

# Portals Shapes Fractals

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## Introduction to Apophysis:

Apophysis is a fractal flame editor and renderer. It was created by Mark Townsend by translating Scott Draves' original C code into Delphi and adding a graphical user interface

It has since been improved and updated by Peter Sdobnov, Piotr Borys, and Ronald Hordijk. It is open source, licensed under the terms of the GNU General Public License (GPL).

2001-2004 Mark Townsend

2004-2008 Peter "[zueuk](#)" Sdobnov, Piotr "[utak3r](#)" Borys

2009-2010 Georg "[xyrus](#)" Kiehne

Apophysis has many features for creating and editing fractal flames, including an editor which allows one to directly edit the transforms that comprise the fractal flame, a mutations window, which applies random edits to the triangles, an adjust window, which allows the adjustment of coloring and location of the image, and even a scripting language with direct access to most of the components of the fractal, which allows for effects such as animations, which are also fractal flames. Users can export fractal flames to other fractal flame rendering programs, such as FLAM3.

There is a separate version of Apophysis that has support for 3D, although all computations are done in 2D space, and now Georg "[xyrus](#)" Kiehne has created a Apophysis version call 7x which combine both version into one unique freeware.

## Useful Resources to start with:

[Apophysis 7x.14](#)

[Apophysis Install](#)

[What Icon I'm Clicking](#)

[A wonderful series of tutorial for beginner](#)

[Claire Jones Apophysis Guide](#)

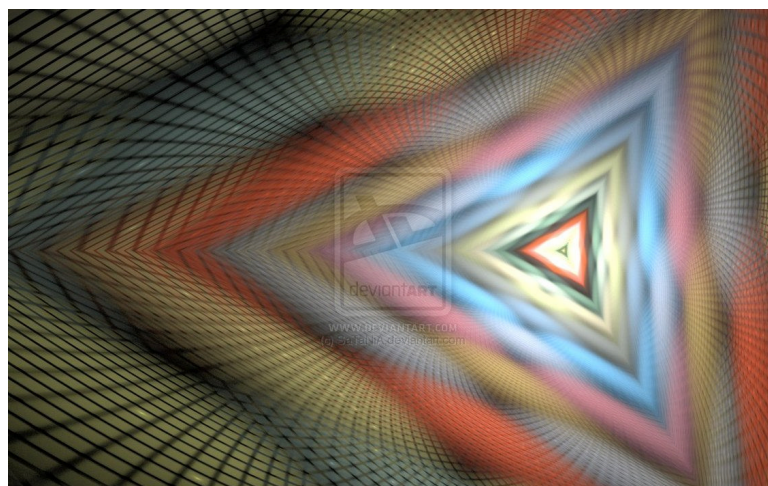
## How I came up with this tutorial

A long time, the wonderful fractalist call [Joel Faber](#), work on a effect called the flipped disc. This effect really gives Apo a new way to create effect and he open minds to a lot's of us. Then he starts working with nGon plugin, and here come the very first “Portal” look flame I’ve seen on the web.



I was totally amaze by this technique and I’m starting working on too (like a lot’s of us in 2006)

