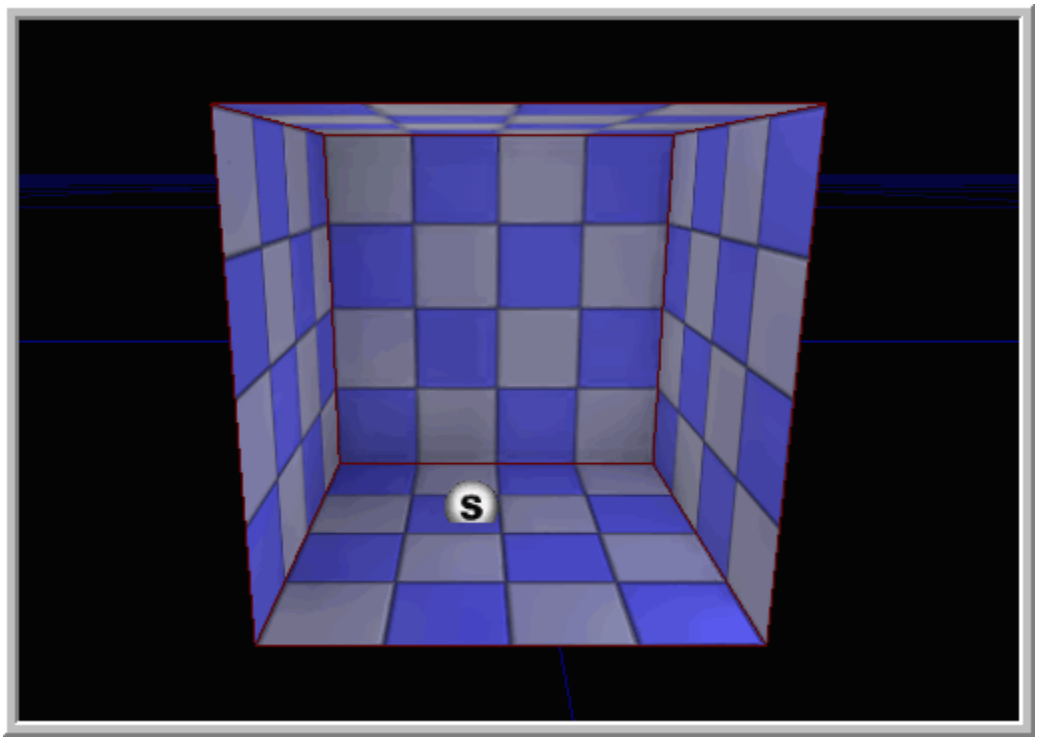
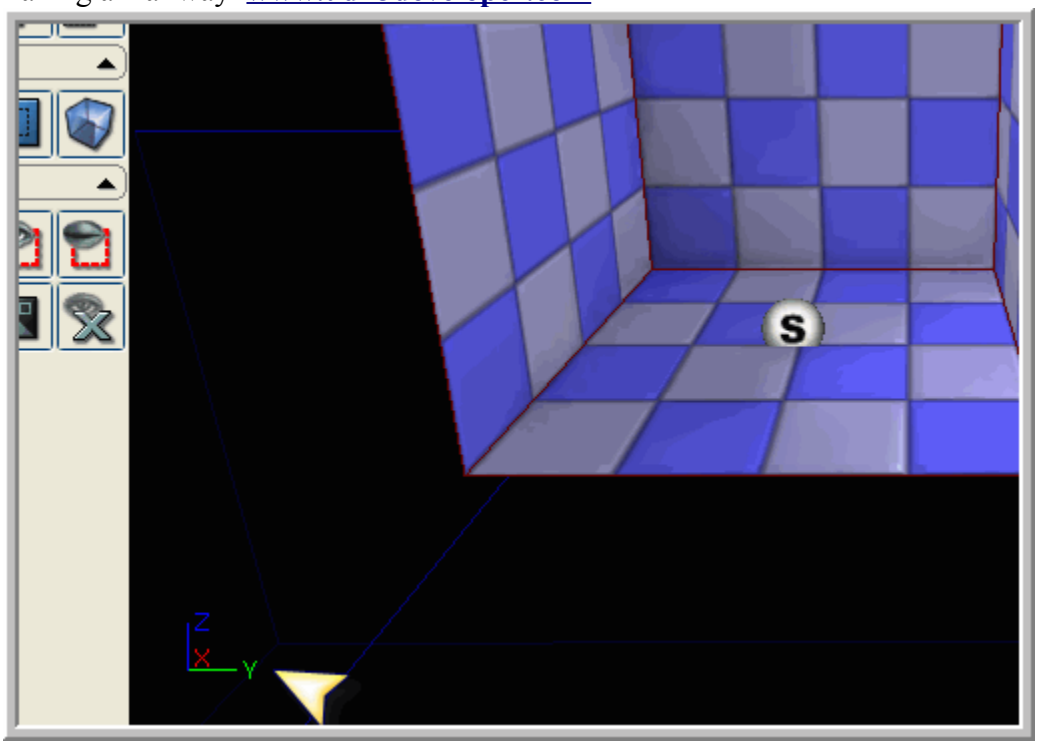
Tutorial-2
Making a Hallway

