

Adding In-Game Color Transform and Resize Qualities

How to use Unity and script to adjust the color and scale of grabbed objects while immersed in virtual reality

Scripts required: GenericLoader, SelectionManager, Selectable

GitHub link: <https://github.com/Know-Thyself-as-a-Virtual-Reality/KTVR-DICOM-Tools>

VIMEO link: <https://vimeo.com/730608128/ba3362da5c>

Step by step (initial setup):

1. If you don't already have the [Oculus Integration](#) package installed, download it from the [Oculus website](#) (full instructions for this step can be found [here](#)).
2. Set up your scene as desired, remember to include an object (full instructions for importing DICOM data objects into unity can be found [here](#)).

Step by step:

3. Use the [right-click](#) menu to create an empty [GameObject](#). Rename it [Selection Manager](#). (This will make it so only one object can be selected at a time).
4. In the inspector under [tags & layers](#), add a tag for [SelectionManager](#). You can make a new tag by clicking the [+](#) icon in the inspector ([fig. 1](#)).
5. With the [SelectionManager](#) game object selected in the hierarchy, assign the [SelectionManager](#) tag by choosing it from the [tag](#) dropdown menu ([fig. 2](#)).
6. Open the [OVRPlayerController](#) in the hierarchy, then [OVRCameraRig](#), and select both [hand anchors](#), which can be found in the [TrackingSpace](#) ([fig. 3](#)).

7. With both **hand anchors** selected, give them a tag for **hand** in the inspector.
8. Highlight the **Selection Manager** game object in the hierarchy, then click **add component** in the inspector and add a **Selection Manager** script (fig. 4).
9. Next, select the object in the hierarchy that you want to be able to grab, click **add component** and add a **Selectable** script.
10. You can now click the **play** button and use both controllers to manipulate object scale and color in-game.

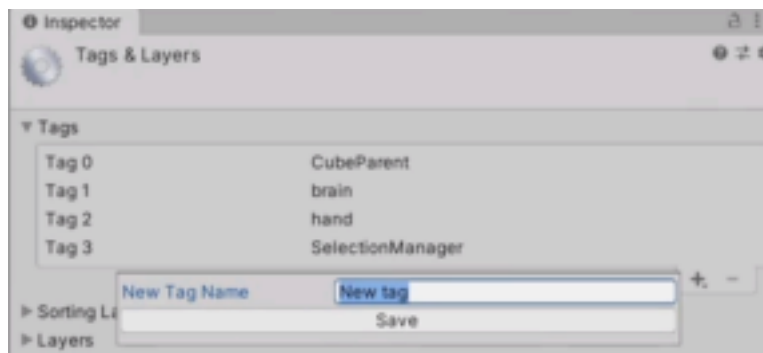


Fig. 1

Add a SelectionManager tag

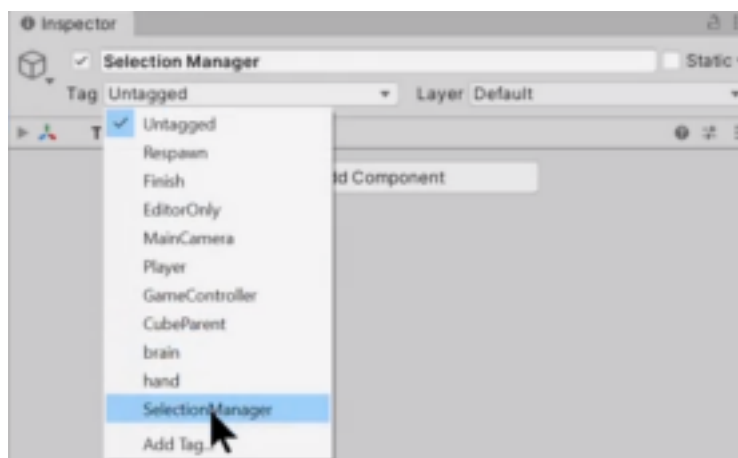


Fig. 2

Assign the SelectionManager tag to the Selection Manager game object

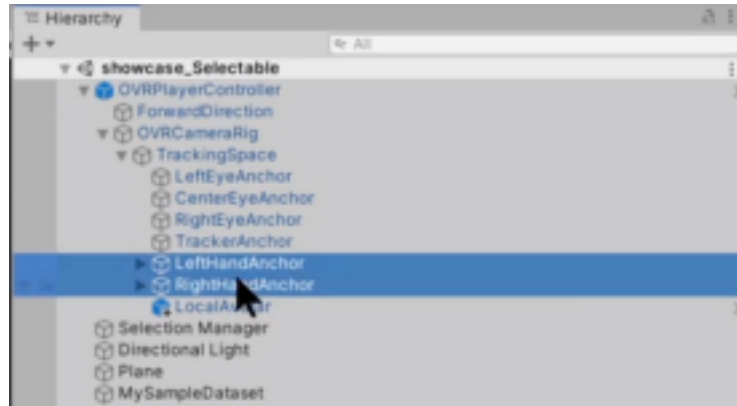


Fig. 3

Find the left and right hand anchors in the OVRPlayerController and select both of them

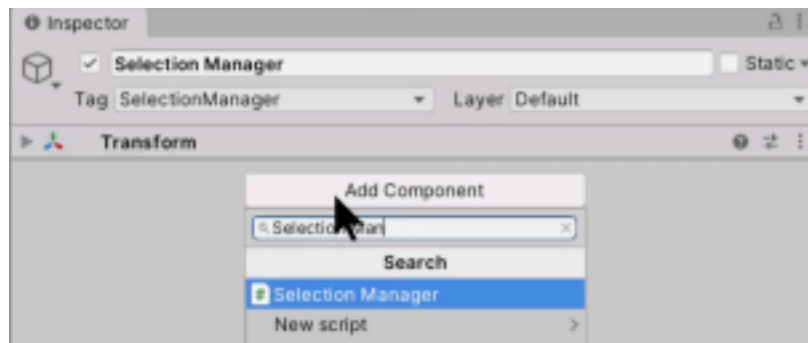


Fig. 4

You can find the selection manager script by typing in the add component search box

Note:

- **Ctrl D** (PC) can be used to duplicate objects in Unity
- Using the right-hand controller, the **index trigger** can be used to select an object in-game. Then, **A** and **B** buttons can be used to toggle through color transforms, and the **right joystick** can be used to alter the volume scale
- Objects will automatically deselect when a new one is selected