SETTING UP CAMERA VIEWS LESSON

Setting camera views using objects, based on a lesson by Bella.

Adventures in Alice
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Standards/Objectives

• 02.01 Use a number of computer tools to enhance and ease game programming and artistry.
• 67.02 Analyze and apply data and measurements to solve problems and interpret documents.

• To set up an Alice world to include different camera views. The camera will follow a path set up by camera views to circle the main object.
Camera Views

- Point of view is relative to the object being used for the animation.

- Camera views are based on distance traveled in a straight line and the pace of object 1 travelling along that straight line.

- You will be adding the same object in order to set up your right, front, and left side views.

- Since the object will be walking, you should choose an object from the People Class Folder > Walking People Folder, it just looks better.

- For this tutorial, the cowboy was used. Note, his head is slightly turned and tilted to the left. This matters if you were planning on orienting the camera to the head.
Camera Views

• This tutorial will show how to create different camera views in Alice.
• You will using a People Walking Object because it will be moving.
• You will be adding the same object 4 times for the 4 different views; start view, right side view, front view, and left side view.

• Open Alice 2.3. For this tutorial the cowboy was used so I chose the Dirt Scene.
• Click on the green Add Objects button; go to the People Folder, then to the Walking People Folder, and select the cowboy. You may choose a different walking people object.
Adding object 1 – Walking Cowboy

- Move object 1 to the center of the ground area. Use the Turn Objects Left and Right tool to have object face away from the camera.
object 1 – Camera Setup

- This is the first or initial view so from the Scene Editor, click on the drop dummy at camera button. You should see the **Dummy Objects** folder in the Object Tree. Rename the Dummy Objects folder to Camera Views. Rename the first dummy camera in the list to start view.
To set up right side view – object 2

- Add the same object (will become cowboy2) to the work area.
  - Right Click (Win) or Control Click (Mac) object 2 and under the methods move object 2 to object 1 (the entire object).
  
- Right Click (Win) or Control Click (Mac) object 2 and under the methods orient object 2 to object 1 (the entire object).
  
- Right Click (Win) or Control Click (Mac) object 2 and under the methods move object 2 right 10 meters. Note: When using this tutorial for other projects, you may use different distances.
  
- Right Click (Win) or Control Click (Mac) object 2 and under the methods move object 2 forward 4 meters. Note: this may need adjusting based on distance, speed of object 1 moving, etc.
  
- Right Click (Win) or Control Click (Mac) object 2 and under the methods turn object 2 left .25 (1/4).
To set up right side camera view – object 2

- Camera setup for right side view:
  - Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods move camera to object 2.
  - Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods turn camera left 0.25 (1/4).
  - Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods move camera up 1 meter. Note: You could orient to part of the body, but it is dependent on the object chosen for the project.

- Drop a dummy camera. Name it right side view.

- You may check orientation using the quad view.

- Return camera to the Start View. Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods camera set point of view to Start View.
To set up left side view – object 3

- Add the same object (will become cowboy3) to the work area.
  - Right Click (Win) or Control Click (Mac) object 3 and under the methods move object 3 to object 1 (the entire object).
  - Right Click (Win) or Control Click (Mac) object 3 and under the methods orient object 3 to object 1 (the entire object).
  - Right Click (Win) or Control Click (Mac) object 3 and under the methods move object 3 left 10 meters. Note: When using this tutorial for other projects, you may use different distances.
  - Right Click (Win) or Control Click (Mac) object 3 and under the methods move object 3 forward 7 meters. Note: this may need adjusting based on distance, speed of object 1 moving, etc.
  - Right Click (Win) or Control Click (Mac) object 3 and under the methods turn object 3 right .25 (1/4)
To set up left side camera view – object 3

• Camera setup for right side view:

  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods **move camera to object 3**.

  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods **turn camera right .25 (1/4)**.

  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods **move camera up 1 meter**. *Note: You could orient to part of the body, but it is dependent on the object chosen for the project.*

• Drop a dummy camera. Name it right side view.

• You may check orientation using the quad view.

• Return camera to the Start View. Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods **camera set point of view to Start View**.
To set up front view – object 4

• Add the same object (will become cowboy4) to the work area.
  • Right Click (Win) or Control Click (Mac) object 4 and under the methods _move object 4 to object 1_ (the entire object).

• Right Click (Win) or Control Click (Mac) object 4 and under the methods _orient object 4 to object 1_ (the entire object).

• Right Click (Win) or Control Click (Mac) object 4 and under the methods _move object 4 forward 15 meters_.  _Note: When using this tutorial for other projects, you may use different distances._

• Right Click (Win) or Control Click (Mac) object 4 and under the methods _turn object 4 right .5 (1/2)._
To set up front camera view – object 4

• Camera setup for right side view:
  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods move camera to object 4.
  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods turn camera right .5 (1/2).
  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods move camera up 1 meter. Note: You could orient to part of the body, but it is dependent on the object chosen for the project.

• Drop a dummy camera. Name it front view.

• You may check orientation using the quad view.

• Return camera to the Start View. Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods camera set point of view to Start View.

• Set objects 2 through 4 (cowboy2-cowboy4) isShowing property to false.
Coding camera view changes
Click “play” now

- The camera moves around the object. The camera goes right first, then front view, on to left side view, and then back to start view.
- You may choose going left first, or go back to the front view for a different animation.
- In case the camera views are a little off, the next slide shows how to adjust them.
Adjusting camera views

- After you play the animation, sometimes adjustments are needed to the camera views in order to make the viewer experience better. To adjust the camera views; in the object tree, Right Click (Win) or Control Click (Mac) the camera view needing adjustment and under the methods move camera view that needs adjustment 1 meter left (or right) as needed.
Extras – Top View set up

• Add the same object (will become cowboy 5) to the work area.
  • Right Click (Win) or Control Click (Mac) object 5 and under the methods move object 5 to object 1 (the entire object).
  • Right Click (Win) or Control Click (Mac) object 5 and under the methods orient object 5 to object 1 (the entire object).
  • Right Click (Win) or Control Click (Mac) object 5 and under the methods move object 5 up 20 meters. Note: When using this tutorial for other projects, you may use different distances.
  • Right Click (Win) or Control Click (Mac) object 5 and under the methods move object 5 forward 10 meters.
Extras – Top view camera setup

• Camera setup for right side view:
  • Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods *move camera to object 5*.
  
  • Use the *Tilt camera forward tool* to adjust the view to face downward toward the ground.

  • Drop a dummy camera. Name it *top view*. Return camera to the Start View. Right Click (Win) or Control Click (Mac) camera in the object tree and under the methods *camera set point of view to Start View*.

  • Set isShowing property (properties panel) to false for object 5.

  • Add Camera *set point of view* to end of the world.myfirstmethod below the start view.
  • Play animation.