1. Open the room with the light your created from Tutorial-1. You should see what is shown in the Figure below:

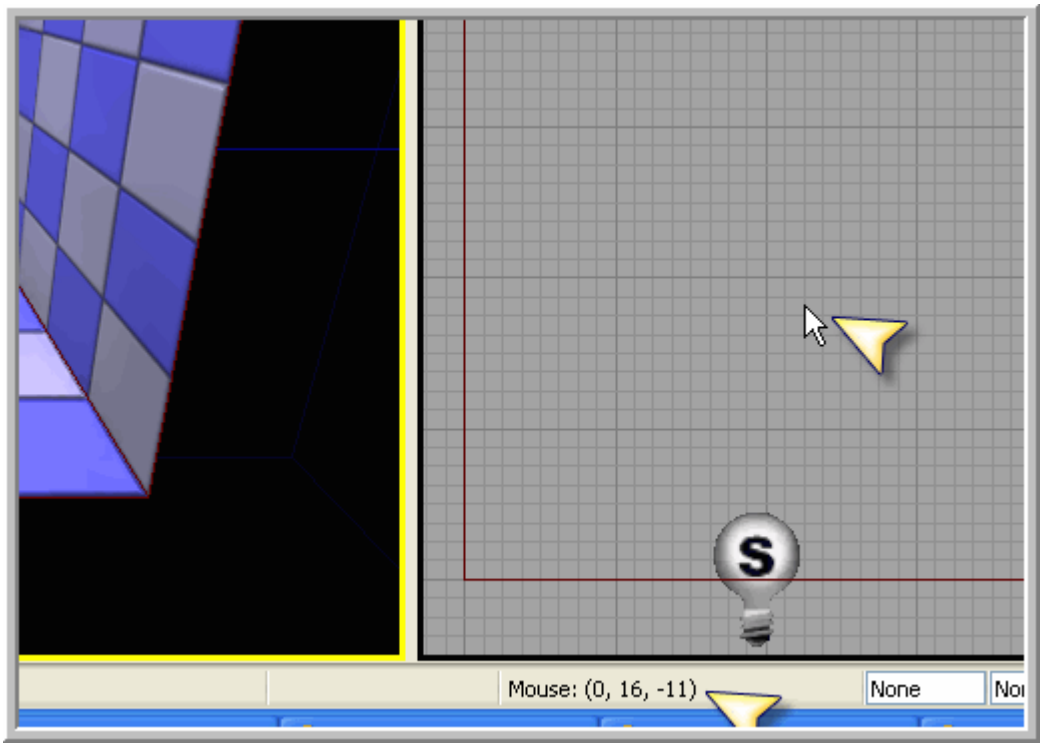


Note the X, Y, and Z coordinates shown in the left bottom corner of the 3-D viewport as shown in the figure below:

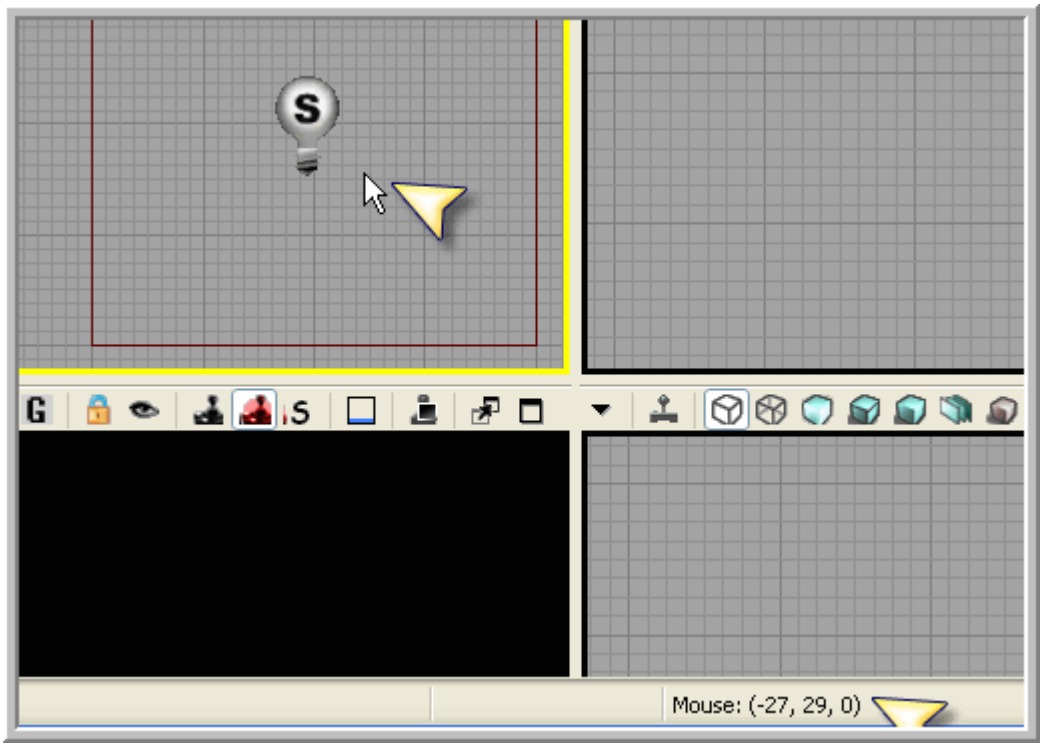


Note that the Z axis is up and down, the X axis is front and back, while the Y axis is left and right.

Also note on the bottom bar the Mouse:(0, 16, -11) message in the next figure.

