

# KPT ORB-IT

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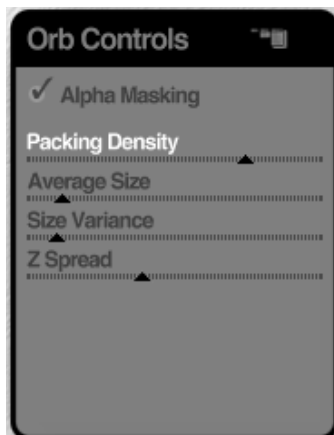
## Overview

KPT Orb-It creates a field of 3D orbs over a background image. Each orb is an individual object with its own surface properties and position in space. Since the spheres exist in 3D space, they appear to have depth. As well, they can be lit from any direction using various light sources.

Spheres can be colored using lights, tint colors, or by picking up color from a background image.

## Creating Orbs

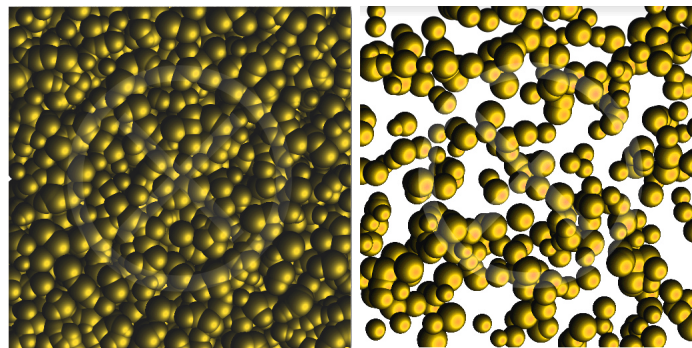
A sphere field is automatically generated the minute you enter KPT Orb-It. Every time you change a parameter, a new field is created. The Orb Controls panel lets you control how that field is generated. The panel's controls let you set the size of individual spheres as well as the density of the sphere field.



*The Orb Controls palette.*

## Setting Orb Packing Density

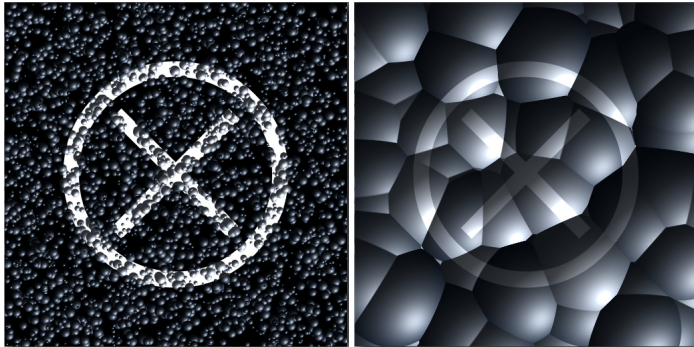
Packing Density controls how many spheres are produced. Low values produce an orb field with few orbs spaced farther apart. High values have the opposite affect.



*Examples of high and low Packing Density values.*

## Setting Orb Size

Orb Average Size controls the relative size of spheres. High values produce larger spheres, while low values produce smaller ones.



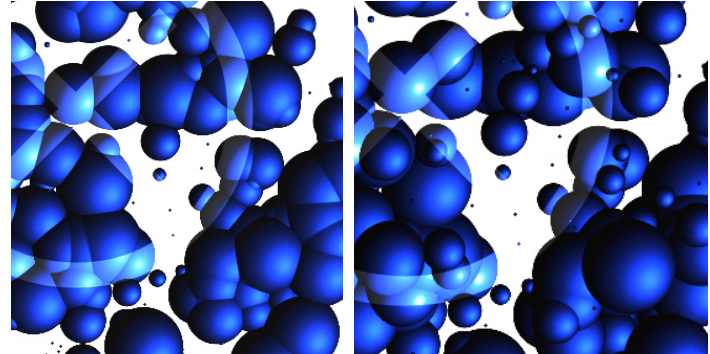
*Examples of low and high Orb Average Size values.*

## Size Variation

Orb Size Variance controls the amount of difference in sphere sizes. Higher values result in spheres that range from very large to very small. Lower values result in orbs that are all closer in size.

## Setting Z-Axis Distribution

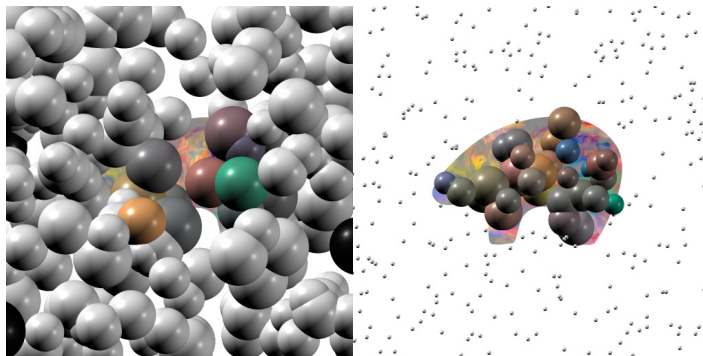
Orb Z Spread controls the depth of the sphere field. What the control does is adjust the position of spheres along the Z plane. Higher values result in spheres that are more spread out along the plane, creating a sense of depth. Lower values result in a flatter looking sphere field.



