.00 1155.48 173.32 982.16 1234.00 -251.84		

IMPORTANT! Bring your friends to the meeting in March, and for the rest of the year. We need them, and can help them and learn from them.

Beginning with the March meeting, we will offer:

BEGINNERS/CASSETTE interest session.Get the computer off the shelf and learn how to set up and operate it, how to load and save cassette files and programs, and see the great variety of cassette programs that are available from our club library (free), and from other sources. This group will be led by Sonny Grubb, a young experienced program

MEETING AGENDA SATURDAY MARCH 14, 1987



9-9:50AM BEGINNERS/CASSETTE GROUP SATURDAY 10-11:10AM BUSINESS MEETING PROGRAM

11:15AM-NOON MUSIC AND EX- BAS.

mer with wide experience in cassette access and programming. For ages eight to eighty. Bring your cassettes and questions, or just come to observe and listen.

CURRENT MEMBERS: Find people who can/should benefit from this group and bring them with you. Adoption of "Orphans" begins with each of us!

A second new offering at meetings will be:

PROGRAMMING MUSIC (and other interests in Extended Basic). Led by the renowned Jim Peterson, this group will look at, and discuss programming techniques for, many different approaches to MUSIC programming, as well as general programming concerns in Extended Basic.

GIVE A GIFT!

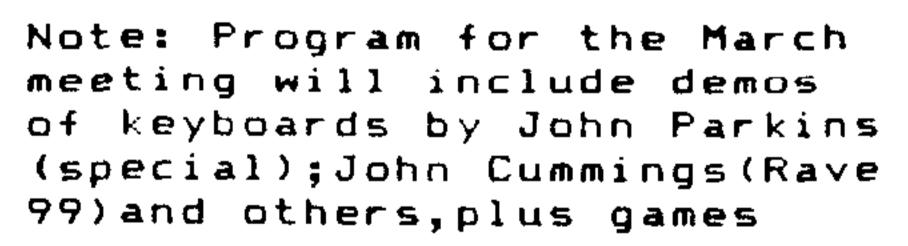
Pat Saturn has suggested that in order to interest others in joining our Group, each member be entitled to send one "gift Newsletter" to a prospective member as an incentive to join. A note could be included saying that this Newsletter is being sent compliments of _____, and if they are interested in joining please contact the member. Be sure to include your return address.

It sounds like a good idea! Why don't each of you try to think of a prospective member and try it?

Opinions expressed in this Newsletter are not necessarily those of the editor, staff, or members at large.

NOTICE

HERE'S WHAT'S COMING UP!



demos by Dave Rogers. Later meetings may include:flea market(buy-sell-swap);Data-base demos, and more. Watch for more details next issue.



LOOK FOR PAT'S COLUMN

A monthly column will be started by Pat Saturn beginning with this issue. We know he has so many worthwhile contributions to make, and we are very greatful for his participation. Thanks Pat!

FAGE 10

MAR. 1987

SPIRIT OF 99

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ELECTRONIC ADVENTURES



by Pat Saturn

This column will deal with building and understanding electronic gizmos that you can build for your computer with simple tools and available parts. Our first project will deal with sound. One of the ports on the back of your TI is the output for video and sound, located in the left rear of your computer.

The plug is a male five pin din with a locator notch. This plug has an arrangement of five wires which if you are using a TV set are connected to a video modulator. (the ugly box at the other end). You may have already done something about the so-so picture that this arrangement produces by buying a monitor, if so then please goto the next article because this one will more than likely bore you.

Now for those of you who are still reading...

About those five wires. First there is a small thin wire covered with an opaque white plastic insulator, wrapped with a braided wire shield, again covered with an opaque white insulator, (usually nylon). This is the wire that carries the video, modulated VHF signals and the ground. The yellow wire is direct audio, the black is ground and, the red wire is B+. You need not concern yourself with the last wire for it will serve no useful purpose in our adventure.

Now you may not be aware of a 12 inch green screen monitor available from Zettlers for \$99.99, But...it has no sound. Not to worry, this adventure is going to deal with just that... Let's assume you have a monitor with no sound, or you just want sound in your console like the other computers...

The circuit shown below will do just that. It is a 7 watt amplifier made with radio shack parts for less than \$25.00 (my kind of price). The amp uses a single IC to produce up to 7 watts of output with less than 250mv of input. The unit is designed to run on 11 to 14 VDC. The supply should a relatively well filtered source of DC capable of one amp of current. (Next months article).