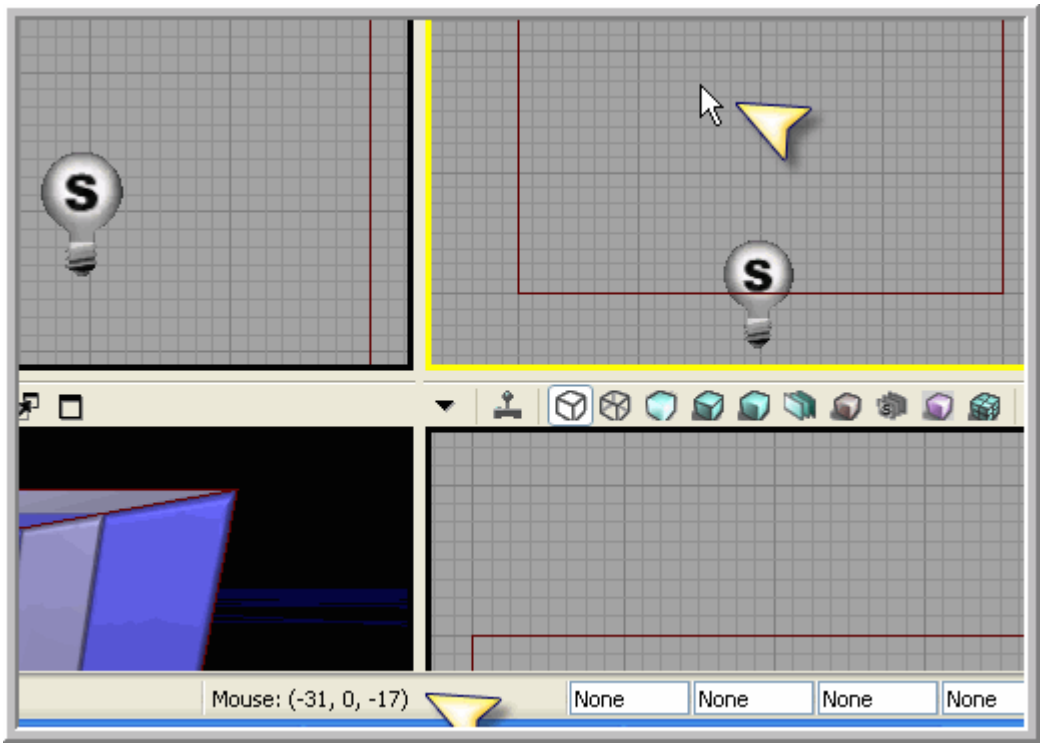


From the above figure the Mouse:(0, 16, -11) is giving the (X, Y, Z) position of the mouse cursor when clicked on the bottom right viewport. In this case the mouse cursor is at X=0 (which means you are looking at the front view since X represents front and back), the Y position is 16 (meaning you are 16 units to the right of the center) and the Z = -11 (meaning you are 11 units below the center).

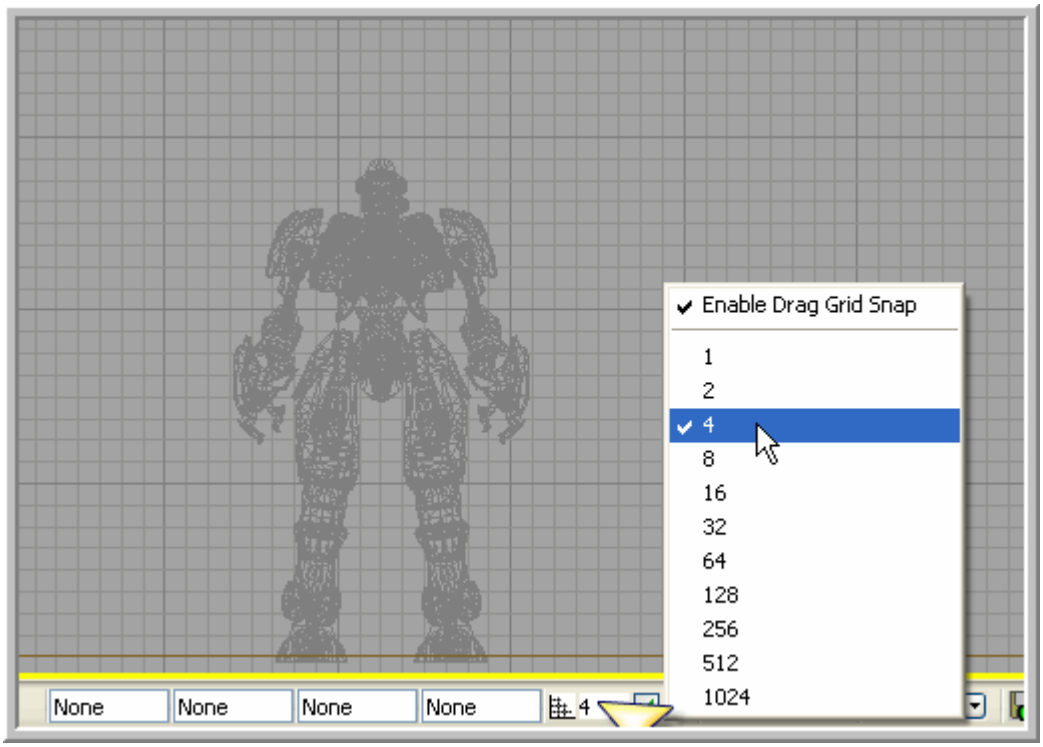


The above figure shows that the mouse has clicked on the top left viewport where Mouse(-27, 29, 0) indicates that you are viewing the top of the object since Z = 0 (Z represents the up and down dimensions).

In the figure below, the mouse has been clicked on the upper right viewport and the reading on the status bar is Mouse:(-31, 0, -17) indicating that you are looking at the side of the object since Y=0 (Y represents the left and right dimensions).



We now have placed an Unreal creature in the viewport (you will see how to do this later). Clicking on the Grid button produces the grid units. As shown below, the grid units are set to 4, meaning that there are 4 Unreal units to every grid square.

