

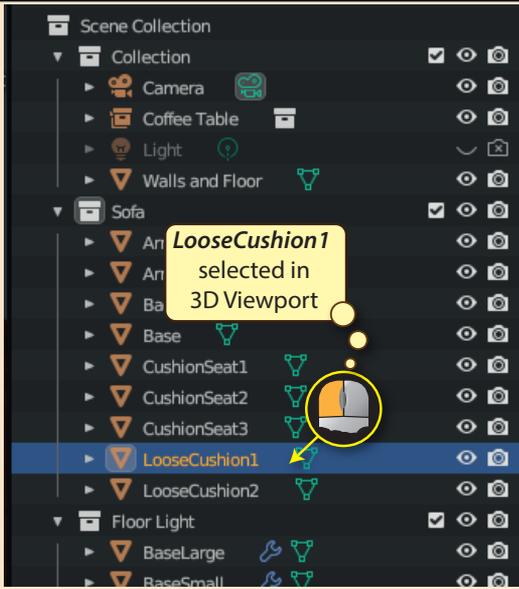
Selection

In this section we'll see the various options available for selecting one or more existing objects in a scene.

In the example used in the following frames, the scene represents two walls and the floor of a room in which we have a floor lamp, two wall lamps, a sofa and a table.



Previously, we saw that an object can be selected by clicking on its name in the *Outliner Editor*...



... or by clicking on it directly within the *3D Viewport*.



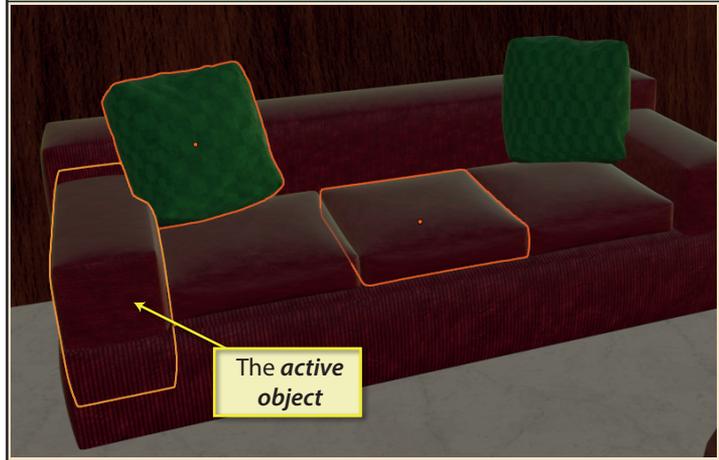
Deselecting the current selection is easily achieved by clicking in an empty area of either the *3D Viewport* or the *Outliner Editor*.



In the **Outliner Editor**, we can select multiple objects at the same time in various ways. One method is to hold down the **Ctrl** key while clicking on the required names.



The last item to be selected has a yellow outline while other selected items have an orange outline. The yellow outline tells us that this is the **active object**. Later we'll see where knowing this is important.



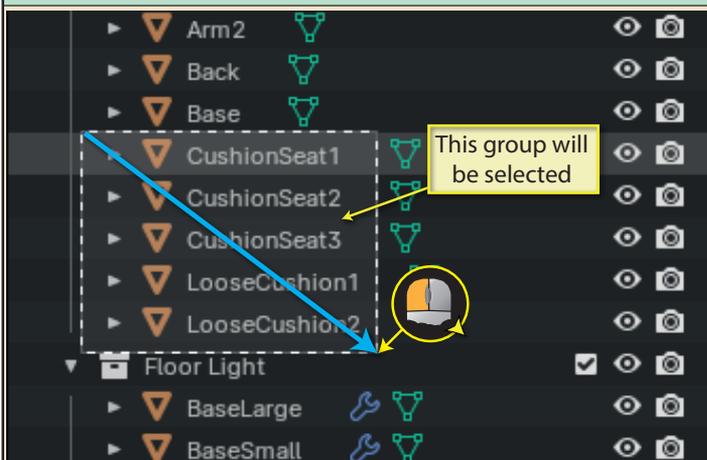
Notice also, that in the **Outliner Editor**, the **active object's** name appears in a brighter orange.



