

1 Google Street View App

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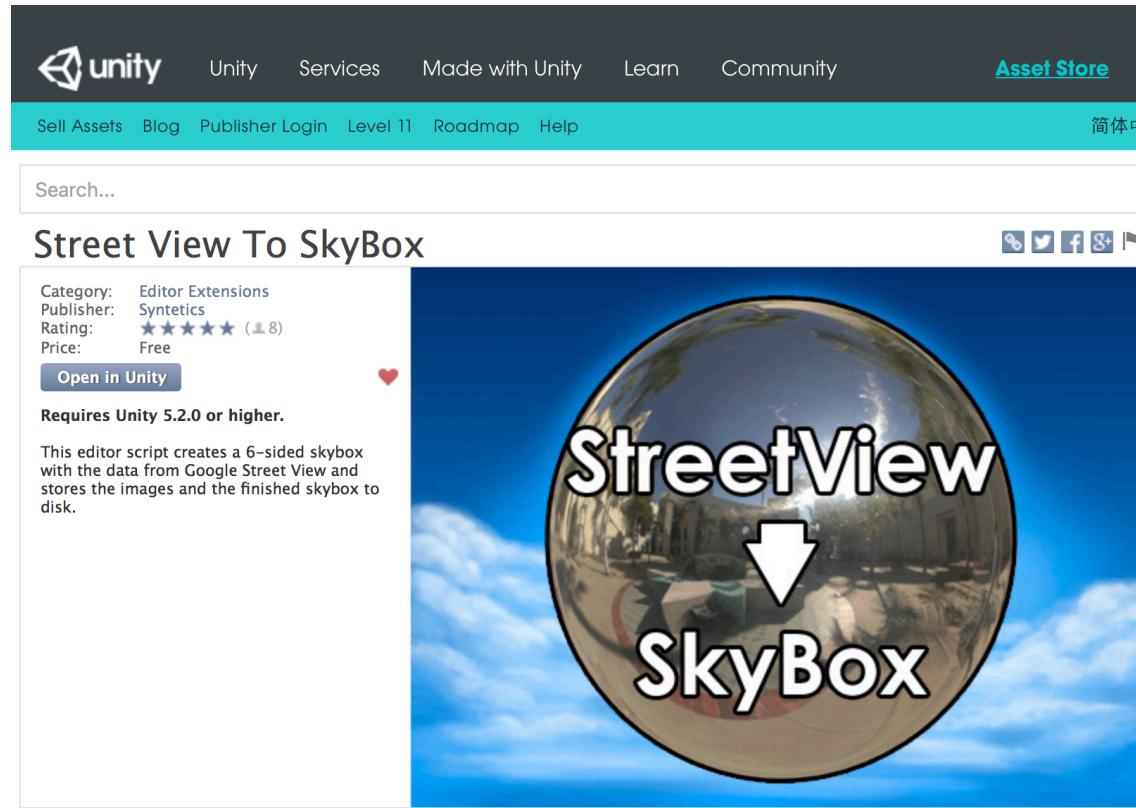
Cardboard, of course, is the cheap virtual-reality headset that works with smartphone. And Street View is the mobile version of Google's ground-level Maps feature. Put the two together and presto:

Now we get a virtual-reality view of anywhere we want to visit in Street View.

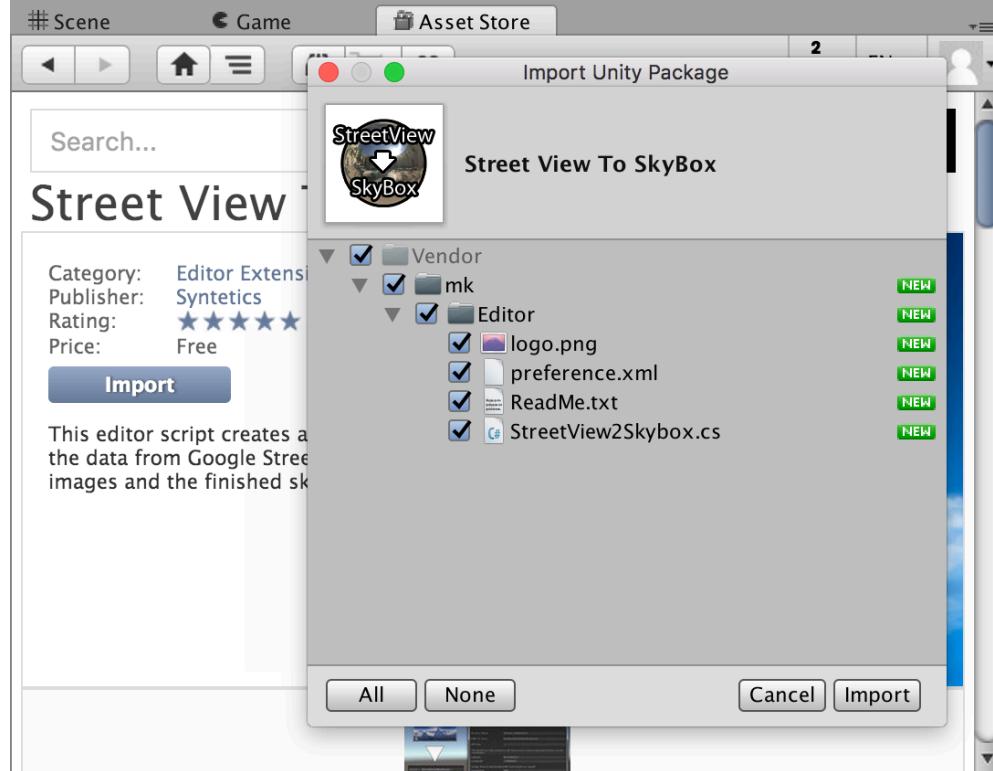
2 Street View to Skybox

Download and import package of Street View to Skybox , ([having Problems](#))

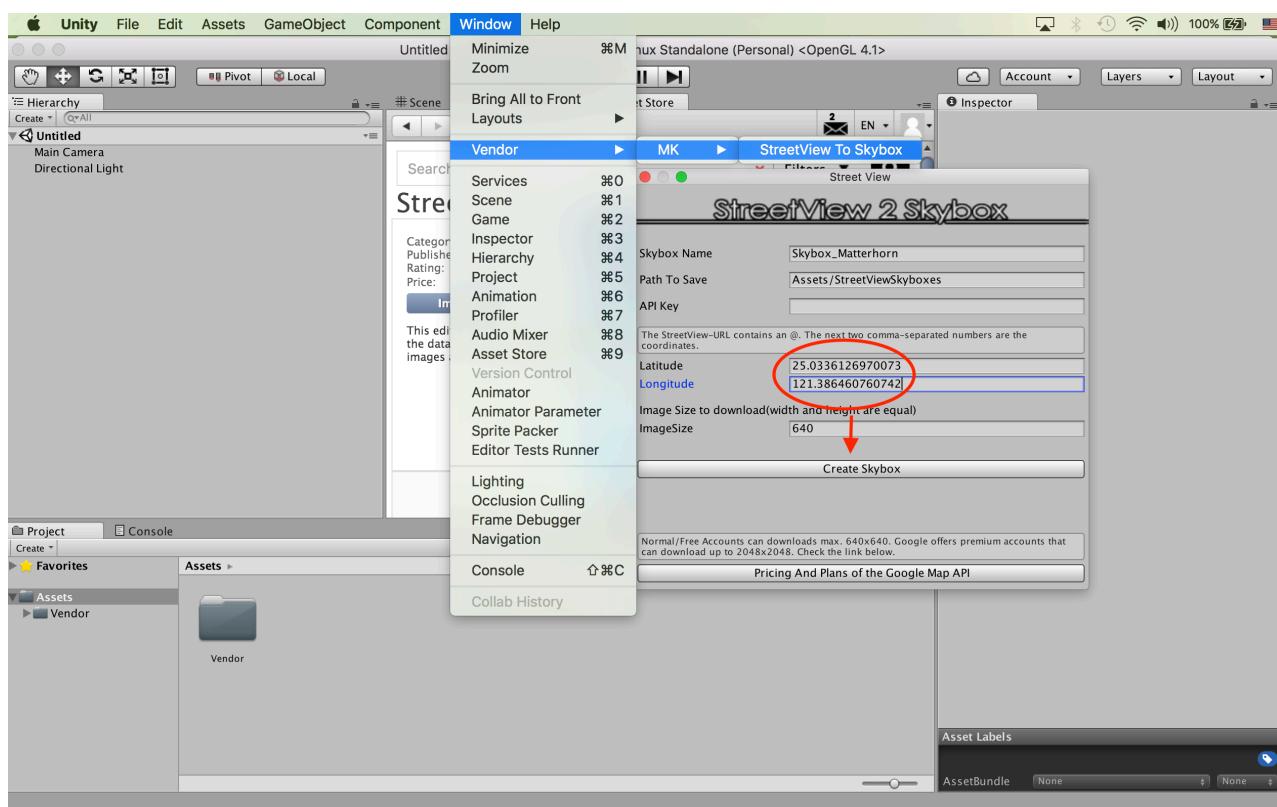
1. Find it and open in Unity



2. Login unity and import it:



3. Select [Window]->[Vendor]->[Mk]->[StreetView To Skybox] input the latitude/longitude of center, found from [address](http://diffusion.cgu.edu.tw/2014/computer/2014-2/GPSCoord-4.html) (<http://diffusion.cgu.edu.tw/2014/computer/2014-2/GPSCoord-4.html>) and create the skybox:

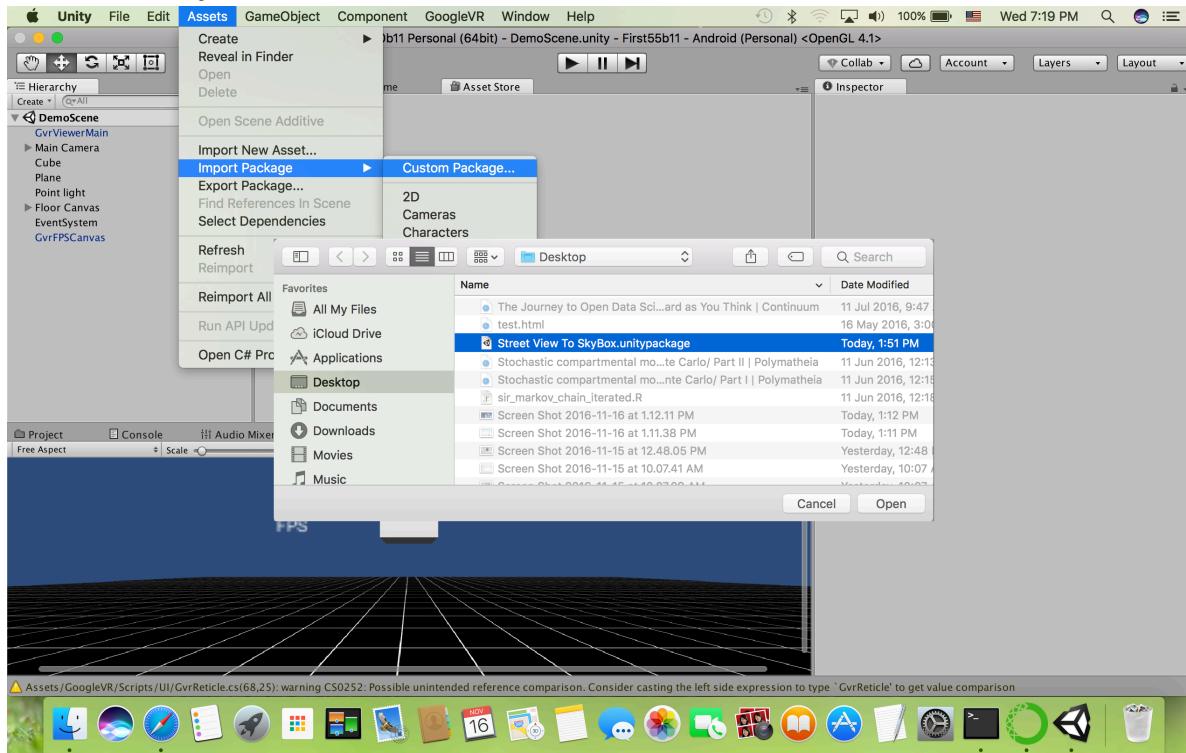


3 Note

- While updated to last Unity 5.5.0b11, the unit package can not be download again.
Find the download package from

[user/Library/Unity/Asset Store-5.x/Syntetics/Extensions/Street View To SkyBox.unitypackage]

and import from unity main menu:



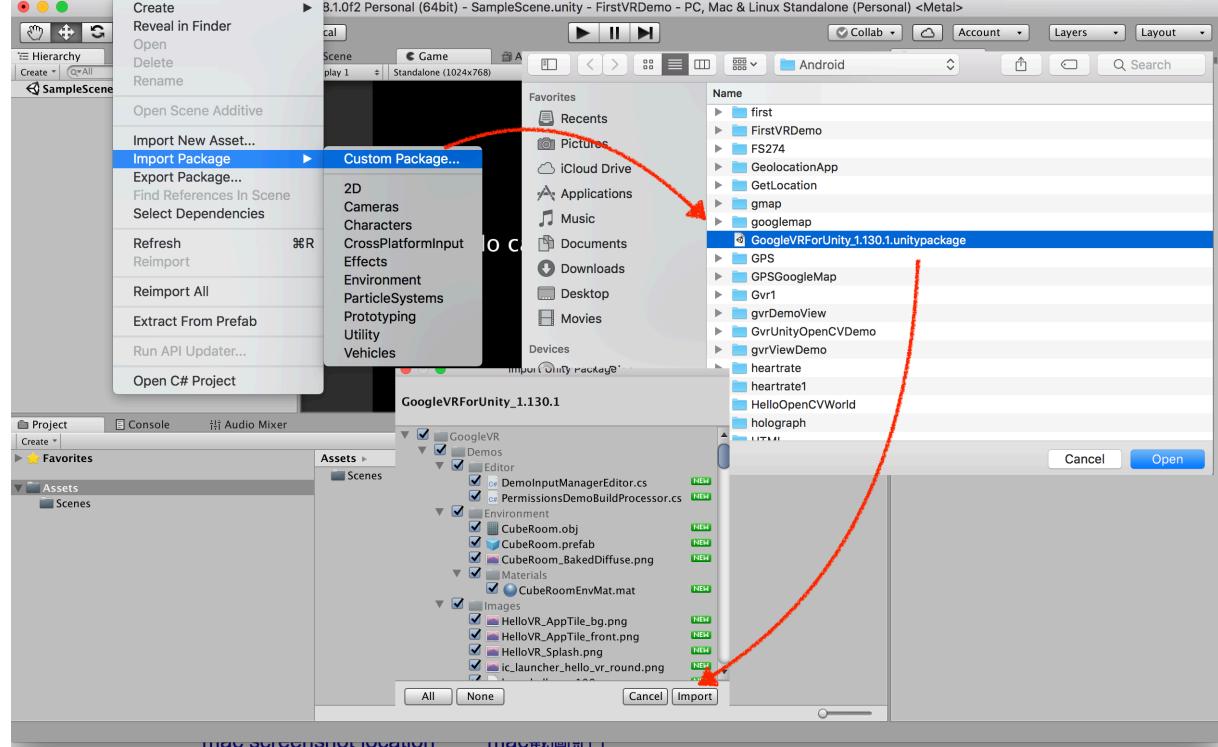
- but ~~Unity 5.5f1~~ works normally again.

4. import [GVR SDK for Unity Version v1.130.1 \(\[https://github.com/googlevr/gvr-unity-sdk/releases/download/v1.130.1/GoogleVRForUnity_1.130.1.unitypackage\]\(https://github.com/googlevr/gvr-unity-sdk/releases/download/v1.130.1/GoogleVRForUnity_1.130.1.unitypackage\)\)](https://github.com/googlevr/gvr-unity-sdk/releases/download/v1.130.1/GoogleVRForUnity_1.130.1.unitypackage) (2018/05/15) for Unity package by going to:

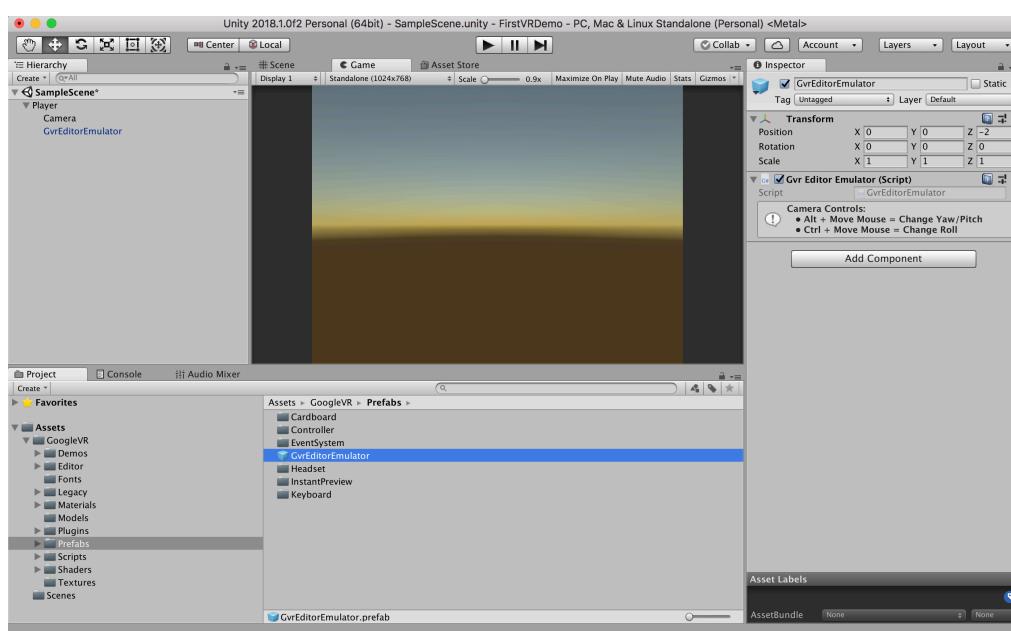
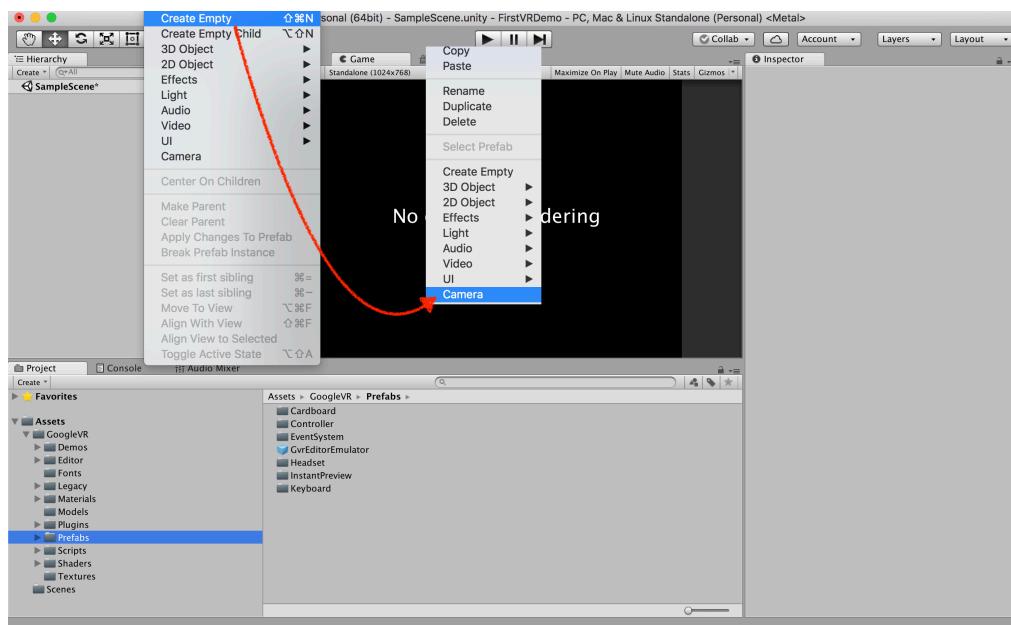
- **Assests > Import Package > Custom Package**

select the Google Unity Plugin:

- ~~GoogleVRForUnity_1_130.1.unitypackage~~
- ~~GoogleVRForUnity_1_110.0.unitypackage~~
- ~~GardboardSDKForUnity.unitypackage~~ (pre 0.8) and
- ~~GardboardDemoForUnity.unitypackage~~ (pre 0.8);

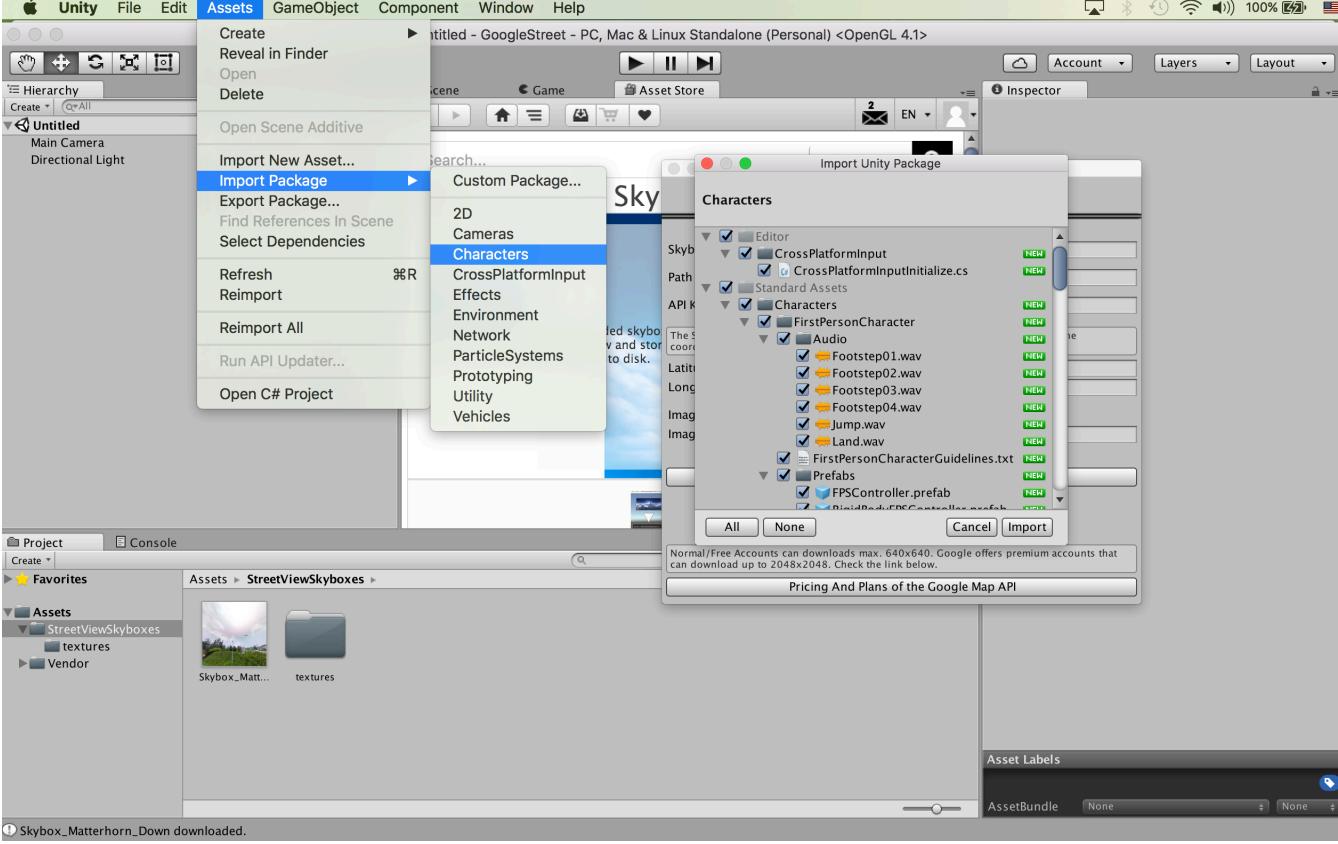


- create new GameObject, renamed as Player , add Camera and GVR SDK → Prefabs → GvrEditorEmulator under Player object.

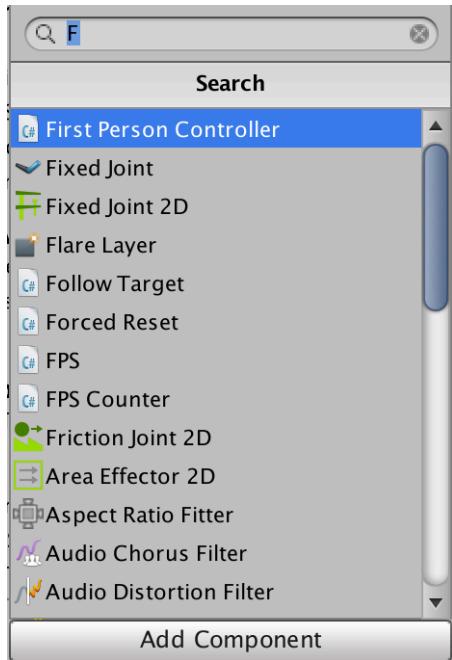


~~If nothing option was found in last step, drag Standard Assets into [Project] Assets.~~

5. Import package from **[Assets]->[Import package]->[Characters]** and

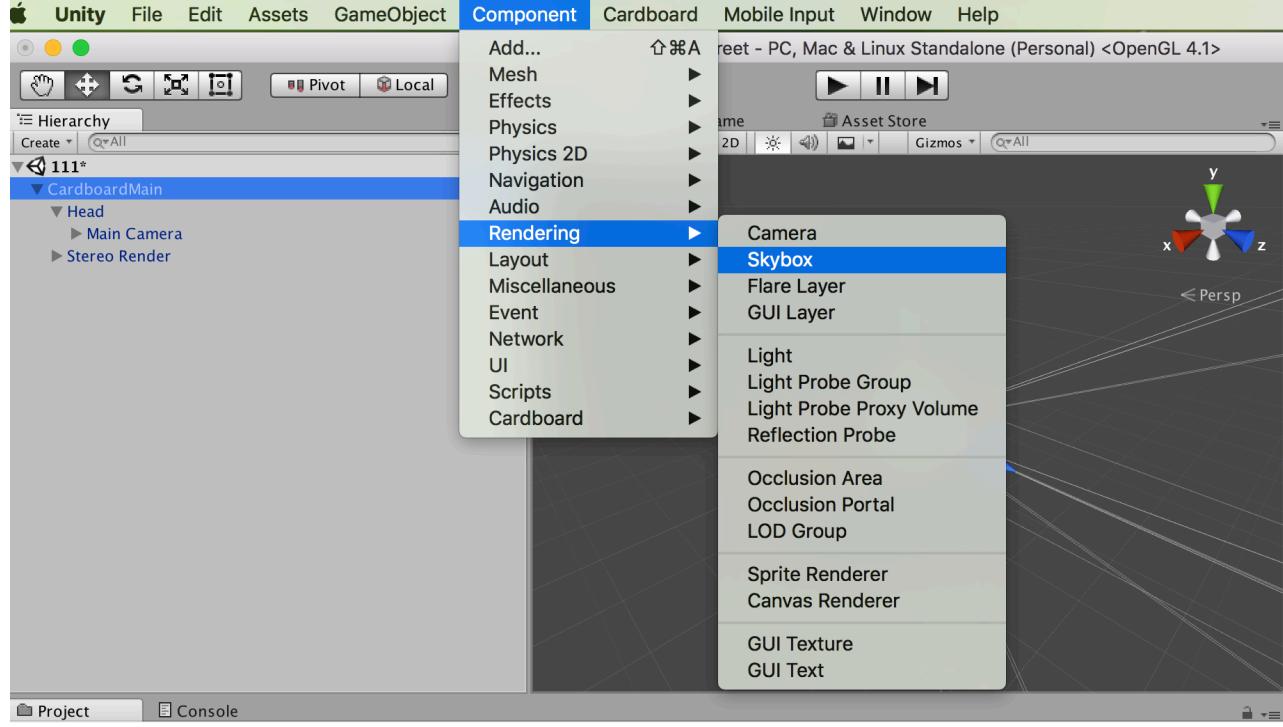


5. From right column, add component, **[First Person Controller]**, for *CardboardMain* in Hierarchy Windows:

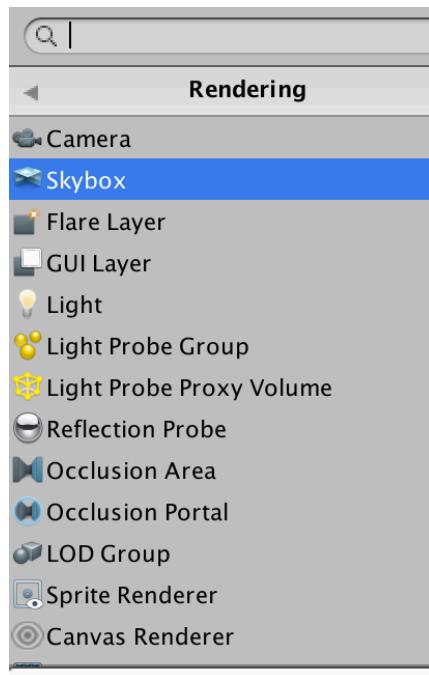


4 Skybox

1. Add Skybox by **[Component]->[Rendering]->[Skybox]**



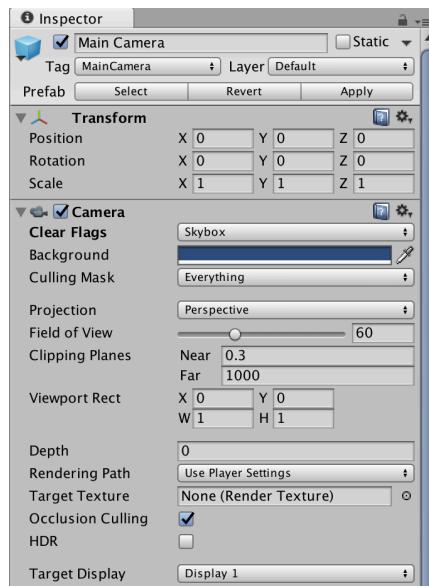
2. In **Inspector Windows**, [Add Component] for CardboardMain -> Main Camera in **Hierachy Windows**,