Some tips before you begin...when you mount the caps and resistors place them against the PC board. Do not leave them hanging in the air. It is recommended that you use a small soldering iron, (25 watts or less). Keep the tip clean by wiping the tip on a damp sponge or cloth. Use small diameter solder (.035 or smaller). Use a good grade of solder (Kester 60/40). READ EACH STEP COMPLETELY THROUGH BEFORE DOING IT !!! The electrolytic caps are marked with a polarity either with a plus or minus sign. Install them so that the polarity is correct as shown in the parts overlay. (fig #1) ALL COMPONENTS ARE INSTALLED ON THE TOP (NON-FOIL) SIDE OF THE PC BOARD. The overlay below is looking down on top of the board with an x-ray view of the bottom, (foil side).

ASSEMBLY INSTRUCTIONS

1. Locate the TA7205 Audio IC. Note the location of pin 1 as illustrated in the drawing. Install the IC in the PC board up to where the pins get wider. Make sure the pins are located in the correct holes per fig 2. Pin #1 is marked with a small dot on the chip. Carefully solder pins #1 & #2, then solder the remaining pins. Your solder joints should go completely around the pins to form a small cone, and should be shiney, (not grey or blob like). Bad solder joints will cause problems later. 2. Install the five disc capacitors being careful to put the proper value in each location, (see fig #2). Keep in mind that often the parts themselves are labeled . differently than the package, so save the package until you are finished. Solder each cap as it is installed and clip the excess leads. 3. The electrolytic capacitors should now be installed, (see fig 2.), making sure the polarities are correct. Electrolytic capacitors are tubular in shape and have either a plus or a minus sign on them to show polarity. The working voltage on electrolytics is simply a DO NOT EXCEED rating and has nothing to do with operating characteristics, thus a cap will work as long as the microfarad value is correct and the voltage rating exceeds the maximum circuit voltage. Solder each cap as it is installed and clip the excess leads. 4. Insert the vertical mount potentiometer in the triangle hole pattern and push it so the pins stick completely through the board. Solder, DO NOT CLIP. 5. Insert the resister in the location shown. Solder and clip. 6. Strip about 1/8" from a piece of red #22 or #24 stranded wire. Do the same with a piece of black, make both pieces approximately 8" long. Solder these two wires to the POS & NEG positions on the PC board. Strip a 6" piece of shielded cable on both ends and solder them to the two speaker pads & the other ends to a speaker. Remember to observe polarity. (the center wire to POS and the shield to ground). 7. before applying power, check the PC board for solder joints or solder shorts. make sure all components in their proper location and the polarities on the electrolytic capacitors are correct. 8. Connect a 4 OHM speaker or two 8 OHM speakers in parallel, (4 OHMS TOTAL). A 4 OHM speaker puts out more power than an 8 OHM unit. 9. The IC has a heat tab, however if the unit is used at maximum ratings for extended periods of time the IC will get too hot. Cut a 1" \times 2" piece of .032 to .060 aluminium or copper and mount it to the existing tab on the IC to provide additional heatsinking.

CONTINUED

- Fig #1 OVERLAY PARTS LOCATION W/X-RAY VIEW OF CIRCUIT ON BOTTOM
- fig #2 PARTS LOCATION ON -PC BOARD SHOWING POLARITY OF COMPUNENTS
- fig #3. SCHEMATIC OF AUDIO AMPLIFIER CIRCUIT
- #4. SUGGESTED POWER SUPPLY EXAMPLE SCHEMATIC (WE WILL BUILD THIS ONE NEXT MONTH)

PARTS	LIST
PART : QUAN : VALUE/DESC.	RADIO SHACK FART NO.
C 1 : 1 1000 MFD@35V ELEC	
C 2 1 470 MFD@35V ELEC	1 272-1030 / \$.99
1 C 3 1 22Ø MFD@16V ELEC	1 272-1029 / \$.79
1 C4&8 3 47 PF@5ØWV DISC	1 272-121 / \$.39 ;
NTYT&11 / 2 .05 MFD@50V DISC	1 272-134 / \$.49
1 C6 1 47 PF@50V DISC	1 272-121 / \$.39
: C 10 : 2 : 47 MFD035V ELEC	1 272-1027 / \$.69 ;
C7 1 4.7 MFD035V ELEC	1 272-1024 / \$.49 ;
R 1	271-Ø11 / \$.19
R 2	1 271-336 / \$.49
"我们们我们们为你让我们就就是我们的这样还是有什么的。"	