To select a contiguous group of items, click on the first one then hold down **Shift** while clicking on the last one. The block of objects in-between will automatically be included in the selection.



Another way to select a contiguous block is to drag a box around the required object names.



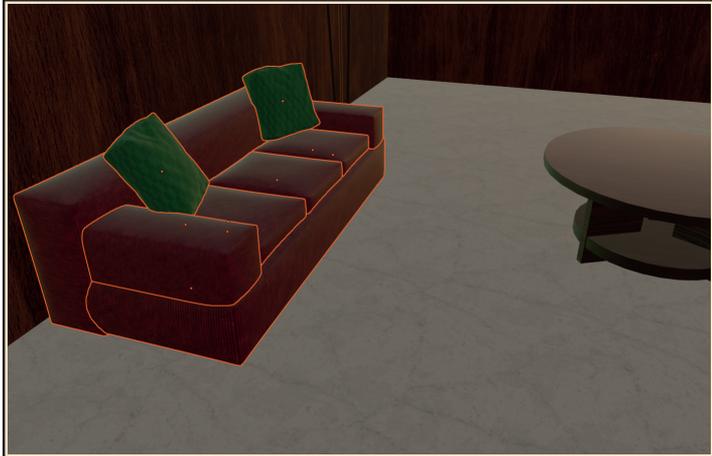
But this time there will be no active object.



We can select every object in a collection by right-clicking on the collection name (*Sofa*, in this example) and choosing **Select Objects** from the popup menu.



Below we can see that all of the objects in the *Sofa* collection have been selected. But note that there is no *active object*.



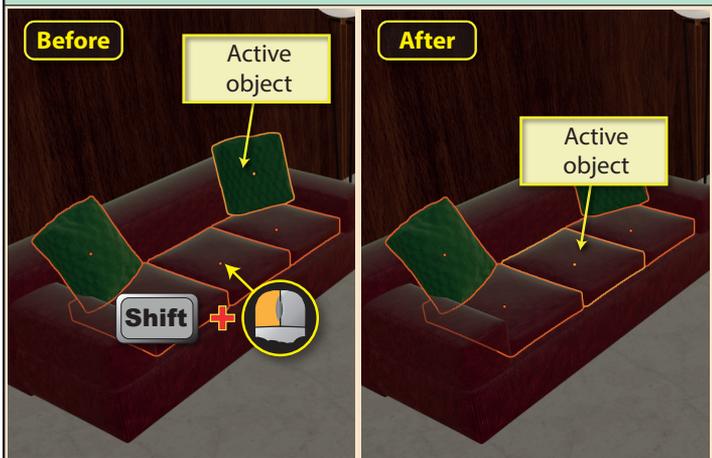
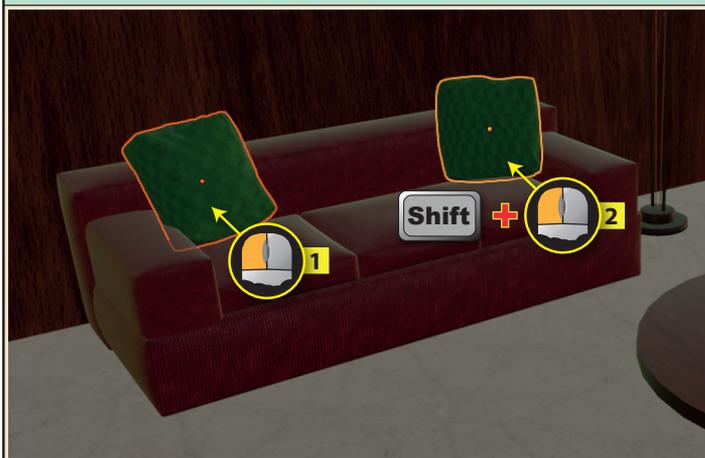
When we select a group of objects using any of the methods we've mentioned, there will only be an *active object* if the last *active object* is included in the selected group.