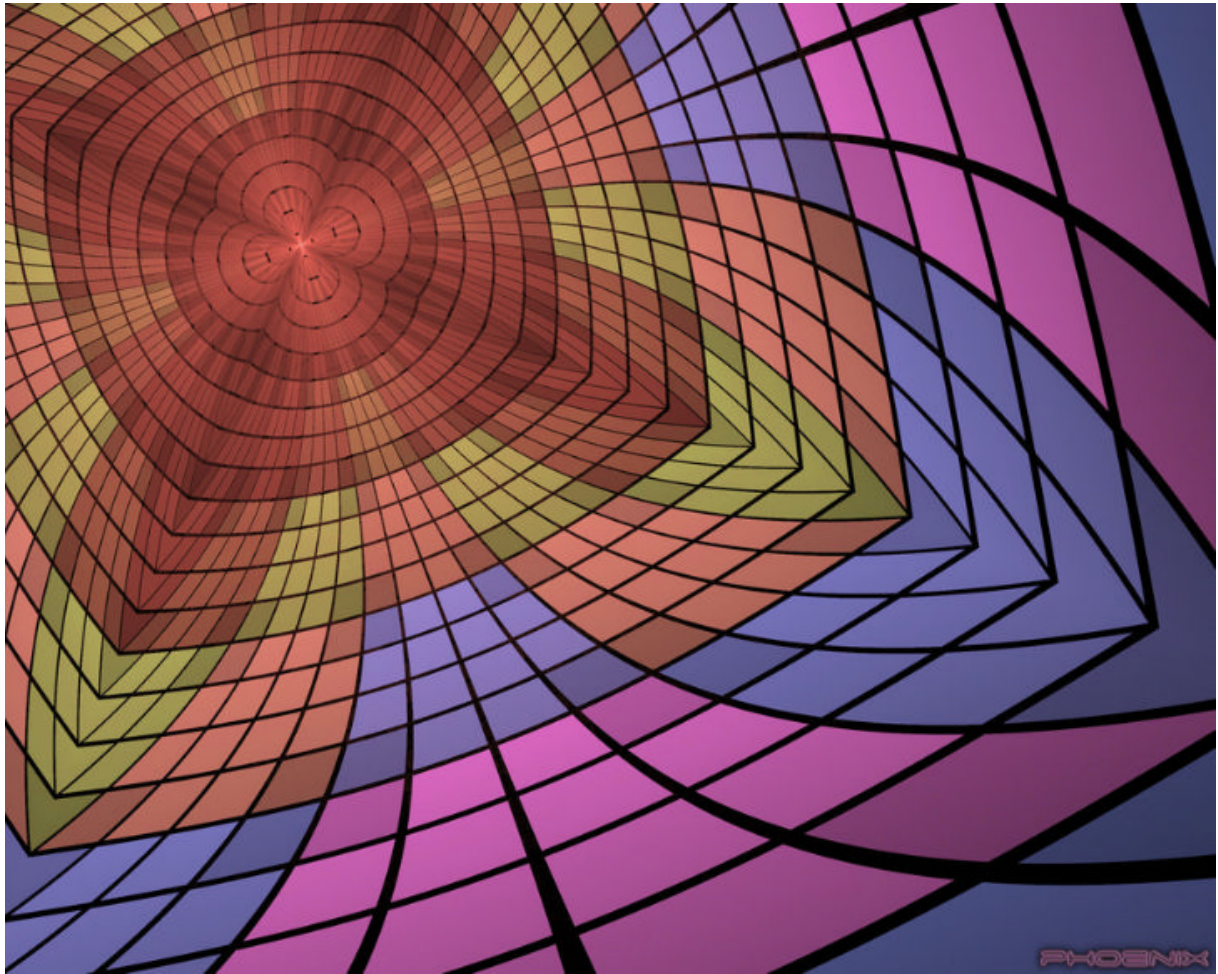
Then after few years in which I really increase my skill with Apophysis, I decide to work once more on this kind of fractal, but instead of using a flipped disc, I’ve decide to use crackles plugin to give it another kind of aspect.





After seeing this fractal a good friend of I, [PhoenixKeyBlack](#) was inspired too by working again on this kind of shapes.

And come up with another kind of shapes too!



And this piece really gives me more hints to come up with this kind of fractals.

I just tell me why don't I try to fill all black space with "plastics cylinders" and still working on "portals shapes" too.

Here is born my "portal shapes" effect.

## What do we need and why?

**Apophysis 7x14** (or any version that allow you to install variations plugins)

*Available on [Xyrus](#) pages.*

### **Square and nGon plugins**

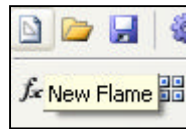
*So in this fractal you will need some “extra” plugins.*

*Those plugins are not available directly when you install Apophysis, but you can add them when you want.*

*So download the [Aposhack Plugins Pack](#) by [Phoenixkeyblack](#), and add to your plugin collection, the square and nGon plugins.*

**10 - 15min to create this fractal.**

So first of all start we a new blank flame. (CTRL + N or simply click on the blank sheet on the top bar)



So the first thing we need to do is to create the main shape.  
Here, the main shape is square but not only.  
It's a tiled square effect.

