Subject: Orbit Fractal (Martin Attractor) Render
Posted by ren42 on Sat, 16 Dec 2017 17:30:44 GMT
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Hello everybody,
after 11 Years i found my way back to do some coding again. (How could i live without Upp such a long time?)

I like eye candy pictures and figured out to code a fractal render with Upp.

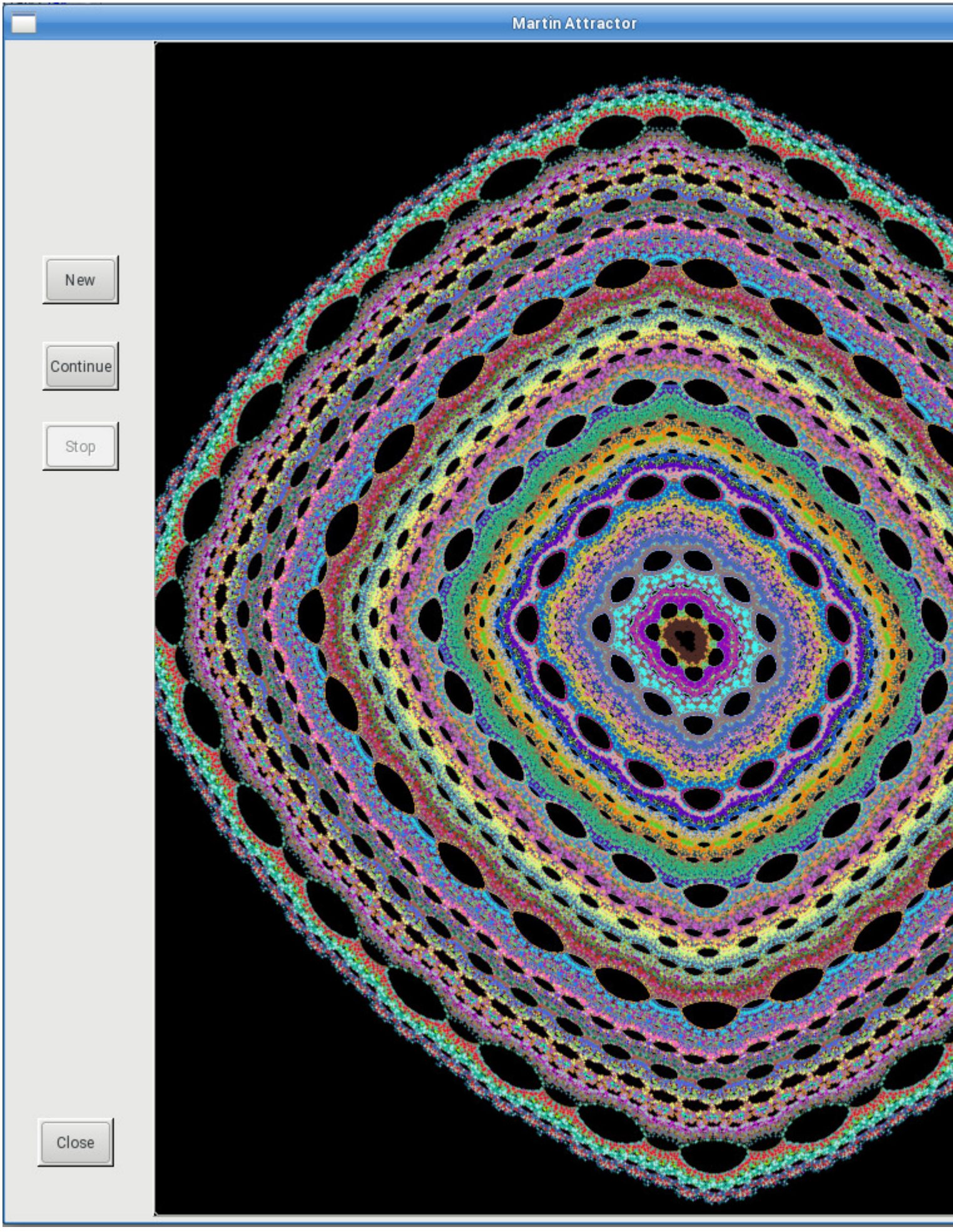
Here is a link that explains briefly what an Martin Attractor is:
http://www.fraktalwelt.de/myhome/simpiter2.htm

Preview of OrbitFractal:

The next Message or Topic will contain a description and source package

File Attachments

1) OrbitFractal1.jpg, downloaded 852 times


Martin Attractor
New
Continue
Stop
Close

Subject: Re: Orbit Fractal (Martin Attractor) Render
Posted by ren42 on Sat, 16 Dec 2017 18:19:02 GMT
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So, here it is:
The source package OrbitFractal (Attachment).
Compiled with TheIde 2017.1 Clang compiler. OS: Linux OpenSuse Leap 42.2
I see no problem for compiling it on other OS as well, that are supported by TheIde.

Here is the core function of my app that does the magic:

```
void OrbitFractalv2::Render()
{
/*
Algorithm found here:
http://www.fraktalwelt.de/myhome/simpiter2.htm
Thanks to Ulrich Schwebinghaus
*/
    ticks++;
    if (ticks==3){
        ticks=0;
     penColor = Color(Random(255), Random(255), Random(255));
    }
    for(int i = 0; i < counter; i++){
        xx = y - (sign(x)) * sqrt(abs(b * x - c));
        yy = a - x;
        x  = xx*2; y  = yy*2;
        x  = xx;   y  = yy;
        iw.DrawEllipse(int(x)+p.x, int(y)+p.y, 1, 1, penColor, Null, penColor);
    }
    image = iw;
    Refresh();
}
```

Using the app is quite easy;

Just click the New or Start button, sit back and watch

To stop click Stop. Then render is paused.
To continue click Continue button (Label has changed from Start to Continue).
To create a new fractal click... you guess it:New.
The parameters of a new Fractal will randomly changed, so you will
(with high probability) get unique looking fractals.

In this version there is no load/save function and resize possible... BUT it is free:)
I still have to learn much more c++11 stuff...

Please tell me, what you think

Best regards,
ren42

File Attachments

1) OrbitFractalv20.zip, downloaded 400 times