# **Cloud System Getting Started**

Version 1.7

by





#### 1. Introduction

In this document, we describe the necessary steps to create a cloud with the Cloud System. A basic understanding of Unity is required.

# 2. Preparation

As a preparation, you need to import the Cloud System. Extract Plugins/Cloud System/Demos/CloudSystemDemos.unitypackage and open Cloud System/Demos/Scenes/Empty.scene.

# 3. Cloud Prefab and Game Object Creation

Select  $GameObject \rightarrow Create Other \rightarrow Cloud$  from the menu. This creates both a new cloud game object and the corresponding prefab. The prefab stores most of the data. That's why you should never delete that prefab, except you won't need it anymore.

First, we are going to change the rendering method to get a more interesting look. At the moment we are using the **Tint** rendering method. Change that to **Vertical Color With Shading Group** or to **Shading Group** with the **Simple Custom** renderer if you have Cloud System Free.

A warning is shown, that no sun is set. Have a look where you can set the sun and assign the **Sun Light** game object to that field.

Set the **Scale** to 100. Like that we can use smaller numbers in the next few steps.

#### 4. Cloud Creator

The previous steps were all made in the cloud mode. Now we need to change to the shape mode, that is the next one in the toolbar within the inspector view of the cloud.

That mode contains a foldout named **Cloud Creator**. Make sure that it is open. We will need it to create the particles for our cloud in the next section.



#### 4.1. Shape Modeling

Click the **Add** button to create a new shape. You will see the shape in the scene view.

Change the **Size** of the shape to (4, 1.5, 4), meaning the x, y and z values of the size.

Click **Create Particles** in the cloud creator foldout. If you don't like the look, click again and compare the different results that can be achieved. By lowering the **Density**, you control how close particles can be to each other.

We create another shape by clicking the **Add** button. Change the **Position** to (0, 0.5, 0) and the **Size** to (2, 2, 2). Create the particles again.

In the shape mode you can also set the particle group. That one defines what kind of particles have to be generated.

#### 4.2. Particle Groups

Change to the particle group mode, the next one in the toolbar.

Both shapes we created so far are using the default particle group named **Particle Group**. As you see that group has one particle type so far.

Change the **UV Index** of this particle type to 8 and create the particles again. The cloud doesn't look that solid anymore.

Click two times on the **Add Type** button, such that you have three particle types in the particle group.

Change the **UV Index** of the second particle type to 10 and the last one to 12. Now create the particles again. Now the cloud consists of three different kinds of particles.

# 5. Shading

We are going to modify the shading, to mimic the appearance of the clouds in the sky box.

# 5.1. Shading Groups

Change to the shading group mode, the next one in the toolbar.

#### **Cloud System**



At the moment there are two shading colors. Change the one with Factor 1 to dark blue.

In the scene view, you see a small circle in the middle of the cloud. Drag that one around and see how the color of the cloud changes. If you drag it closer to the sun, it gets darker. If you drag it away from the sun, it gets brighter.

#### 5.2. Vertical Colors

Switch to the vertical color mode, the next one in the toolbar. If you have Cloud System Free, the functionality of this section is locked.

There are two default colors. Those colors are used to shade the particles according to their height within the cloud. The higher a particle is in the cloud, the more is it's color influenced by the top color. The lower a particle is located in the cloud, the more is it's color influenced by the bottom color.

Change the second **Color** - the one with a **Height** of 0 - such that it looks nearly equal to the bottom of the clouds in the sky box, meaning a mix between gray and blue. It is very easy if you use the color picker and just click on the color in the sky box you would like to have.

Now you have a very simple cloud, that is using the most important functionality of the Cloud System. But there are still a lot of things in the Cloud System we have not touched so far.

#### 6. Further Information

That was just an overview of what can be made with the Cloud System. More information can be found in the reference.