WARNING

- 1. BEWARE: The author suggests that you do not attempt this project yourself if you are not familiar with electronic circuit boards. You will be working with high voltage which may be dangerous. Get someone familiar with this if you wish to make it!
- 2. Please understand that neither the author nor the editor can be held responsible for mishaps, damages, or injuries incurred while attempting this project.
- 3. The drawings are not to scale but will be correct if shot to 93% on a copier.
- 4. If you want the actual size circuit print free, contact Pat, and he will get it for you.
- 5. You may buy this P.C. board from Pat. There must, however, be a minimum order of 10. The exact cost is not known, but they will be under \$10.00 each. To order, write Pat at: 1456 Granview Ave., Columbus, Ohio 43212.

TI EQUIPMENT

Need TI equipment? Pat Saturn sells almost anything you need. Contact him at Zettler Hardware, at the meetings, or at 1456 Granview Ave., Columbus, Ohio 43212.

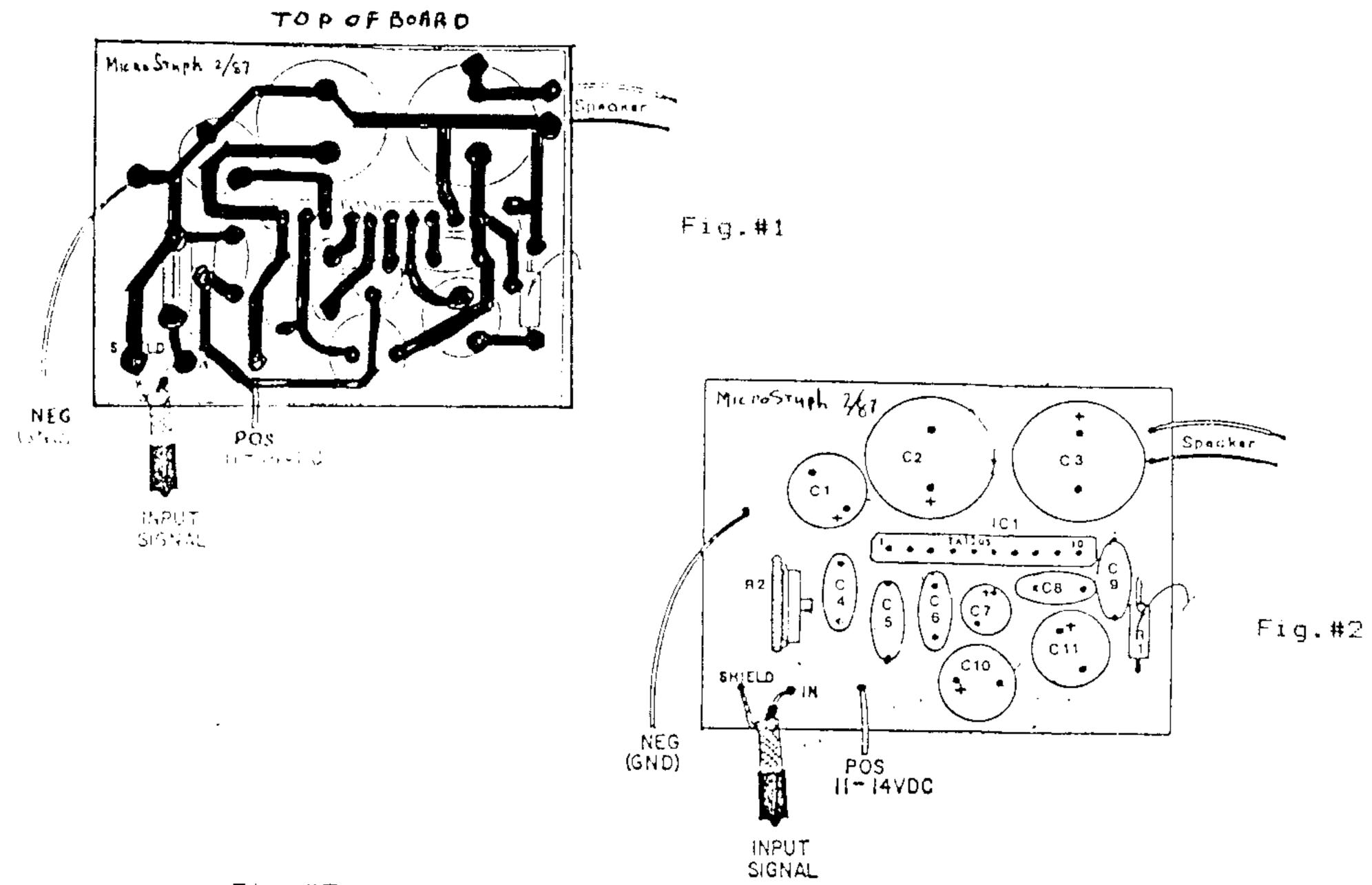
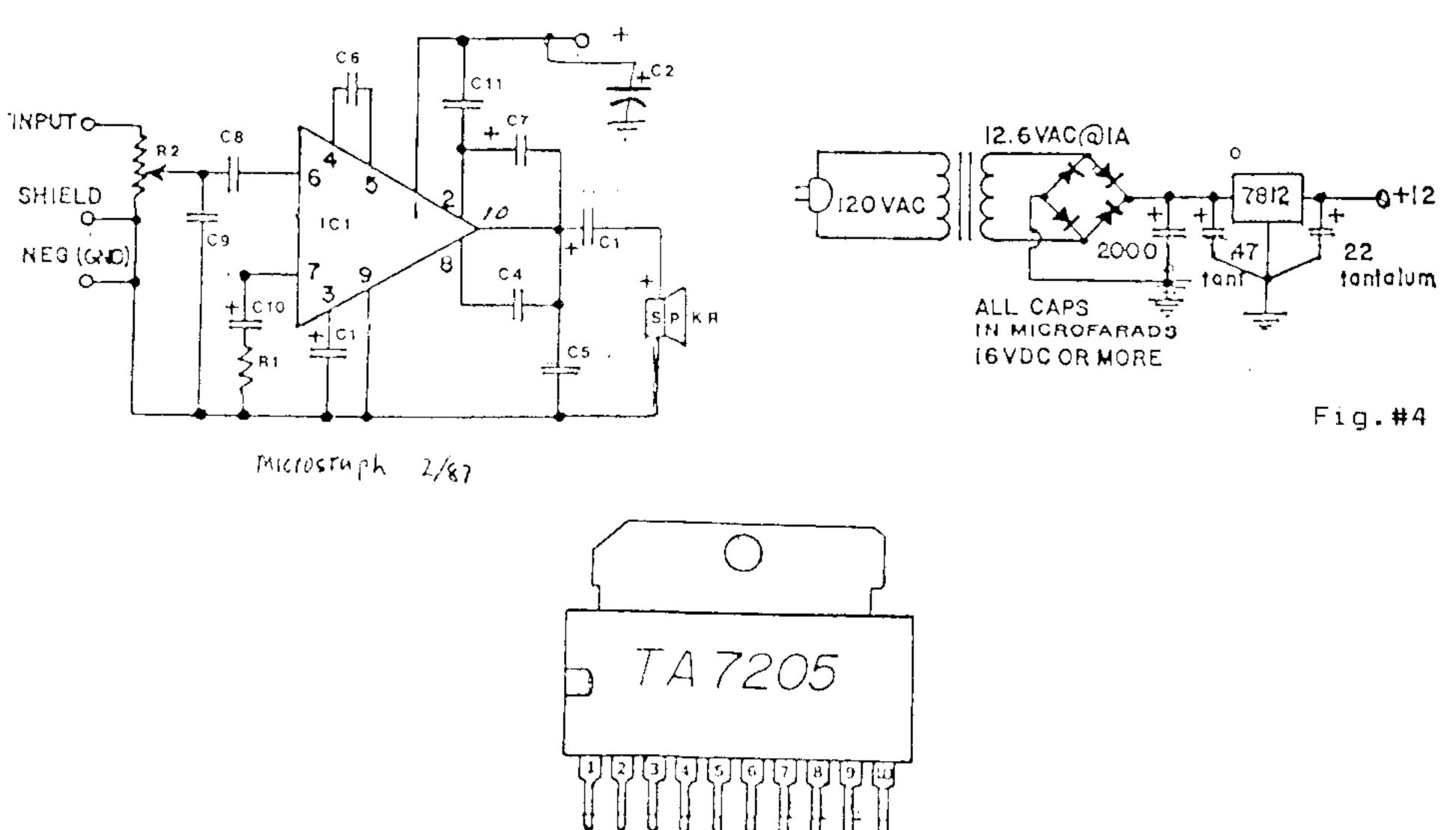


Fig.#3

• i



LETTERS TO THE EDITOR



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Dear Editor.