also change the property of **Skybox** ,

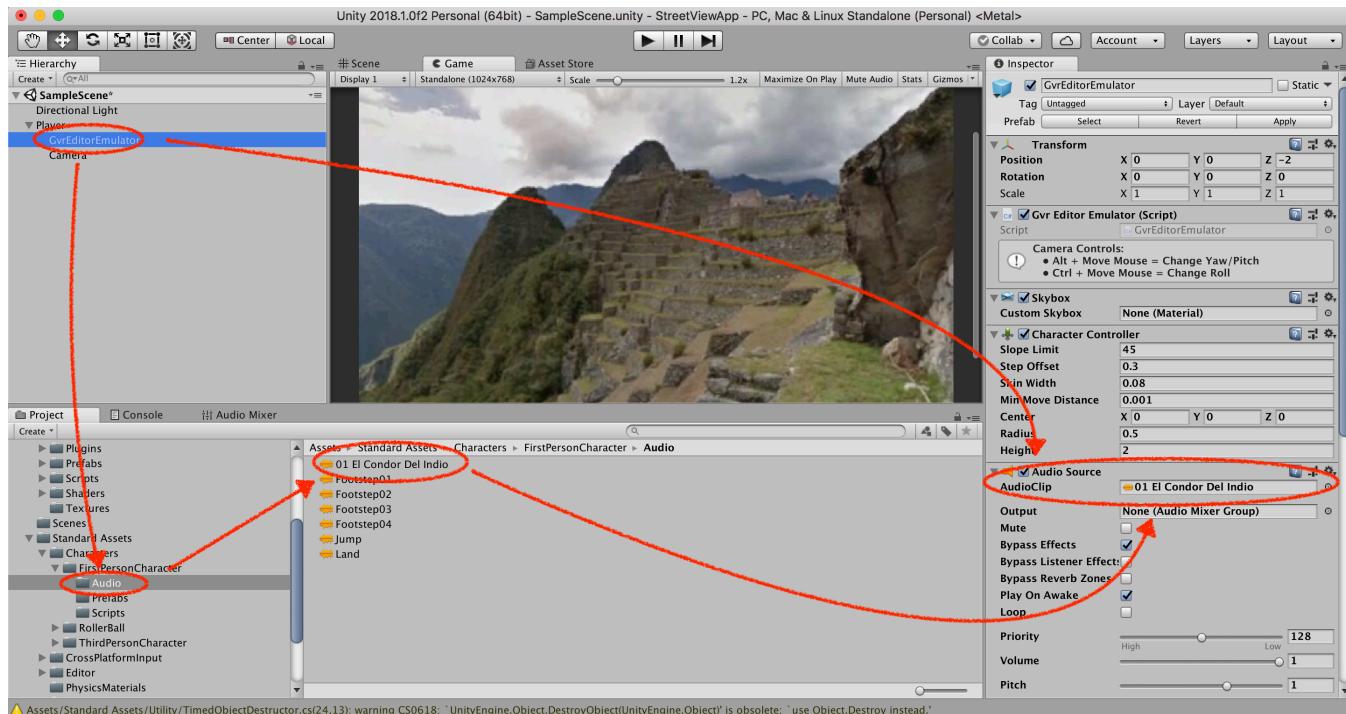


and the property of **clear flags** to **Skybox** in **Camera**,



Now we can test it or build the app.

5 Note (2018-05-15 update)



1. Sound Effect:

- add the sound file by importing [new Asset] or dragging the file into certain folder:
- Add Sound for CardboardMain, [Add Component] -> [Audio] -> [Audio Source]:
 - Drag the sound asset into [Audio Source] -> [AudioClip]:

2. UI: to test the app, (Apple Case):

- hold [control] key to rotate the scene;
- hold [option] key to look around.

3. HTML/Javascript codes to get latitude/logitude of position:

```
<!doctype html>
<html lang="en">
<head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, minimum-scale=1, initial-scale=1, user-scalable=no">
    <title></title>
    <script type="text/javascript"
        src="http://maps.google.com/maps/api/js?sensor=true&v=3&libraries=geometry"></script>
</head>
```

```
<body>

    <div id="map_canvas" style="width: 600px;height: 500px;"></div>
    <br />
```

```
<label for="latitude">Latitude (緯度):</label>
<input id="latitude" type="text" value="" />
<label for="longitude">Longitude (經度):</label>
<input id="longitude" type="text" value="" />

<br>
<!--
<label>
    The distance from Chang-Gung University to Destination:</label>
<div id="distanceAB"></div>
<label>
-->

<script type="text/javascript">
    var myZoom = 16;
    var myMarkerIsDraggable = true;
    var myCoordsLenght = 12;
    var defaultLat = 25.01743594338596;
    var defaultLng = 121.540956;
    var loc1 = new google.maps.LatLng(25.033515487308918, 12
1.386525133759);
    var loc2 = new google.maps.LatLng(25.033515487308918, 12
1.386525133759);

    function initialize() {
        var mapOptions = {
            center: new google.maps.LatLng(defaultLat, default
Lng),
            zoom: myZoom,
            mapTypeId: google.maps.MapTypeId.ROADP
        };
        var map = new google.maps.Map(document.getElementById(
"map_canvas"), mapOptions);

        // creates a draggable marker to the given coords
        var myMarker = new google.maps.Marker({
            position: new google.maps.LatLng(defaultLat, defa
ultLng),
            draggable: myMarkerIsDraggable
        });

        google.maps.event.addListener(myMarker, 'dragend', fu
nction(evt){
            var newLat=evt.latLng.lat();
            var newLng=evt.latLng.lng().toFixed(myCoordsLenght)
;
            document.getElementById('latitude').value = newLat;
            document.getElementById('longitude').value = newLng
        });
    }
</script>
```

```

;
    var loc2 = new google.maps.LatLng(newLat, newLng);
  });

// centers the map on markers coords
map.setCenter(myMarker.position);

// adds the marker on the map
myMarker.setMap(map);
}

google.maps.event.addListener(window, 'load', initialize);
</script>

</body>
</html>

```

6 How to Create Panorama Manually

- Got an image;
 - Have better to take the image in HDR mode;
 - From my Asus padfone, took a snapshot, connect with Mac botebook pro; pull it from [/HOME/PHONE_MEMORY/DCIM/Camera](#) to Mac;
- pull the image into certain folder in Project Windows and rename it if possible;
- In [Inspector] Windows, set the option of [Texture shape] as **cube**, [mapping] as **Six Frames Layout (Cubic Environment)** or **Latitude-Longitude Layout(Cylindricl)**; then click [Apply] on the bottom to convert it. Test the result by pulling the output on the bottom.
- in the same folder of image placed, create a material by right click the mouse button;
 - in [Inspector] Windows, set the [Shader] option as **[skybox ->Cubemap]**;
 - in [Cubemap (HDR)], select the image we just converted;
- Replace the [Main Camera] Skybox material. Now try the panorama image you had made.

[NbConvertApp] Converting notebook Unity-Google-Street-View-2.ipynb to html
[NbConvertApp] Writing 268864 bytes to Unity-Google-Street-View-2.html

