

Tangent Circles Read Me

This screen saver generates and draws random tangent circles using a range of colors. The program was ported to the NeXT from code listed in the September '91 issue of *The C Users Journal*, pages 122, 125. The article was a book review of *Computers, Pattern, Chaos And Beauty*, by Clifford A. Pickover, published by St. Martin's Press, 1990.

Credit for the basic algorithm goes to Clifford A. Pickover, credit for the code in the article goes to Sam Hobbs. The only credit that I take is for translating Sam's code, which was DOS/Borland C specific, to the NeXT.

Notes About The Code

The following defines can be changed to modify the behaviour of the program.

```
#define MAXCIRCLES      ( 225 )
#define MAXCOLOR       ( 1.0 )
#define MINCOLOR       ( 0.0 )
#define COLORINC       ( 0.1 )
```

`MAXCIRCLES` is the number of circles that are drawn before circles begin overlapping.

`MAXCOLOR` and `MINCOLOR` define the range of colors the program should use when drawing circles.

`COLORINC` is the increment used to move through the

color range defined by `MAXCOLOR` and `MINCOLOR`. Don't use negative values.

Additionally, if you would like the screen to blank after every `MAXCIRCLES` circles are drawn, remove the commenting from the statement `[self display]` in the method `oneStep`.

A Side Note

Here's an interesting passage from Sam Hobbs article

A typical program running time is from 45 seconds to two minutes on a 20MHz 386, most of which is taken up by randomly searching for where to place the next circle as more and more of the screen is used up.

This time was based on drawing 150 circles before resetting the circle radius to 1/2 the screen size. On the NeXT, drawing 250 circles takes about 3 seconds. :-)

Many thanks to Sam Streeper for writing the BackSpace application and allowing all us mentally deranged programmers have at it.

Please mail any and all suggestions for improvement to me, I'll

try to do everything I can to support this saver.

paste.tiff →
Larry Cordner
larry@netcom.com

Isn't this machine great!