Setting up a Scene

The goal of this lesson is to learn how to change the properties and position of the objects and camera in the Alice virtual world.

There are a number of tools in the setup scene window that allow you to make changes to the virtual world. We will discuss some of these tools.

handle style:

Using the Handles to position objects

At the top right of the setup scene window you will see a set of 4 buttons called handle styles.

The **default** button lets you move the selected object to the left, right, forward, and backward.

The **rotation** button lets you rotate objects left, right, forward and backward.

The **move** button lets you move the object up and down as well as left and right.

The **resize** button lets you resize the selected object.

When you select one of these buttons, you will see handles that you can use to manipulate the selected object.

In this illustration, the rotation button has been selected. The red ring can be used to rotate the chicken to the left and right. The blue ring can be used to rotate the chicken forward and backward. The white ring can be used to roll the chick to the left and right.

The Camera

The set of blue arrows at the bottom of the scene let you move the camera left, right, forward, backward, and up and down.

You can also look at the scene from the top, side and front using the drop down menu at the top of the scene.

These angles give you a clearer view of how positions are in relation to each other. These different views make it possible to precisely put a lid on the cauldron, or to stack objects such as a stack of boxes.



Default Rotation Move Resize









How to Change the ground

Every object has properties that you can change. You can change the color of the ground by selecting a new value for the ground's paint property.

You can make the ground semi-transparent by setting the opacity. Opacity has values from 0 (completely transparent) to 1 (completely opaque.) If you set the opacity to anything in between it will be semi-transparent. This allows you to see the feet of an object that is sunk into the ground.

this.ground's Properties						
SGround	ground = (new (SGround)()					
Paint =	SurfaceAppearance.SNOW					
Opacity =	≘1.0 ™					
Vehicle =	□ this ▼					

Positioning with One Shots

One shot procedures are available in the setup scene window. The One Shot procedures include most of the procedures that you can add in the code view window. Here you can see the One Shot procedures for the chicken. The black arrows to the right of the procedures let you select the arguments that the procedure requires. Because One Shots allow you to select the arguments, they allow more precise positioning than the handle tools.



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Vehicles

In Alice, you sometimes want two items to move together. The mechanism for doing this in Alice is to set the vehicle of an object. You could make a horse or car the vehicle for a biped. When you do that you will be able to move the car and the biped will move along with it. If we make the car the vehicle for a biped, moving the car will also move the biped, but NOT the other way around: moving the biped will not move the car.

Vehicles could also be used to make one object hold another object. For instance you might want to make the monkeys thumb the vehicle for a banana. Now whenever the monkey's hand moves the banana will move too. You could use this to make it look like the monkey is eating the banana.

Before you set a vehicle for an object you should look at it using different camera views to make sure they are positioned correctly.

Setting the vehicle for an object can be done either in the design view or using code.

Design view:



Code editor:

(this.banana) setVehicle(¢	(this.goldenMonkey)	getLeftThumb()	Y);
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