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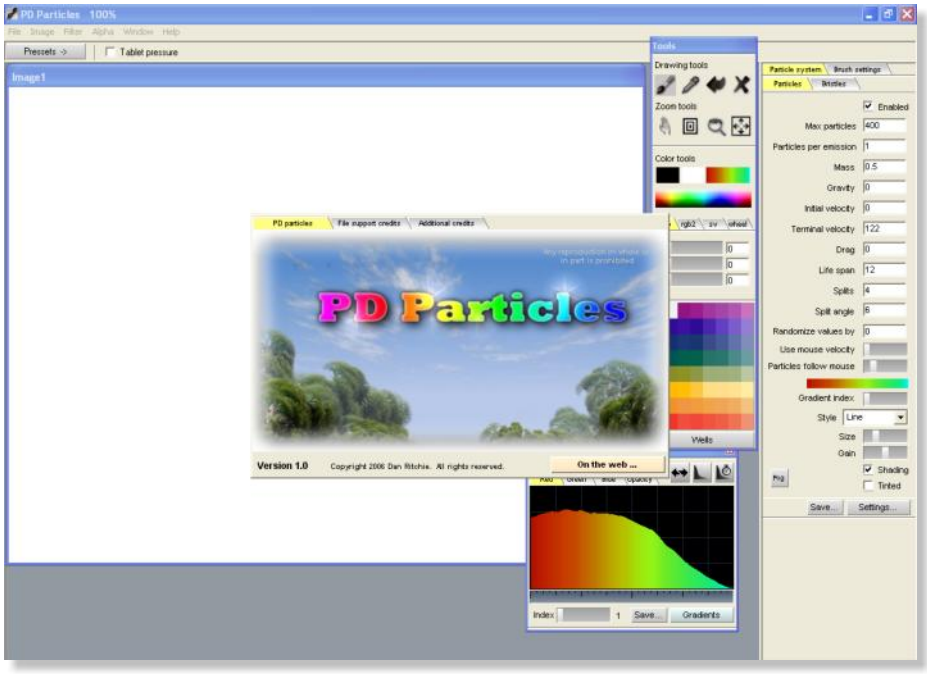
Software Tutorial - Creating Map Objects of Trees & Foilage Using PD Particles

Creating Realistic Trees & Foilage using PD Particles Paint Program

by Michael K. Tumey



Always on the search for better graphics applications for my fantasy map-making projects, I came upon this nifty tool for less than $20 - PD Particles. Its a paint program that uses particle-driven alogrythms to create cool effects that look remarkably like natural plants, foilage and trees.

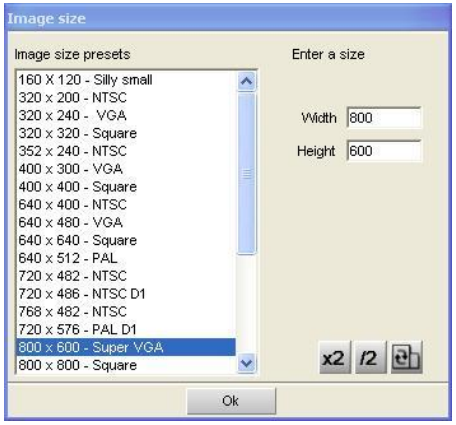
I've been told that PD Pro (for a hundred dollars more) is the real program to have offering a better color schema, than PD Particles which I still find confusing. The Pro offers custom brushes which really open up what can be created with this phenominal paint application as well as animation effects for use in digital movie-making.

Of course, both versions of PD software is ideally suited for creating landscape scenes where the viewer is standing on the ground and looking at the horizon. Its really great for these kinds of images and for the price certainly worth it for enhancing your existhing photos and images.

I have different needs. I create maps. The viewer is in the sky over the trees and looking straight down at the ground. So the software must be flexible enough to accomodate my unique graphical needs.

I purchased PD Particles and "gave it a swing" anyway.

The first thing that happens after you open the software, is that you must decide an image size and color level to create your initial window. I choose standard 800 x 600 Super VGA. I can always resize to my specific needs.



To get an idea what this program has to offer. I wouldn't use the default brush "WeirdEyeLash.opt", why that's the default brush, I can't imagine, it really doesn't show you the power of the software, like the other brushes.

Here's a brush to try. It has a nice graphic quality about it and it really shows you what this application can do.

Ensure that the Particle Systems Settings Tab is selected, this is the menu on the far right of the Window.

