

CC3 Draw

Hi-Res drawing program with 16 colors for the CoCo III

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Instructions for using CC3 Draw

Congratulations on your purchase of CC3 Draw. CC3 Draw utilizes the full capabilities of the Color Computer 3, allowing you to create high resolution pictures in 16 brilliant colors. You will find that CC3 Draw is powerful, yet surprisingly easy to use.

SYSTEM REQUIREMENTS

CC3 Draw requires a Color Computer 3, a joystick, and a disk drive. It is always advisable to make a backup copy of the program disk, store the original disk in a safe place, and use the backup disk in everyday use. Insert the joystick into the right joystick port, and a backup copy of the CC3 Draw disk in Drive 0 (and close the drive door).

Starting CC3 Draw

To start CC3 Draw, simply type RUN "CC3DRAW". The program will first ask you if you want to start with a clear screen. If you already have a picture on the screen that you want to edit, answer NO. Otherwise, answer YES and you will start out with a blank screen.

The Message Window

At this point, a high resolution picture screen will appear. In the lower right hand corner will be the words "FOREGROUND=" and "BACKGROUND=" (both followed by a number). This space is called the 'Message Window', and will generally be located in this corner. The message window will disappear as soon as you enter a command, and will only reappear when you tell it to.

Foreground and Background Colors

The foreground color is the color that will be used to "draw" in, and the background color is what will be used to erase. Also note that the words (FOREGROUND and BACKGROUND) are written in their respective colors, so you not only see their value, but also their color (see the section on PALETTES for a review of palette registers and colors).

Using the Joystick

If you look in the upper left hand corner, you will see a blinking dot. This is your cursor, showing you one pixel (screen "dot") of size. To move the cursor, simply move the joystick lever. Move the joystick around a bit so you get the feel of the cursor movement. By moving the joystick lever all the way to one edge, the cursor will move quickly in that direction, allowing you to have full cursor control over the entire screen.

By pressing the "usual" or first joystick button, you will put a dot on the screen (where the cursor is) in the current foreground color. The second joystick button (or the space bar) allows you to "SET" a point, is used along with certain keys to execute certain commands. A help screen of commands is available by pressing SHIFT-?. A detailed description of the commands (and how to use them) appears below.

CC3 Draw Commands

0-9 These keys will load in a default set of palette colors. To load these colors, simply press a number key. You will see the colors change on the screen immediately. These default colors may be set up by you by changing the data statements in line 9100-9109. Line 9100 contains the colors for the '0' key, line 9101 for the '1' key, and so on. Each line contains the 16 values (in order) that will be inserted into the palette registers 0-15.

Once you have altered these values:

1. Make sure that there are 16 values (separated by commas) in each DATA line.
2. Save the program if you wish to have these colors for another editing session. (you can, of course, save the program with name other than CC3 Draw if you wish, allowing you to keep the original program intact).

CLEAR This key will clear the screen to the default background palette (use the N command to set this palette number). Before clearing the screen, the program will ask you if you are sure. If you change your mind, and don't want to clear the screen, press N. Otherwise, press Y.

? (/) This will display the current foreground and background colors in the message window. The words (FOREGROUND and BACKGROUND) are written in their respective palettes, showing their values and colors. If one or the other of the words doesn't appear, they are the same as the default background palette (selected with the N command).

SHIFT-? This will display a help screen of the different commands available to you.

B This will draw a box in the current foreground color. Set the upper left corner of the box (using the second joystick button or the space bar). Then move the cursor to the lower right corner of the box and press B.

SHIFT-B This command draws a box and fills it with the current foreground color. First, SET the upper left corner of the box (using the second joystick button or the space bar). Then move the cursor to the lower right corner of the box and press SHIFT-B.

C This command draws a circle in the current foreground color. First SET the center of the circle (move the cursor to the center of the circle and press the second joystick button or the space bar). Then move the cursor to the outside edge of the circle and press C.

D Pressing this key allows you to load files from or save files to the disk. You will be asked to select either "S" for saving files or "L" for loading files. Select the appropriate choice. You will then be asked to enter a filename. The filename must be 1-8 characters long with no extension. If you wish to use a drive other than 0, specify it before the filename, as in "1:FILENAME" (without the quotes). When you save a file, you will be asked to select the number of blocks to save. Each block takes up about $\frac{1}{4}$ of the screen (normally you will just want to press enter, which will save all four blocks). When loading a file, the program will look for all four blocks. If one is missing, the program will be restarted, with the (partially) loaded picture on the screen. If all files loaded successfully, you will be returned to the picture screen automatically.

