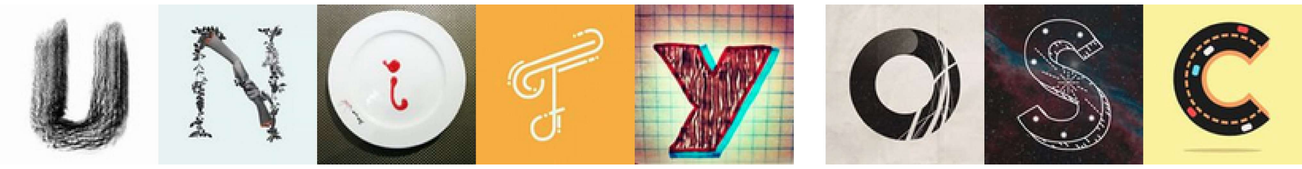

UnityOSC

Open Sound Control (OSC) for Unity 3D.

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Get It!

- **Download the script and Unity example project** (it includes communication examples for Cycling '74 Max and TouchDesigner)
- UnityOSC source on Github

The example

The download (and Github projet) is an actual Unity project. Open the folder in Unity and everything is ready to run.

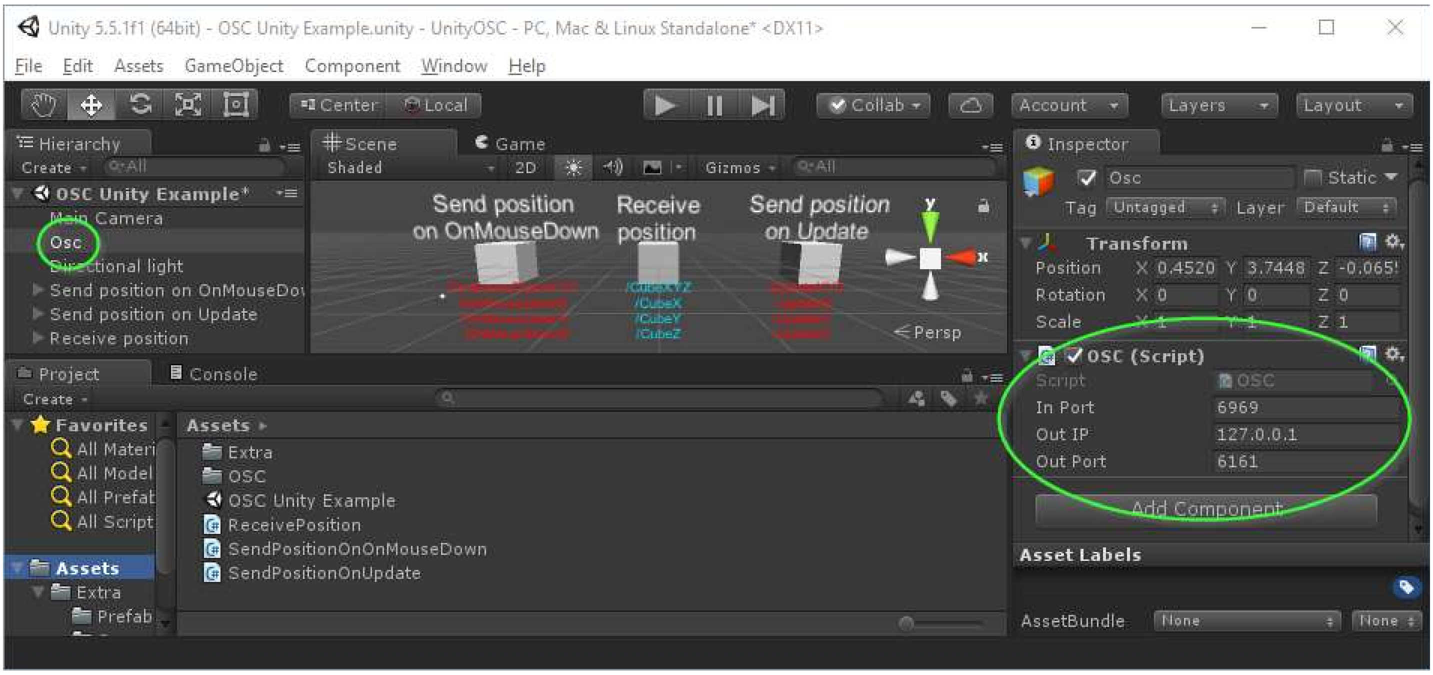
The following instructions are for using UnityOSC in your own projects :

Importing UnityOSC

Import the OSC.cs script into your project by dragging it into your assets (the script can be found in the "Assets" folder of the Unity project).

Create an empty GameObject and drag the imported OSC.cs onto it.

Configure the OSC port and IP settings to match your needs.



Unity 5.5.1f1 (64bit) - OSC Unity Example.unity - UnityOSC - PC, Mac & Linux Standalone* <DX11>

Transform

Position	X 0.4520	Y 3.7448	Z -0.065!
Rotation	X 0	Y 0	Z 0
Scale	X 1	Y 1	Z 1

OSC (Script)

Script	OSC
In Port	6969
Out IP	127.0.0.1
Out Port	6161

Receiving messages

To receive messages:

- Create a new script.
- Create a reference to the OSC script on the empty gameObject you created: public OSC osc;.
- In Start() set the name of a function to be called when a specific OSC message is received: osc.SetAddressHandler("/CubeXYZ" , OnReceiveXYZ);

