

```
1 using System.Collections;
2 using System.Collections.Generic;
3 using UnityEngine;
4 using System;
5
6 //二叉树的结点类
7 public class TreeNode<T> where T:IComparable{
8
9     public T data;//数据
10    public TreeNode<T> leftChild;//左孩子
11    public TreeNode<T> rightChild;//右孩子
12
13    public TreeNode(T data,TreeNode<T> l,TreeNode<T> r)
14    {
15        this.data = data;
16        this.leftChild = l;
17        this.rightChild = r;
18    }
19
20    public TreeNode(T data)
21    {
22        this.data = data;
23    }
24
25    public int Compare(T t1, T t2)
26    {
27        if (t1.CompareTo(t2) > 0)
28            return 1;
29        return -1;
30    }
31
32    //插入函数 判断当前需要插入的数据 是否小于当前结点 如果小于加入到左孩子
    //大于加到右孩子
33    public void Insert(TreeNode<T> other)
34    {
35        if (data.CompareTo(other.data) > 0)
36        {
37            if (leftChild == null)
38                leftChild = other;
```

```
39         else
40             leftChild.Insert(other);
41     }
42     else
43     {
44         if (rightChild == null)
45             rightChild = other;
46         else
47             rightChild.Insert(other);
48     }
49 }
50
51 public void PreOrderNode()
52 {
53     Debug.Log(data);
54
55     if (leftChild != null)
56         leftChild.PreOrderNode();
57
58     if (rightChild != null)
59         rightChild.PreOrderNode();
60
61 }
62
63 public void InorderNode()
64 {
65     if (leftChild != null)
66         leftChild.InorderNode();
67
68     Debug.Log(data);
69
70     if (rightChild != null)
71         rightChild.InorderNode();
72 }
73
74
75 public void PostorderNode()
76 {
77     if (leftChild != null)
78         leftChild.PostorderNode();
79
80     if (rightChild != null)
```

```
81         rightChild.PostorderNode();
82
83         Debug.Log(data);
84     }
85
86
87 }
88
```

```
1  using System.Collections;
2  using System.Collections.Generic;
3  using UnityEngine;
4  using System;
5
6  public class BinaryTree<T> where T:IComparable{
7
8      public TreeNode<T> head;//根结点
9
10     public BinaryTree(TreeNode<T> head)
11     {
12         this.head = head;
13     }
14     public BinaryTree()
15     {
16         this.head = null;
17     }
18
19     public void Insert(T data)
20     {
21         if (head == null)
22         {
23             head = new TreeNode<T>(data);
24             return;
25         }
26
27         TreeNode<T> temp=new TreeNode<T>(data);
28
29         head.Insert(temp);
30     }
31
```

```
32 //前序遍历二叉树 先序 根左右
33 public void PreorderNode()
34 {
35     if (head == null)
36         return;
37     head.PreOrderNode();
38 }
39
40 //中序遍历二叉树 左根右
41 public void InorderNode()
42 {
43     if (head == null)
44         return;
45     head.InorderNode();
46 }
47
48 //后序 左右根
49 public void PostorderNode()
50 {
51     if (head == null)
52         return;
53     head.PostorderNode();
54 }
55
56 //层次遍历
57 public void LevelorderNode(TreeNode<int> head)
58 {
59     if (head == null)
60         return;
61     List<TreeNode<int>> datas = new List<TreeNode<int>>();
62     datas.Add(head);
63
64     while (datas.Count > 0)
65     {
66         Debug.Log(datas[0].data);
67
68         if (datas[0].leftChild != null)
69             datas.Add(datas[0].leftChild);
70         if (datas[0].rightChild != null)
71             datas.Add(datas[0].rightChild);
72         datas.Remove(datas[0]);
73     }
```

```
74     }  
75 }
```

