

Figure 3: New Level Dialogue Window © 2004-2018, Epic Games, Inc. Screenshot by author.

9. Complete the third section of the LDQST. At the end of the page, your design should look similar to Figure 4.

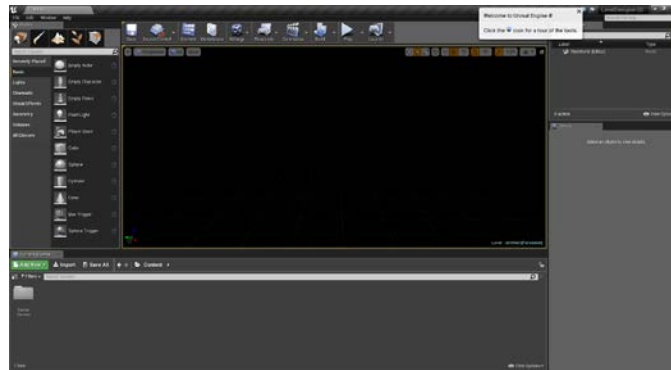


Figure 4: End of LDQST Section 3 © 2004-2018, Epic Games, Inc. Screenshot by author.

Section 4-Placing Actors in the Level

10. Next, you will be adding Actors. **Before you follow the tutorial, read what Unreal says about Actors below.** More information can be found by clicking the “Actor” link from the LDQST.

- An **Actor** is any object that can be placed into a level. Actors are a generic Class that support 3D transformations such as translation, rotation, and scale. Actors can be created (spawned) and destroyed through gameplay code (C++ or Blueprints). In C++, AActor is the base class of all Actors.

- There are several different types of Actors, some examples include: StaticMeshActor, CameraActor, and PlayerStartActor.

- No matter the type of Actor you are using in your level - be it a light, a Static Mesh, a Particle System Emitter Actor, or anything else - you will need to know a few basics on how to create and manipulate them in your scenes.

- This involves a few integral tasks: placing Actors, selecting Actors, positioning Actors, and modifying Actors. In other words, to create a level, Actors will be placed into a map, moved around to create an environment, and their properties will be modified to cause them to look or behave appropriately.

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11. Step 1 of the LDQST asks you to select BSP. This may not exist in your version of Unreal. Instead, select GEOMETRY to get to BOX (see Figure 5).

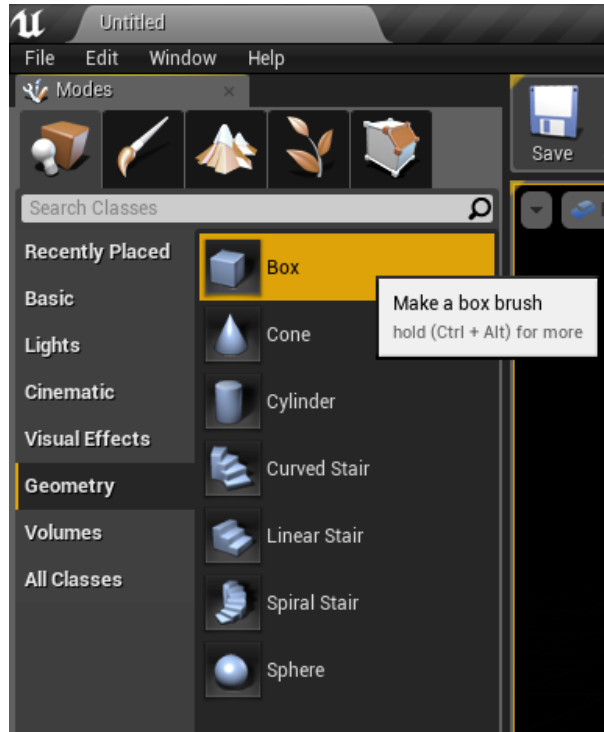


Figure 5: BOX © 2004-2018, Epic Games, Inc. Screenshot by author.

12. Complete steps 1 through 6 of the LDQST. If your directional light actor does not have the gizmos as shown in Figure 6 (with arrows), you need to select the MOVE Tool. This is done at the top-right of the viewport screen or by pressing the “w” key.

Hint: If you hover your mouse over a tool, a description will pop up.

