Subject: Re: Fractal in IDL!
Posted by rtk on Thu, 29 Oct 2009 18:32:38 GMT
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On Oct 28, 9:15 pm, sathya <sathya.s...@gmail.com> wrote:
> Hi,
>
> I am trying to create a fractal set in IDL. I know that a Mandelbrot
> set follows the below mentioned function,i.e.
>
> f(x) = x^2 - c
>
> where, x - is a complex number, c - constant
> and the range for x-axis is [-1.5, 1.5].
>
> In a similar way, can anyone gime me the function for anyother fractal
> or Koch snowflake. If I am not wrong, does it follow the given
> function?
>
> a =(1/2)+ (i/SQRT(12))
>
> Thanks,
> Sathya!

Perhaps the easiest way to draw fractals of various kinds is to use
the IFS ('Iterated Function System') approach. Email me if you want
IDL code that can do that.

Also, the Sierpinski triangle is perhaps the simplest of all fractals
to generate. Here's BASIC code from the 80s to do it. I leave
translation to IDL as an exercise for the reader :)

```
10 HOME:HGR2:HCOLOR=3: REM This just turns on the graphics and sets
the color
20 X(1)=0:Y(1)=191:X(2)=140:Y(2)=0:X(3)=278:Y(3)=191: REM Triangle
corners
30 X=X(1):Y=Y(1): REM A starting point
40 N = INT(3*RND(1))+1: X=INT(0.5*(X+X(N))): Y=INT(0.5*(Y+Y(N))): REM
The magic is here
50 HPLOT X,Y:GOTO 40: REM Plot the new point and continue
```

Have fun!

Ron