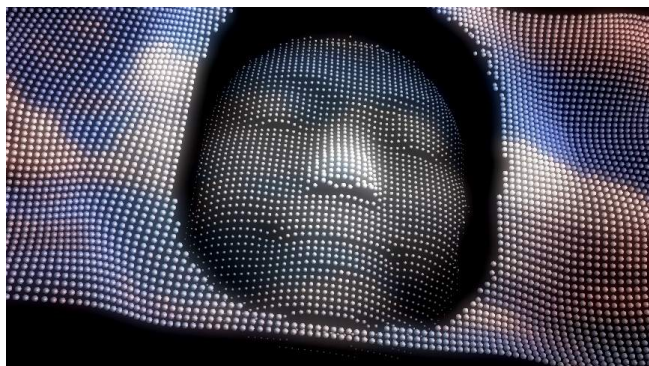
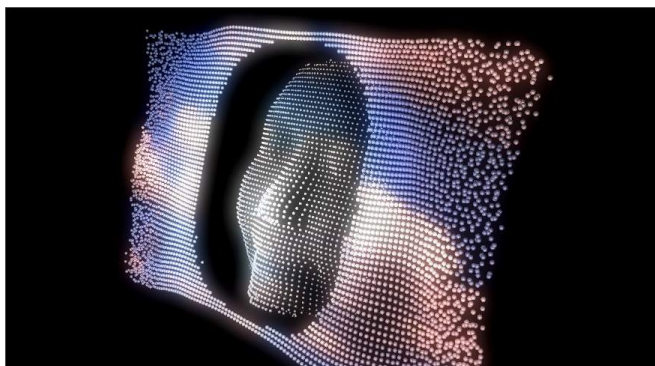


UNFINISHED D R A F T

[Render Group](#) – [Pin FX](#) – [Pins Group](#) – [Pin Screen](#) – [Transform Groups](#) – [Noise Waves & Dispersion](#) – [Built-in Camera & Lights](#)

BCC Pin Art 3D is a particle based generator style filter. The name Pin Art is a reference to the desk toy where metal (or plastic) pins can be displaced by objects creating a 3D relief. The **BCC Pin Art 3D** filter is designed to use the color, luma, or alpha properties of an AE layer to influence various aspects of a particle (or pin) screen.



Render group ; includes parameters affecting the **image quality** of the effect and other **global render related** settings

- **Blending Mode** ; determines whether the pins composite with each other using **Normal** or **Add** blend mode
- **Anti-Aliasing** ; None, Low, High ; sets the level of anti-aliasing applied to smooth edges
- **Motion Blur** and **Shutter Angle** ; offers options for various levels , simulating motion blur seen in camera footage. When set to **Host Settings**, the motion blur of the filter matches the motion blur set for the AE comp it's applied in.
- 3D Options ; **Slice Resolution** and **Stack Resolution** – for 3D pin shapes, these determine the resolution (how many polygons) used to define the shape. Higher resolution values will result in slower performance. For effects where the pins appear small, it may be possible to lower the resolution values to get faster performance (without adversely affecting the appearance). For effects where the pins appear large, it is possible to increase the resolution values to give a smoother appearance to the shape.
- **Use Source Mask** ; When enabled, the Pin Screen will take any masking applied to the filter layer into account in it's use of the layer, otherwise it will ignore masks.
- **Near Clip Plane Offset** and **Far Clip Plane Offset** - these can be used to clip or extend the bounds of the area in which pins will appear.

Use Comp Lights ; When enabled, the filter will **use AE lights** enabled in the comp. The maximum total lights (including built-in and AE lights) the filter can use at once is 8. If there are more than 8 enabled AE lights in the comp it will use the 8 enabled light tracks that are topmost in the timeline.

Use Built-in Lights ; There are also 3 built-in lights available. It's possible to use both built-in and AE lights simultaneously. If enabled, the built-in lights will have priority over AE lights in terms of which lights get used if the total number of lights exceeds 8.

