

Special note: Remember, in modes 1 and 2 you can use inverse and small letters to specify different colors for the characters. See Chapter 13 in the Advan BASIC manual for more information.

CPOS@ and FNLOC% commands

The BASIC commands POS and LOCATE cannot be used with custom displays. Instead, CPOS@ is used to go to a specific position on the display, and FNLOC% can then be used to get the value of the point displayed at the position. For example, the following program segment stores in the variable T% the value of point number four in display line number three.

```
100 CPOS@ 4%,3%
110 T%=FNLOC%
```

Remember that the top display line is numbered 0 and the left most point in the line is numbered 0. Before you can use CPOS@ and FNLOC% you must append CPLOT.APP. Note that in text modes, FNLOC% will return the character number and not the ASCII code (see Appendix B).

6. Designing scrolling displays

One feature of custom modes is that you can set up a scrolling display. Advan BASIC allows two types of scrolling---full and limited. During the process of designing a custom mode, you are asked to specify the mode number for each display line. If you want to set up a scrolling region you need to make a special entry at the first display list command for that region.

Full scrolling region

When you are asked the mode number for the first line of the scrolling display, enter the mode number, a space, an S, and then RETURN. The S tells the program to set up a full scrolling region in your display and to reserve a region in memory for the scroll data. At any one time, only a portion of the scroll data is displayed on the screen. Using the SCROLL@ command (described below), you can specify which portion of the scroll data is displayed. That is, the visible portion is like a window which can be positioned over any part of the scroll display data.

Next the program asks how many display lines. This is used to set up the vertical size of the window (i.e., the vertical size of the visible portion of the scroll data). Enter the number which is one greater than the number of visible lines you want. Next it asks how many bytes per line. This is used to set up the horizontal width of the scroll data region in memory. Table 6-1 shows the standard number of bytes per line for each mode. For most TVs the number of bytes visible is somewhat smaller than the number shown. Finally it asks for the number of scroll lines, in order to set up the vertical size of the scroll data region in memory.