3D Basic Solution

Summary

This solution represents a basic example of a 3D scene. It demonstrates several key features of 3 dimensional compositing using CGI Studio Scene Composer.

Purpose

The solution includes all elements that are necessary to render a basic 3D scene. It additionally contains a 2D scene, an animation and a state machine. The 3D object's appearance is enhanced using image mapping as well as bump mapping.

Description

This sample solution shows a 3D scene with a rotating cube in front of a 2D scene that acts as background.

- The 3D scene contains a 3D model with two textures.
- The 2D scene with the Candera logo is rendered in the background.
- The cameras of the 3D and 2D scene are configured so that the scenes are rendered correctly.
- An Animation rotates the 3D scene's cube around the y-axis.
- In the State Machine both scenes are activated and the animation is started.



Detailed Description

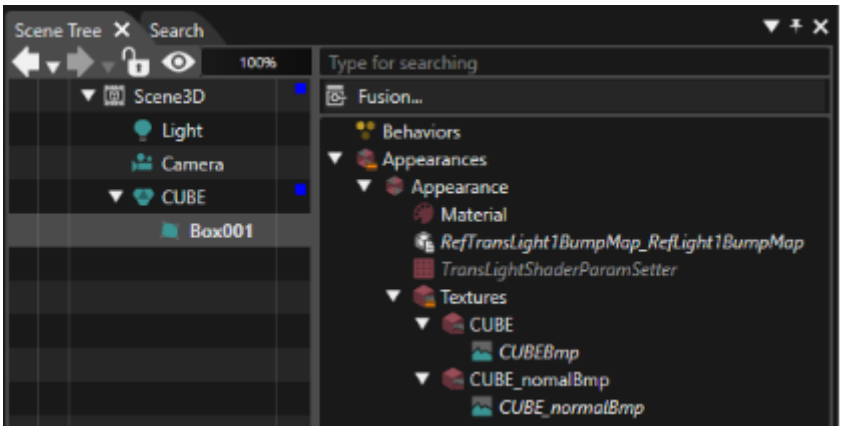
3D Scene

There is a 3D scene in the solution.



The 3D scene consists of

- a point light source
- a camera
- a 3D model that contains 2 textures (one of which is a bump map)



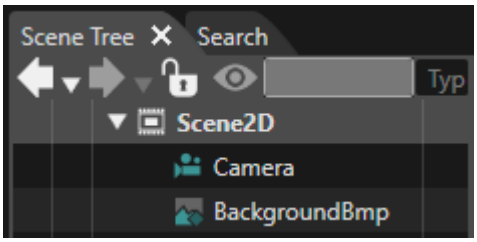
2D Scene

There is a 2D scene in the solution that is rendered in the back and acts as a background.



The 2D scene consists of

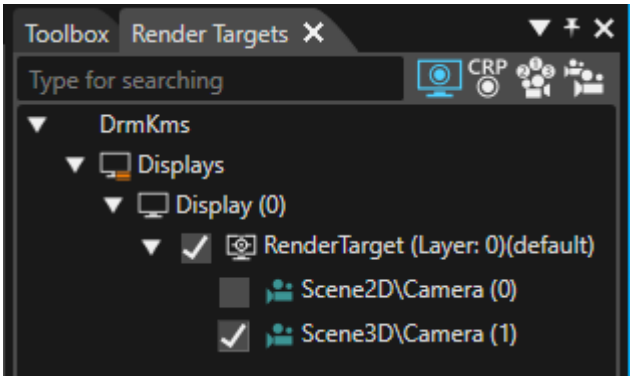
- a 2D camera
- a BitmapNode with a background image



Cameras and Render Target

The cameras are linked to a render-target which is necessary for rendering. The render-target is linked to a display.

A correct configuration of the cameras' properties ensures that the 3d foreground scene is rendered over the 2d background scene without any visual side effects. Clearing the buffer and swapping is configured accordingly.



