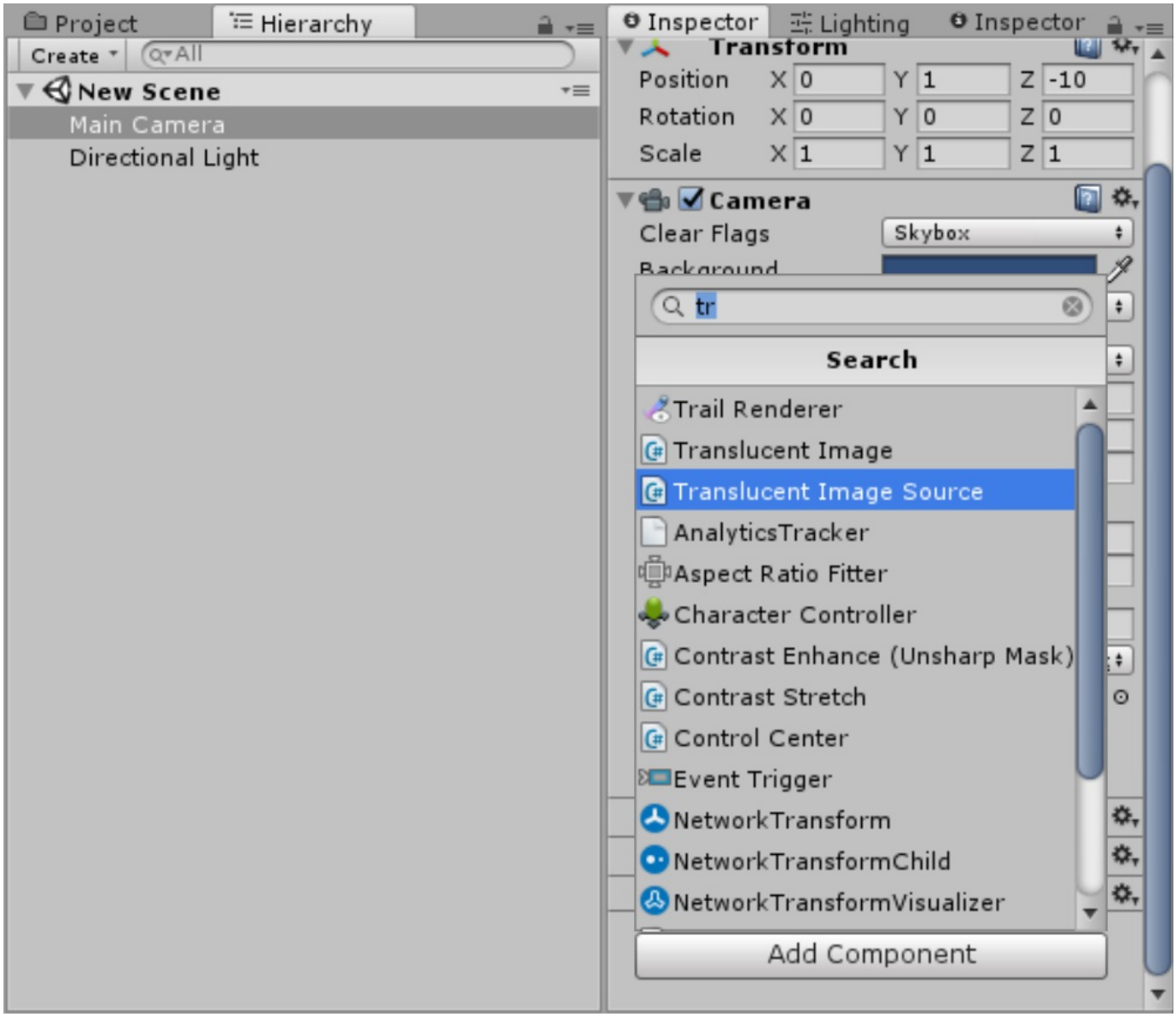