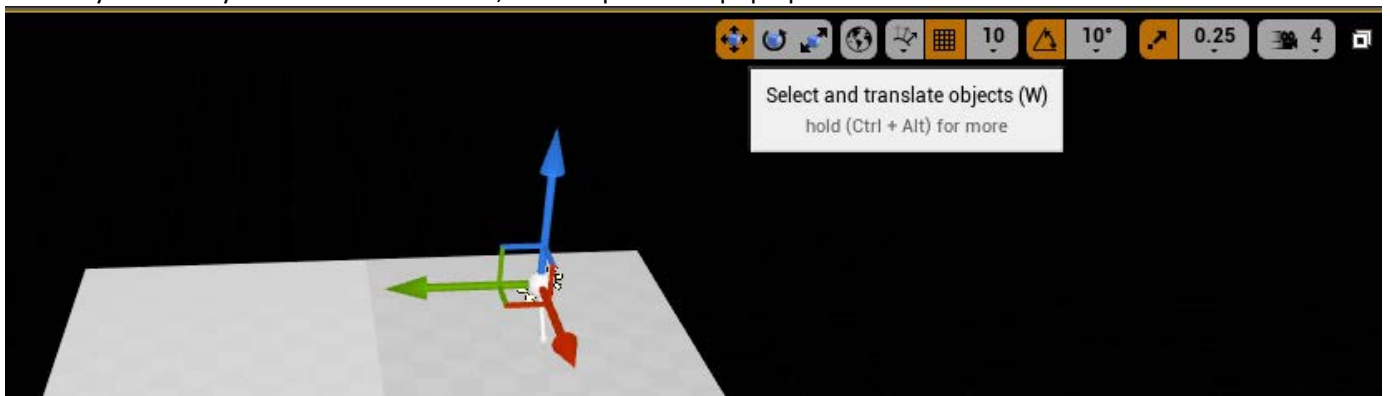


Figure 6: Gizmos as Arrows © 2004-2018, Epic Games, Inc. Screenshot by author.

NOTE: You will eventually use all of the TRANSFORM CONTROL TOOLS (see Figure 7) but for now, focus on the MOVE Tool.

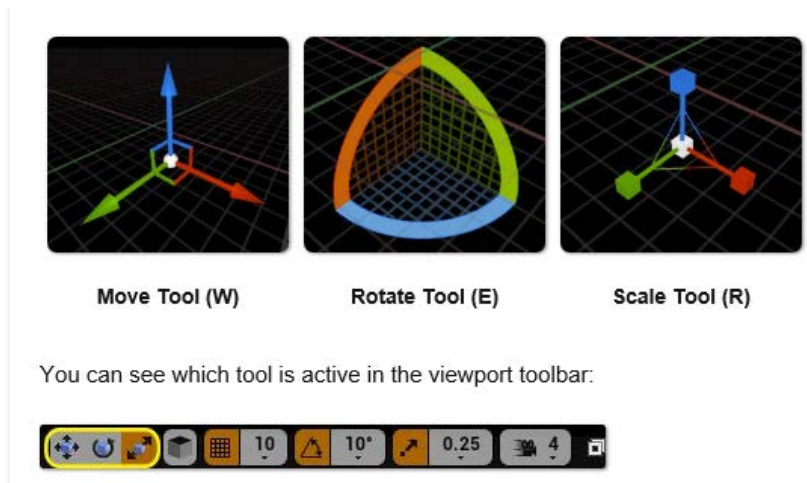


Figure 7: Transform Control Tools © 2004-2018, Epic Games, Inc. Screenshots by author.

- 13. Now that you have an actor, continue to practice using your navigation controls. While holding the “Alt” key, hold the right mouse button (RMB). You should be able to rotate the viewport around your selected actor (Directional Light).
- 14. **What happens with the ALT + LMB command?** Become familiar navigating in the Viewport Screen.
- 15. You can also familiarize yourself with the different gizmos. Practice moving the directional light actor by dragging the different colored gizmos. **What happens to the actor when you drag the blue, green or red arrows?**
- 16. Locate the details panel and notice what happens to the location of each axis when you drag the gizmos.
- 17. Practice alternating between moving your actor and using the “Ctrl + z” command (undo command).
- 18. **Can you use the gizmos to place your actor at the coordinates Figure 8 shows below?**

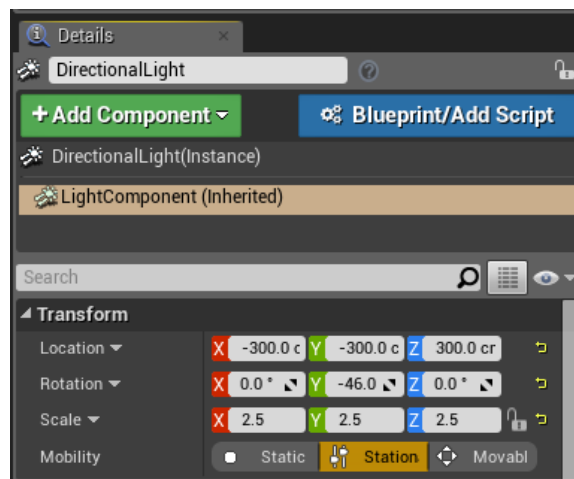


Figure 8: Directional Light Coordinates © 2004-2018, Epic Games, Inc. Screenshot by author.