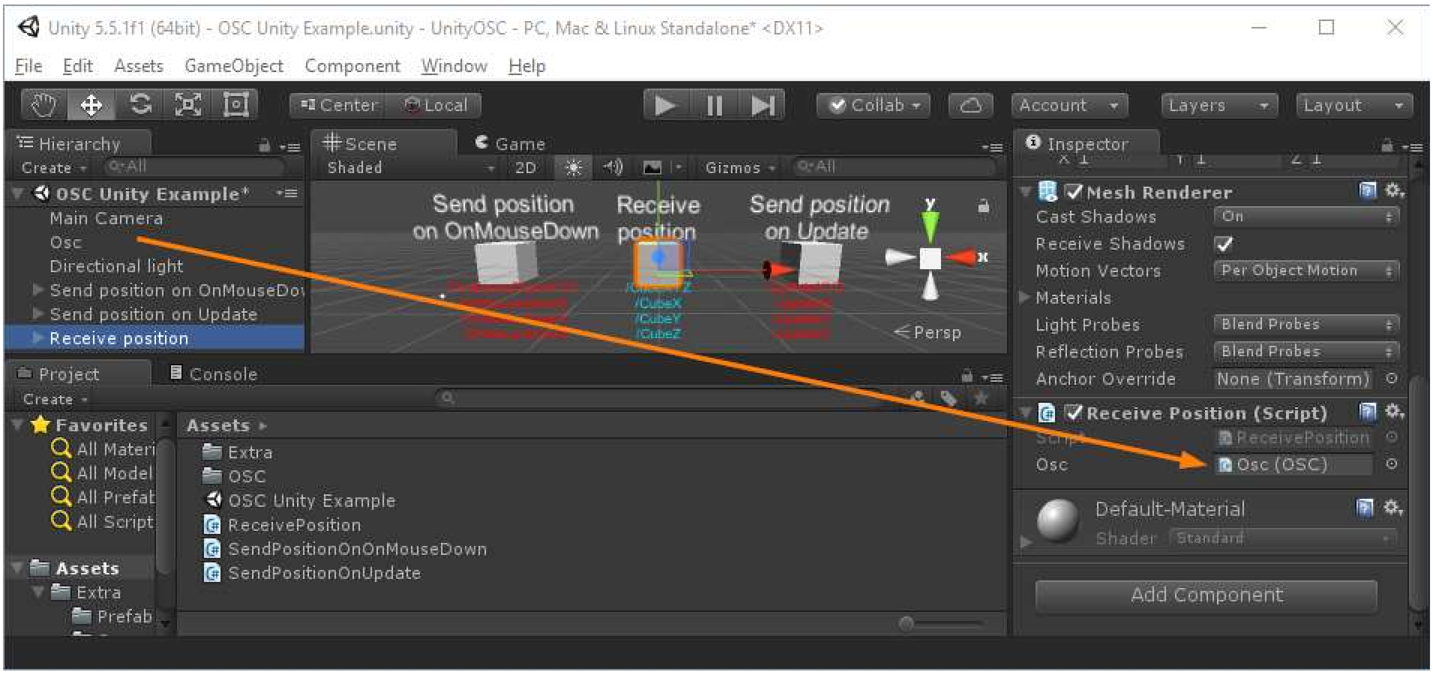
- Create the function that will receive the OSC message.
- Get the message data with GetFloat(index);.

In this example (ReceivePosition.cs), the script will handle OSC messages with the following addresses :

- /CubeXYZ followed by three floats
- /CubeX followed by one float
- /CubeY followed by one float
- /CubeZ followed by one float

```
using UnityEngine;
using System.Collections;

public class ReceivePosition : MonoBehaviour {

        public OSC osc;


        // Use this for initialization
        void Start () {
       osc.SetAddressHandler( "/CubeXYZ" , OnReceiveXYZ );
       osc.SetAddressHandler("/CubeX", OnReceiveX);
       osc.SetAddressHandler("/CubeY", OnReceiveY);
       osc.SetAddressHandler("/CubeZ", OnReceiveZ);
    }

        // Update is called once per frame
        void Update () {

        }

        void OnReceiveXYZ(OscMessage message){
                float x = message.GetFloat(0);
         float y = message.GetFloat(1);
                float z = message.GetFloat(2);

                transform.position = new Vector3(x,y,z);
        }

    void OnReceiveX(OscMessage message) {
        float x = message.GetFloat(0);

        Vector3 position = transform.position;

        position.x = x;

        transform.position = position;
    }

    void OnReceiveY(OscMessage message) {
        float y = message.GetFloat(0);

        Vector3 position = transform.position;

        position.y = y;

        transform.position = position;
    }

    void OnReceiveZ(OscMessage message) {
        float z = message.GetFloat(0);

        Vector3 position = transform.position;

        position.z = z;

        transform.position = position;
    }


}
```

Do not forget to set the reference to the OSC.cs script :



Mesh Renderer

Cast Shadows: On

Receive Shadows: ✓

Motion Vectors: Per Object Motion

Materials

Light Probes: Blend Probes

Reflection Probes: Blend Probes

Anchor Override: None (Transform)

Receive Position (Script)

Script: ReceivePosition

Osc: Osc (OSC)

Default-Material

Shader: Standard

The handler function

SetAddressHandler(address , name of function)	void	Sets a handler function to be called when a message with the specified address is received
SetAllMessageHandler(name of function)	void	Sets a handler function to be called when any message is received (there can only be one SetAllMessageHandler handler function)

The handler function must be as follows :

```
void NameOfFunction ( OscMessage message ) {

}
```

An OSC message : OscMessage

address	string	Returns or sets the address of the message
GetFloat(index)	float	Returns the value at that index
values.Add(number)	number	Adds the number to the message

Sending an OSC message

To send messages:

- Create a new message : OscMessage message = new OscMessage();
- Set the address : message.address = "/address";.
- Add some data : message.values.Add(743);
- Send the message : osc.Send(message);.