So first let's create

## The main tiles.

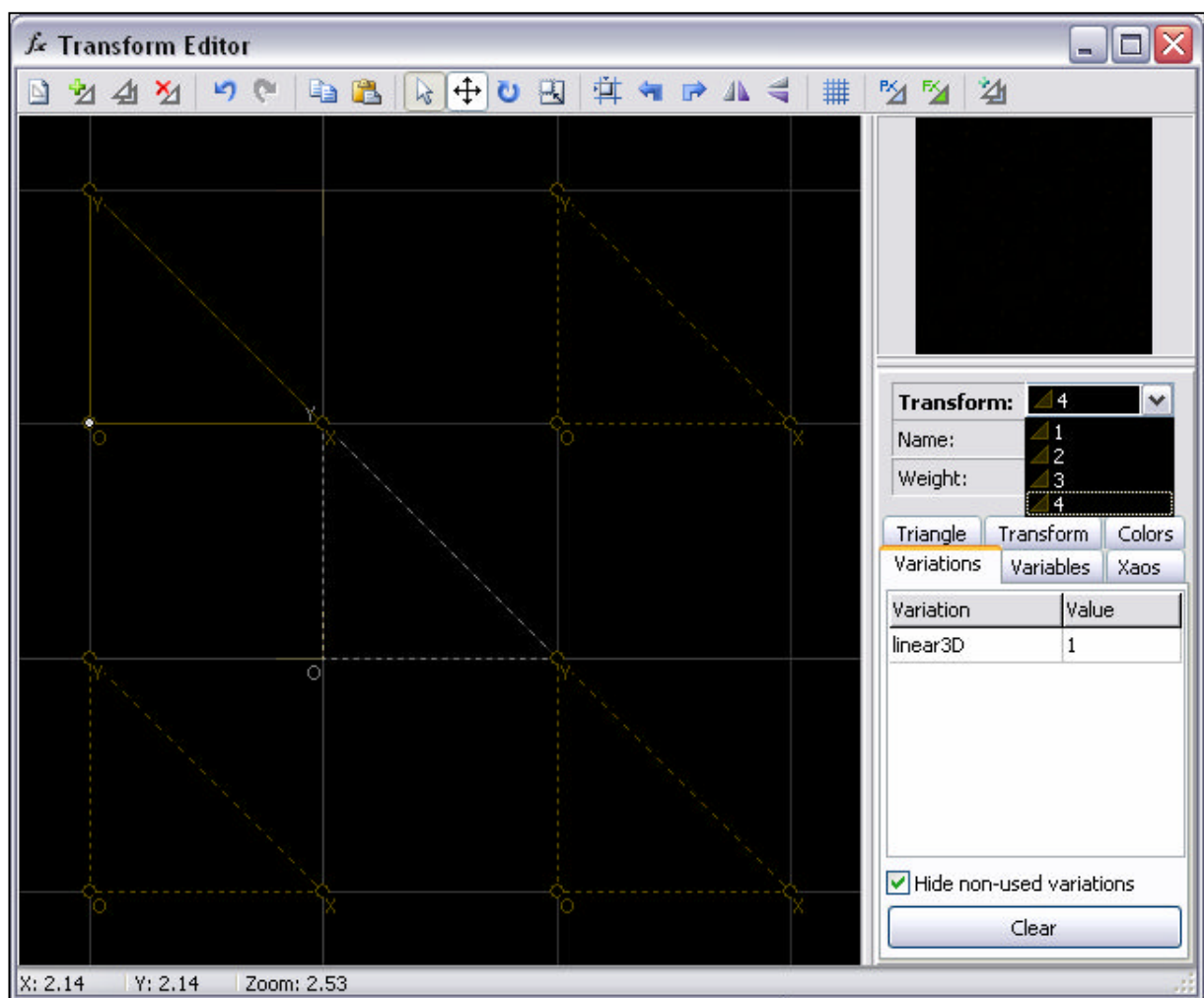
**Xform 1:** Linear (3D) = 1 (move it 1 up and 1 right)