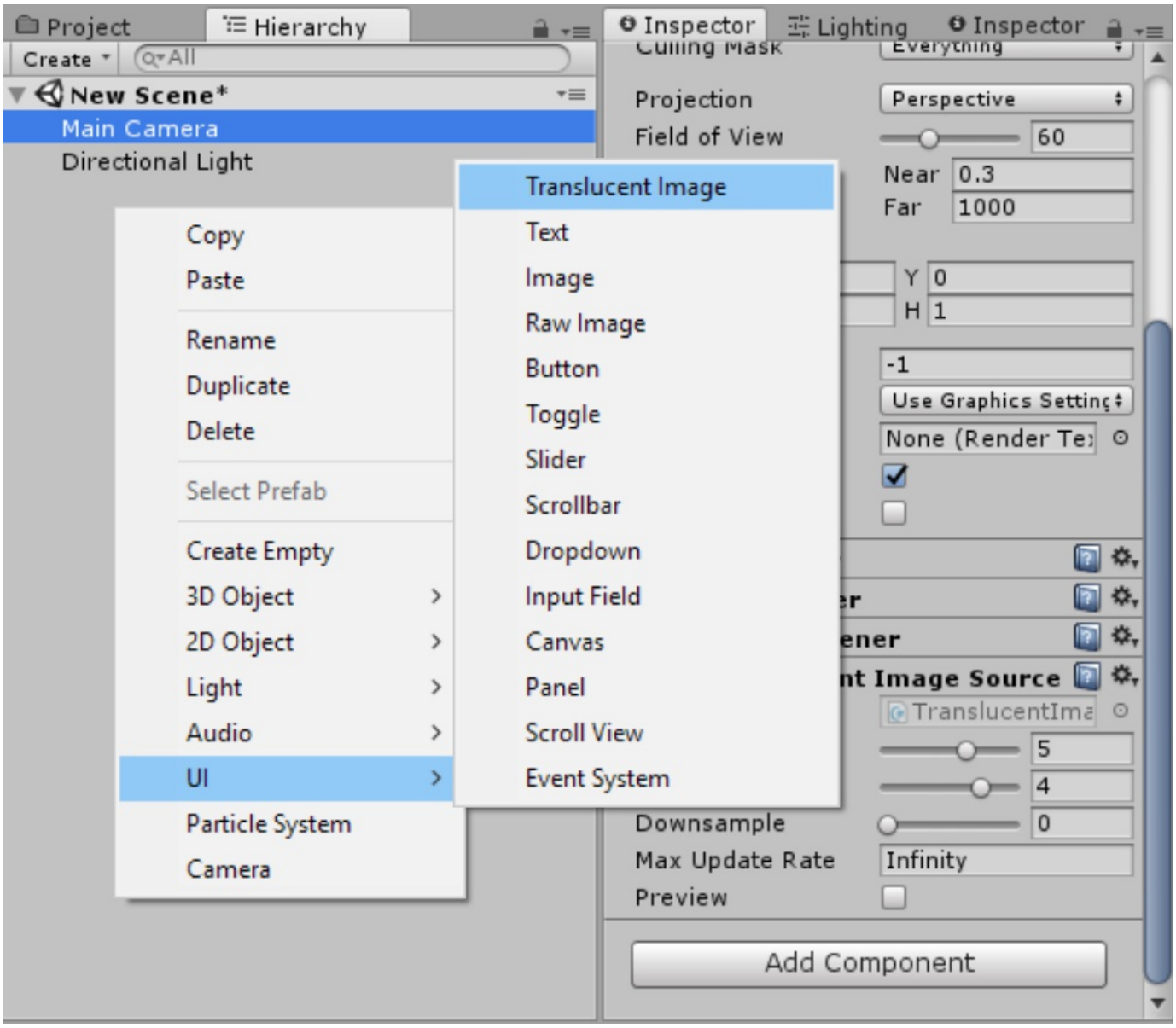
# Table of Contents

