

Virtual Reality in Unity 3D

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SRH Fachschulen

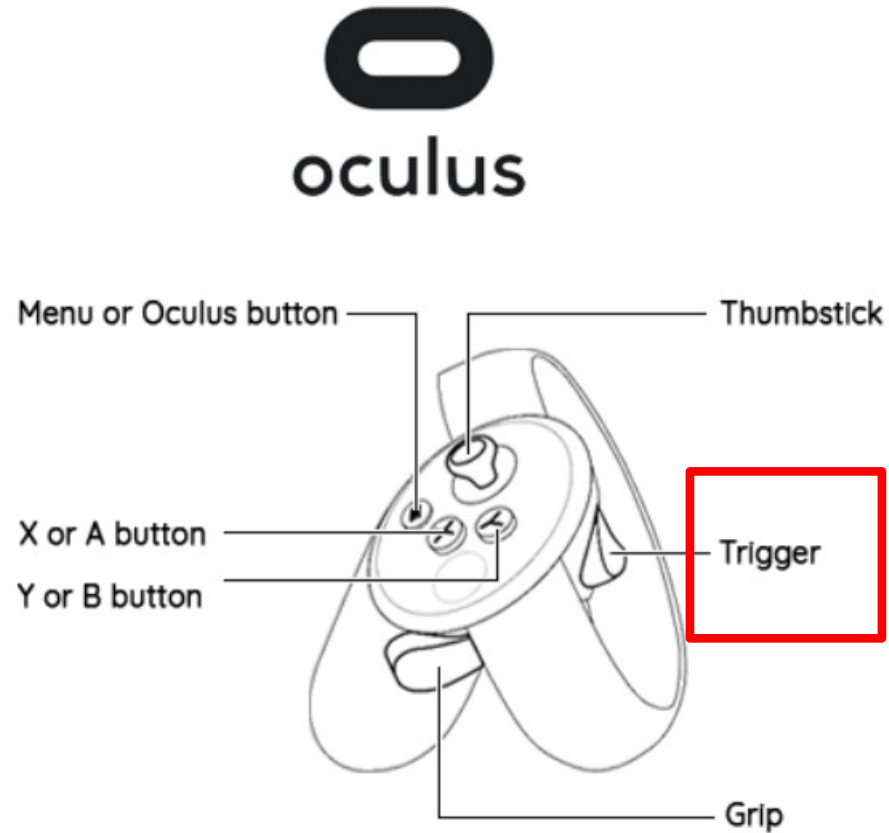
Stuttgart, 11. Juli, 2023



Zeitplan für den Kurs

12-07-2023	<ul style="list-style-type: none"> • User interface (UI)
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oculus Controller



User interface (UI)

