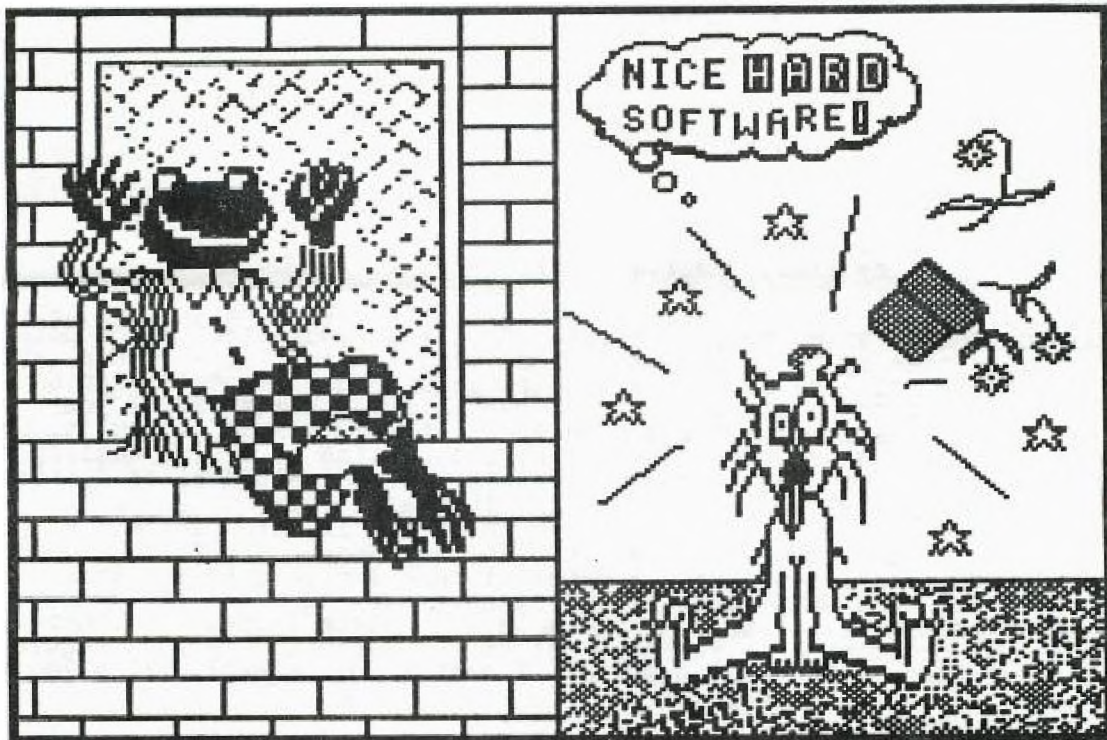




The Ottawa T.I.99/4A Users' Group



VOLUME 9 NUMBER 9 . . . November 1990



DONT'T FORGET THE MEETING -- November 6 1990
and remember to return your exchange newsletters...

P.O. BOX 2144, STATION D, OTTAWA
*** ONTARIO, CANADA K1P 5W3 ***

COMING EVENTS

November Meeting: 6 Nov 1990 Merivale High School
 7:30 PM

TI-BASE Workshop: TBP (check at Bill Sponchia's home.
 next club mtg No need to call if you were
 and on the BBS) at the first meeting, but
 if you are a newcomer, please
 let Bill know so he will have
 an idea of what to prepare for.

December Meeting: 4 Dec 1990 Merivale High School
 7:30 PM

January Meeting: 8 Jan 1991 Merivale High School
 7:30 PM

Newsletter Deadline: 15 Nov 1990 (16 Nov. if Uploaded to BBS!)

EDITOR'S NOTES

by Philip Harris

Well once again we're down to a slim edition of our Newsletter. In fact one could almost call this month's edition "Lucie's Newsletter" since both main articles are written by Lucie Dorais. There was in fact one other article offered by Bill Gard, and that will be published in next month's edition. You will also note that the front cover is in B&W this month instead of our usual colour. Why you ask? Well it's a sign of the times, simple economics. We're now looking at cutting out the colour front and turning to a high quality photo copying service as oppose to the present "printing" method of producing each issue. The drawbacks with printing are the initial "plate" cost when only 100 issues are printed and the need to work in 8, 12, 16, etc page sizes. Hence the reason Bill's (2 page) article was not included, since to do so would have required an additional two pages of material that I didn't have. In addition, it will be better this way, since I already have two pages for next month and need only a minimum of two more to make a complete issue. In other words, there is no use printing a 16 page Newsletter one month and then struggle for material next month. The photocopying (if just single sheet) will allow for a greater variety of page numbers.