**Xform 2:** Linear (3D) = 1 (move it 1 down and 1 right)

**Xform 3:** Linear (3D) = 1 (move it 1 down and 1 left)

**Xform 4:** Linear (3D) = 1 (move it 1 up and 1 left)

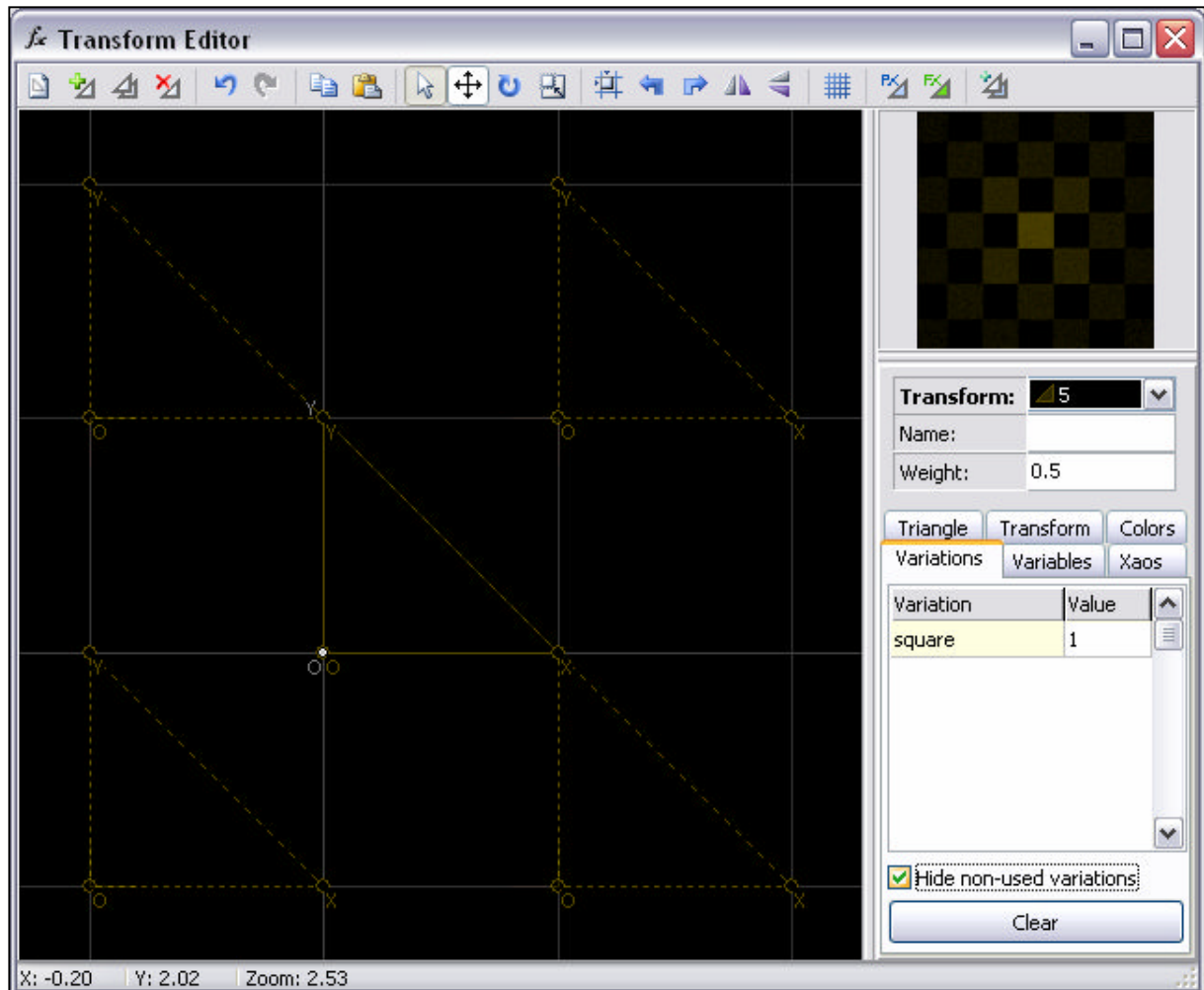
That's allow you to create the tiling with the shape you wish on Xform5.



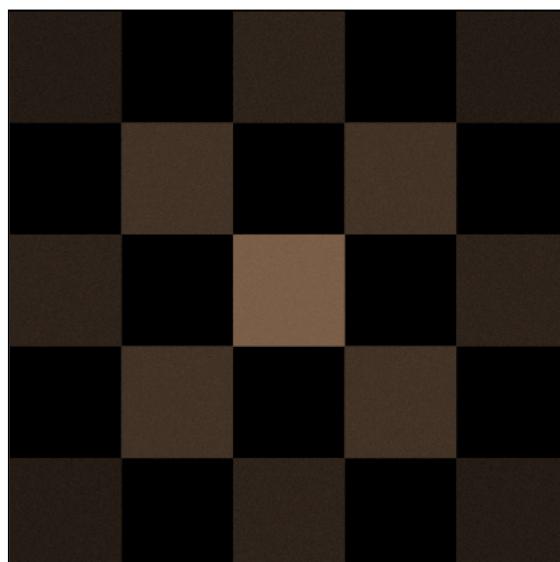
As we wish a rectangle main shape, let's put square on Xform5

**Xform 5:** Linear (3D) = 0 / Square = 1

Now you have a wonderful square tiling.