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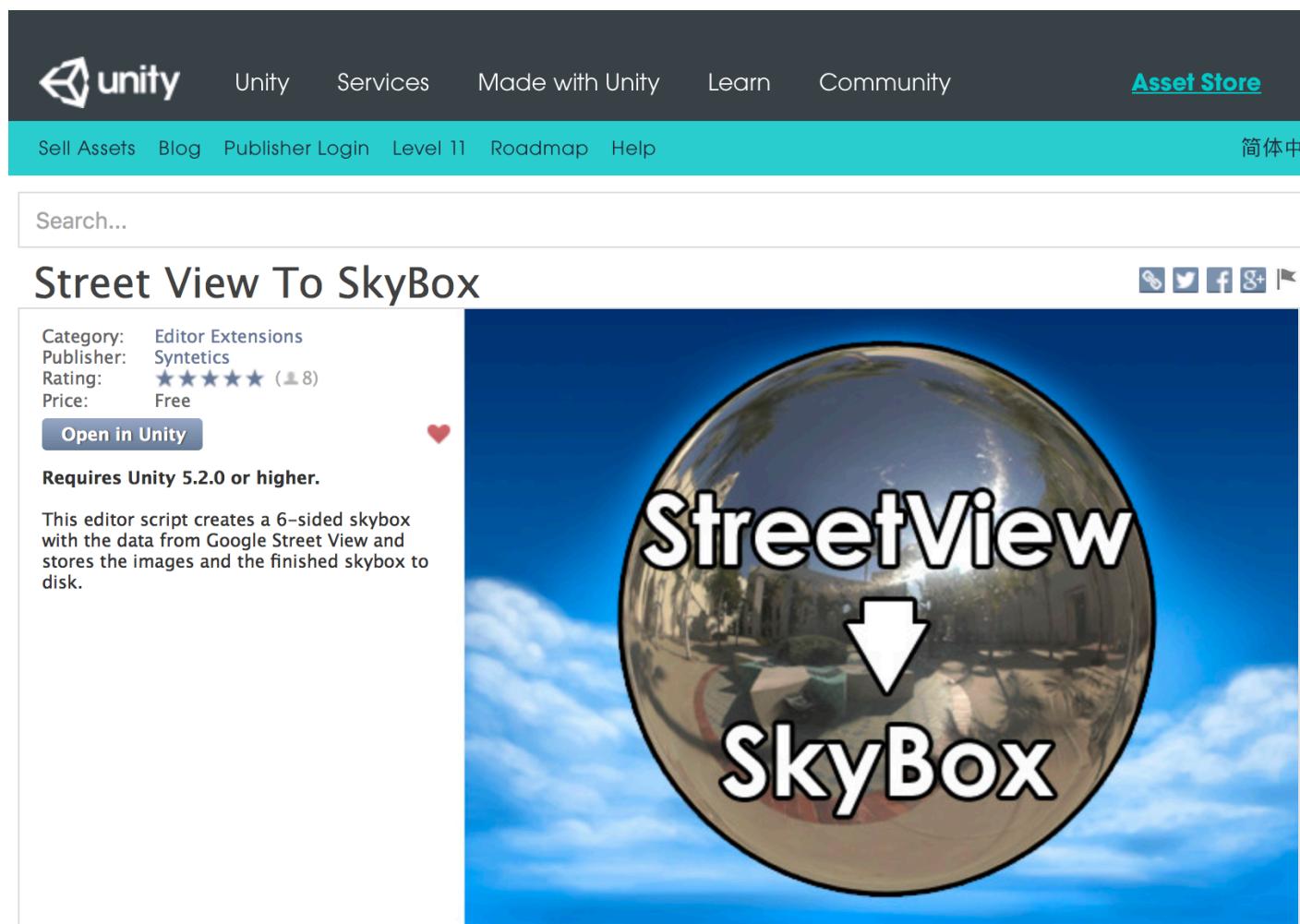
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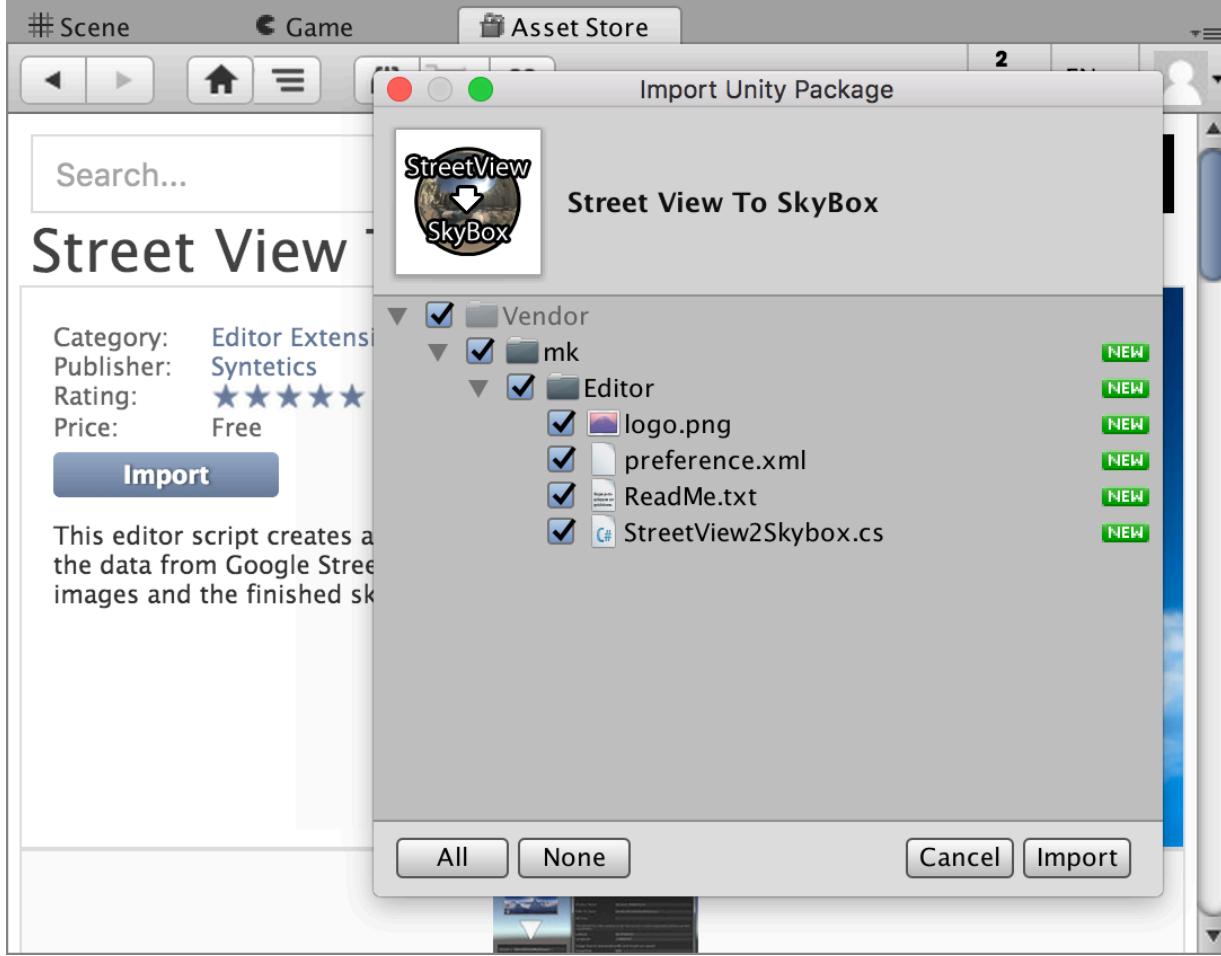
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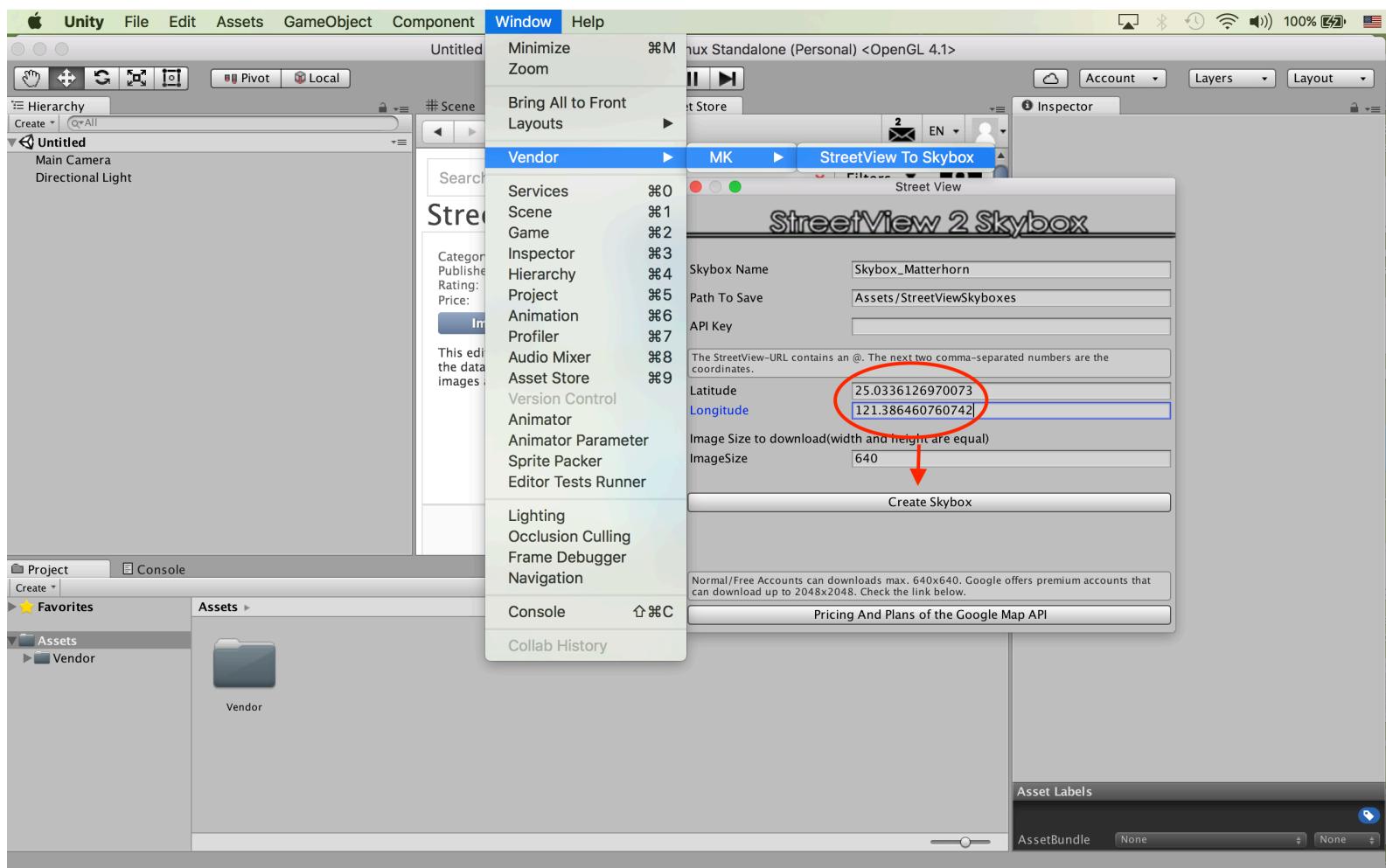
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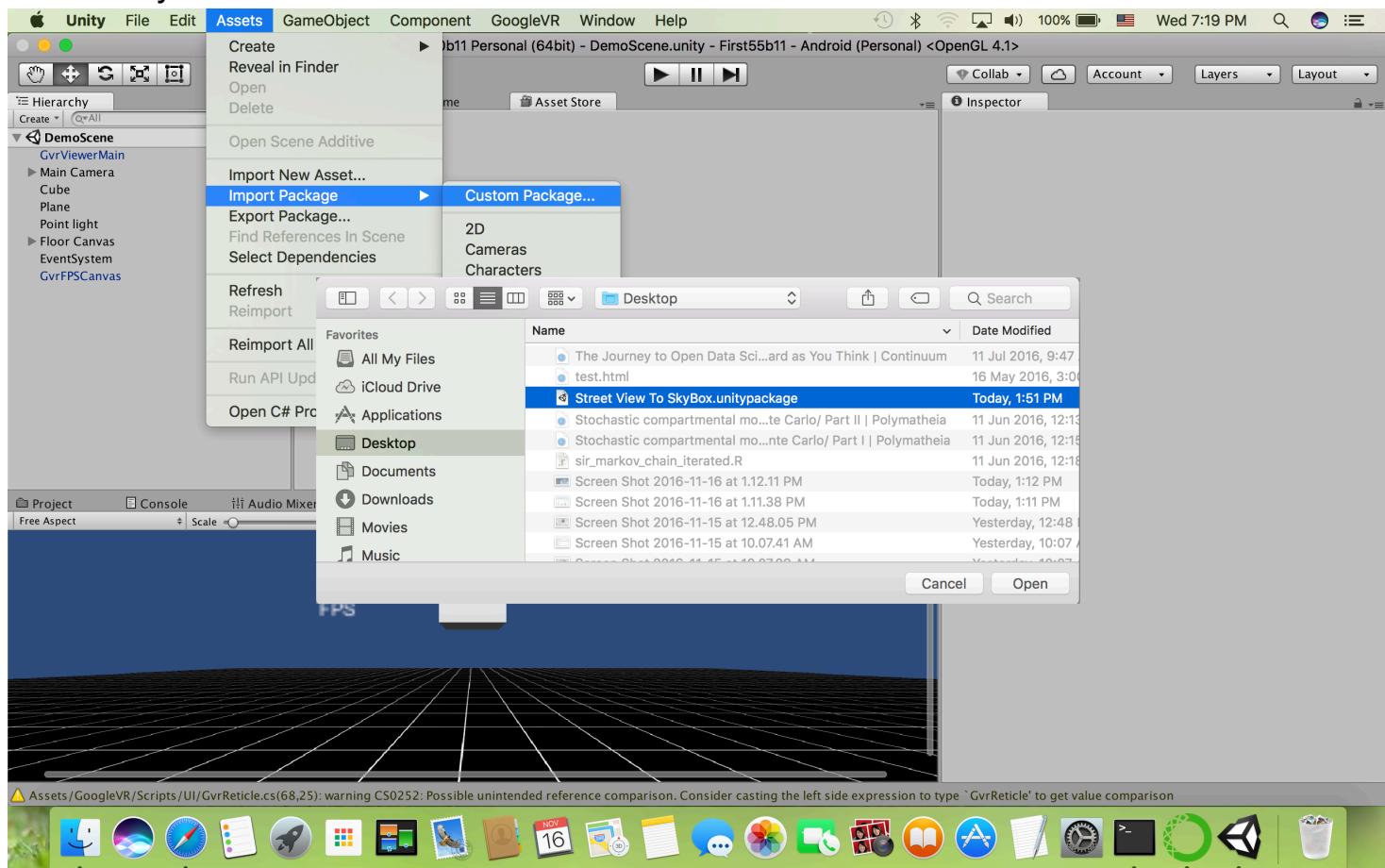