In the example below, we start by selecting a single item in the *Sofa - Arm2*. Since this is the only object selected, it is the *active object*. We then click in an empty space to deselect everything before selecting the *Sofa* collection. Because this selected group contains the last object to be defined as the *active object* (*Arm2*), it is again assigned to be the *active object*.

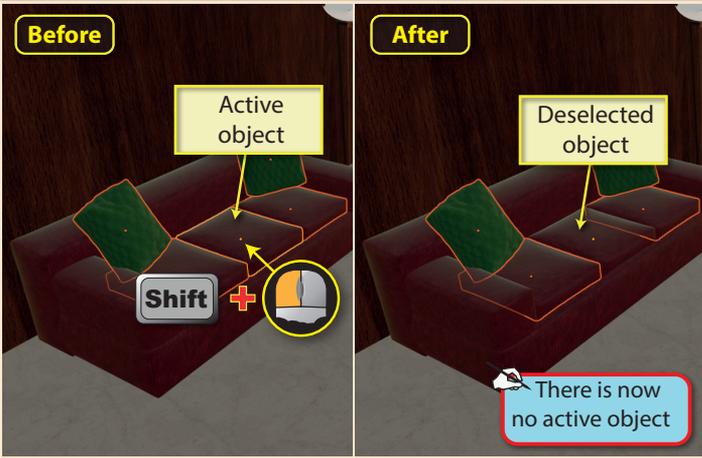


To add to the existing selection, we need to hold down the **Shift** key while clicking on the additional objects.

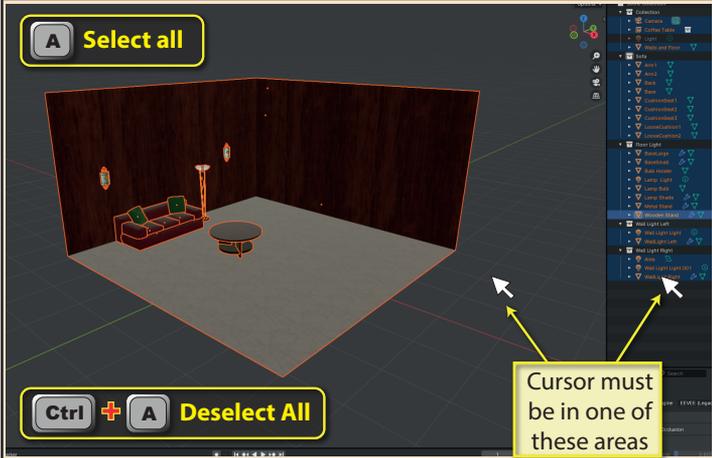
If we hold down the **Shift** key and click on an already-selected object, it becomes the *active object* - but only if it is not already the *active object*.



If we use **Shift-click** on the active object, it will be deselected.



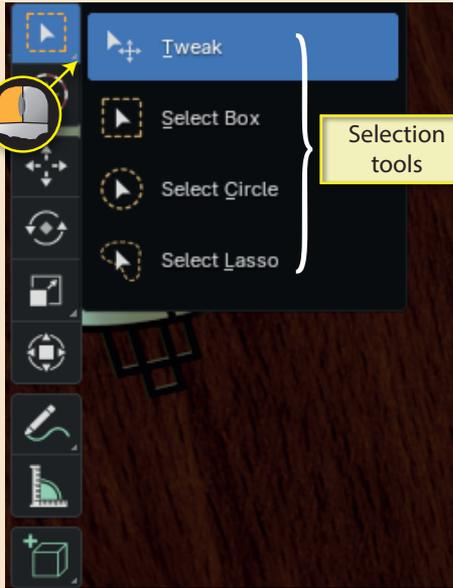
If we want to select every object in the scene, we can press the **A** key, but for this to work, the mouse pointer must be in either the **3D Viewport** or the **Outliner Editor**. To deselect everything, press **Ctrl A**.



