

scroll line number for the point to be plotted. As with the PLOT command, you must give a COLOR command before using SPLOT@. Note that the top scroll line is line zero, not line one. The maximum value of the second integerexpression is the number of scroll lines minus one. The maximum value of the first integerexpression is the number of bytes per line times the number of data points per byte minus 1. Modes 0, 1, 2, 12, and 13 have one data point (character) per byte. Modes 9, 10, and 11 have two data points per byte. Modes 3, 5, 7, and 15 have four per byte. Modes 4, 6, 8, and 14 have eight per byte. The DLIST command will list the maximum values for the two integerexpressions. Before you can use SPLOT@ you must append CPLOT.APP. Like PUSING.APP, this is a special subroutine and will not appear when you list your program. See Appendix B if you want to use SPLOT@ to plot character data (modes 0, 1, 2, 12, and 13).

7. Designing an alternate character set

While in the screen design option, you can type A to create or modify an alternate character set. The program switches from the screen you are designing to a special display. The top part of this display lists some of the commands you can use. On the left side near mid-screen is a list of the ATARI characters. At the bottom will be displayed any alternate characters you have designed. Initially, all the alternate characters are blank, except for the second one, which is a uniformly colored rectangle. This character serves as a cursor. You can modify it, but the first and second characters should never be identical, or you might have problems seeing the cursor. On the right side of the screen, near the middle, is an 8x8 grid which is an enlarged representation of a character. Each character in both the ATARI and alternate character sets has 64 points, each of which can be on or off.

To design a character, move the cursor into the 8x8 grid, using the cursor keys or a joystick plugged in port 1. Note that you don't need to hold the control key down to use the cursor keys. To turn on a point in the alternate character you are designing, move the cursor to the point in the 8x8 box and press the > key or the joystick trigger. To turn off a point, move the cursor to the point and then press the < key or the joystick trigger. Note that pressing the joystick trigger just reverses the point, turning it on if it was off, and vice versa. When you have finished designing an alternate character, move the cursor to the location where you want to save it, and press the space bar or the joystick trigger.

If you want to modify a character you have already saved, move the cursor to the character's location in the alternate character set and press RETURN. This will display the character in the 8x8 grid. Now you can move the cursor into the grid and make the changes. When you are finished, move the cursor to the location in the alternate character set where you want to save the character. Then press the space bar or the joystick trigger.

If you want to erase all the points in the 8x8 grid, press E.

In many cases you will want to put some of the ATARI characters into your alternate character set. To do this, move the cursor to the ATARI character and press RETURN or the joystick trigger. This will place the character in the 8x8 grid. Then move the cursor to the alternate character set location where you want to save the character and press the space bar or the joystick trigger to save the character.