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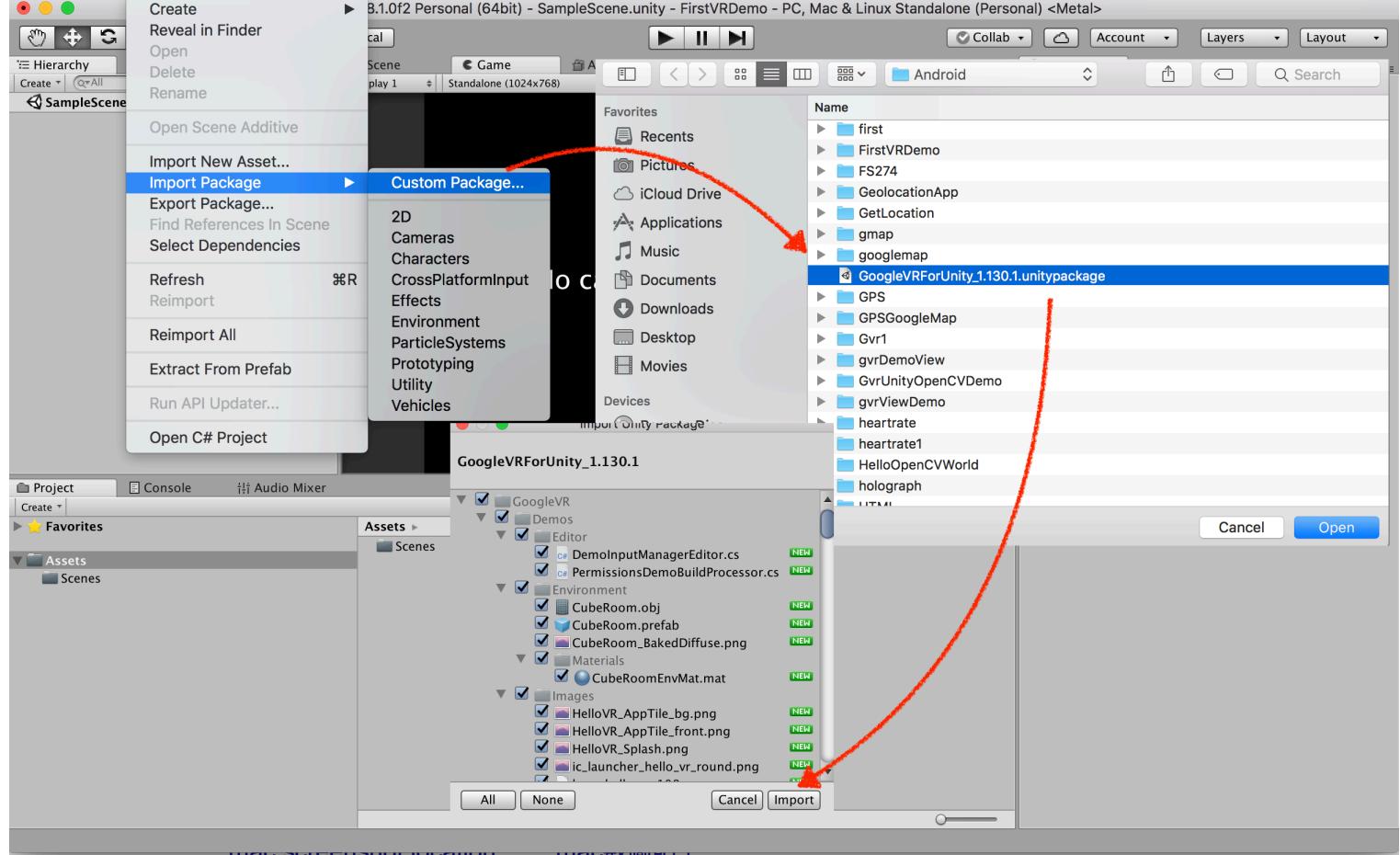
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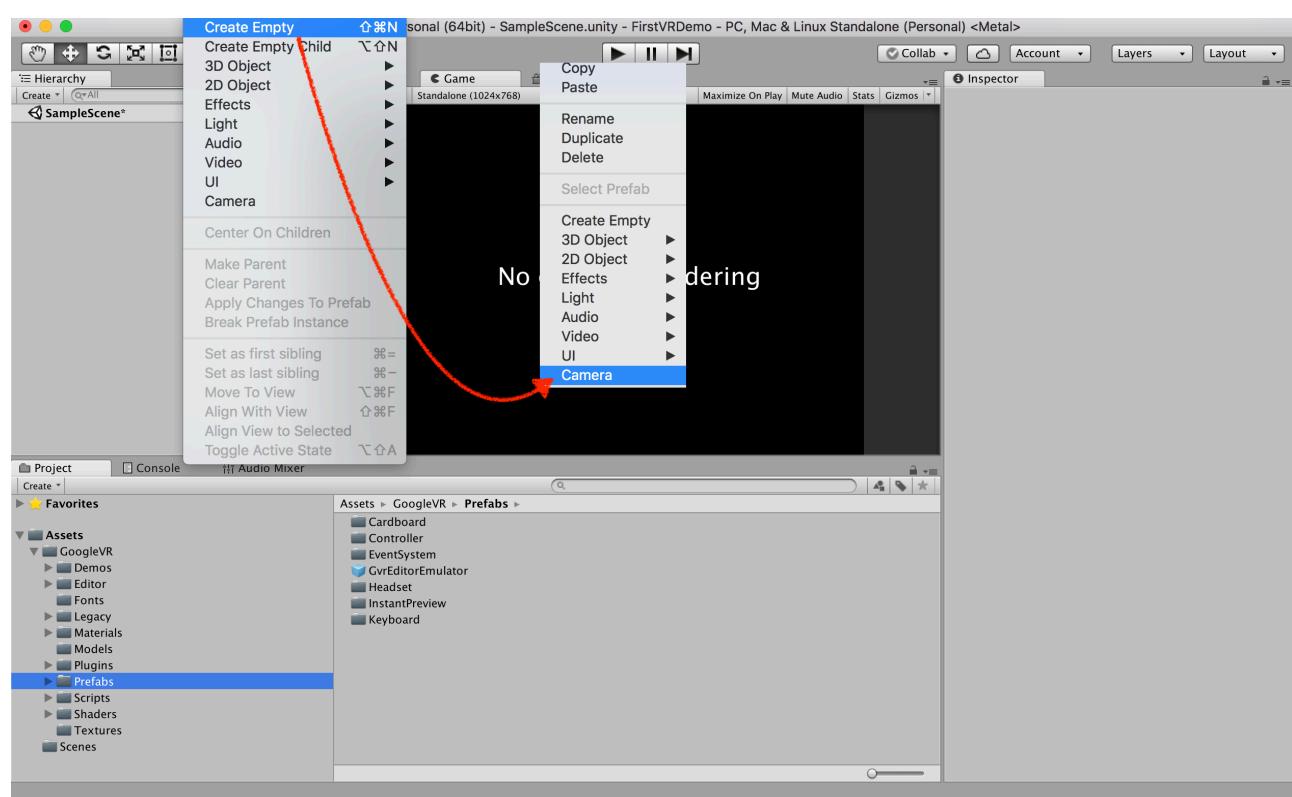
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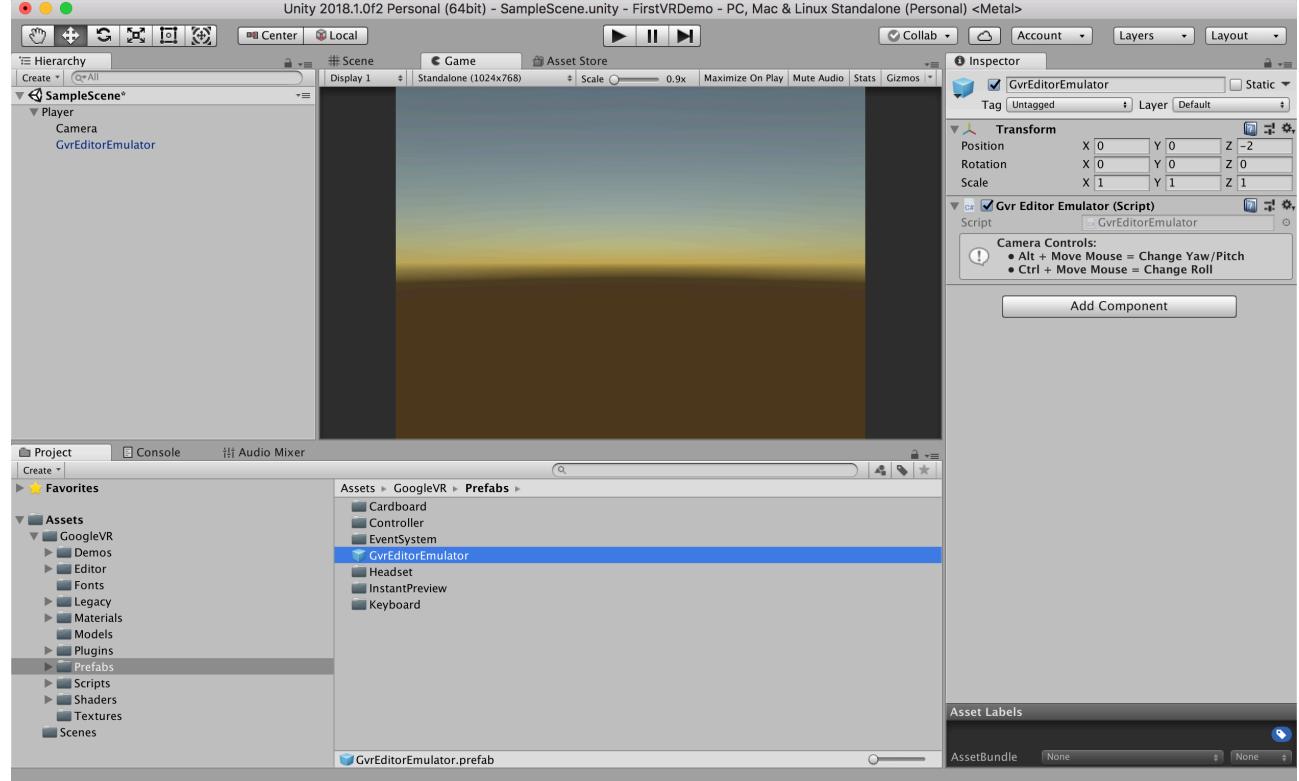
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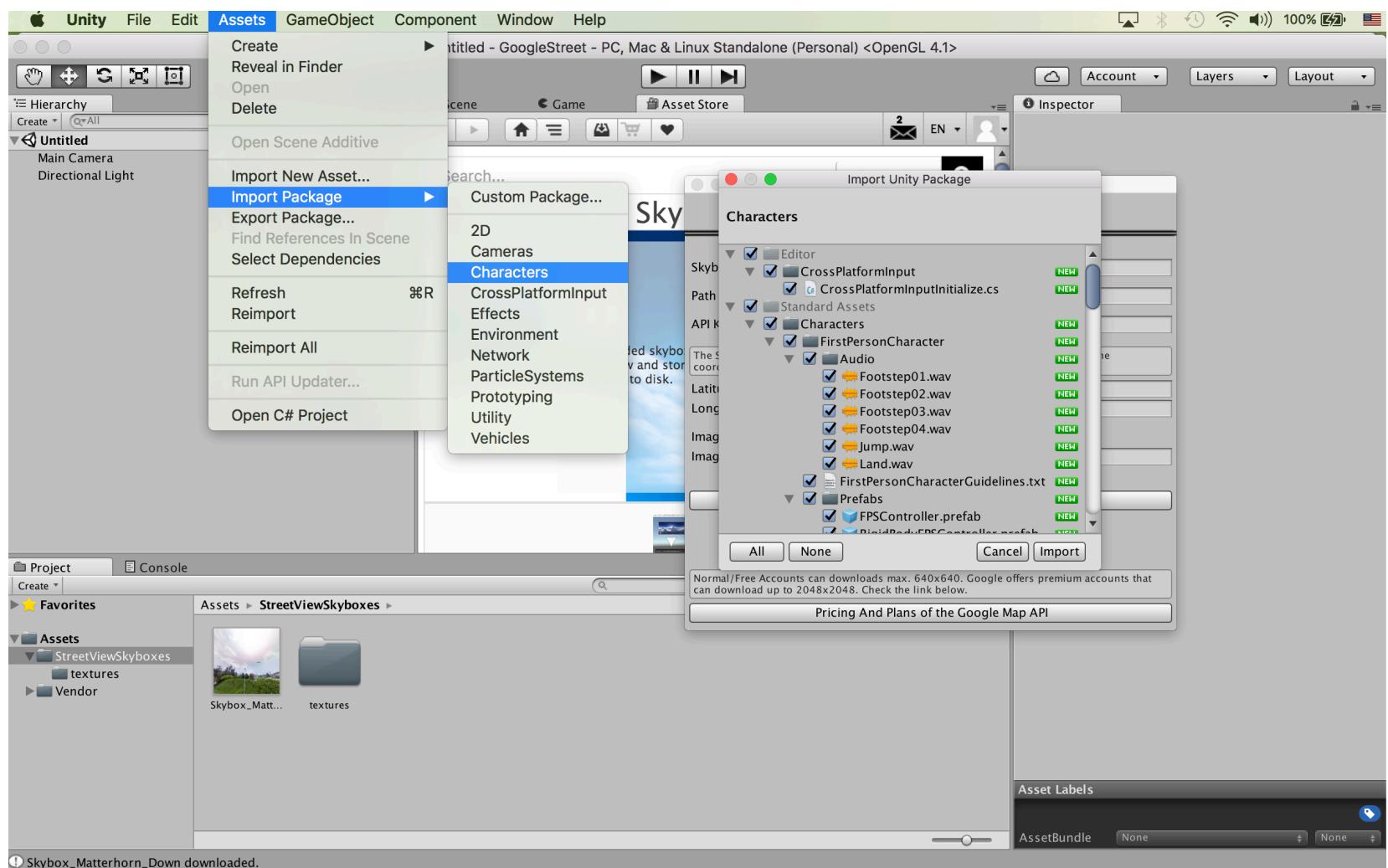
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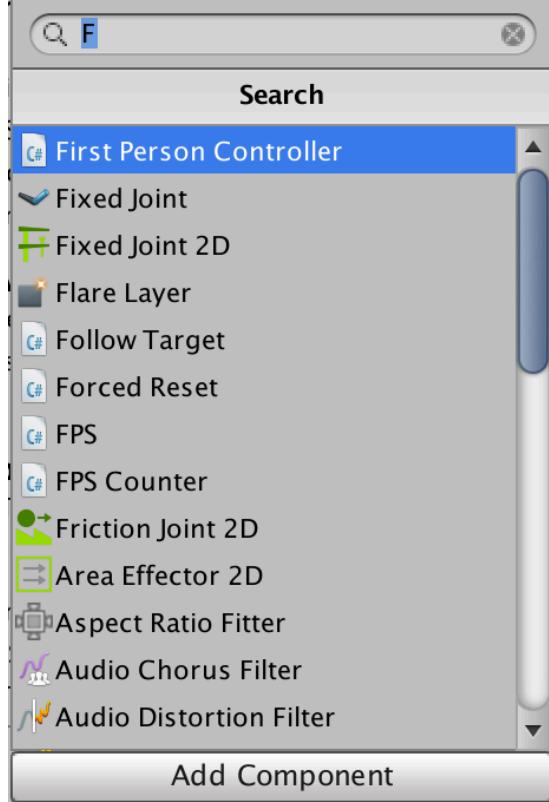