19. Complete steps 7 through 12 of the LDQST. When you add the SM_TableRound Actor Prop, and try to center it in the middle of the floor, make sure that you are in the correct TRANSFORM CONTROL TOOL. Revisit step 12 in this document to learn how to select the MOVE Tool.

20. Complete steps 13 through 16 of the LDQST. Once you add the SM_Chair Actor Prop (see Figure 9), practice using all 3 TRANSFORM CONTROLS. ****Be sure to use the undo command after each action until you get the hang of it.** The chair and table must be at their default size before continuing to the next step. **What happens to the chair when you drag the blue, green and red arcs while using the rotation tool?**

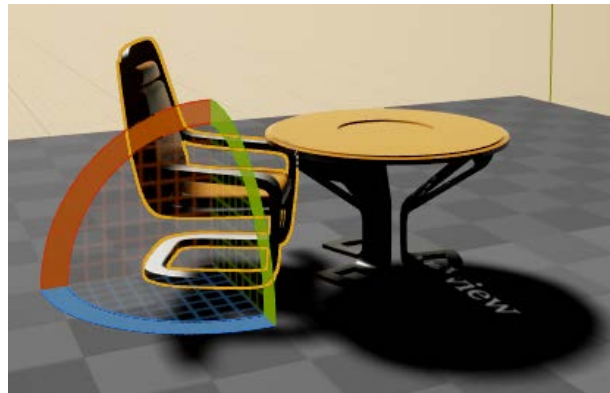


Figure 9: SM_Chair Actor Prop © 2004-2018, Epic Games, Inc. Screenshot by author.

21. Before adding more actors to create an original scene (step 16, section 4 of the LDQST), your level should look similar to Figure 10 when zoomed out.

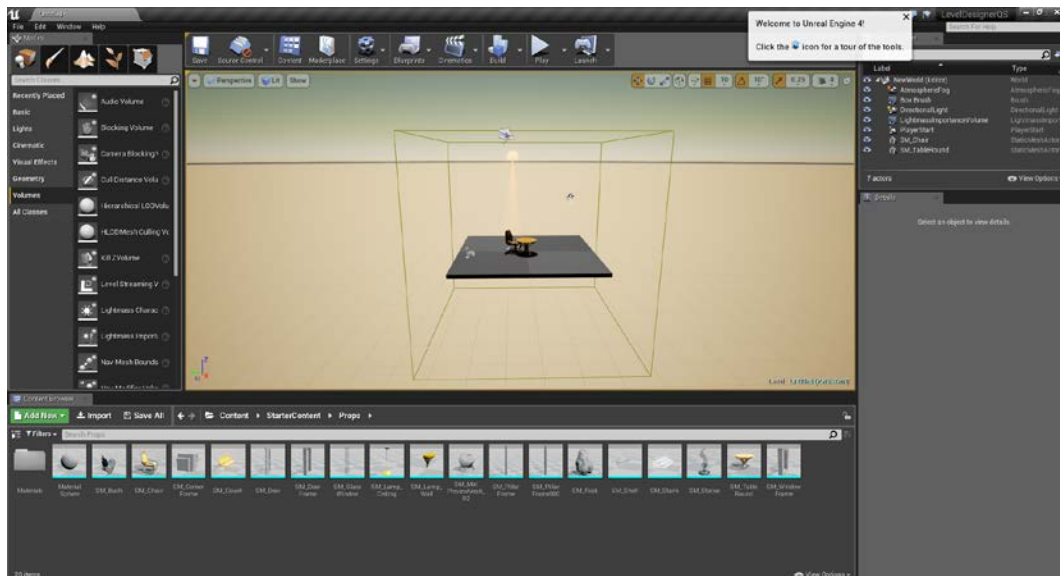


Figure 10: View of original scene before adding more actors © 2004-2018, Epic Games, Inc. Screenshot by author.

22. Take a screen shot, or snip, of your level before moving on to step 16 of the LDQST. Make sure your file name (top right corner) can be seen in the image. Paste it into a Word Document named similar to “Your First Name Initial_Your Last Name_LevelDesignQS” (ex. N_Pant_LevelDesignQS).

23. Using what you have learned, create an original scene as the LDQST states in step 16 of section 4.

24. Take another screen shot or two of your final scene and paste it into your Word document. Do not move on to the next page (section 5). Your final scene should look something like the example from Unreal in Figure 11.



Figure 11: Unreal room example © 2004-2018, Epic Games, Inc. Screenshot by author.

25. How did you decide what actors to use and where to place them?

26. How did you incorporate detail? Did it improve your scene? In what ways?

27. In what ways can this scene be used in your American History Project?

END TUTORIAL Part 1 after section 4-Placing Actors in the Level of the LDQST.