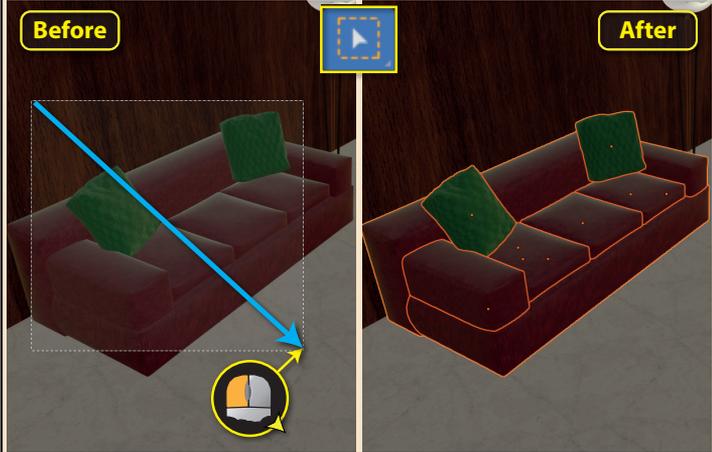
The **Toolbar** also offers us other methods of performing selection.

Its top icon offers four methods of selection. We can see these by clicking on the small triangle at the bottom-right of the icon.

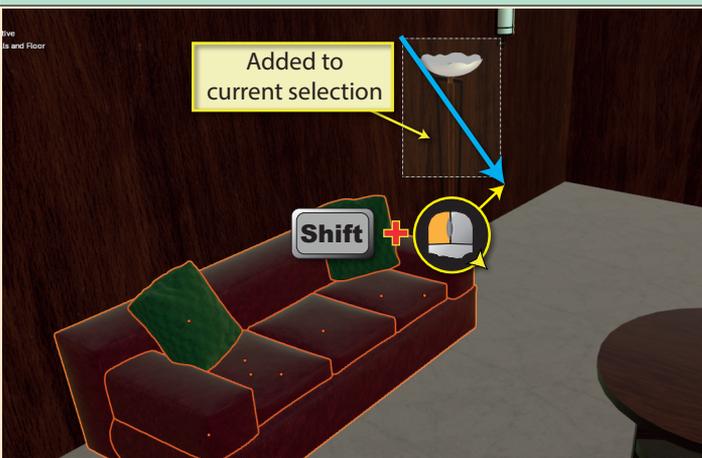
Whichever tool we choose, the previously explained selection method will continue to work.



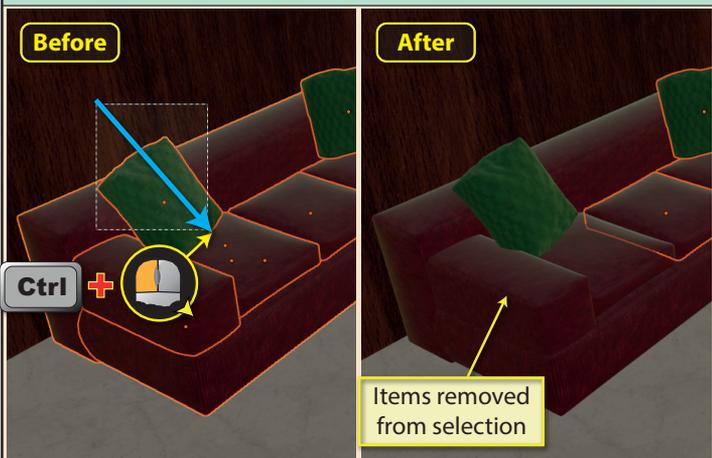
Select Box is the second option listed and the default one used when we start a new project. This option allows us to drag a box around the objects to be selected. If any part of an object falls within the box, it is selected.