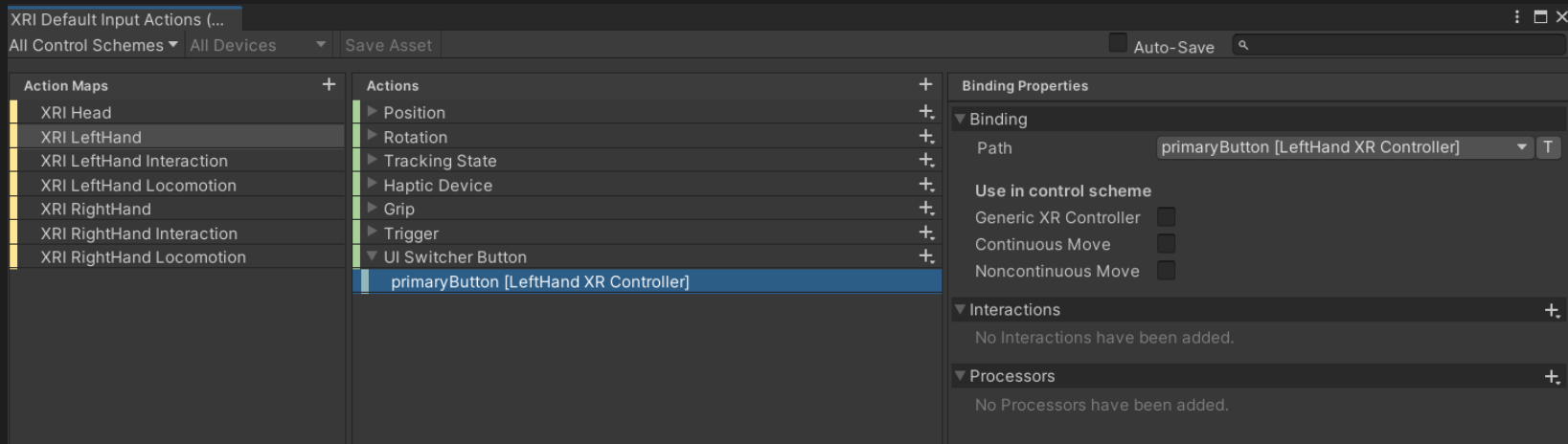
- Duplicate Klassische Locomotion -> rename UI
- Add a UI Canvas
 - Change Render Mode (World Space)
 - Add Event Camera (Main Camera)
 - Change Width and Height (Rect Transform : Width and Height : 10*10)
 - Change Position (Rect Transform : x=0; y=6;z=0)
 - Add Component (Tracked Device Graphic Raycaster)
- Delete EventSystem
- Add XR -> UI EventSystem
- Go to Canvas -> UI -> Add Text-TextMeshPro (Width and Height : 10*10 ; Font Size = 1) -> Add Text (TMP) -> Import TMP Essentials -> (Go to Szenario)
- Go to Canvas -> UI -> Add image (Rect Transform : Width and Height : 10*10)
- Go to Canvas -> UI -> Add Button-TextMeshPro (scale: 0.05*0.05*0.05)
 - Szenario 1
 - Szenario 2
 - Szenario 3

User interface (UI)

- Go to XR Origin -> Create Empty (LeftHand Parent)
- Go to LeftHand Parent -> XR -> Device-based -> Ray Interactor (rename: LeftHand UI Controller)

User interface (UI)