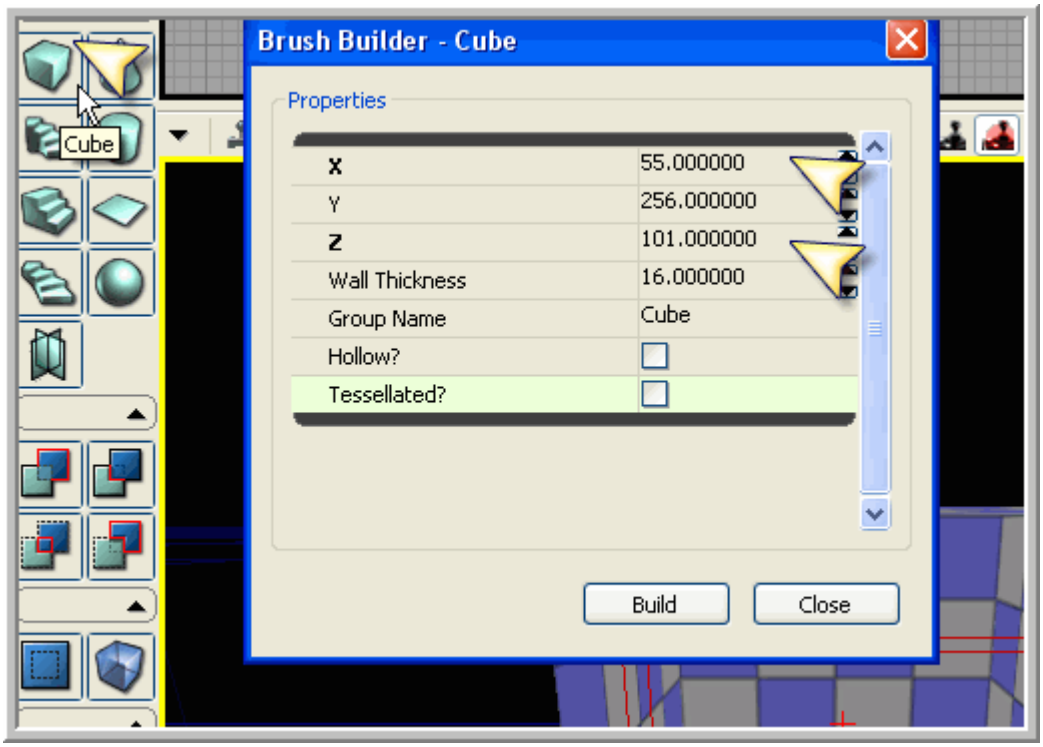


As you can see from the above figure, the Unreal creature is about 96 Unreal units tall. Assuming that this creature is six feet tall, we get 96/6 = 16. This means that 16 Unreal units represents one foot. This information will be important when we build the hallway. (In the crouching position, an Unreal creature is about 64 units.)

When creating a hallway the height and width should be at least 5 units more the the actual creature size to accommodate extra armor and equipment such as weapons.