K This key allows you to manually change the colors in the palette registers. Once you press K, a screen will appear showing the current palette values. First select the palette you wish to change (0-15), then enter the color value you wish to insert. By just pressing enter when it asks for the palette number, you will return to the picture screen.

L This key draws a line in the current foreground color. First SET one end of the line (using the second joystick button or the space bar), then move the cursor to the other end of the line and press L.

M This command will move or copy a small section of the screen to a new location. First SET the upper left corner of the section to move (using the second joystick button or the space bar). Now move the cursor to the lower right corner of the section and press M. The message window will appear and say "MOVE SCREEN SECTION". Now move the cursor so it is in the upper left corner of the 'box' where the section is to be copied. Finally, press the joystick button and the selected section will be copied to the new location. Note that due to restrictions on BASIC, the copied section can be no larger than about $\frac{1}{4}$ of the screen (you will receive an error if it is too big).

SHIFT-M This key clears the screen to the current default background palette, and then moves a section of the screen. First SET the upper left corner of the section to move (using the second joystick button or the space bar). Now move the cursor to the lower right corner of the section and press SHIFT-M. The message window will appear and say "MOVE SCREEN SECTION". Now move the cursor so it is in the upper left corner of the 'box' where the section is to be copied. Finally, press the joystick button. The screen will clear, and the selected section will be copied to the new location. Note that due to restrictions on BASIC, the copied section can be no larger than about $\frac{1}{4}$ of the screen (you will receive an error if it is too big).

N This key changes the default background palette. This color is slightly different than the background color, and is used when clearing the screen, filling a box, and for text entry ONLY. It is also the color that text is written on when the message window is displayed. To change the default background color, press N, then enter the desired palette number for the default background.

P This command paints. The screen will be painted from the cursor position, and in the current foreground color. The paint will stop when it reaches the current background color.

Q This key quits CC3 Draw.

R This key allows you to reset the current foreground color. Simply enter the desired palette number for the foreground.

SHIFT-R This key allows you to reset the current background color. Enter the desired palette number for the background.

T This key allows you to enter text at the current cursor position (approximately). The area behind the letter is cleared to the default background color (see the N command), and the text is drawn in the current foreground color. Pressing enter exits the T command.

U This key allows you to update the current foreground color. This command is slightly different than the R command. This will display (on the message window) all 16 of the palette colors. By moving the cursor onto one of the colors and pressing the joystick button, the corresponding palette will be chosen, and the selected color will be the foreground color. By pressing the second joystick button or the space bar (or by pressing the joystick button while you are off of the message window), you will abort the U command.

SHIFT-U This key allows you to update the current background color. This command is slightly different than the SHIFT-R command. This will display (on the message window) all 16 of the palette colors. By moving the cursor onto one of the colors and pressing the joystick button, the corresponding palette will be chosen, and the selected color will be the background color. By pressing the second joystick button or the space bar (or by pressing the joystick button while you are off of the message window), you will abort the SHIFT-U command.

W This command will move the message window (where the FOREGROUND and BACKGROUND messages appear) to the current cursor position (approximately). By selecting an area at the far right or very bottom, the window will default to the bottom right corner.

It is our sincere hope that you enjoy and use CC3 Draw to its full capabilities. We appreciate your patronage.

PALETTES

Palette registers are new to many Color Computer owners, and can be somewhat confusing at first. Traditionally (in the previous versions of the Color Computer), colors were set on the screen by storing a value on the screen. For example, PSET (0,0,3) would store color 3 (yellow) in the upper left corner of the (PMODE 3) screen.

However, things have changed slightly in the Color Computer 3. Now, instead of storing colors on the screen, you store a PALETTE NUMBER on the screen. The value in that palette register determines the color of the dot.

For example, start CC3 Draw (with a blank screen). Move the cursor to a place toward the center of the screen, and press the joystick button. The pixel where the dot appears now has a '1' stored in it. The color of this dot (and all other dots with a '1' in them) is found in Palette 1. Any dots with a '2' in them have the color in Palette 2, etc. If you don't believe me, press K (change palette colors), and change palette 1 to another number (from 0-63). White (63) is usually an easy color to see). Then go back to the picture screen. The '1' dot has now changed color.

There are up to 16 palettes available at any one time, allowing up to 16 different colors at one time (CC3 Draw lets you use all 16). Any one of the 64 colors can be put into the palette registers, for a variety of effects. These palette colors are NOT saved with the screen, and must be set up each time the screen is to be displayed (using 0-9 keys is the easiest way).

Several interesting effects can be made by changing palette values. Remember that all dots with the same palette number will change colors at the same time. This can be used to simulate animation and motion. I leave this experimentation to you.