Lucie's "Some Thoughts" article will touch on a familiar cord. One of the approaches discussed at the last Exec Mtg was that a number of us ardent Tiers are using IBM clone machines in our day-to-day work, while still keeping current with our TI's at home. The way the club wishes to approach the "Other Computers" issue, is to allow a special interest group to operate under the umbrella of the TIOUG. I myself use an IBM clone (80286) at work and since my introduction to it last year I've become quite familiar with it and learned some tricks about MS-DOS. I am continually helping others that are just learning to use DOS and popular software like Word Perfect to become more familiar and comfortable with the DOS environment. I can't stand to see someones CGA or VGA monitor with a C:> prompt and flashing cursor on a BW screen, but if you don't know how to write simple Batch Pgrms to display a Menu and invoke the screen colours, then that's all you'll have. So the intent of the special group is to integrate Tiers with IBM (or other computers) at the grass-roots level, and that way we will all benefit. Don't worry, as Lucie says there are still things that the TI does easier/better than an IBM.

SOME THOUGHTS...
by Lucie Dorais

As I write this, we did not have our October executive meeting yet, but I do know that one question will come up: should we open up to other computers or not? This question has been discussed at the executive level in the past, and each time we have decided a big NO, me above everyone else. But...

We are getting into a situation where the membership is dwindling down; one reason is that some members have switched to other computers, namely PCs. As a trial, we have opened an "Other Computers" section in the BBS, and it is very active. Good people, like LLoyd Galenzoski and Dan McCormick, are regulars. Part-time PC users like Jane Laflamme, Tom Bentley, Dick Piché, Bill Sponchia and me also add their grain of salt, for the benefit of all.

Of course I would like the TI Group to go on forever, but my three consoles are all sick or at least weak, and I have to face the fact that one day my TI will be gone... AND I CANNOT LIVE WITHOUT A COMPUTER IN MY LIFE! Can you? Aren't we all in the same boat?

Opening the Group to other computers does not mean we will drop the TI, but perhaps stress the links between both worlds. And they exist. There are programs to read a TI disk on a PC and copy text files, by Jerome Gobuyan; Genial Computerware's PC-TRANSFER does the opposite: you can copy text, Multiplan, and other types of files from a PC disk right into your TI; you can even download a TI file on a PC if you are temporarily stuck with only that computer. Some people, lucky enough to have both computers side by side, have been transferring files directly by an RS232 cable. And now Mr. Galenzoski has written an assembly program that allows TIWriter to load text files that were uploaded on the BBS from a PC (look for it in area 8 of our BBS, current version is called IBMTI;C).

Here are some of my experiences into both worlds. For some years now I have been working on a catalog to be published soon by the National Archives. My texts were all written at home, on my TI, since when we started the project my office had zero computers... When I finally got a PC at work, all I had to do was to copy the files on a PC diskette, using PC-TRANSFER, then put the finishing touches with Word Perfect. The files were then given to the typesetting people, and the texts that were born on our "humble" TI will be printed with nobody having to retype them.

Another example: Ron Wolcott, with his TIPS system, to which Terrence Murphy added some very fast utilities, has provided the TI world with thousands of pictures that were born on PCs. In fact, this month's cover uses two of them. I remember seeing that frog in the PC program PRINT SHOP, and I made a hard copy (at a friend's house), but I never had the courage to re-draw it on the TI. I am glad someone else provided the means for me to finally use it!

And in case you worry about my Extended Basic column, no need to: I had a PC laptop at home for the past two months. When I brought it in, I had great hopes of playing with GWBASIC, typing lots of programs. Well, I did my CALENDAR because I might need it at work, then a game that I found in a magazine, and that's it: it is so clumsy that I came back to our own XB with renewed love.

These are my thoughts on the subject. We need you as much as you need us, but we also need new, fresh blood. This Group has been kept alive because the people in it are great people. Those who left for other pastures were also great people, and we would like to see them back. Wouldn't it be nice to continue the relationship forever?