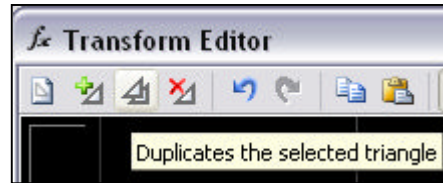
*Step 1 Preview:*





## Tiles: a bit more.

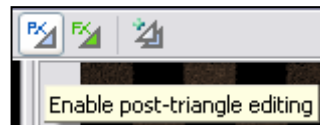
But our shape needs to be without any black space so we need to fill it with the Xform 6  
Duplicate Xform 5



**Xform 6:** Linear (3D) = 0 / Square = 1

Nothing changes for the moment, it's normal.  
We need to move it on the right (or left) to fill the black spaces.

Enable post-triangle editing.

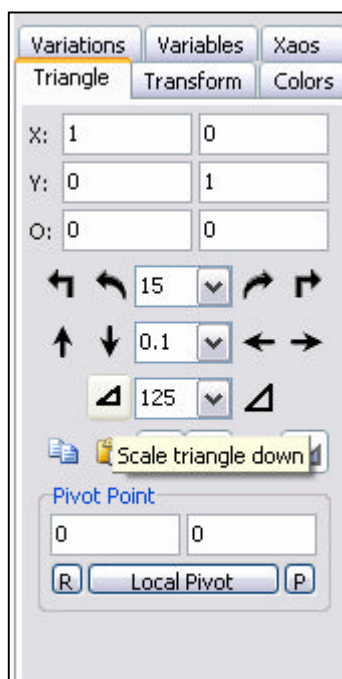


Move the PT, 1 on the right (or left)

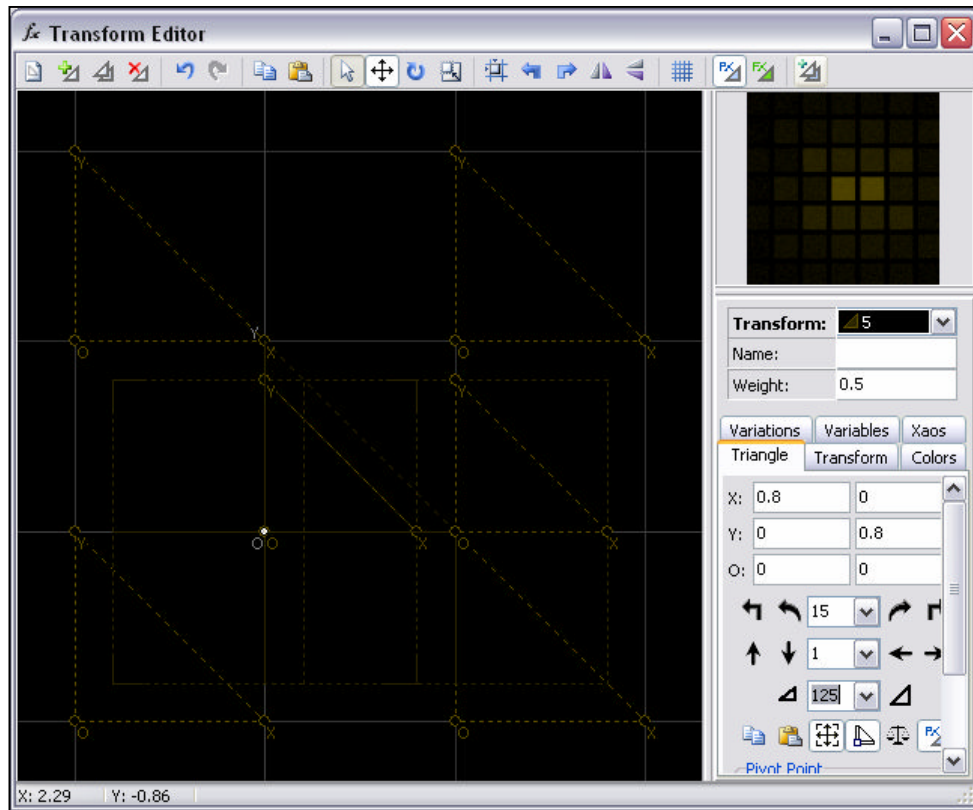
But now our problem is the fact that we don't see the difference and any splits between each square tilling.

The easier solution to make it is to reduce a bit the square size; this will naturally create a black space between each frame and will allow you to fill it a bit later if you wish.