# Getting Started

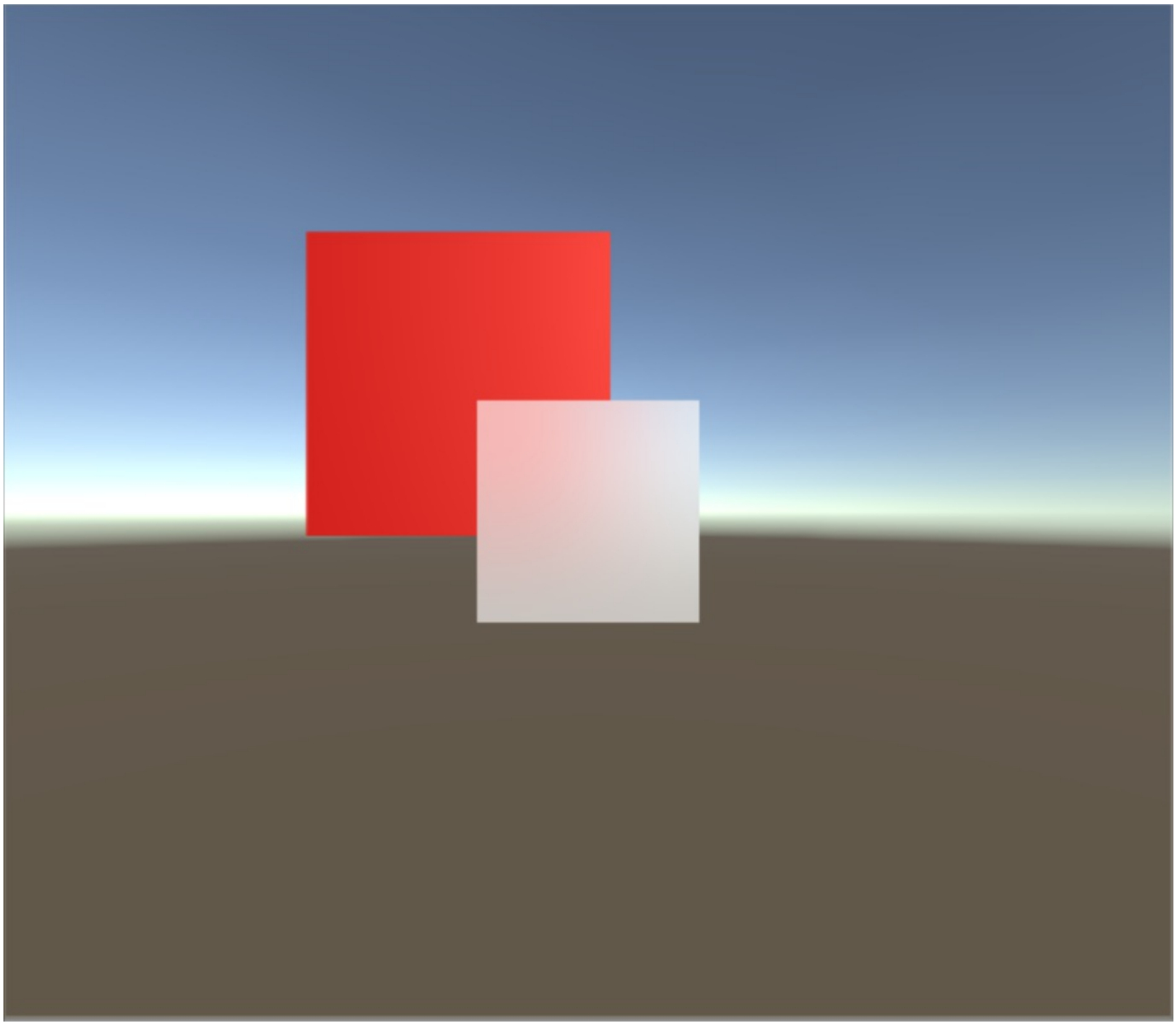
1. Add `Translucent Image Source` component to your main camera.




2. Create `UI -> Translucent Image` as you would with built-in UI.


Project
Hierarchy
Inspector
Lighting
Inspector
Create
All
New Scene*
Main Camera
Directional Light
Culling Mask
Everything
Projection
Perspective
Field of View
60
Near
0.3
Far
1000
Y
0
H
1
-1
Use Graphics Setting
None (Render Te
Image Source
TranslucentIma
5
4
Downsample
0
Max Update Rate
Infinity
Preview
Add Component
Copy
Paste
Rename
Duplicate
Delete
Select Prefab
Create Empty
3D Object
2D Object
Light
Audio
UI
Particle System
Camera
Translucent Image
Text
Image
Raw Image
Button
Toggle
Slider
Scrollbar
Dropdown
Input Field
Canvas
Panel
Scroll View
Event System