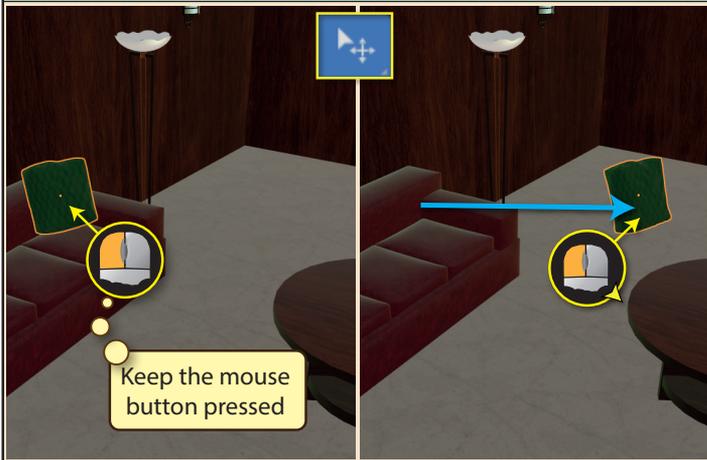
To add to the selection using the box method, hold down **Shift** while dragging a box over the additional objects.



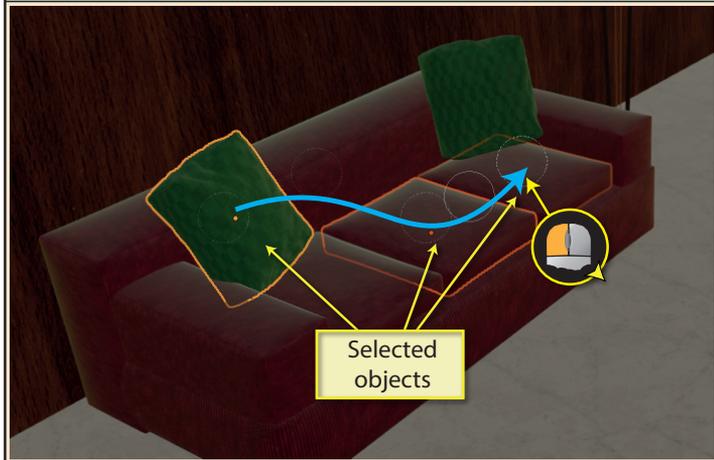
To remove a boxed group from the current selection, hold down **Ctrl** while dragging out a box.



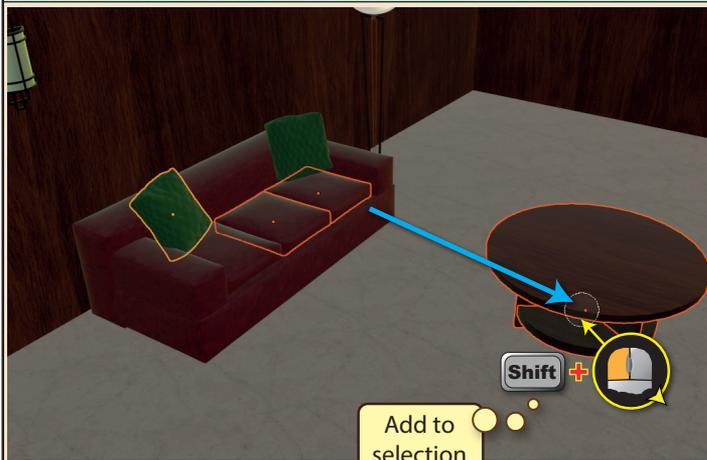
Tweak allows us to select and move an object in a single operation. Click on the object to select it and, with the mouse button still held down, drag the object to a new position.



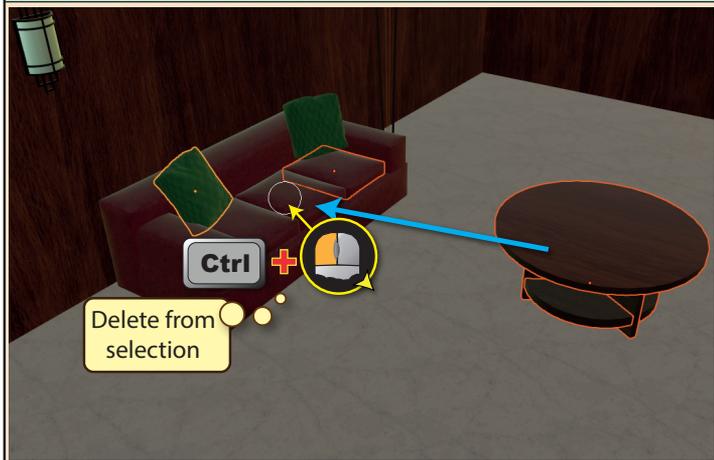
Select Circle changes the mouse pointer to a circle. The circle can then be dragged over items in the scene. Every item whose origin is touched by the circle becomes selected. The first item selected is the *active object*.