FA 5J FN FN FN FN FN BA 5J I
Lucie Dorais

This month, we continue our VISUAL PERCEPTION explorations with three more puzzles: which is the longest line? (a classic), Say the color (a sort of game) and another classic, What do you see?

Last month, we typed (???) the menu module, and the two subs that are used by all the program modules. In case you don't have this issue, and still want to play with this month's program modules, here are the two global subs:

```
1000 !AP+ ** global subs **
1010 DISPLAY AT(24,7):"PRESS ANY KEY..."
1020 CALL KEY(0,K,S) :: IF S=0 THEN 1020 ELSE RETURN
1030 SUB SCR(X) :: CALL CLEAR :: CALL SCREEN(X) :: SUBEND
```

WHICH IS THE LONGEST... displays two lines on the screen and asks you which is the longest. This is often reproduced in books, but with Tex we can actually demonstrate it: after you have entered your answer, the two lines will move closer to each other so you can study them better.

```
500 !
510 REM ** which is the longest? **
520 CALL SCR(11) :: AS=RPTS("a",16) :: BS=RPTS(" ",8)
530 CALL CHAR(97,"FF" 98,"0002040810204080" 99,"FF80402010080402",100,
"0040201008040201" 101,"FF01020408102040")
540 CALL CHAR(102,"0040201008040201" 103,"0001020408102040",104,
"0002040810204080" 105,"0080402010080402")
550 R=2 :: RR=20 :: C=2 :: CC=9 :: CALL COLOR(9,2,1,10,2,1) :: GOSUB 640
560 DISPLAY AT(10,6)BEEP:"WHICH IS THE LONGEST?" : BS&"1- LINE AT TOP":
BS&"2- LINE AT BOTTOM":BS&"3- NEITHER"
570 GOSUB 1020 :: IF K<49 OR K>51 THEN 570
580 FOR X=10 TO 14 :: DISPLAY AT(X,1):"" :: NEXT X
590 DISPLAY AT(R,1):"" :: DISPLAY AT(RR,1):""
600 R=R+2 :: RR=RR-2 :: C=C+1 :: CC=CC-1 :: GOSUB 640 :: IF C<6 THEN 590
610 DISPLAY AT(9,6):AS&"aa" :: IF K=51 THEN CS="RIGHT!" ELSE CS="WRONG!"
620 DISPLAY AT(19,12):CS: "BOTH ARE EXACTLY THE SAME LENGTH..." ::
GOSUB 1010 :: GOTO 140
630 ! sub
640 DISPLAY AT(R,C):TAB(C):"b"&BS&BS&"d":TAB(C):"c"&AS&"e"
650 DISPLAY AT(RR,CC):TAB(CC):"f"&BS&BS&" h":TAB(CC):"g"&AS&"aa" :: RETURN
```

To confuse the viewer, the two lines are "decorated" with endings, that we redefine in lines 530-540. We then define the starting rows for the top line, R, and the bottom line, RR; then their left column, C and CC. The lines will be black. We GOSUB 640 to display them on the screen, then Tex asks you the question. The GOSUB 1020 will get your answer.

The text is then erased (line 580) and the two lines start their movement towards the center: their present position at rows R and RR are first erased, then the top row is incremented by two while the bottom row is decremented by two; the columns are respectively incremented and decremented by one only, until the top line sits at column 6: this is where they stop. Since Tex kept your answer in memory (key pressed), he can tell you if you were right or wrong.. and give you the answer.

So you see there is no challenge for you in this puzzle, but there was some in programming it!

SAY THE COLOR... is more like a game; I saw it in a television program about psychology and found it more difficult that it sounded. The computer displays words that tell a color, but with a twist: the words themselves are written in various colors, and not necessarily in the color told by the word. The game is to try to tell the color the word is written with, NOT the color told by the word.

Since I wanted the words big but did not want to redefine a lot of characters, I settled for sprites: we will use the normal TI character definitions, but magnified twice, so they appear twice as big. Sprites have one default though: you cannot have more than four on the same line, otherwise one disappears.