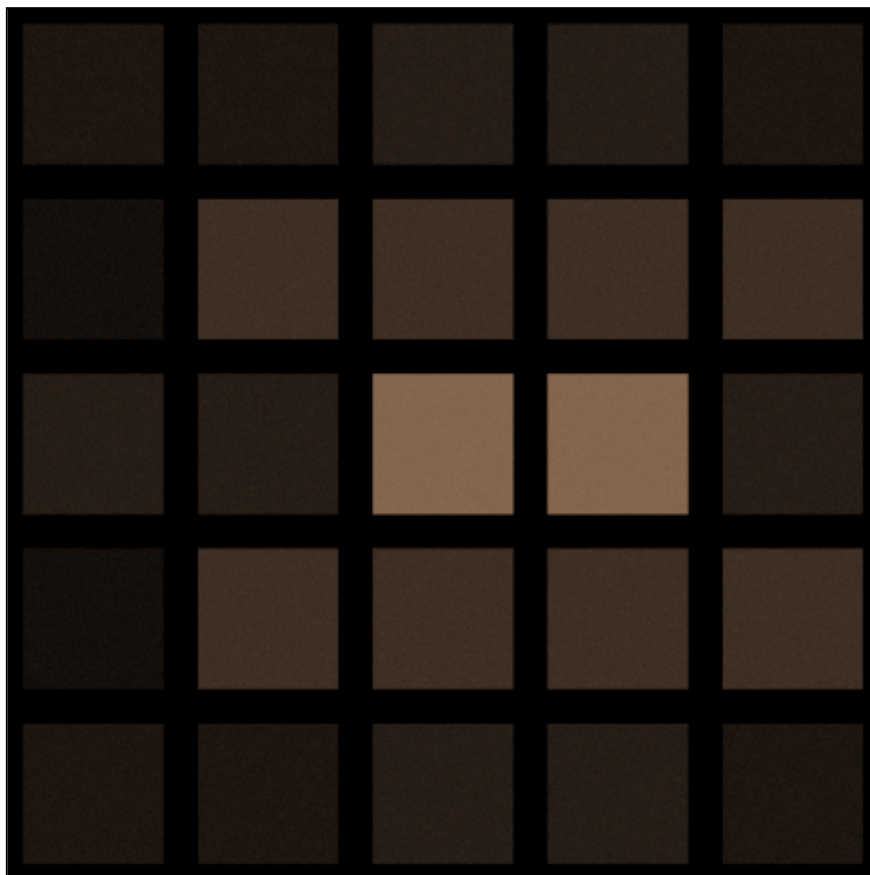
Go back on the Xform5 PT and reduce it one time by 125.  
Do the same on Xform 6 PT.



Now you should have something like this:



*Step 2 Preview:*



So now let's give it more details and fun!

## The filling

Add a new Xform.

**Xform 7:** Linear (3D) = 0 / Cylinder = 0.8 / pre\_blur = 2

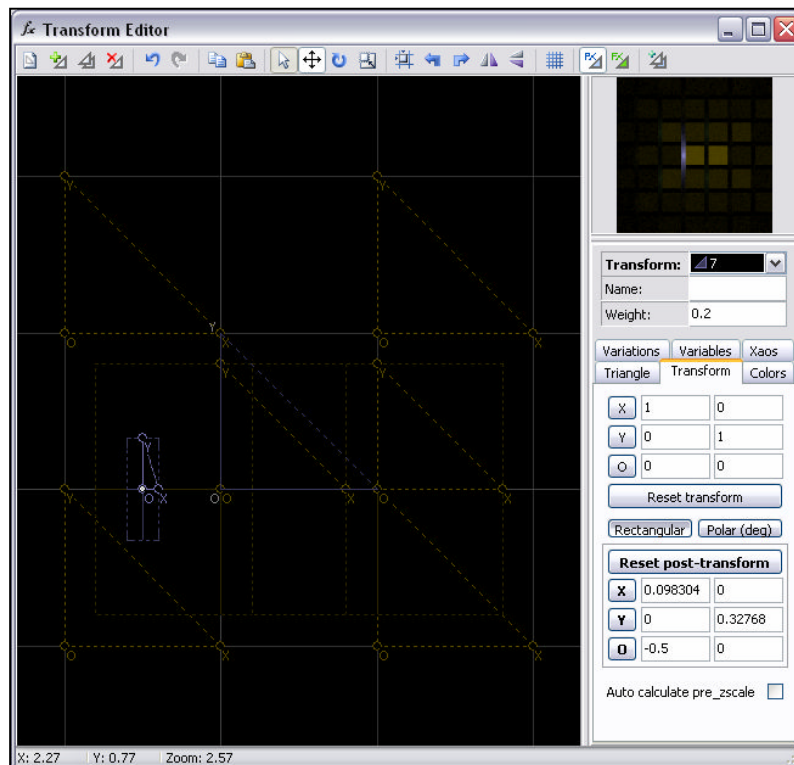
What a mess! Don't worries we only need to do something like the square thing to make the cylinder look awesome!