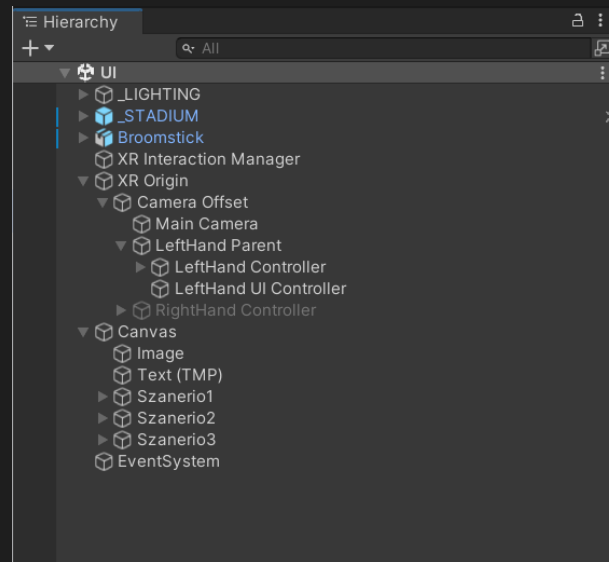
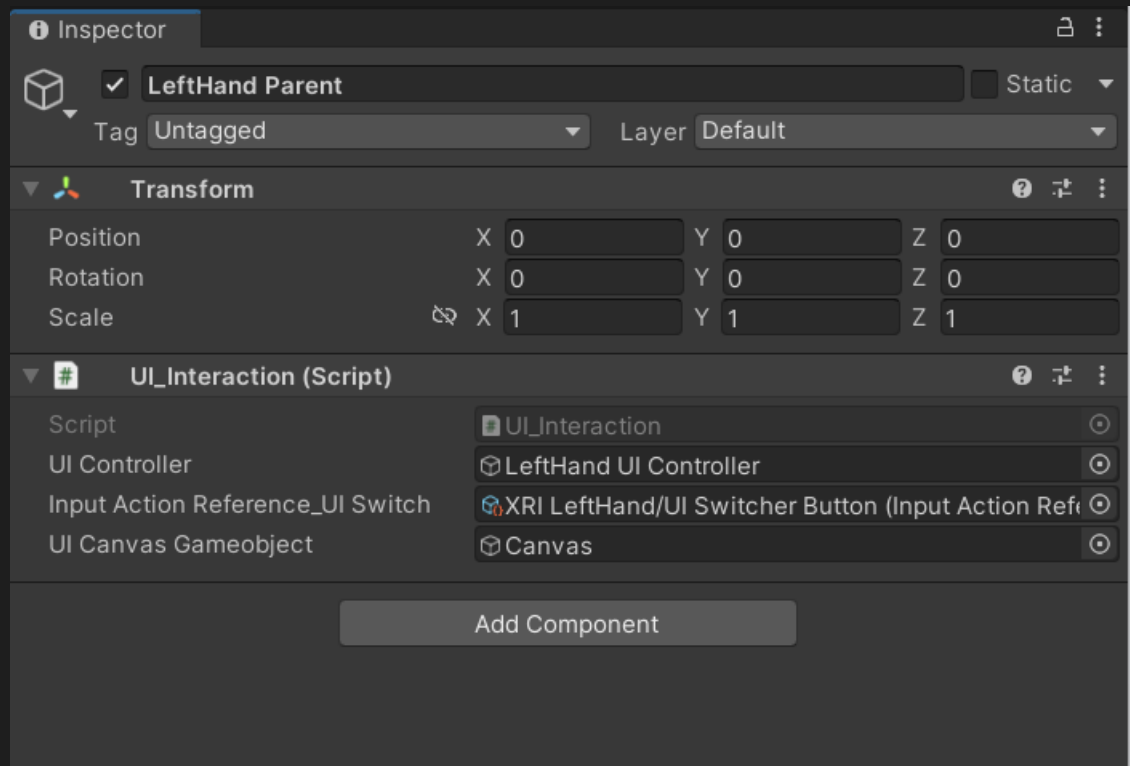
- Go to Assets -> Samples -> XR Interaction Toolkit -> 2.0.4 -> Starter Assets -> XRI Default Input Actions
- Go to XRI LeftHand -> Add a new Action (UI Switcher Button) -> No Binding -> path(XR Controller) -> XR Controller (LeftHand)-> Optional Controls-> primaryButton -> Save Asset



User interface (UI)