Animation

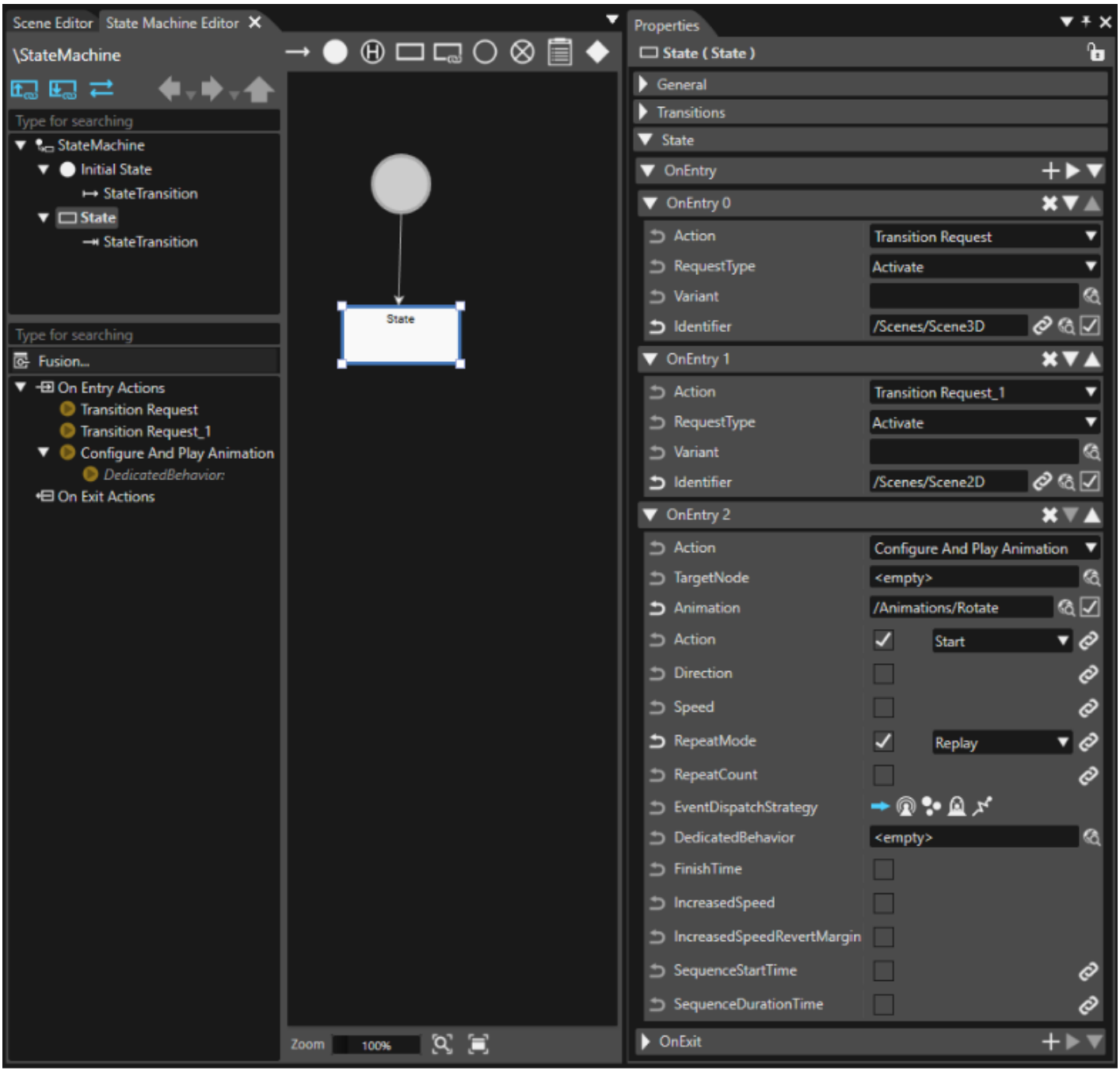
An animation rotates the cube around the y-axis. The distance of the 2 key frames define the speed of this rotation.



State Machine

A State Machine is configured to perform the following actions when entering the State:

- activate Scene 3D
- activate Scene 2D (as background)
- configure and play the animation in replay repeat mode



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