II newsletters throughout the world have been having some difficulties lately: loss of revenues because of rapidly falling memberships; decrease in the number of people helping with the newsletter; more space than whiters filling the space.

I hope I may be able to provide some assistance. If you would like I will mail you my monthly TI column, IMPACT-99! This is a column by, about, and for TI owners. It is a monthly essay which previews and reviews software, textware, and hardware and discusses the things which are happening in the TI/99's world community. Oftentimes graphics and sample programs are included.

My only interest is in sharing my love for this machine. It has come to symbolize a triumph over incredible odds, and I enjoy being a part of this successful struggle (as I'm sure you do).

Enclosed are two articles (the first about Jim Peterson, the second about graphic design — the first of four articles). If you like them and would like to publish them as a regular part of your newsletter please drop me a line. I will continue to mail you my column regularly. I will send two or three each time about a month before publication date. This will allow you to plan your paste-ups way in advance. The articles will always be two pages (with a third-page option of graphics, examples, programs, or related comments) usually available).

I <u>purchase</u> all of the items I review, so there can be no complaints about favoritism. And, though I have written lots of PD and Fairware programs. I have no commercial ventures to promote. The essays are simply essays about the 99.

I have written Tl and other computer articles for the past four years for educational journals and newsletters, but I write fiction and poetry mostly. I have one book published and have numerous magazine credits. I am a teacher, married, father of four grown-ups, computer freak, collector of old radio shows and jazz, short-wave listener, and games player. But I'm most of all a teacher and a writer; have been writing for newspapers and magazines most of my adult life and have taught almost as long.

The only thing I require is to be placed on your subscription list. For as long as I keep receiving your newsletter I will continue to provide this free (and hopefully good) service.

Please let me know soon.

(JACK SUGHRUE, BOX 459, E.DOUGLAS MA 01516)

PAGE 16 MAR. 1987 SPIRIT OF 99

Carole Parkins Editor Spirit of 99 2215 Bayfield Drive Columbus, Ohio 43229

March 1, 1987

Mr. Jack Sughrue Box 459 E. Douglas, Ma. 01516

Dear Mr. Sughrue,

Chuck Grimes gave me your letter and articles which I enjoyed very much. We appreciate your considering us for a monthly column. It sounds as though you will have many interesting things to tell us. You most definitely are now on our mailing list, and we look forward to your future articles.

Sincerely,

Carole Parkins Editor

> Jack E. Evans 1339 Pauline Ave. Columbus Ohio 43224

01-29-87

C.O.N.N.I. 2215 Bayfield Dr. Columbus Ohio 43229

Dear Sirs:

Here is a tip for using my 3-column disk cataloger-If you want to be able to put the list on the disk jacket, send your printer the code for condensed print. Add the code at line 245. If you have a Gemini printer you would add this line: 245 PRINT #2:CHR\$(15)

Thank You

Jack E. Evans Sr. 1339 Pauline Ave. Columbus Ohio 43224

SPIRIT OF 99

MAR. 1987

PAGE 17

TELLIGHTE, SIDERINE, and ELEMENTE.

Happenings in the Late World Edminanty

Light ANEX SUBHANCE

There's a grandfather in Ohio who bought his son a computer back in 1982. His son was in high school then and was planning on going into engineering. Neither father nor son knew anything about computers, but the TI-99/4a was purchased because they both liked the feel of the keyboard. The son went into journalism instead of engineering, and the father began to play with the machine. He perused the blue manual, experimented with the computer, liked the things he discovered, and became a computer addict.

Within the next four years the addict became an expert of world-wide fame within our special world of the 99. During that time Jim Peterson also known as Tigercub Software (156 Collingwood Ave., Columbus, DH 43213) — became the Columbus of this special world. He discovered more and explored more new TI territories than anyone else in the business (including the people at TI). And he shared these discoveries with us in monthly columns: TIPS FROM THE TIGERCUB. Those 41 columns were chock full of programs, tips, subroutines, reviews, recommendations, and items from his huge and dedicated following.

When TI died Jim Peterson did not. He stayed aboard what appeared to be a sinking ship, throwing us a life preserver before we all went down for the third time.

Though he teaches computer workshops, he never took one. I learned more about the TI from Jim Peterson than I did from the 60-plus books. I own on 99 computing.

