# procedural splines along the edge or inside the polygon



one pube, two pube, three pube

# What is it?

Pubes is an After Effects script that generates parametric splines.

It allows producing the unlimited number of splines either inside the polygon or around the shape edge. In Polygon mode, all the splines are distributed randomly inside the shape area, while in Edge mode you can choose to distribute splines evenly, randomly, semi-randomly or by projecting at a given angle.

The script lets regenerating splines at any given time. All you need to do is read back the data, and it will populate the UI with the values that were used to create the splines in the first place. This brings the power of the unlimited and indestructible process of working.

# Installation

Follow these two simple steps to install script:

- 1. Unpack the archive you have downloaded and copy/paste Pubes.jsx into ScriptUI Panels folder:
  - Windows: Program Files\Adobe\Adobe After Effects <version>\Support Files\Scripts
  - Mac OS: Applications/Adobe After Effects <version>/Scripts

If folder ScriptUI Panels does not exist, create a folder and name it "ScriptUI Panels". Then paste the copied files into it.

- 2. Allow script to access network to avoid unnecessary problems while loading GUI. This option is under General tab of After Effects Preference pane:
  - Windows: Edit > Preferences > General
  - Mac: After Effects > Preferences > General

Once Installation is finished run the script in After Effects by clicking Window > Pubes



### going au naturel

# How to Pube

The use of the script is rather simple – just select a shape you want to grow pubes on (or populate pubes inside) and click a Generate button (the one with a bunch of pubes) in the UI – a new Pubes layer will be created above the original shape layer, that contains the number of splines you specified in the interface.

Now, depending on the distribution method you've selected in the UI, splines will be distributed at a:

- constant distance from each other,
- semi-random distance from each other, but filling the entire length of the source shape layer,
- random distance from each other, but might end up with empty spots (or too crowded) of Pubes along the length of the source layer, or
- projected at a constant distance, but only one side of the shape layer will have Pubes.

All the distribution methods (except the Projection one) will set rotation values so that each spline is pointing at it's a normal direction (basically 90° from their base).

The value for the stroke Color (including brightness) and Width will be used the one that specifies the min value in the edittext box, and will ignore the max value – basically, initial Pubes generation will end up with:

- one Stroke group that applies same Color and Width for all the splines, and
- all the splines will be equal length.

If the distribution method does not suit you, feel free to chose any other method (Constant, Random, etc) and click the same Generate button again. This time it will not create a new Pubes layer, but instead will redistribute the splines differently. It will not have any effect for the stroke Color or Width or the spline Length – those will be left as it was, and only the roots will be modified.

To generate multiple splines with different Colors and different Widths on one Pubes layer, simply enter 2 values that represent min and max in the interface, separated by a comma, as in "100, 200", and click the Update button. Again, this action will not change the position or rotation of the splines, but rather only affect the stroke values. Note that if min & max values of the Brightness are the same, as well as both min & max values for the Width are the same, the Pubes layer will only have one Stroke group – this is intended so to not have unnecessary properties. However, if min & max values are different, then each spline will have its own Stroke group, and therefore can have different Color, Width, Opacity, Line Cap, etc.

Length property modifies the length of each spline. To have all the spline be equal length, simply enter one value and click the Update button. To have each spline with a different length, enter min & max values (same as for Stroke property)

Other buttons, such as Add target, Random rotation are rather self-explanatory and doesn't really require any instructions. Simply select a Pubes layer and click a button and see what happened.



### show me how to nurture them

## The UI



Generate splines along the edge on the shape – distributes splines along the edge of the shape. This option unlocks Constant, Semi-random, Random and Projection choices.



Generate splines inside the polygon. Most likely this will not work properly with shapes intersecting itself.



Constant spline distribution along the shape edge. Splines are arranged at a constant distance between each other. A minor deviation of ~0.05 px can occur on curved shapes.



Semi-random spline distribution along the shape edge. Very similar to Random distribution, except this will scale the range of distribution along the curve length.



Random spline distribution along the shape edge. Places splines at a random position on the shape. This can result in empty or highly condensed spots of splines along the shape.



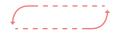
Project splines onto the edge at an angle. Visualize as if the sun was shining onto a surface - spline grows on a bright edge and doesn't on the shadowed. The angle of 0° points up.



Load values from Pubes layer. A handy feature to have if you need to read values after project restart – this populates the UI with the values used to generate spline in question.



Generate Pubes – the most abused button in the UI. It builds Pubes layers if a shape layer is selected, or regenerates the existing Pubes if the Pubes layer is selected.



Update stroke/spline length values – updates stroke color or width (or spline length) for the Pubes layer.



Add target – adds a layer and applies rotation expression to every spline so they all point to the direction of the target.



Random rotation – recursively sets a random rotation value for each of the splines.



Reset rotation - sets default rotation value that was assigned once splines were generated.



Reverse direction - reverses the direction of each spline.



Add/remove Wiggle effector - adds/removes a Wiggle Paths shape effector and applies an effect to control the Wiggle parameters.



Add/remove Gradient Stroke effector – adds Gradient Stroke to each spline with a Black to White gradient set to Multiply. Alt+click reverses gradient to and sets Screen operation.



Developed by Tomas Šinkūnas www.rendertom.com