- Go to LeftHand Parent -> Create C# UI_InteractionController

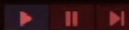


UI_Interaction.cs* [icon] X

Assembly-CSharp

UI_Interaction

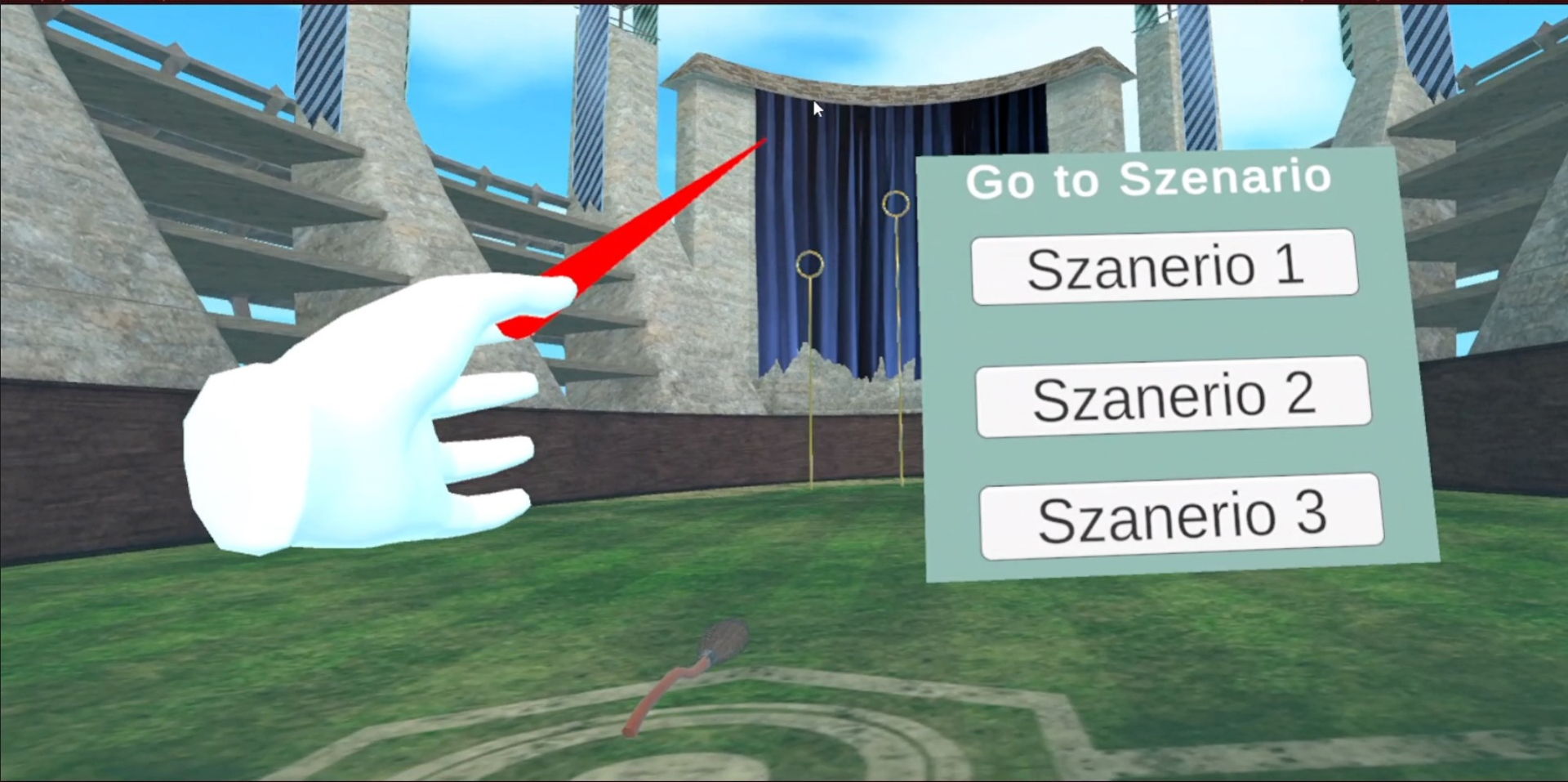
```
1  using System.Collections;
2  using System.Collections.Generic;
3  using UnityEngine;
4  using UnityEngine.XR.Interaction.Toolkit;
5  using UnityEngine.InputSystem;
6  using UnityEngine.Events;
7  using System;
8
9  [Unity-Skript (2 Objektverweise) | 0 Verweise]
10 public class UI_Interaction : MonoBehaviour
11 {
12     [SerializeField] GameObject UIController;
13     [SerializeField] InputActionReference InputActionReference_UISwitch;
14     [SerializeField] GameObject UICanvasGameobject;
15 }
16
```

Display 1 ▾ Free Aspect ▾

Scale ● 1x

Left Eye ▾ Play Focused ▾ 🔊 🖱️ Sta



Go to Szenario

Szanerio 1

Szanerio 2

Szanerio 3

User interface (UI)