3. That this!



# Customize

**Note**

This package was designed to be scalable. All properies that was said below to affect performance actually do so very little

There are 2 components that form the effect, both with their own parameter that affect the look of the effect:

**Translucent Image Source**

This component offers two modes of controlling the amount of blur: *Simple* and *Advanced*:

- ***Simple***:
    - **Strength**. Using this single property, you can (kinda) smoothly change the blur amount at runtime.
- ***Advanced***:
    - **Size**: How much blurriness you want. Doesn't affect performance, but will look bad if the number too big. Also reduce flickering.
    - **Iteration**: Increase blur quality and blurriness when it is increased.
    - **Downsample**: Decrease the resolution before processing to increase performance. Side effect include increase blurriness and flickering.

There are also other properties that are independant of mode:

- **Blur Region**: Select the region of the screen to blur. If your UI does not span the entire screen, it might be a good idea to limit this to only the part that you use to increase performance and reduce power usage.

    **Tip**

    It easier if you tune the `x` and `y` value before `w` and `h`

- **Max Depth**: Increase this property will:
    - Increase flickering when background moving
    - Increase blur level
    - Improve performance
- **Max Update Rate**: How many time the effect update itself per second. Use this property to increase performance and decrease power usage. Set to 0 to pause, this can reduce power usage/ prevent overheat when you don't need dynamically updating background - like in a pause menu for example.
- **Preview**: preview the effect in full-screen without creating a Translucent Image

**Translucent Image**

- **Source Image**: The sprite to use for this image.
- **Material**: Multiple Translucent Image using the same material can only have different color, but they can batch dynamically to only take one draw call.

    **Warning**

    Material used here must use the shader UI/TranslucentImage

- **Color, Raycast Target, Image Type**: same as built-in Image.
- **Source**: Translucent Image Source component. This is where the image gets the blurred screen. It will automatically being set to the first one found, so you should make sure there one in your scene before creating any Translucent Image. You can always override this to change which camera will be blurred.

- **Vibrancy**: How colorful you want the background to be, 0 mean black and white, negative value will invert the color. This is great for enhancing the detail behind the image, or making death screen.
- **Brightness**: Brighten or darken the background.
- **Flatten**: Make your Translucent Image more contrast-y against the background. Useful when you can't predict the color of the background.

# Frequently Asked Questions

## Will this asset works well on my device?

The asset should run on any device. Performance wise, it depend on your project, but here some general rule or thumb:

- PC/Mac/Console: Should run well on everything.
- Android: There's too many of them. Only way to know for sure is to test the demo on your target devices.
- IOS: Apple A8 and later should hit 60FPS. A7 can hit 30FPS.

## Can I smoothly animate the blur level?

The strength property allow for some smoothness but not fully, no. If you just need to fade in and out, use the alpha value of the Color. You can also use Canvas Group as normal Images.

## Can I blur other UI?

**TL;DR:** Kind of. See the demo.

#### Explanation

If the blur algorithm run once for each UI on the screen, it will get too slow very fast. In fact, if you use a Mac or Window 10 computer, you will notice the blur effect is disabled for windows that aren't in focus.

Therefore, the blurring is done once per camera. This give us much higher performance. However, every TranslucentImage share the same source will have the exact same background - which mean they will not "see" others below them.

#### Solution

If you need to blur UIs, for example, for a fully UI games, this can be done by setting up another *Camera* and *Canvas*.

The setup:

- *Main Camera*: Render the scene but NOT UIs
- *UI Camera*:
    - Render ONLY UIs.
    - Clear flag set to "Depth only".
    - Should have higher Depth than the *Main Camera*.
    - Add a TranslucentImageSource here.
- *Overlay Canvas*:
    - In Screen Space Overlay mode (Render on top of everything).
    - This is where we put our TranslucentImage (TI for short).
    - These TIs have source set to *UI Camera*.
- *Camera Canvas*:
    - In Screen Space Camera mode (Render Camera set to the *UI Camera*).
    - This is where we put all our normal UIs.

