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1 // fo1/5/shapes/VLine.java
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 /**
7  * A VLine is a vertical Line.
8  */
9
10 public class VLine extends Line
11 {
12     /**
13      * Construct a VLine having a paintChar and a length.
14      *
15      * @param length length in (character) pixels.
16      * @param paintChar character used for painting this Line.
17      */
18
19     public VLine( int length, char paintChar )
20     {
21         super( length, paintChar );
22     }
23
24     /**
25      * Paint this Line on Screen s at position (x,y).
26      *
27      * @param screen the Screen on which this Line is to be painted.
28      * @param x       the x position for the line.
29      * @param y       the y position for the line.
30      */
31
32     public void paintOn( Screen screen, int x, int y )
33     {
34         for ( int i = 0; i < length; i++ )
35             screen.paintAt( paintChar, x, y+i );
36     }
37
38     /**
39      * Unit test for class VLine.
40      */
41
42     public static void main( String[] argv )
43     {
44         Terminal terminal = new Terminal();
45
46         terminal.println( "Self documenting unit test of VLine." );
47         terminal.println( "The two Screens that follow should match." );
48         terminal.println();
49         terminal.println( "Hard coded picture:" );
50         terminal.println( "+++++++" );
51         terminal.println( "+xx  +");
52         terminal.println( "+xx  +");
53         terminal.println( "+xx  +");
54         terminal.println( "+xx  +");
55         terminal.println( "+xx *1 +");
56         terminal.println( "+x  * +");

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57         terminal.println( "+x  * +");
58         terminal.println( "+  * +");
59         terminal.println( "+  +");
60         terminal.println( "+++++++" );
61         terminal.println();
62
63         terminal.println( "Picture drawn using VLine methods:" );
64         Screen screen = new Screen( 7, 9 );
65
66         VLine vLine = new VLine( 7, 'x' );
67         vLine.paintOn( screen );
68
69         vLine.setLength(5);
70         vLine.paintOn( screen, 1, 0 );
71
72         vLine.setPaintChar( '*' );
73         vLine.paintOn( screen, 3, 3 );
74
75         vLine.setLength(1);
76         vLine.setPaintChar( '1' );
77         vLine.paintOn( screen, 4, 4 );
78
79         screen.draw( terminal );
80
81     }
82 }

```