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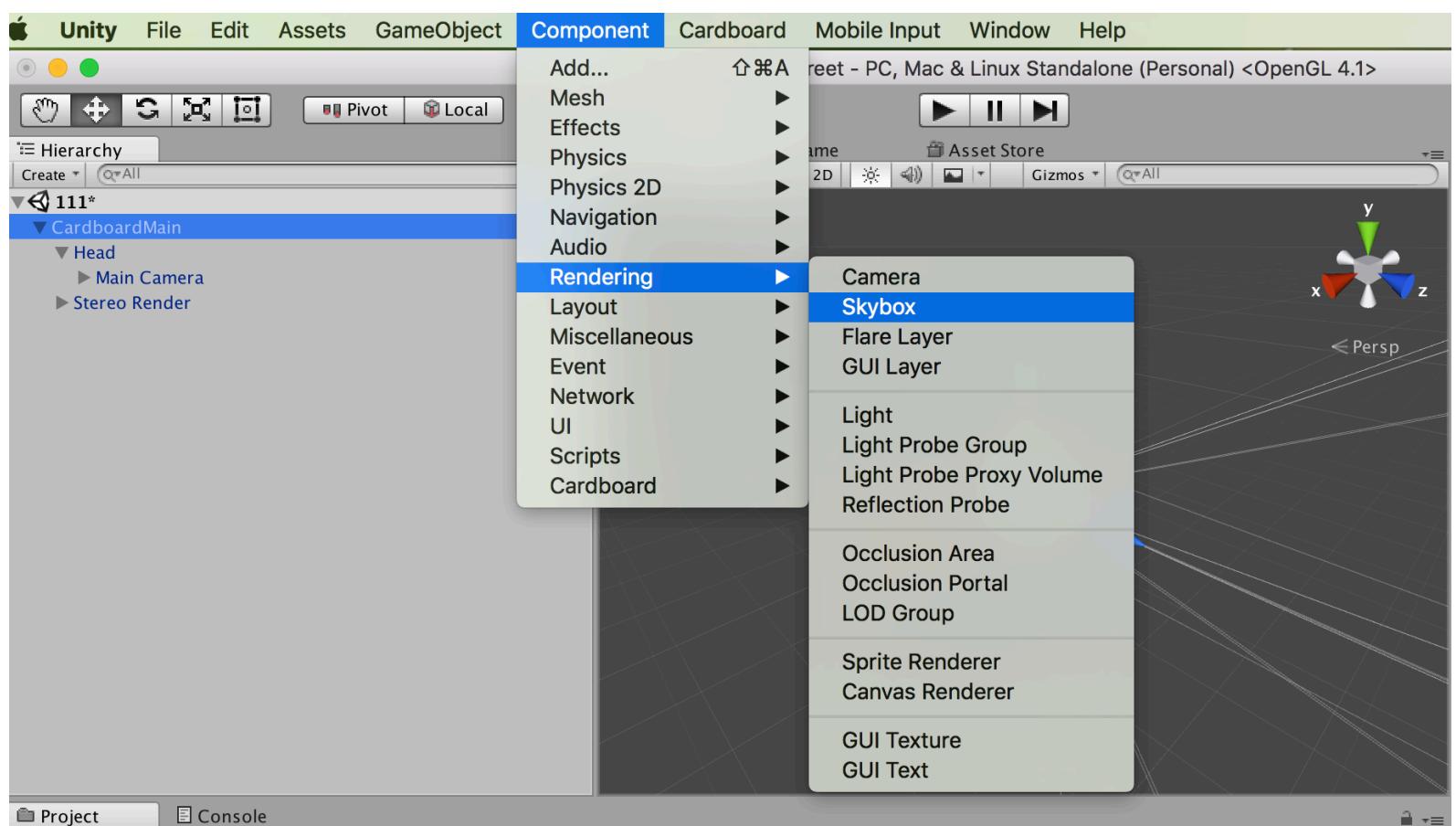