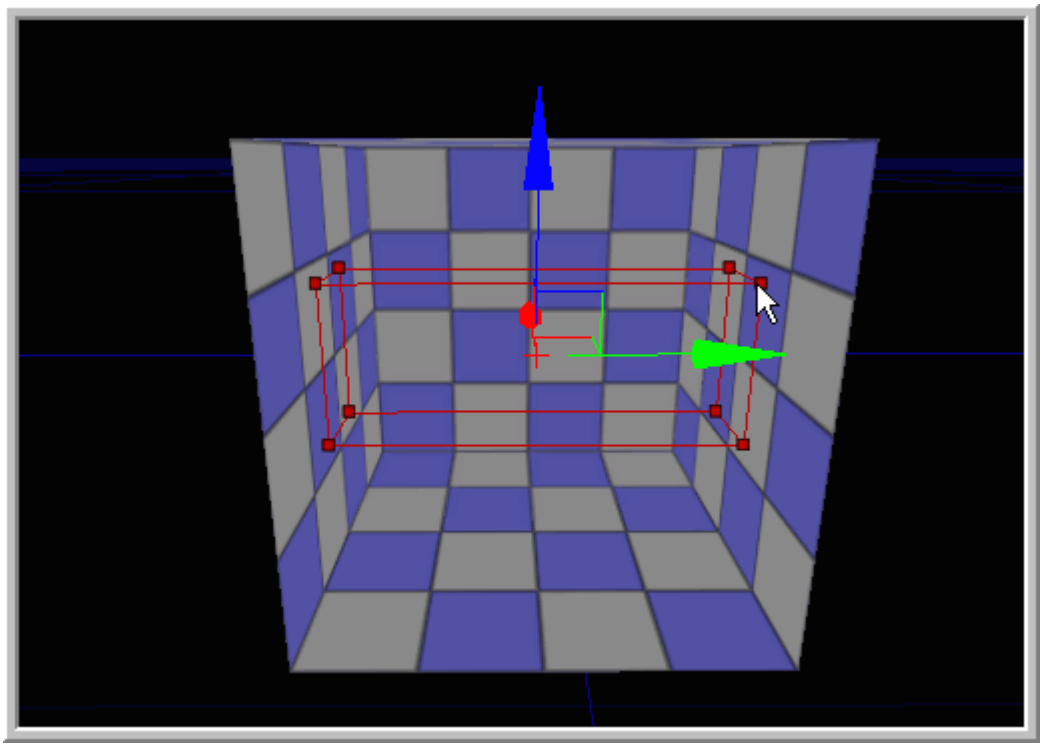
Most Unreal creatures have a collision radius of 25 which means a minimum hallway width of 2 X 25 + 5 = 55 Unreal units. With a Unreal creature height of 96 units the minimum hallway height should be: 96 + 5 = 101 Unreal units. We are now ready to make our hallway.

See the figure below. Go to the Cube button and right-click the mouse button. The Brush Builder menu will pop-up. Set the X value to 55 (the hallway width), leave the Y at 256 (the hallway length) and set the Z to 101 (the hallway height).

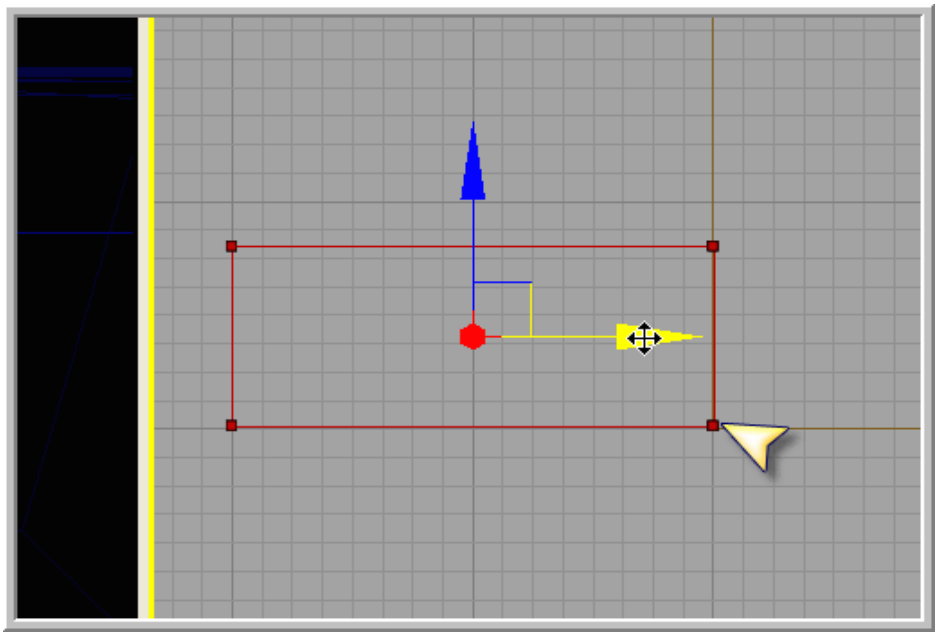


Click on Build, then Close the menu. You will now see your BSP brush as shown below:

Select the BSP brush (red wireframe) with the left mouse button, then tap on the spacebar for the translation widgets to show as you see below (you may have to tap the spacebar more than once).