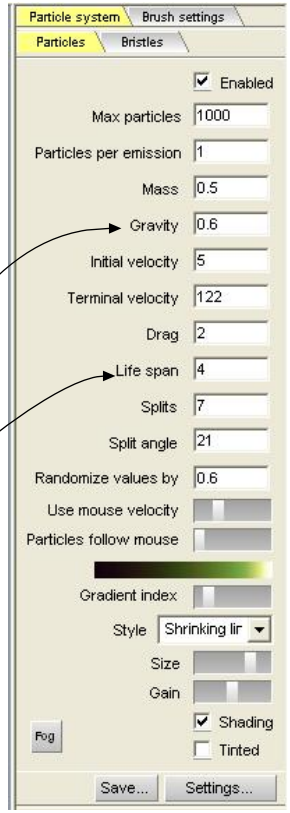
Go to settings and select "JoshuaTree.opt"

JoshuaTree.opt

Now click and drag your mouse across the painting window to see what the "JoshuaTree" brush can do.

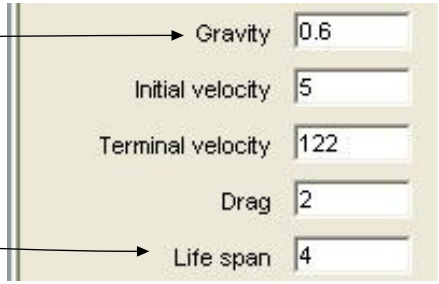
You'll notice right away, that this program is really designed to be used for other than map-making views. In order to get the brushes to respond better for a birds-eye-view, you will need to make settings adjustments in the Particle Systems Settings Tab - on the far right of the application window.

Although you can adjust all the settings, and you should experiment by changing a setting than seeing the changes by painting in the main window. You can always go to the the Image menu at the top of the screen and click "Undo."



The settings I adjust for creating map-objects are "Gravity" and "Life Span".

When you change the Gravity setting to "0", there is no upward or downward movement, rather the image goes every direction or simulates upward movement, which is the kind of effect, I seek with map objects.



"Life Span" determines the length of the "foilage" or brush effect. Many of the effects I need, require much shorter leaves and pine needles, so I tend to lower this number than the default settings.

Of the brushes I find most useful in their unaltered states, are both the "Brocolly" Brushes.

If you click the "Settings" button at the bottom of the Particle System Settings Tab, you can view a list of all the included brushes with PD Particles.

Try painting a circular pattern with the "Brocolly_Trails.opt" brush. Do the same with the "Brocolly_Trails2.opt" brush.

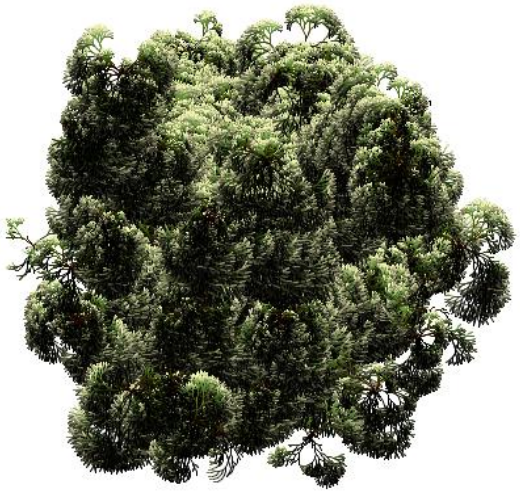
Notice how both these brushes offer branch like extensions beyond the leafy foilage of the brush itself.

In most of my tree map object designs, I usually include a base 3D tree without leaves to start from. I add the foilage to this skeleton to create a complete tree.

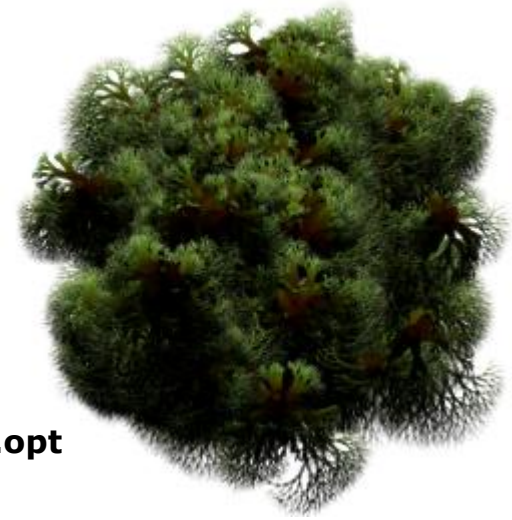
These two brushes can work without a tree base.

Don't they look very realistic?

It really isn't necessary to make any adjustments to the Gravity or Life Span, as these brushes make great tree foilage on their own settings.



Brocolly_Trails.opt



Brocolly_Trails2.opt

For most of my tree map object creations, I depend on a base leafless tree graphic to start from.

You can download my "Leafless.jpg" here

In PD Particles, go to the File menu, at the top of the screen and click "open" to load the "Leafless.jpg" file.

Try using both the Brocolly brushes, but focus on creating short dabs. Do not use a constant moving brush to build up the foilage.