*Examples of low and high Orb Z Spread values.*

## Controlling Orb Density using Alpha Information

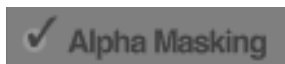
The Alpha Masking option lets you use the grayscale values of an image to control orb density. When the option is enabled, larger orbs appear in areas of light and smaller orbs appear in dark areas.



*An orb field with Alpha Masking disabled and enabled.*

To enable/disable the Alpha Masking option:

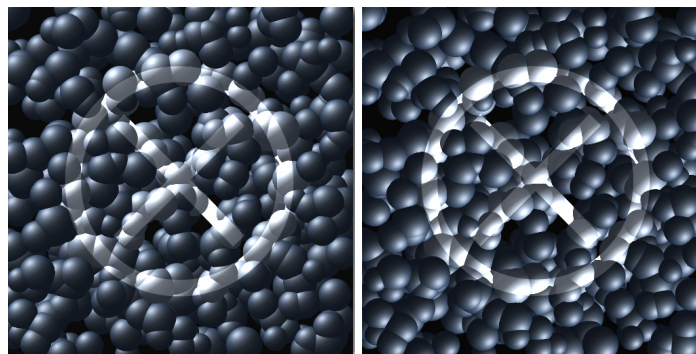
- ✱ In the Orb Controls panel, click the Alpha Masking label. When the checkmark appears, the option is enabled.



*The Alpha Masking label .*

## Lighting Orbs

Since the spheres created by the filter are 3D, they can be lit from any angle. You can have as many lights as your system's memory allows. Each light can be positioned separately and it can have its own color.



*The effect of different lighting angles.*

Lights are controlled by the 3D Lighting panel. Refer to **“3D Lighting Panel”** on page 30 for more on using this control.

## Setting Up Orb Surfaces

An orb's surface is made up of several properties. Its material color, which is drawn from the background image; its tint color, which can be used to alter the material color and create metallic

effects; its refraction setting, which can make a surface look like glass, and finally its environment map, which can create a realistic-looking reflective surface.



*Orb surface properties are controlled by the Orb Color panel.*

## Using a Tint Color

The base color of spheres comes from either the original background image or the Tint Color.

Usually a sphere's color is picked up from the image beneath it. However, if there is no color, the sphere's color is the Tint color. This is rarely the case; more often the Tint color is used to wash all the orbs in a uniform color.

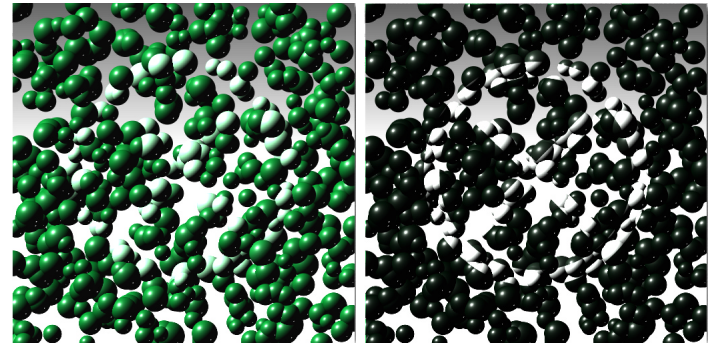
To set the tint color:

- ✱ In the Material panel, click the color dot and choose a color from the Color Picker.

Refer to [“Using the Color Picker” on page 29](#) for more on using the Color Picker.

## Setting the Tint Amount

The Mix Tinting Color slider in the Orb Color panel controls how much of the tint color is applied to the orbs. Higher values shift all orb colors closer to the tint color.



*High and low Mix Tinting Color values.*



## Tint to Background

The Tint to Background slider controls how much of an orb's surface color is taken from the pixel directly below it. At high values, orb color is taken more from the background image. At lower settings, orbs are colored more by the light and tint colors.



*The effect of setting Tint to Background to 100.*

## Using Glass Refraction

When you apply Glass refraction, the orbs refract light causing distortions in any reflection coming off their surface. Distortions appear when the orbs are refracting parts of the background image.

## Turning Metallic Reflections On/Off

The Metallic Render option lets you tint orb reflections using the material color, giving them a metallic look.

To turn Metallic Render on/off:

- ✱ In the Material panel, click the Plastic button. The option is disabled when the button is labeled "Plastic".

## Adding an Environment Map

An environment map is an image that's projected onto the surface of your spheres to produce realistic reflections. The map is applied to each sphere separately, so you can see the reflection again and again.



*An image applied as an environment map.*

## Blending the Environment Map with the Orbs

The Mix Environment slider lets you control how much the environment map affects the surface of an orb. At lower settings, the environment map appears faded. At higher settings, the map is completely visible.