Use Comp Camera ; When enabled, the filter will display the Pin Screen from the perspective of the enabled AE camera whose track is topmost in the timeline. When Use Comp Camera is enabled, the Built-In Camera group is disabled.

Pin FX group

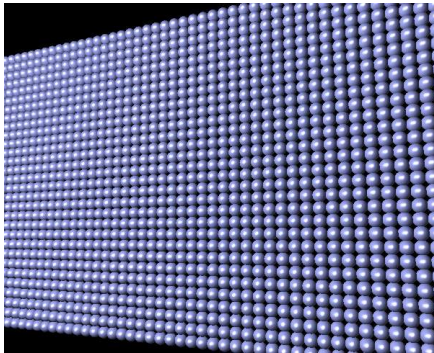
Pin FX Layer and **Pin FX Layer Mode**, **Individual FX Layers** and **Modes** ; In the Pin FX group, either the **Pin FX Layer** selector or the **Individual FX Layer** selectors determine which layers in the composition are used to influence the various FX applied to the pins. Every FX Layer selector also has an **FX Layer Mode** selector where it is possible to choose which attribute of the layer ; **Luma**, **Alpha**, **Luma Inverse**, or **Alpha Inverse** – is used to map how the FX are applied.

<i>FX Parameter</i>	<i>FX Layer Mode*</i>	<i>Result using positive FX parameter values*</i>
Shift FX	Luma	higher luma values shift the corresponding pins farther out from the front of the pin screen
Shift FX	Alpha	higher opacity values shift the corresponding pins farther out from the front of the pin screen
Size FX	Luma	lower luma values shrink the corresponding pins smaller than their original size
Size FX	Alpha	lower opacity values shrink the corresponding pins smaller than their original size
Opacity FX	Luma	lower luma values fade the opacity of the corresponding pins
Opacity FX	Alpha	lower opacity values fade the opacity of the corresponding pins

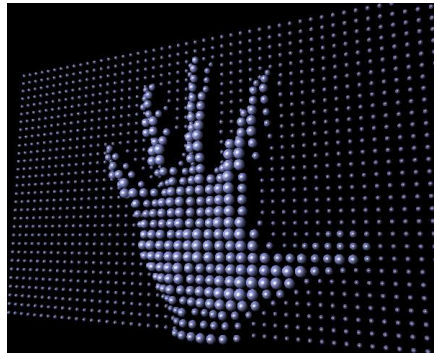
*Note ; In all cases the inverse effect can be achieved by using the inverse FX Layer Mode or negative FX parameter values.

- **Master FX Scaler** ; allows for scaling all FX values in a single parameter.

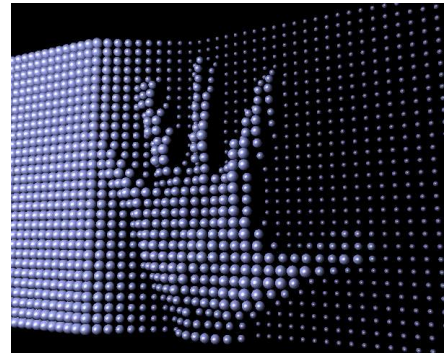
- **Wipe FX, Lock FX Wipes** ; allow for wiping the individual FX separately or altogether with a single wipe control.
- **FX Wipe types** ; Below are images showing a Pin Screen with Pin FX partially wiped on using various wipe types.