Also, when you color or move them, this is done sequentially, so if you want quick action, you have to keep them low in number. Therefore my choice of three letters maximum for each color: RED, BLU 'blue\$, GRN 'green\$ and YEL 'yellow\$. Another choice was made concerning them: since the CALL SPRITE statement, with all its parameters, takes a long time to be interpreted and done, we call the four sprites only once, then we hide them below the bottom row of the screen when we don't need them; CALL LOCATE, in a sub, moves them around.

```

660 !
670 ! ** say the color **
680 CALL SCR(4) :: CALL MAGNIFY(2)
690 DISPLAY AT(1,9):"SAY THE COLOR..." : : "IN THIS EXERCISE, YOU WILL SEE
    THE FOLLOWING WORDS:"
700 DISPLAY AT(8,4):"RED  BLU  GRN  YEL" : : "TRY TO SAY THE COLOR USED
    TO WRITE THE WORD..."
710 DISPLAY AT(14,1):"BEFORE YOU READ THE WORD!" : : "SEEMS EASY?  JUST
    TRY..." : : "AND PRESS ANY KEY WHEN YOU HAVE ENOUGH!"
720 DATA 66,76,85,71,82,78,89,69,76,82,69,68,5,3,12,7
730 RESTORE 720 :: FOR X=1 TO 12 :: READ CC :: CALL SPRITE(#X,CC,1,193,1) ::
    NEXT X :: GOSUB 1010
740 RANDOMIZE :: CALL SCR(2) :: FOR X=1 TO 4 :: READ A(X) :: Y=X :: GOSUB 810
    :: NEXT X
750 CALL KEY(0,K,S) :: IF S=0 THEN 760 ELSE CALL DELSPRITE(ALL) :: CALL SCR(4)
    :: GOTO 770
760 X=INT(4*RND)+1 :: Y=INT(4*RND)+1 :: GOSUB 810 :: GOTO 750
770 DISPLAY AT(5,1):"SO, HOW WAS IT???" : : "IT IS NOT THAT EASY FOR THE BRAIN
    TO FORGET THE WORD AND CONCENTRATE ON THE COLOR..."
780 DISPLAY AT(13,1):"THIS IS BECAUSE YOUR BRAIN HAS GIVEN THE WORD BEFORE
    YOUR CONSCIOUS THOUGHT CAN RESPOND."
790 GOSUB 1010 :: GOTO 140
800 ! subs
810 CC=A(X) :: SC=3*Y-2 :: R=INT(176*RND)+1 :: C=INT(208*RND)+1 ::
    CALL COLOR(#SC,CC,#SC+1,CC,#SC+2,CC)
820 GOSUB 830 :: FOR D=1 TO 200 :: NEXT D :: R=193 :: GOSUB 830 :: RETURN
830 CALL LOCATE(#SC,R,C,#SC+1,R,C+16,#SC+2,R,C+32) :: RETURN

```

The DATA in line 720 is for the letter sprites: the numbers are the ASCII values of characters B, L, U, G, etc. Before we READ the data, we need to RESTORE Tex to the first one, just in case Tex had got lost in another module... Each letter is then CALLED as a SPRITE numbered 1 to 12, colored transparent, and hidden in pixelrow 193, which is below the screen's field of display (the screen has 24 x 8 = 192 pixelrows). This being done while you read the text displayed by lines 690-710, Tex now gosubs 1010 for the key press.

In line 720, there are four DATA values at the end that are not ASCII values: they are the four colors that we will use (5=blue, 3=green, 12=yellow, 7=red). The screen is made black in line 740 (a call to our user-def SUB) but you can try other colors that might look better on your monitor (mine does not like to be painted white at all...). These four colors are put into the array A(X). In the same loop, Y takes the value of X; in this game, Y is the variable used for the word that will be displayed, while X is the variable for the color it will be written with. To give your brain some exercise, while Tex fills A(X), it shows you the four words into their true color (RED in red, GRN in green).

Then the game starts... with a CALL KEY, because you can end it any time by pressing any key; if none is pressed (S=0), you go to the next line, where both the word Y and its color X are chosen randomly; of course they can sometimes correspond, but more often than not they don't.

The actual display of the colored words is done by the sub in lines 810-820. CC takes the COLOR value kept in the A(X) array; SC is the sprite number corresponding to the first sprite of each group of three, therefore Y determines the WORD displayed (if Y=2, SC will be 4, and sprites #4 to #6 correspond to characters 71-82-78, GRN; Y=3 is for YEL, etc). Pixelrow R and pixelcolumn C are also chosen randomly. Our three sprites, from SC to SC+2, are then colored by CC. The actual display of the sprites is done by the CALL LOCATE sub in line 830; since our sprites are magnified twice, the distance between each character is 16 pixelcolumns (two TI normal characters). The D delay in line 820 gives you a few seconds to read the word and tell its color (not its meaning!) before our sprites are sent back into hiding at row 193.