Allow the PT, and change X coordinate from 1 to 0.3 (ratio 1/3)

Now reduce the PT size by 125 5 times and move it 0.5 on the left.

The cylinder perfectly fills the black space now.

(Here you can low down a bit the weight to 0.2 if you wish)



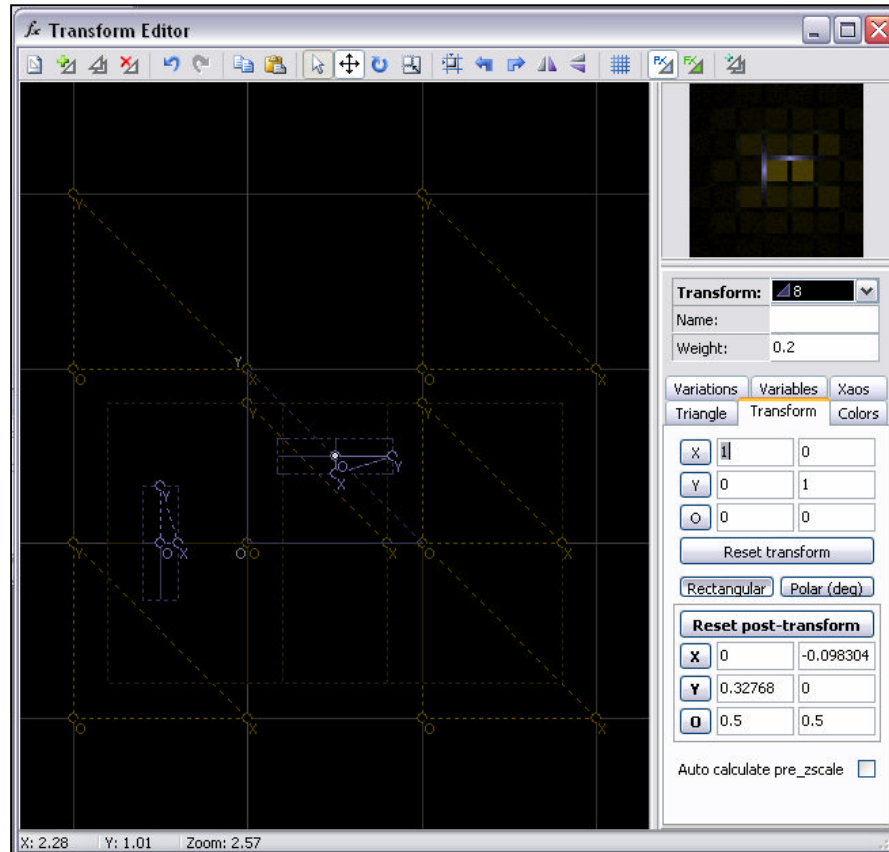
But another part is still black! So we only need to do the same again.

**Xform 8:** Linear (3D) = 0 / Cylinder = 0.8 / pre\_blur = 2

Allow the PT, and change X coordinate from 1 to 0.3 (ratio 1/3)

Reduce the PT size by 125 5 times and move it 0.5 up / 0.5 right and rotate it 90° CW!

(You still can change the weight to 0.2 if you wish)

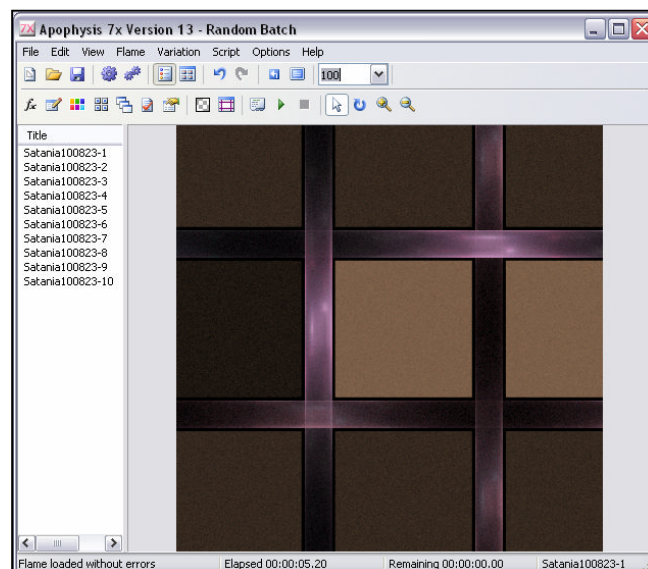


Now adjust a bit your image:

Choose a light gradient for a perfect “plastic” effect and zoom a bit closer to see it with more details on the next step.

For example I use the gradient: 665 on the base Apophysis gradient pack and I rotate it -33° and adjust a bit the luminosity/saturation and hue.

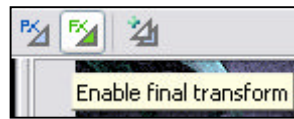
And I zoom at 40 in the adjust tab.





Now we need to give it a “portal” look.  
To make this there’s a wonderful and awesome plugin call nGon.

So add a FXform:



**FXform:** Linear (3D) = 0 / nGon = 1

Now go on the variable tab and play with them:

nGon\_sides = 4

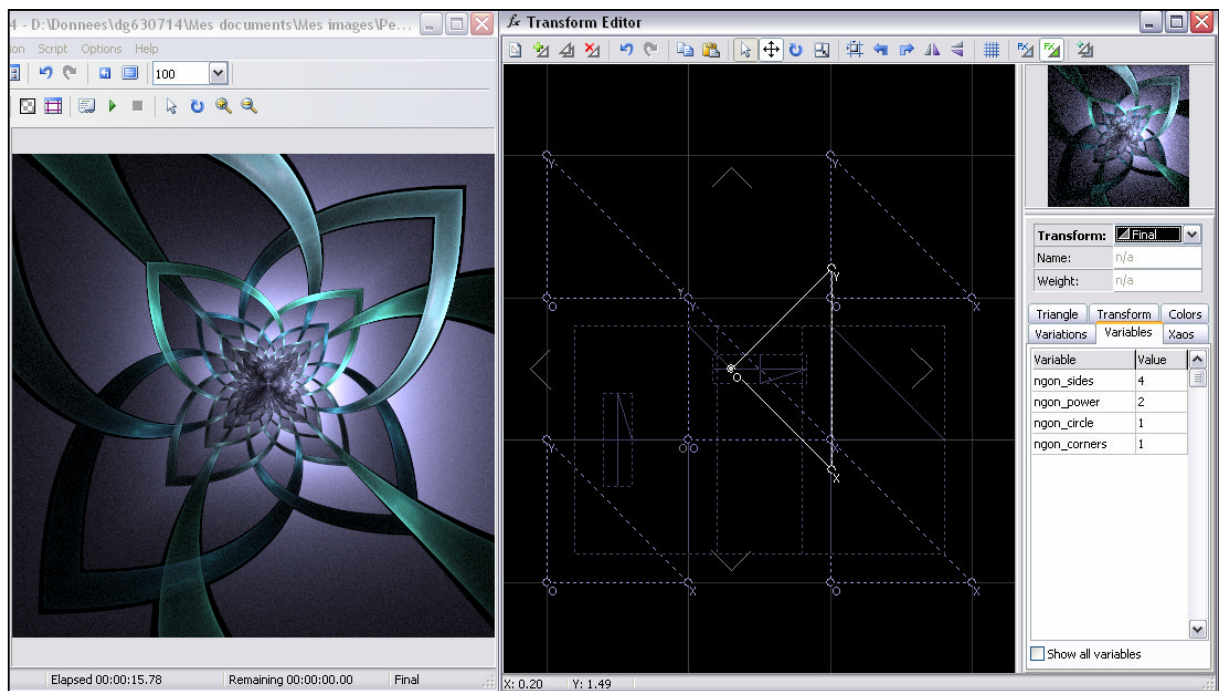
nGon\_power = 2

nGon\_circle = 1

nGon\_corners= 1

**Hint:** You can add a really small value of negative linear too to “erase” the central black space.

And move a around your FX to find a great effect!



You have now finished your deviation!

*I Hope you have appreciate it, and enjoy it.  
And don't forget to show me what you come up with!*

*Take Care and see you soon on my pages!*

**`Satania**