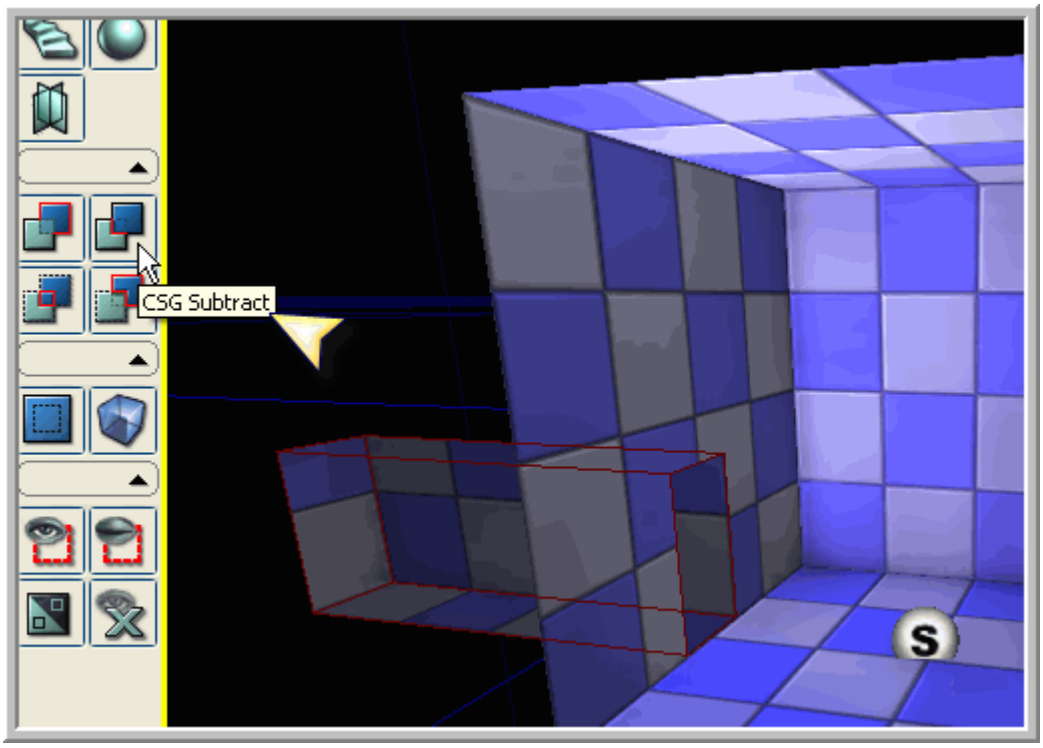
Next, as shown in the figure below, go to the bottom-right viewport (the side view), and click and drag the BSP brush directly to the left and down as shown using the translation arrows.



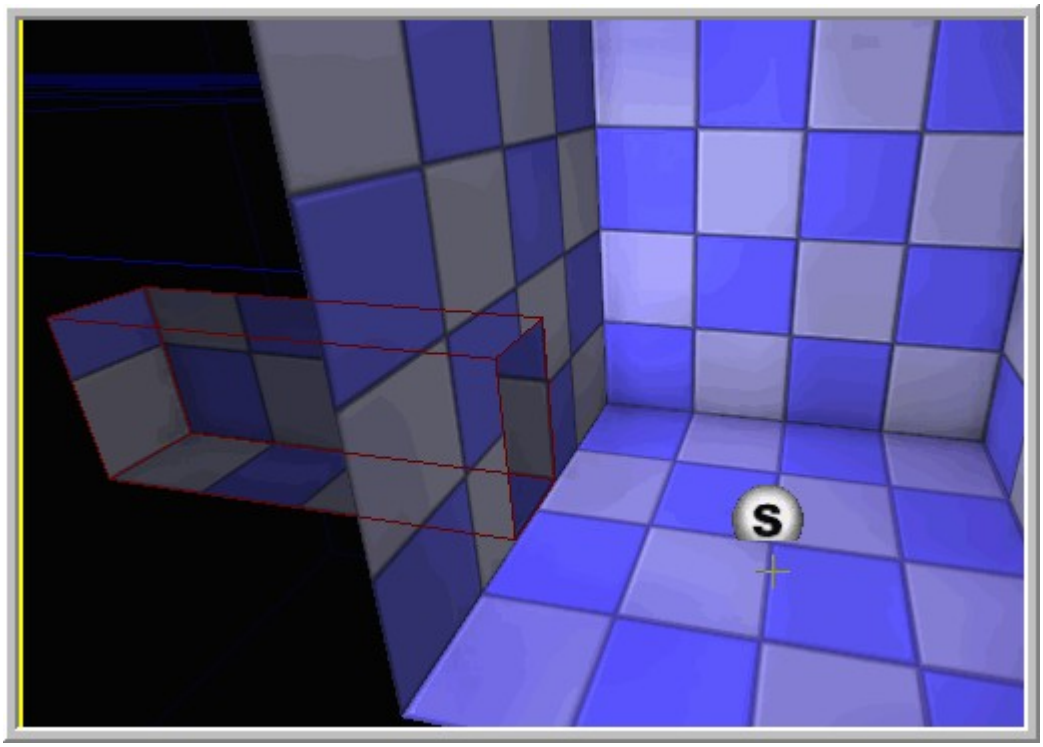
Make sure that the right-side of the hallway brush lines up exactly with the left-side of the room (see the above figure). If there is any space between the