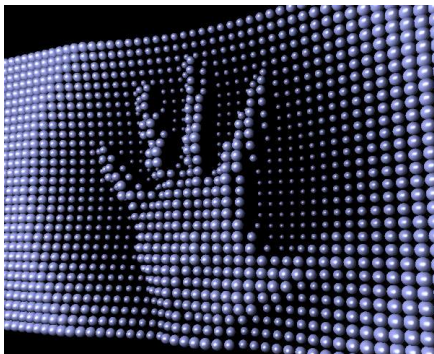
No Pin FX



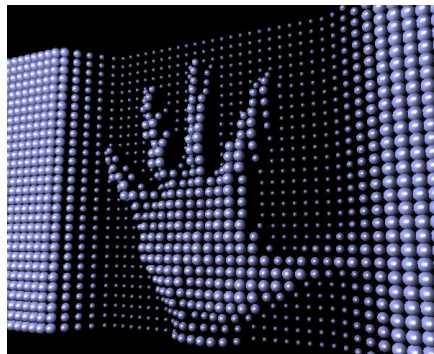
Full Pin FX



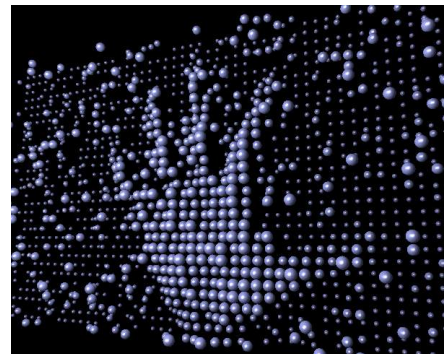
Left to Right Wipe



Outside to Inside



Edge to Mid

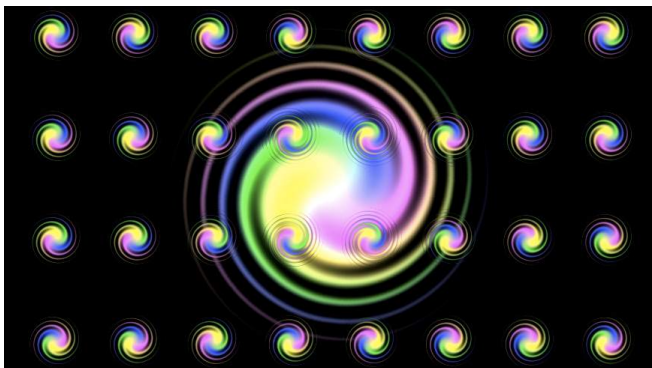


Random

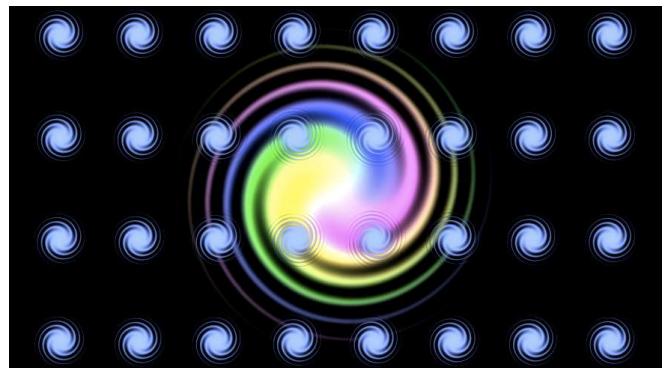
- **Wipe Progress** and **Wipe Softness** ; @ Progress zero none of the Pin FX displayed, @ Progress 100 the Pin FX is entirely wiped on. For some Pin FX, extending the Progress to 200 allows for further wiping the effect to the other extreme (so the entire pin screen is displaying the effect). **Wipe Softness** allows for a softer edge to the wipe.