Looking through my disk files a few minutes ago I discovered I have over 400 files from Tigercub Software, most included on five remarkable (there is no other word) disks: TIPS #1, 2, 3 and NUTS 'n BOLTS #1 and 2. The others are single programs I bought along the way: ANTONYMY, SYNDNYMY, HOMONYMY, HIEROGLYPHY, PLAIN OF JEWELS, DRUNKEN SAILOR, BAZOO, MECHANICAL APTITUDE TEST, GRAPHIC DESIGNER, SCRUM, SQUINCH, STUFF 'n NONSENSE, KID/STUFF, HANDYDANDY 1,2,3, HAUNTED GRAVEYARD and others with equally fascinating titles. There are lots of demos, music, utilities, games, puzzles, graphics: all original, all his.

I never purchased anything from Jim that I haven't been extremely satisfied with. Little by little I hope to buy his entire catalog. Then I can have the TIGERCUB LIBRARY to spend my cold winter nights with. And that's good company. Look at the titles above. Variety? Yes. But the big thing is the sense of humor. This genius seems to be filled with wonder and awe everytime he uncovers something new about our machine, and he shares these uncoverings in such unusual ways and with such a delightful sense of humor that one cannot help but be caught up in his enthusiasm. He does all this in the speech of the common human: not in techie robotics. He has never lowered himself to shunning the masses. He's one of those people I'd really like to meet someday.

Intrigued by these titles, you probably wonder. What's a Squinch. Scrum. Mechanical Aptitude Test. Synonymy, or Handydandy?

Well, a Squinch is a very peculiar word game for one or many players in which two words have been bizarrely intermingled into one. A timer may be activated as you try to separate the combinations. There are literally millions of possibilities. A Scrum is a very speedy puzzle where you attempt to change the colors on a 3X3 grid. The problem is that the adjacent square's color also changes. Over 500 puzzles in one.

PAGE 18 MAR. 1987 SPIRIT OF 99

Very challenging. The Mechanical Aptitude Test should be shot at dawn. A frustratingly wonderful puzzle requiring only the mental ability to join two geometric pieces together. (You have to see this to readily understand this.) Handydandies (1,2,3) are collections of about 75 programming routines you can read and LIST and use (and demonstrate). Excellent forerunner to the WONDERFUL disks of TIPS and NUTS 'n BOLTS. Synonymy (similar to Antonymy, etc.) is a game of synonyms. Excellent for adult fun and ideal for children's learning fun.

It would be easy and endless to describe all of Jim's neat little programs (including the rather whacked-out Drunken Sailor), but I wanted to save a little column space for his masterpieces.

There can be no question that NUTS 'n BOLTS (1 and 2) and TIPS (1, 2, 3) are masterpieces. (I just learned in this morning's mail that there is also a #4 TIPS. I learned this from reading Jim's 41st and final $TIPS\ FROM\ THE\ TIGERCUB$ column.) Every person I know who bought these 5disks (about 400 programs, files, subroutines, tutorials, etc., not counting TIPS 4) is astounded. If one opened up these packages today and did no work outside the home it would really take months to go through these items and use them. The files include such things as TIMEDEF. NUMBERSPK, POCKETKAL (for Kaleidoscope), BELLMUSIC, CHAMBORDER (for Chameleon), UPSIDEDOWN, SLASHZERO, SCREENGRID, INITCHECK, MOON, STACKGRAPH, QUICKCOLOR. On and on. Hundreds of programs subroutines. The subs are already in MERGE format ready to plug into any program and try them out. They are numbered so any subs may be used in the same program. A quickref-type manual sheet easy-to-follow directions with N 'n B. There are README files for docs. Aren't the titles tantalizing? So are the programs.

Jim Peterson is MR. 99 to most of us in the TI community. We have looked forward to reading his columns in newsletters from around the country: have admired his frankness and dedication and human humanness. Now that Jim is no longer doing his column for newsletters around the world, maybe he'll still put out some more great disks. As he said in his final column "I am NOT young out of business."

All of us in the TI community are going to miss his TIPS. Best of luck, Jim. Thanks to you our "Memories are Full," too.

Send Jim \$1.00 (deductable from first order) for complete Tigercub catalog.

3,2,1 IMPACT! until next time.

(Jack Sughrue, Box 459, E.Douglas MA 01516)

Ed. Note: These are our sentiments, too, Jack! Thank you for this great opening article.

I had a psychology professor who once said, "Genius finds a way!" Perhaps it does.

Interestingly, both Chuck Grimes and Dick Heim individually submitted this article for this issue. You couldn't have done better!

SPIRIT OF 99 MAR. 1987 PAGE 19

TIME SENSITIVE MATERIAL POSTMASTER - PLEASE DELIVER PROMPTLY Spirit of oc

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