


SCREEN PRINT ROUTINE

for Extended Color BASIC
TRS-80 Color Computer

Radio Shack
TRS-80

MICRO COMPUTER SYSTEM

CUSTOM MANUFACTURED IN U.S.A. BY RADIO SHACK  A DIVISION OF TANDY CORPORATION

Introduction

The machine-language program on this cassette will allow you to get a "snap-shot" (e.g., printed copy) of a graphic display that's on your TRS-80 Color Computer's TV screen.

This program also executes an 8-bit printer driver, eliminating the need for you to switch your Printer back and forth between 7- and 8-bit. Once the program is loaded, just set your Printer to 8-bit and it will work fine.

To run this machine-language program, you'll need a:

- 16K TRS-80⁺ Color Computer with Extended Color BASIC
- Any Radio Shack Serial Printer that has graphic capabilities (the Line Printer VII for instance).
- Cassette Recorder (We recommend Radio Shack's CTR-80A.)

Loading the Screen Print Routine

To load the Screen Print program:

1. Put the Screen Print cassette tape into the Recorder and press the PLAY button. (First be sure the tape is completely rewound.)
2. Type CLEAR 200,15743 ENTER
3. Type CLOADM ENTER
4. When the program is loaded, type EXEC ENTER.

You can now run an Extended Color BASIC graphics program to generate a display.

Screen Printing

When the Screen Print routine is loaded and you're ready to copy the contents of the Graphics Screen onto the paper, follow these steps:

1. When the display has been created, press **BREAK**, returning to the Text Screen.
2. Press **SHIFT** **↓**.

The Printer will then begin printing. If you're in a green/black color set, for instance, whatever is green on your Screen will be printed (except the border) and whatever is black will not be printed.

Note: Once the Routine is loaded into memory, you cannot exit the Insert mode (for Editing) using the key-combination of **SHIFT** **↓**. If you attempt to do so, you will execute the Screen Print Routine instead.

Reverse Printing

This program also allows you to have "reverse" printing which is similar to the negative of a photograph where all "white" images are "black" and vice versa. With the Color Computer, however, whatever is green on the screen will not be printed while whatever is black will be (assuming, of course, you are in a green black color set).

To use the Reverse Print feature, type `POKE 16303,255` ENTER.

To return to "normal" Screen Printing, just type `POKE 16303,0` ENTER.

Using the Routine Inside a Program

You can also use the Screen Print Routine inside a program once you define the routine at a specified address (with DEFUSR). Then just call up the function whenever you need it (with USR η). This, in effect, allows the Computer to internally press **SHIFT** **↓**.

By using the Screen Print Routine in this way, you can create several screen prints without stopping program execution to press **SHIFT** **↓** after each display.

You can also create displays on different Graphic Screens and have the contents of each screen printed-out.

To use this additional feature, define the function in a program line by typing `DEFUSRØ = 15785`. Then call it up later in a program line by typing `Y = USR (Ø)`.

Sample Programs

The following Extended Color BASIC program generates a solid green circle in the middle of the TV screen.

```
10 PMODE 2,1
20 PCLS
30 SCREEN 1,1
40 CIRCLE (128,96),20
50 PAINT (128,96),1
60 GOTO 60
```

Press **BREAK**. When you then press **SHIFT** **↵**, the printed copy will look like Figure 1.



Figure 1.

Now type PDKE 16303,255 **ENTER**, then press **SHIFT** **↵**. Your printed copy will look like Figure 2.

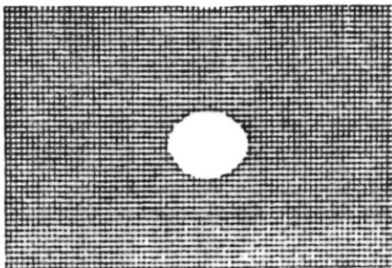


Figure 2.

Change the program so it reads:

```
10 PMODE 2,1
20 PCLS
30 SCREEN 1,1
40 CIRCLE (128,96),20
50 PAINT (128,96),1
60 DEFUSR0=15785
70 Y=USR(0)
80 PCLS
90 LINE (118,86)-(138,106),PSET,BF
100 Y=USR(0)
110 GOTO 110
```

Once you type RUN ENTER, the TV screen should create and paint the circle (lines 40 and 50). Then the Printer will begin copying the screen contents. When the circle has been printed, the Computer will create the box (line 90) and begin printing it. When the Printer has finished the printing operation, the printed copy should look like Figure 3.

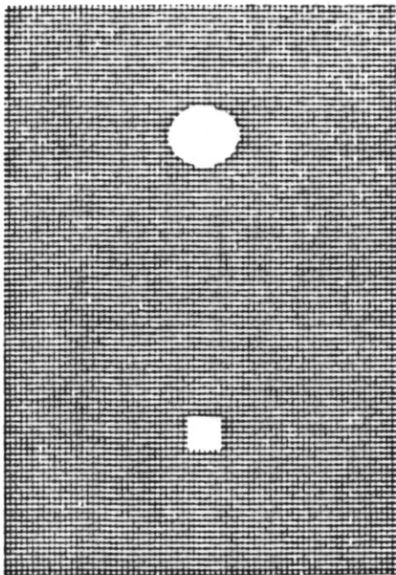


Figure 3.

Another way to use the routine is to switch to a different graphics "page" and generate another display. For instance, add this line: `75 PMODE 2,3`. Then press the RESET button (to clear all pages), and run the program. The Computer will first create and paint the circle, then the Printer will copy the display. Next the circle will disappear and the "hidden" page (containing the box) will be printed.

Don't forget to type `PDkE 16303,0` **ENTER** to return to normal Screen Printing.

A decorative border with a repeating scalloped, dotted pattern surrounds the text. The border is thicker at the corners and tapers towards the center.

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