HTC Vive

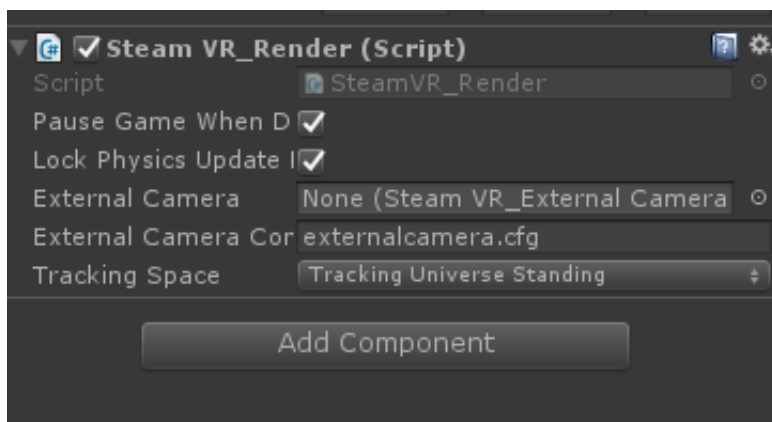
Oculus rift

SteamVR的核心组件

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1 SteamVR_Render

管理VR的渲染工作和基本设置

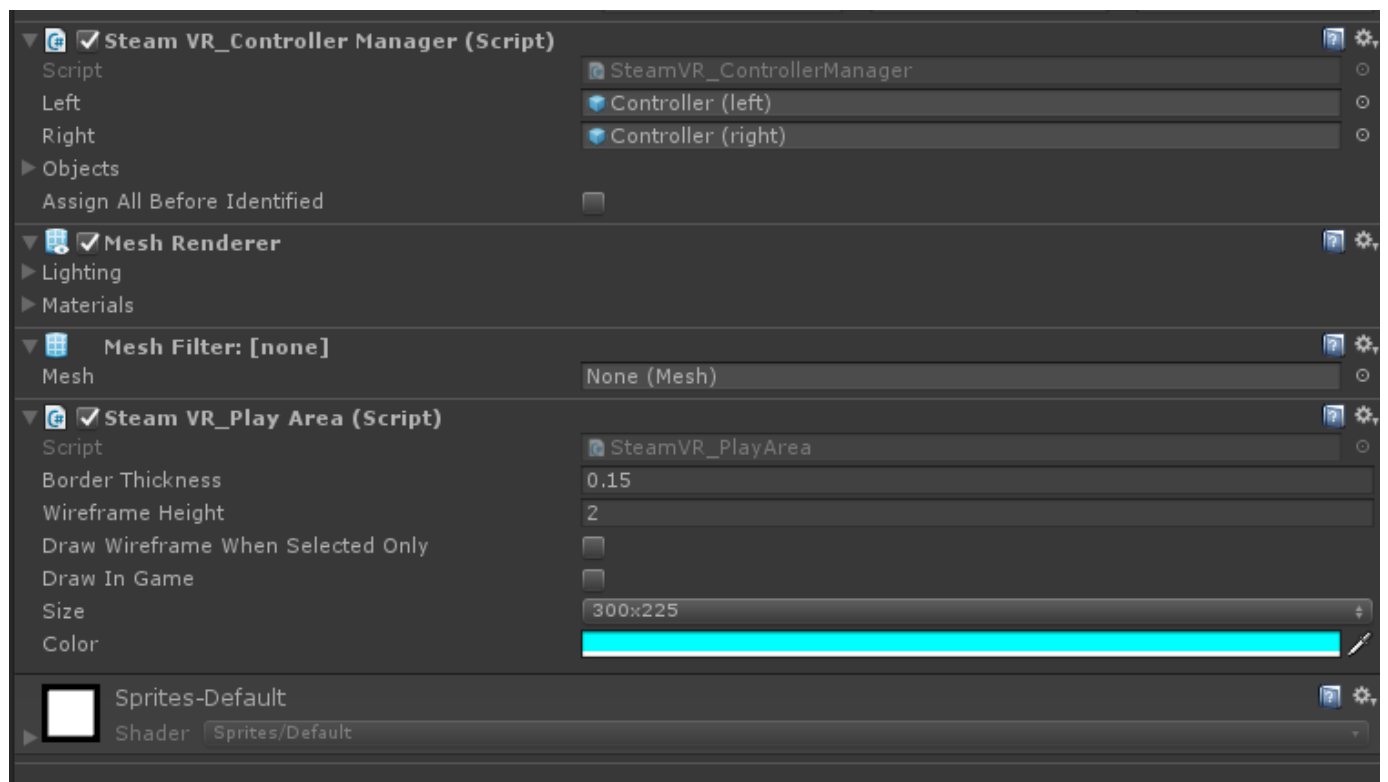


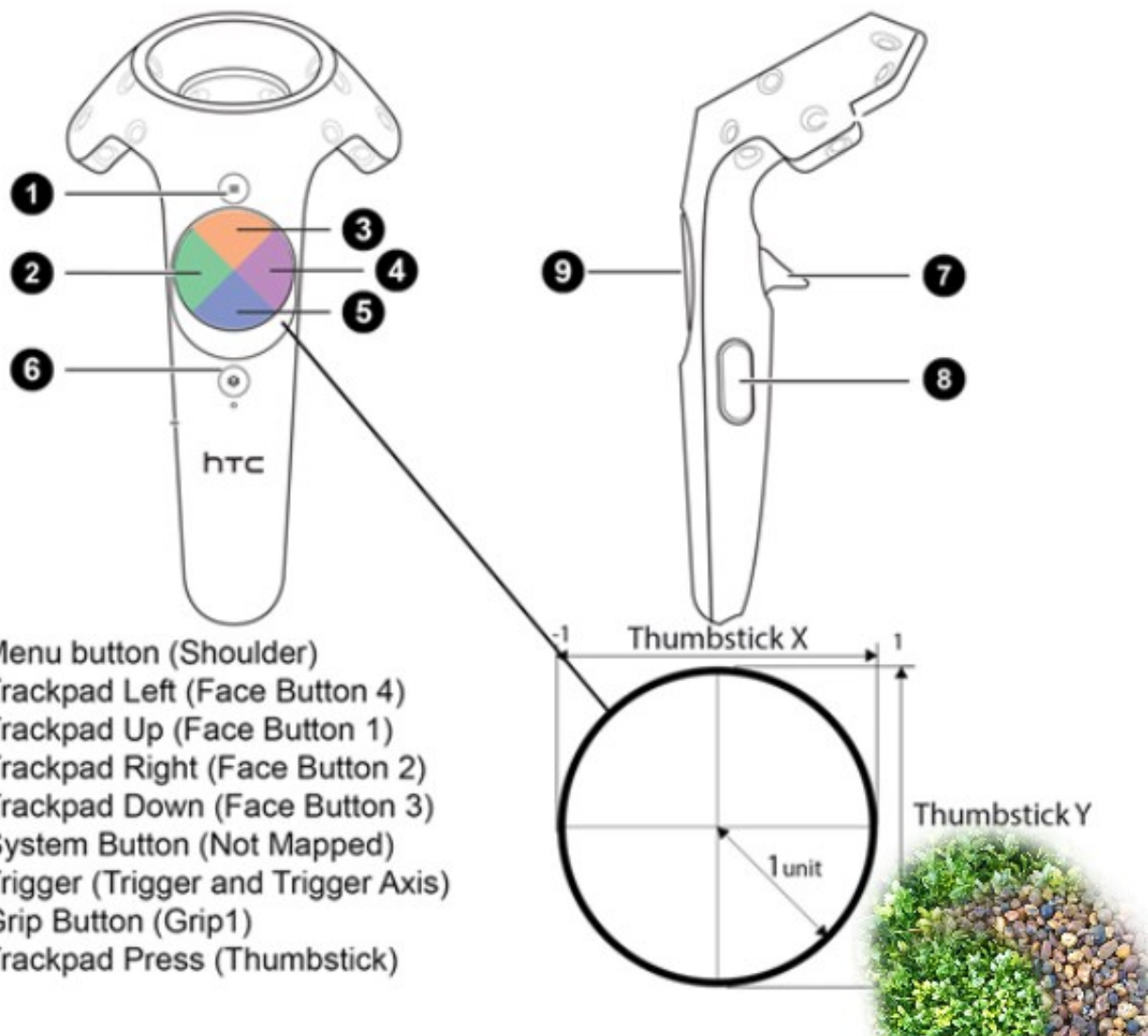
2 SteamVR_ControllerManager VR

管理控制器的脚本 控制左右操作杆的事件更新

3 SteamVR_PlayerArea

游戏区域限制 宽高 周边限制框





```

1  using System.Collections;
2  using System.Collections.Generic;
3  using UnityEngine;
4
5  public class Left : MonoBehaviour {
6
7      SteamVR_TrackedObject trackedObject;
8      SteamVR_Controller.Device device;
9      void Start () {
10         trackedObject = GetComponent<SteamVR_TrackedObject>();
11     }
12
13
14     void FixedUpdate() {
15         device = SteamVR_Controller.Input((int)trackedObject.index);
16     }
17 }

```

```
17         if (device.GetTouch(SteamVR_Controller.ButtonMask.Trigger))
18         {
19             Debug.Log("Touch Trigger");
20         }
21         if
22         (device.GetTouchDown(SteamVR_Controller.ButtonMask.Trigger))
23         {
24             Debug.Log("Touch Trigger");
25         }
26         if (device.GetTouchUp(SteamVR_Controller.ButtonMask.Trigger))
27         {
28             Debug.Log("Touch Trigger");
29         }
30         if (device.GetPressUp(SteamVR_Controller.ButtonMask.System))
31         {
32
33         }
34     }
35
36     void OnTriggerStay(Collider collider)
37     {
38         if (device.GetTouch(SteamVR_Controller.ButtonMask.Trigger))
39         {
40             collider.transform.parent = transform;
41         }
42         if (device.GetTouch(SteamVR_Controller.ButtonMask.Touchpad))
43         {
44             collider.transform.parent = null;
45         }
46     }
47 }
48
```