When you press a key to end the game (line 750), the sprites disappear, and you are sent to another screen display of text, then a key press to get back to the menu that we typed last month. If you want to play only with this part of the program, type in lines 670-830, plus lines 1000-1030 for the global subs, and replace the GOTO 140 by END in line 790.

The last puzzle is just a graphic display that you have to decipher.

```

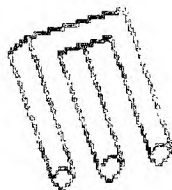
840 !
850 ! ** what do you see? **
860 CALL SCR(10) :: DISPLAY AT(1,7):"WHAT DO YOU SEE?": : : : " WHEN YOU
    PRESS A KEY,": " YOU WILL SEE A PICTURE."
870 DISPLAY AT(9,3):"LOOK AT IT FOR A WHILE.": : " WHEN YOU THINK YOU KNOW": "
    WHAT IT REPRESENTS,": : " PRESS A KEY AGAIN..."
880 GOSUB 1010 :: CALL SCR(2) :: CALL COLOR(9,2,2,10,2,2)
890 A$="0103070F" :: B$="FF7F3F1F" :: C$="1F3F7FFF" :: D$="0F070301" :: X=104
    :: GOSUB 990
900 A$="80C0E0F0" :: B$="FFFEFCF8" :: C$="F8FCFEFF" :: D$="F0E0C080" :: X=108
    :: GOSUB 990
910 CALL CHAR(97,"",99,"FFFFFFFFFFFFFFFF") :: B$=RPT$( " ",8)
920 DISPLAY AT(4,9):"laaaaaaaaaah":B$&"coaaaaaaaaak":B$&"claaaaaaaaah":
    B$&"cclaaaaaaaaah":B$&"ccmaaaaaai"
930 DISPLAY AT(9,9):"cclaaaaaaaaah":B$&"ccclaaaah":B$&"cccmaaaaai":
    B$&"ccclaaaah":B$&"cccnaaaaaj"
940 DISPLAY AT(14,9):"cccmaaaaai":B$&"ccclaaaah":B$&"cccmaaaaai":
    B$&"ccmaaaaaai":B$&"ccaaaaaaa":B$&"cmaaaaaaaaai":B$&"caaaaaaaa"
950 CALL COLOR(9,2,16,10,2,16) :: GOSUB 1020 :: CALL SCR(10)
960 DISPLAY AT(5,1):"IF YOU SAW...": : " A VASE,": : " OR TWO PROFILES,"
    : : "YOU ARE EQUALLY RIGHT..."
970 GOSUB 1010 :: GOTO 140
980 ! sub
990 CALL CHAR(X,A$&C$&B$&D$&B$&C$&A$&D$) :: RETURN

```

Since the graphic is built along simple lines, the characters all have a common look, so I simplified the character definitions process by splitting them into variables. Line 890 concerns characters 104-107 and line 900 characters 108-111. Doesn't it look better than two 64-char-long strings? All the sub in line 990 has to do is put the variables in the right order. More characters are defined in line 910, as well as a line made up of eight spaces.

Lines 920-940 display the graphic. Careful! All the characters are lower case letters, so it is an "l", not a "1" (one), that you need to type. When the display is done, the picture appears by magic when we color the characters (they were colored black on black in line 880). The GOSUB 1020 waits for you to press a key; when you do, you get the answer to the puzzle, another key press, and a return to the main menu (or you can END here is you type only this module).

And to fill the page, two more visual perception puzzles:



???



Half full or
half empty ?

HOTLINE NUMBERS

The executive has expressed a desire to assist all members should you have some problems or questions, want to do some library swapping or borrow a book. This will be the place to look. Listed here are the members of the executive, committee heads, and others in the group willing to help in their specialized areas. Of course, if you wish to be placed on the list, just give me a call. I know there is a lot of expertise within our Group, so I hope to add to this list. Please respect normal hours unless you specifically know that someone doesn't mind a call at 3a.m., or use the BBS to leave a message at 738-0617, 24 hours a day, 7 days a week.

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T5J 3L1



FROM

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