You can also have TIs in the *Camera Canvas*. Just add another TranslucentImageSource to the *Main Camera*, and set all the TIs in the *Camera Canvas* to that Source.

**TL;DR:** See the demo scene.

## Have another question?

Contact me

# Support

If you need assistance regarding the asset or have a feature request, feel free to contact me by the form below or through my support email.

**Support request** Search Articles

# Namespace LeTai.Asset.TranslucentImage

### Classes

#### TranslucentImage

Dynamic blur-behind UI element

#### TranslucentImageSource

Common source of blur for Translucent Images.

# Class TranslucentImage

Dynamic blur-behind UI element

**Inheritance**

System.Object
UnityEngine.Object
UnityEngine.Component
UnityEngine.Behaviour
UnityEngine.MonoBehaviour
UnityEngine.EventSystems.UIBehaviour
UnityEngine.UI.Graphic
UnityEngine.UI.MaskableGraphic
UnityEngine.UI.Image
TranslucentImage

**Implements**

UnityEngine.UI.ICanvasElement
UnityEngine.UI.IClippable
UnityEngine.UI.IMaskable
UnityEngine.UI.IMaterialModifier
UnityEngine.ISerializationCallbackReceiver
UnityEngine.UI.ILayoutElement
UnityEngine.ICanvasRaycastFilter
UnityEngine.UI.IMeshModifier

**Inherited Members**

UnityEngine.UI.Image.s_ETC1DefaultUI
UnityEngine.UI.Image.OnBeforeSerialize()
UnityEngine.UI.Image.OnAfterDeserialize()
UnityEngine.UI.Image.SetNativeSize()
UnityEngine.UI.Image.OnPopulateMesh(UnityEngine.UI.VertexHelper)
UnityEngine.UI.Image.UpdateMaterial()
UnityEngine.UI.Image.CalculateLayoutInputHorizontal()
UnityEngine.UI.Image.CalculateLayoutInputVertical()
UnityEngine.UI.Image.IsRaycastLocationValid(UnityEngine.Vector2, UnityEngine.Camera)
UnityEngine.UI.Image.sprite
UnityEngine.UI.Image.overrideSprite
UnityEngine.UI.Image.type
UnityEngine.UI.Image.preserveAspect
UnityEngine.UI.Image.fillCenter
UnityEngine.UI.Image.fillMethod
UnityEngine.UI.Image.fillAmount
UnityEngine.UI.Image.fillClockwise
UnityEngine.UI.Image.fillOrigin
UnityEngine.UI.Image.eventAlphaThreshold
UnityEngine.UI.Image.alphaHitTestMinimumThreshold
UnityEngine.UI.Image.defaultETC1GraphicMaterial
UnityEngine.UI.Image.mainTexture
UnityEngine.UI.Image.hasBorder
UnityEngine.UI.Image.pixelsPerUnit
UnityEngine.UI.Image.material
UnityEngine.UI.Image.minWidth

