

```

1 // jol/3/shapes/HLine.java
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 /**
7  * A horizontal line has a length and a paintChar used
8  * used to paint the line on a Screen.
9  *
10 * @version 3
11 */
12
13 public class HLine
14 {
15     private int length; // length in (character) pixels.
16     private char paintChar; // character used for painting.
17
18     /**
19      * Construct an HLine.
20      *
21      * @param length length in (character) pixels.
22      * @param paintChar character used for painting this line.
23      */
24
25     public HLine( int length, char paintChar )
26     {
27         this.length = length;
28         this.paintChar = paintChar;
29     }
30
31     /**
32      * Paint this HLine on Screen s at position (x,y).
33      *
34      * @param s the Screen on which this line is to be painted.
35      * @param x the x position for the line.
36      * @param y the y position for the line.
37      */
38
39     public void paintOn( Screen s, int x, int y )
40     {
41         for ( int i = 0; i < length; i = i+1 ) {
42             s.paintAt( paintChar, x+1, y );
43         }
44     }
45
46     /**
47      * Paint this HLine on Screen s at position (0,0).
48      *
49      * @param s the Screen on which this line is to be painted.
50      */
51
52     public void paintOn( Screen s )
53     {
54         paintOn( s, 0, 0 );
55     }
56

```

```

57     /**
58      * Get the length of this line.
59      *
60      * @return the length in (character) pixels.
61      */
62
63     public int getLength()
64     {
65         return length;
66     }
67
68     /**
69      * Set the length of this line.
70      *
71      * @param length the new length in (character) pixels.
72      */
73
74     public void setLength( int length )
75     {
76         this.length = length;
77     }
78
79     /**
80      * Unit test for class HLine,
81      * assuming Screen and Terminal work.
82      */
83
84     public static void main( String[] args )
85     {
86         Terminal terminal = new Terminal();
87
88         terminal.println( "Unit test of HLine." );
89         terminal.println( "You should see this Screen twice: " );
90         terminal.println( "++++++");
91         terminal.println( "xxxxxxxxxxx");
92         terminal.println( "xxxxxx");
93         terminal.println( "++++");
94         terminal.println( "++++");
95         terminal.println( "++++");
96         terminal.println( "++++");
97         terminal.println( "++++");
98         terminal.println( "++++");
99
100         Screen screen = new Screen( 20, 6 );
101
102         HLine hline1 = new HLine( 10, 'x' );
103         HLine hline2 = new HLine( 5, '*' );
104         HLine hline3 = new HLine( 1, '1' );
105
106         hline1.paintOn( screen );
107         hline1.setLength(5);
108         hline1.paintOn( screen, 0, 1 );
109         hline2.paintOn( screen, 3, 3 );
110         hline3.paintOn( screen, 4, 4 );
111
112         screen.draw( terminal );

```

```
113 }  
114 }
```