Holding down **Shift** while dragging the circle will add any new selection to the existing selection.



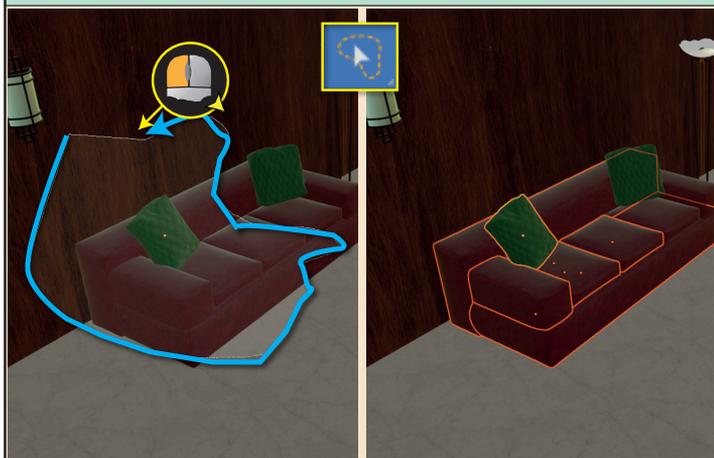
Hold down **Ctrl** to remove passed over items from the current selection.



At the top-left of the **3D Viewport** a field labelled **Radius** appears. By adjusting the value given here, we can change the size of the circle.



Select Lasso allows us to create an irregularly shaped area. Object's whose origin falls within the area are selected.



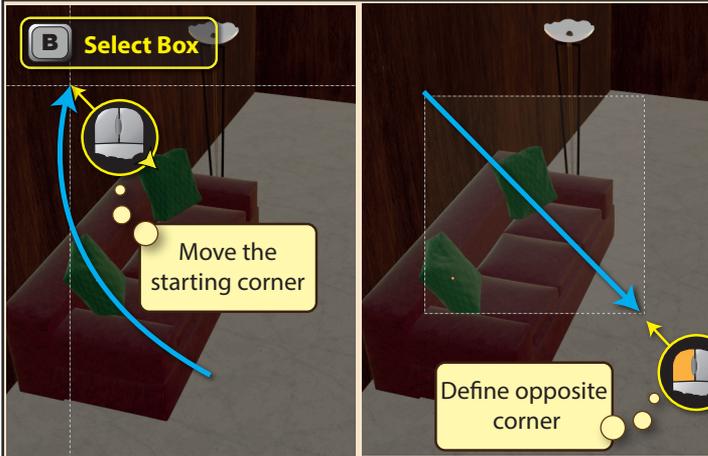
Hold down **Shift** when using the Lasso to add items to the current selection.

Hold down **Ctrl** when using Lasso to remove items from the current selection.

Once we've defined an area using the Lasso, we can move that area to a different part of the Viewport by dragging with the spacebar held down. This must be done before the left mouse button is released.