UnityEngine.UI.Image.preferredWidth
UnityEngine.UI.Image.flexibleWidth
UnityEngine.UI.Image.minHeight
UnityEngine.UI.Image.preferredHeight
UnityEngine.UI.Image.flexibleHeight
UnityEngine.UI.Image.layoutPriority
UnityEngine.UI.MaskableGraphic.m_ShouldRecalculateStencil
UnityEngine.UI.MaskableGraphic.m_MaskMaterial
UnityEngine.UI.MaskableGraphic.m_IncludeForMasking
UnityEngine.UI.MaskableGraphic.m_ShouldRecalculate
UnityEngine.UI.MaskableGraphic.m_StencilValue
UnityEngine.UI.MaskableGraphic.GetModifiedMaterial(UnityEngine.Material)
UnityEngine.UI.MaskableGraphic.Cull(UnityEngine.Rect, System.Boolean)
UnityEngine.UI.MaskableGraphic.SetClipRect(UnityEngine.Rect, System.Boolean)
UnityEngine.UI.MaskableGraphic.OnValidate()
UnityEngine.UI.MaskableGraphic.OnTransformParentChanged()
UnityEngine.UI.MaskableGraphic.ParentMaskStateChanged()
UnityEngine.UI.MaskableGraphic.OnCanvasHierarchyChanged()
UnityEngine.UI.MaskableGraphic.RecalculateClipping()
UnityEngine.UI.MaskableGraphic.RecalculateMasking()
UnityEngine.UI.MaskableGraphic.UnityEngine.UI.IClippable.get_gameObject()
UnityEngine.UI.MaskableGraphic.onCullStateChanged
UnityEngine.UI.MaskableGraphic.maskable
UnityEngine.UI.Graphic.s_DefaultUI
UnityEngine.UI.Graphic.s_WhiteTexture
UnityEngine.UI.Graphic.m_Material
UnityEngine.UI.Graphic.m_OnDirtyLayoutCallback
UnityEngine.UI.Graphic.m_OnDirtyVertsCallback
UnityEngine.UI.Graphic.m_OnDirtyMaterialCallback
UnityEngine.UI.Graphic.s_Mesh
UnityEngine.UI.Graphic.SetAllDirty()
UnityEngine.UI.Graphic.SetLayoutDirty()
UnityEngine.UI.Graphic.SetVerticesDirty()
UnityEngine.UI.Graphic.SetMaterialDirty()
UnityEngine.UI.Graphic.OnRectTransformDimensionsChange()
UnityEngine.UI.Graphic.OnBeforeTransformParentChanged()
UnityEngine.UI.Graphic.Rebuild(UnityEngine.UI.CanvasUpdate)
UnityEngine.UI.Graphic.LayoutComplete()
UnityEngine.UI.Graphic.GraphicUpdateComplete()
UnityEngine.UI.Graphic.UpdateGeometry()
UnityEngine.UI.Graphic.OnFillVBO(System.Collections.Generic.List<UnityEngine.UIVertex>)
UnityEngine.UI.Graphic.OnPopulateMesh(UnityEngine.Mesh)
UnityEngine.UI.Graphic.OnRebuildRequested()
UnityEngine.UI.Graphic.Reset()
UnityEngine.UI.Graphic.Raycast(UnityEngine.Vector2, UnityEngine.Camera)
UnityEngine.UI.Graphic.PixelAdjustPoint(UnityEngine.Vector2)
UnityEngine.UI.Graphic.GetPixelAdjustedRect()
UnityEngine.UI.Graphic.CrossFadeColor(UnityEngine.Color, System.Single, System.Boolean, System.Boolean)
UnityEngine.UI.Graphic.CrossFadeColor(UnityEngine.Color, System.Single, System.Boolean, System.Boolean, System.Boolean)
UnityEngine.UI.Graphic.CrossFadeAlpha(System.Single, System.Single, System.Boolean)
UnityEngine.UI.Graphic.RegisterDirtyLayoutCallback(UnityEngine.Events.UnityAction)
UnityEngine.UI.Graphic.UnregisterDirtyLayoutCallback(UnityEngine.Events.UnityAction)

