ObjectLabel

From Unify Community Wiki

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Description

Makes a GUIText label follow an object in 3D space. Useful for things like having name tags over players' heads.

Usage

Attach this script to a GUIText object, and drag the object it should follow into the **Target** slot. For best results, the anchor of the GUIText should probably be set to lower center, depending on what you're doing. **Offset** is used to position the label somewhere relative to the actual target's position. The default of (0, 1, 0) is useful for having the label appear above the object, rather than appearing right on top of it. If **ClampToScreen** is on, the label will never disappear even if the target is off the screen, but will attempt to follow as best it can (for example, if the target is off to the left of the camera out of sight, the label will still be visible on the left). **ClampBorderSize** sets how much space will be left at the borders if the label is being clamped to the screen, to help ensure that the label is still readable and not partially cut off. This is in viewport space, so the default .05 is 5% of the screen's size. If **UseMainCamera** is checked, the first camera in the scene tagged MainCamera will be used. If it's not checked, you should drag the desired camera onto the **CameraToUse** slot, which is otherwise unused if UseMainCamera is true.

Note: This script also works with GUITextures.

JavaScript - ObjectLabel.js

```
var target : Transform;          // Object that this label should follow
var offset = Vector3.up;         // Units in world space to offset; 1 unit above obj
var clampToScreen = false;       // If true, label will be visible even if object is
var clampBorderSize = .05;       // How much viewport space to leave at the borders
```

```
private var camTransform : Transform;

function Start () {
        thisTransform = transform;
        if (useMainCamera)
                cam = Camera.main;
        else
                cam = cameraToUse;
        camTransform = cam.transform;
}

function Update () {
        if (clampToScreen) {
                var relativePosition = camTransform.InverseTransformPoint(target.p
                relativePosition.z = Mathf.Max(relativePosition.z, 1.0);
                thisTransform.position = cam.WorldToViewportPoint(camTransform.Tra
                thisTransform.position = Vector3(Mathf.Clamp(thisTransform.positio
                                                                      Ma
                                                                      th
        }
        else {
                thisTransform.position = cam.WorldToViewportPoint(target.position
        }
}

@script RequireComponent(GUIText)
```

Description

Converted to C# by Roidz (Ward Dewaele). Use in the same way as the javascript.

C# - ObjectLabel.cs

```
using UnityEngine;
using System.Collections;

[RequireComponent (typeof (GUIText))]
public class ObjectLabel : MonoBehaviour {

public Transform target;     // Object that this label should follow
public Vector3 offset = Vector3.up;     // Units in world space to offset; 1 unit al
public bool clampToScreen = false;  // If true, label will be visible even if obje
public float clampBorderSize = 0.05f;  // How much viewport space to leave at the l
public bool useMainCamera = true;    // Use the camera tagged MainCamera
public Camera cameraToUse ;    // Only use this if useMainCamera is false
Camera cam ;
```

```
    {
            thisTransform = transform;
    if (useMainCamera)
        cam = Camera.main;
    else
        cam = cameraToUse;
    camTransform = cam.transform;
    }


    void Update()
    {

        if (clampToScreen)
        {
            Vector3 relativePosition = camTransform.InverseTransformPoint(target.po
            relativePosition.z =  Mathf.Max(relativePosition.z, 1.0f);
            thisTransform.position = cam.WorldToViewportPoint(camTransform.Transfor
            thisTransform.position = new Vector3(Mathf.Clamp(thisTransform.position
                                          Mathf.Clamp(thisTransform.position.y,
                                          thisTransform.position.z);

        }
        else
        {
            thisTransform.position = cam.WorldToViewportPoint(target.position + of
        }
    }
}
```

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