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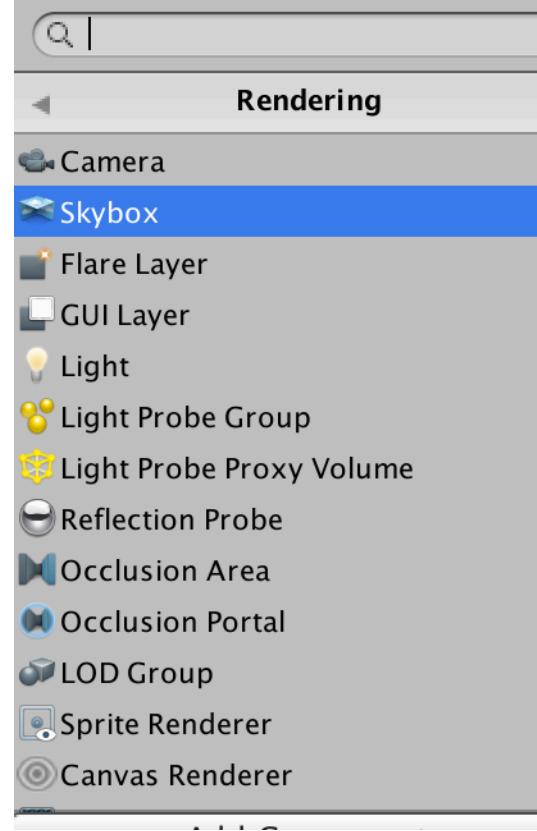


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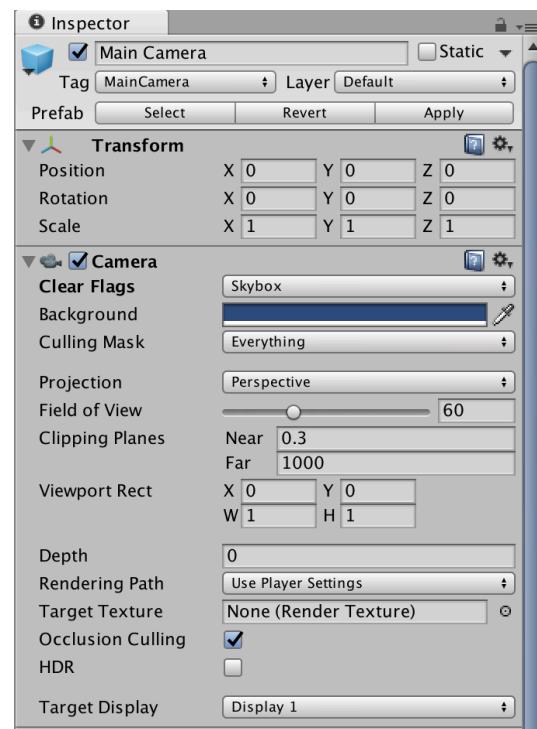
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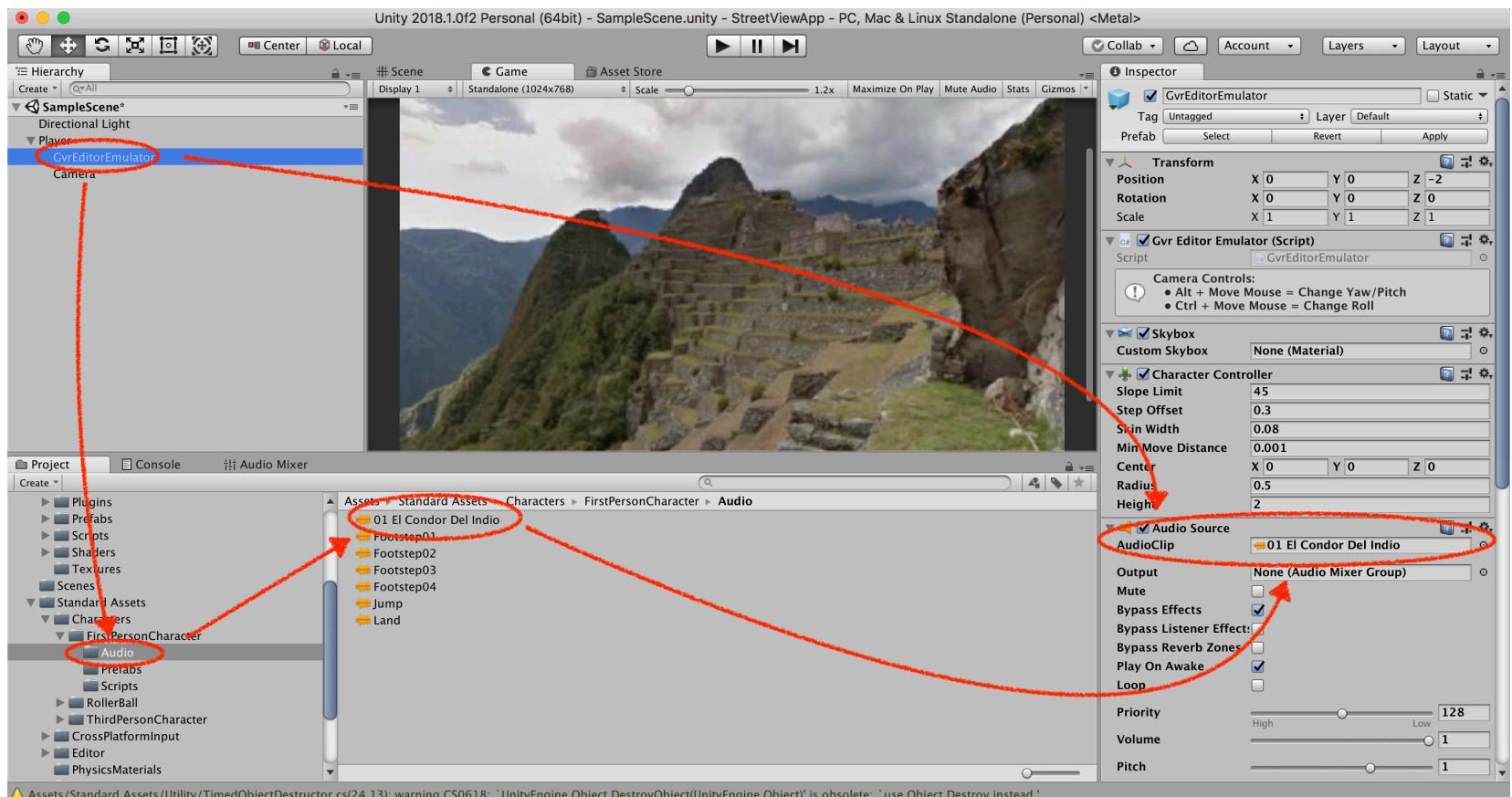


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