Pins group

- **Pin Type** ; determines the type of particle used for the pins. 3D Pin Types support 3D lighting and textures, while most other choices do not. The Custom Shapes choice also supports 3D lighting and textures.
- **Texture Layer and Texture Modes** ; allow for using the image (**Color and Alpha** or **Alpha Only**) from an alternate layer as the texture displayed by each pin



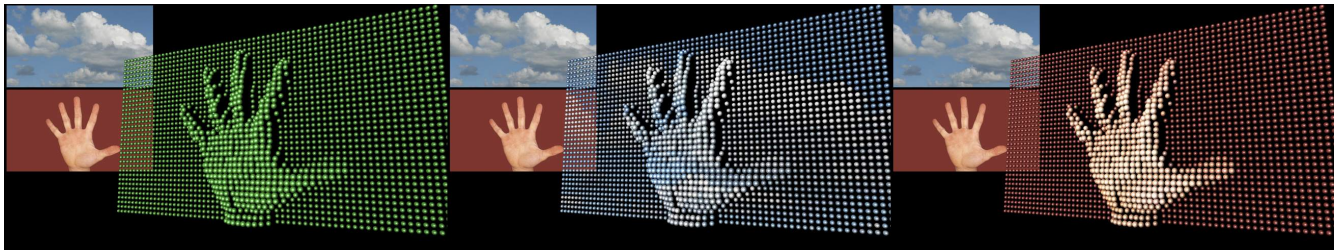
Texture Layer using Color and Alpha



Texture Layer using Alpha Only

- **Preserve Orientation** ; when Preserve Orientation is enabled, **3D pins' orientation in relation to the camera is maintained regardless of the camera perspective or pin screen rotations**. This means that if the Pin Transforms are left at default, the pins will always seem to be facing the camera which is useful for some types of effects. The **Preserve Orientation** setting **does not apply to other (non-3D) Pin Types** since those types **always** face the camera regardless of perspective or rotations.
- **Master Size, Size Variance, Size X, Size Y, Size Z** ; for adjusting and varying the size of the pins.

- **Mix Color Amount, Mix to Single Color, Mix to Layer** ; the pins default to using the color from the layer they are applied to, and the mix parameters allow for using another color or another layer to define the pin colors.



Mix to Color (green)

Mix to Layer (clouds)

No Mix (filter layer)

- **Shape Character** ; this parameter makes the **3D Discs to appear with hollow centers** and it can change the **3D Cylinders into Cone shapes**.
- **Material Shininess** and **Material Specular** ; for 3D and Custom Shape pin types, these parameters allow for adjusting the appearance of 3D lighting on the surface of the pins.

Pin Screen group

Density Master, Density X, and Density Y ; allows for adjusting the density of pins while maintaining the overall scale of the pin screen
Master Scale, Scale X, and Scale Y ; scale control for the pin screen which maintains particle size and density

Transform Screen group

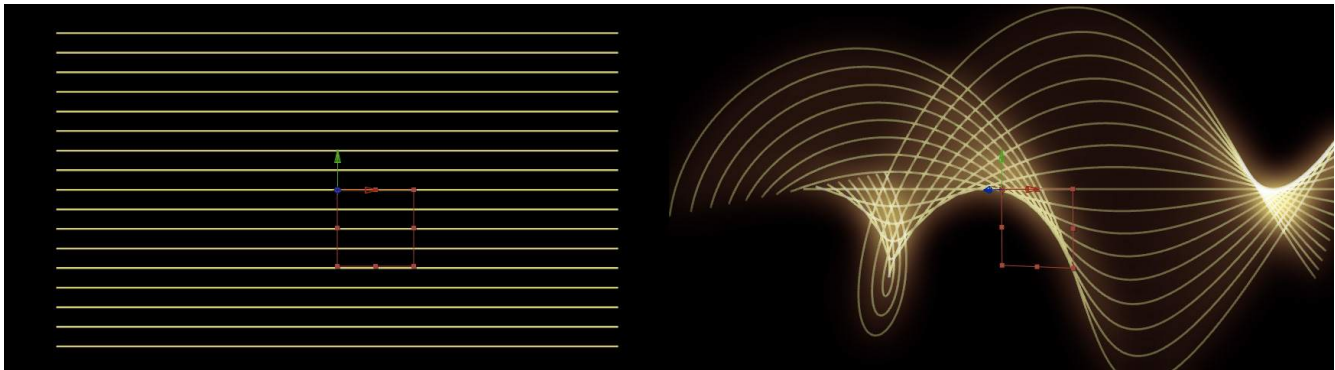
Rotate X, Y, Z ; rotation on 3 axes – rotation is applied to screen and pins