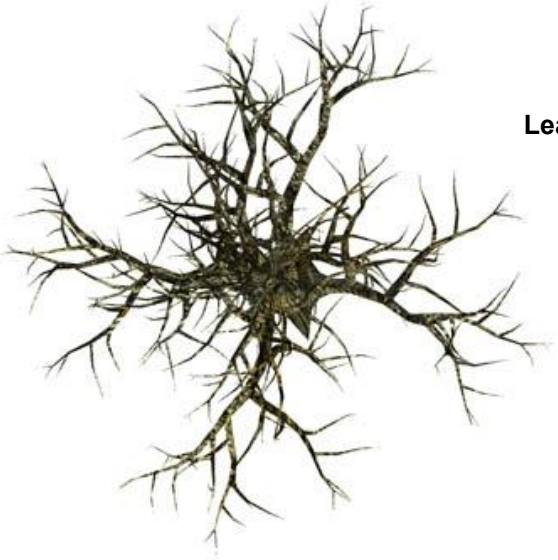
You should get results like those to the right of this text column.

Another brush that works well, without adjustements is the "Fan.opt" brush. When I say, it works well, only if you use it in short strokes. Long strokes with this brush creates an artificial looking branch, so quick your paint strokes short.

You will also notice that painting in one direction creates darker areas than the other. For the "Fan.opt" brush, painting upward strokes creates the shadow area, so paint in short downward strokes.

The image on the right shows the base leafless tree, with the "Fan.opt" brush used for leafy tree material.

This works well for many leafy oaks, elms, ash and other deciduous trees.



Leafless.jpg

Leafless.jpg with Brocolly_Trails.opt

Leafless.jpg with Fan.opt brush

Instead of having to use my "Leafless.jpg" file for the base of your tree, there are brushes in PD Particles that can create a leafless tree graphic on its own.

The four best "Leafless" tree brushes in PD Particles are: JoshuaTree.opt, Trees.opt, Trees2.opt, WinterBranches.opt

To the right are the four brushes I've just mentioned and how they look as tree base objects.

Although, the Joshua Tree is slightly less useful than the other three, all make believeable tree bases.

So far, all the trees described in this tutorial have been leafy deciduous trees. PD Particles is great for creating the various types of conifer or evergreen trees.

PD Particles brushes that best serve in the creation of needle trees are: Garland.opt, Garland2.opt, PineBranches.opt, SprayBranches.opt and Seaweed.opt.

All these branches require short strokes and generally upward or downward only, whichever way the shadows don't get heavy.

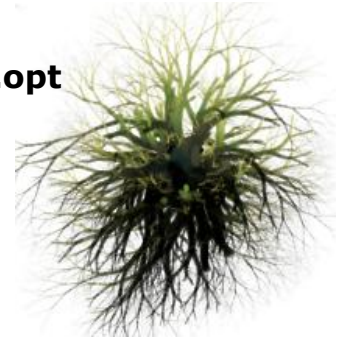
Settings for Gravity set to "0" and adjusted "Life Span" apply here as well.

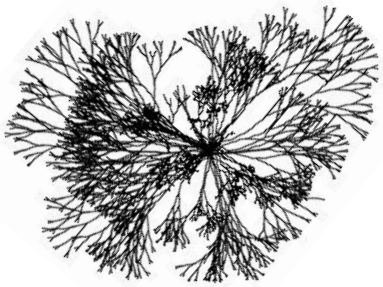
On the right side of this page you can see examples of all five brushes used for making evergreen plants.

I deliberately created the "spruce branch" design using the PineBranches.opt brush.

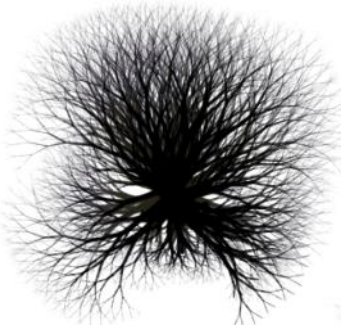
JoshuaTree.opt

Trees.opt





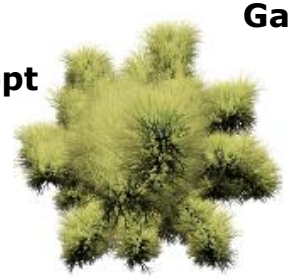
Trees2.opt



WinterBranches.opt

Garland2.opt

Garland.opt



SprayBranches.opt

PineBranches.opt

Seaweed.opt

On a final note, PD Particles can used to create all types of ground cover, from grassy fields, to weeds, flowers and rockfield.

To the right are "grass" brushes with their Gravity set to "0" and shortened "Life Spans"

Although I believe both the "Serious Grass" brushes can make excellent fields of grass, I still prefer using image fills using actual photographs of ground textures, composited in Xara Xtreme.

The examples to the right are to show the possibilities!

I still am having problems figuring out the Gradient Settings Tab, with adjustments to the color bars and opacity tab, but maybe I'll work these out and introduce an advanced PD Particles tutorial next month.

Below are the kinds of graphics normally created in PD Particles, using the normal settings, unlike those selected for this tutorial.

Try out this software, for the price is irresistable and for the power and speed its simply extraordinary!

Michael K. Tumey