hallway and the room, there will be a wall between them and you will not be able to pass through. Also, make sure that the floors line up as well.

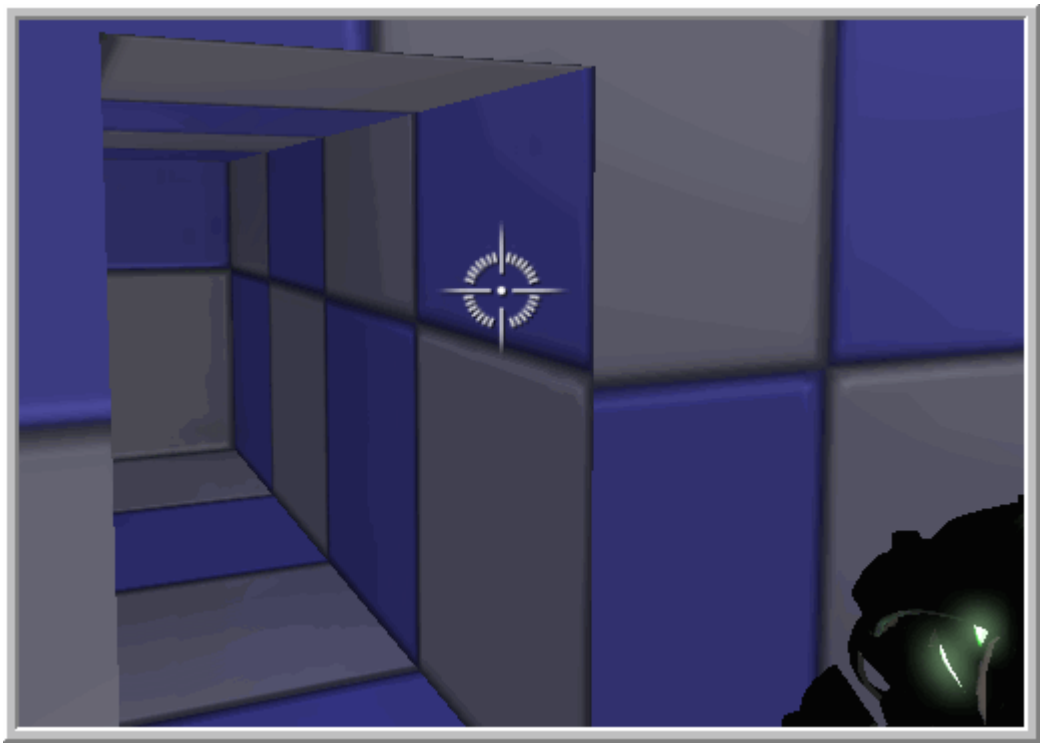
Now, as shown below, left-click on the CSG Subtract brush to create your hallway space. You now have a hallway.



As shown in the figure below, your new hallway has been constructed. Make sure your light has been placed and you may have to click on the build-all button on the top main menu bar. Select a *Play From Here* position (right-click on the floor and select from the pop-up menu) and enjoy your new hall:



Your space is now ready for you to try. (See below.)



Our next tutorial (Tutorial-3) will demonstrate how to create another room using a different but still important method for creating a playable space.