Global Scale ; scale the pin screen including scale of the pins

Center X, Y, Z, and Position Mode ; 3D position of pin screen with a choice of using object based position (**Before Rotation**) or world based position (**After Rotation**)

Twist Mode, Twist Angle, Twist Offset, Twist Direction ; controls for applying a twist deformation to the pin screen

Twist Wipe ; wipe controls that apply to the twist deformation



Horizontal Lines Pins, Transformed in 3D and Twisted (and post processed with BCC Glow filter)

Transform Pins group

Tumble, Spin, and Rotate ; allows for transforming 3D pins independently from the pin screen (disabled for non 3D pins)

Variance parameters ; allows for varying the rotation amount between pins based on a random algorithm

Bi-directional Rotation ; allow for varied rotation in both directions simultaneously (positive and negative)

Transform Wipe ; wipe controls that apply to the pin transformations

Noise Waves group ; allows for applying a waves deformation to the pin screen

Amplitude ; for adjusting the height of the waves (can use positive and negative values)

Frequency ; for adjusting the frequency of the waves

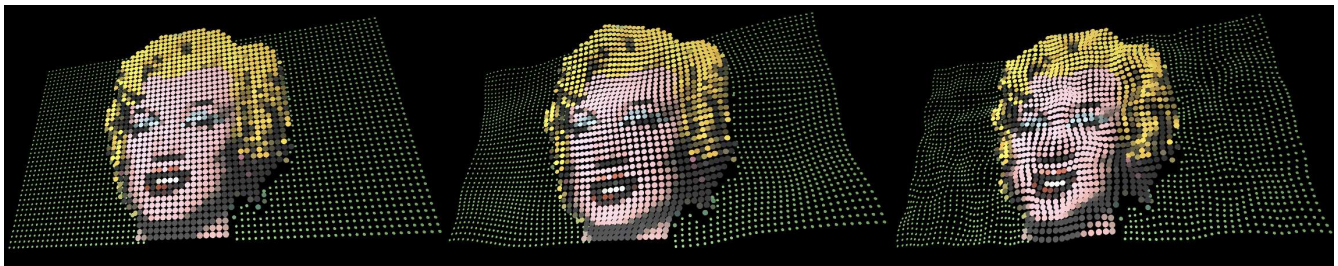
Evolve ; an offset control for the evolution of the noise pattern the waves are based on – can be keyframed to manually animate waves

Auto-Evolve Speed ; speed of wave auto-animation

Auto-Loop ; number of seconds at which wave animation will seamlessly loop

Scale Waves ; scales the amplitude of the waves

Waves Wipe ; wipe controls that apply to the wave deformations



Dispersion group

Disperse Master, **Disperse X**, **Y**, and **Z** ; disperses the pins from their original locations based on a random algorithm – a master control and control for dispersion along the individual 3D axes

Disperse Wipe ; wipe controls that apply to the dispersion

Built-in Camera group

Camera Model ; **Position**, **Orbit** – camera offering 3D position and orientation control, or an orbit camera for easily adjusting perspective while remaining focused on the 3D center

Field of View ; an adjustment that can be used to simulate the look of various lenses – a large value gives a wide angle look

Camera Position X, **Y**, and **Z** ; 3D coordinate control for camera

Camera Tumble, **Spin**, and **Rotate** ; controls for orientation of the position based camera

Use **Depth of Field**, **DOF Focal Point**, **Aperture**, **Blur**, **Falloff**, **Resolution** ; controls for simulating camera depth of field

Beat Reactor group

Has its own Help file doc accessed from within the parameter group by clicking the Help icon in the preset banner, or by clicking [here](#).

BORIS FX

(2010)