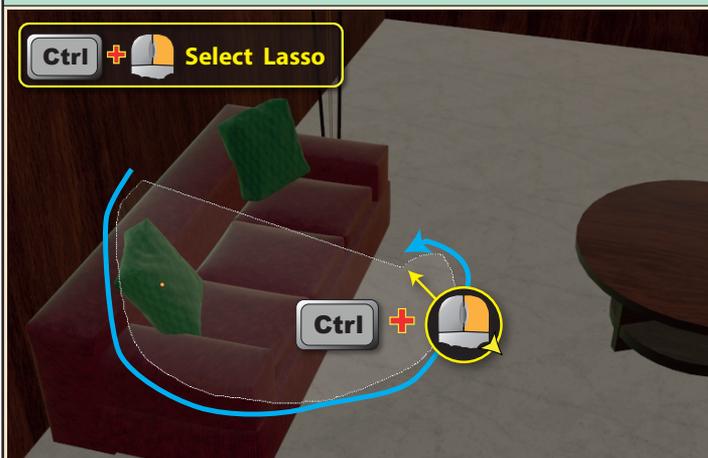
We can select the **Select Box** option by pressing the **B** key. This creates Viewport-wide crosshairs which move with the mouse pointer. Dragging with the mouse then defines the diagonally opposite corner of the box.



Pressing **C** initiates the **Select Circle** option but this time the circle size is adjusted using the mouse wheel. After the selection is made, pressing **Esc** returns us to the selection tool currently selected in the Toolbar.



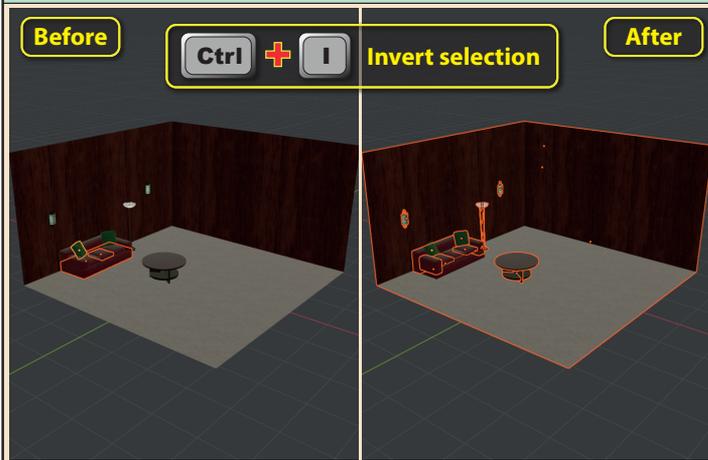
Select Lasso is achieved by holding down the **Ctrl** key and dragging with the right mouse button. This will add to any current selection.



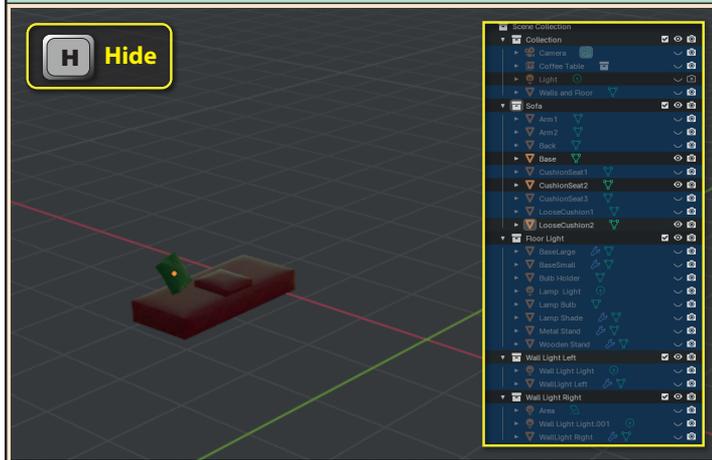
Using **Shift Ctrl** when dragging with the right mouse button will remove the lasso-enclosed items from the selection.



Ctrl I inverts the selection. Items previously selected become deselected while previously unselected items become selected.



H hides all selected objects. In the *Outliner Editor* the "eye" symbol for those objects changes to a "closed eye" symbol.



Shift H hides all unselected objects.



Alt H makes all previously hidden items visible and adds them to the current selection.



There is a **Select** heading in the *3D Viewport's* main menu.

Many of the entries are simply alternative ways of activating choices we have already covered but two of the entries are explained here.

Select>Select all by Type>Mesh selects all the meshes in the scene.



Select>Select Random selects a random set of items in the scene. The selection is not restricted to meshes.