➤ Create C# ButtonInteraction

➤ **Aufgaben : Go to Szenario (Go to Szenario 1 /2 /3)**

1. Tipp: UI.Text

2. Tipp: load Szenario

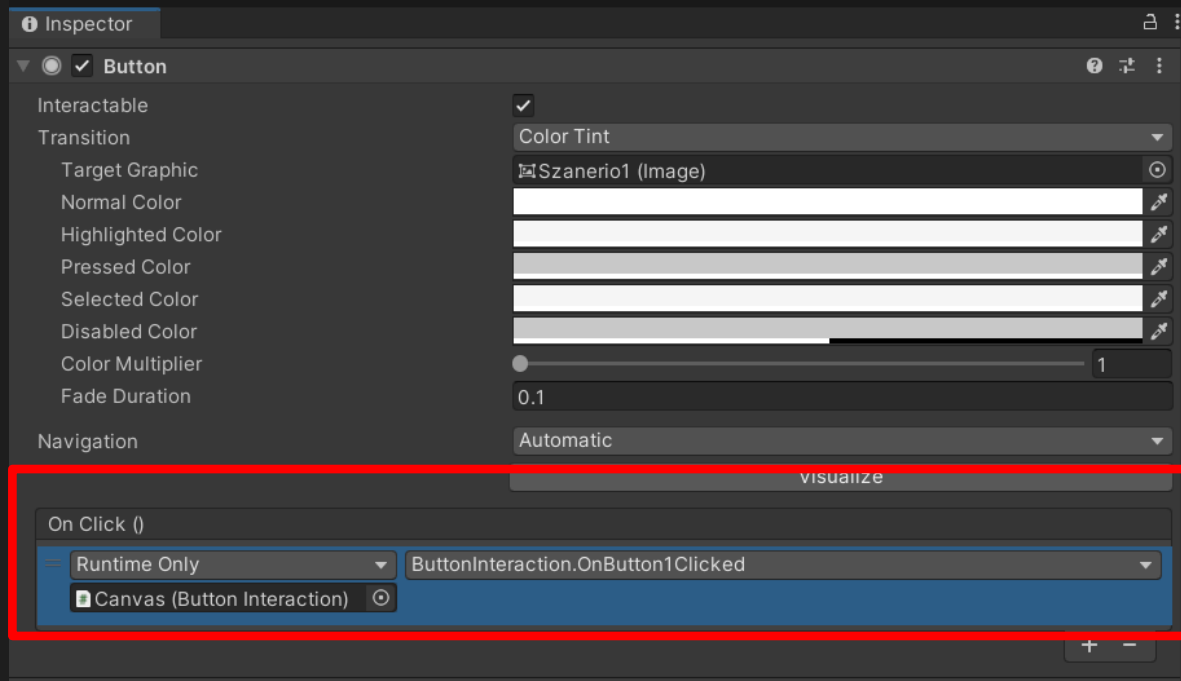
User interface (UI)

➤ Create C# ButtonInteraction

```
ButtonInteraction.cs* [icon] [x]
Assembly-CSharp [icon] ButtonInteraction
1  using System.Collections;
2      using System.Collections.Generic;
3      using UnityEngine;
4      using TMPro;
5      using UnityEngine.SceneManagement;
6
7  public class ButtonInteraction : MonoBehaviour
8  {
9      public TextMeshProUGUI UIText;
10     public void OnButton1Clicked()
11     {
12         UIText.text = ("Go to Szenario 1");
13         SceneManager.LoadScene("Szenario1");
14     }
15     public void OnButton2Clicked()
16     {
17         UIText.text = ("Go to Szenario 2");
18         SceneManager.LoadScene("Szenario2");
19     }
20
21     public void OnButton3Clicked()
22     {
23         UIText.text = ("Go to Szenario 3");
24         SceneManager.LoadScene("Szenario3");
25     }
26 }
27
28 [icon]
```

User interface (UI)

- Add ButtonInteraction (C#) into Canvas
- Go to Szenario1(Button) -> on Click()



User interface (UI)



Finish Part 6

