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? 8o) :d

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 785 times

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 374 times