UnityEngine.UI.Graphic.RegisterDirtyVerticesCallback(UnityEngine.Events.UnityAction)
UnityEngine.UI.Graphic.UnregisterDirtyVerticesCallback(UnityEngine.Events.UnityAction)
UnityEngine.UI.Graphic.RegisterDirtyMaterialCallback(UnityEngine.Events.UnityAction)
UnityEngine.UI.Graphic.UnregisterDirtyMaterialCallback(UnityEngine.Events.UnityAction)
UnityEngine.UI.Graphic.UnityEngine.UI.ICanvasElement.get_transform()
UnityEngine.UI.Graphic.defaultGraphicMaterial
UnityEngine.UI.Graphic.color
UnityEngine.UI.Graphic.raycastTarget
UnityEngine.UI.Graphic.useLegacyMeshGeneration
UnityEngine.UI.Graphic.depth
UnityEngine.UI.Graphic.rectTransform
UnityEngine.UI.Graphic.canvas
UnityEngine.UI.Graphic.canvasRenderer
UnityEngine.UI.Graphic.defaultMaterial
UnityEngine.UI.Graphic.materialForRendering
UnityEngine.UI.Graphic.workerMesh
UnityEngine.EventSystems.UIBehaviour.Awake()
UnityEngine.EventSystems.UIBehaviour.OnDestroy()
UnityEngine.EventSystems.UIBehaviour.IsActive()
UnityEngine.EventSystems.UIBehaviour.OnCanvasGroupChanged()
UnityEngine.EventSystems.UIBehaviour.IsDestroyed()
UnityEngine.MonoBehaviour.Invoke(System.String, System.Single)
UnityEngine.MonoBehaviour.InvokeRepeating(System.String, System.Single, System.Single)
UnityEngine.MonoBehaviour.CancelInvoke()
UnityEngine.MonoBehaviour.CancelInvoke(System.String)
UnityEngine.MonoBehaviour.IsInvoking(System.String)
UnityEngine.MonoBehaviour.IsInvoking()
UnityEngine.MonoBehaviour.StartCoroutine(System.Collections.IEnumerator)
UnityEngine.MonoBehaviour.StartCoroutine_Auto(System.Collections.IEnumerator)
UnityEngine.MonoBehaviour.StartCoroutine(System.String, System.Object)
UnityEngine.MonoBehaviour.StartCoroutine(System.String)
UnityEngine.MonoBehaviour.StopCoroutine(System.String)
UnityEngine.MonoBehaviour.StopCoroutine(System.Collections.IEnumerator)
UnityEngine.MonoBehaviour.StopCoroutine(UnityEngine.Coroutine)
UnityEngine.MonoBehaviour.StopAllCoroutines()
UnityEngine.MonoBehaviour.print(System.Object)
UnityEngine.MonoBehaviour.useGUILayout
UnityEngine.MonoBehaviour.runInEditMode
UnityEngine.Behaviour.enabled
UnityEngine.Behaviour.isActiveAndEnabled
UnityEngine.Component.GetComponent(System.Type)
UnityEngine.Component.GetComponent<T>()
UnityEngine.Component.GetComponent(System.String)
UnityEngine.Component.GetComponentInChildren(System.Type, System.Boolean)
UnityEngine.Component.GetComponentInChildren(System.Type)
UnityEngine.Component.GetComponentInChildren<T>()
UnityEngine.Component.GetComponentInChildren<T>(System.Boolean)
UnityEngine.Component.GetComponentsInChildren(System.Type)
UnityEngine.Component.GetComponentsInChildren(System.Type, System.Boolean)
UnityEngine.Component.GetComponentsInChildren<T>(System.Boolean)
UnityEngine.Component.GetComponentsInChildren<T>(System.Boolean, System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponentsInChildren<T>()

UnityEngine.Component.GetComponentsInChildren<T>(System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponentInParent(System.Type)
UnityEngine.Component.GetComponentInParent<T>()
UnityEngine.Component.GetComponentsInParent(System.Type)
UnityEngine.Component.GetComponentsInParent(System.Type, System.Boolean)
UnityEngine.Component.GetComponentsInParent<T>(System.Boolean)
UnityEngine.Component.GetComponentsInParent<T>(System.Boolean, System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponentsInParent<T>()
UnityEngine.Component.GetComponents(System.Type)
UnityEngine.Component.GetComponents(System.Type, System.Collections.Generic.List<UnityEngine.Component>)
UnityEngine.Component.GetComponents<T>(System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponents<T>()
UnityEngine.Component.CompareTag(System.String)
UnityEngine.Component.SendMessageUpwards(System.String, System.Object, UnityEngine.SendMessageOptions)
UnityEngine.Component.SendMessageUpwards(System.String, System.Object)
UnityEngine.Component.SendMessageUpwards(System.String)
UnityEngine.Component.SendMessageUpwards(System.String, UnityEngine.SendMessageOptions)
UnityEngine.Component.SendMessage(System.String, System.Object, UnityEngine.SendMessageOptions)
UnityEngine.Component.SendMessage(System.String, System.Object)
UnityEngine.Component.SendMessage(System.String)
UnityEngine.Component.SendMessage(System.String, UnityEngine.SendMessageOptions)
UnityEngine.Component.BroadcastMessage(System.String, System.Object, UnityEngine.SendMessageOptions)
UnityEngine.Component.BroadcastMessage(System.String, System.Object)
UnityEngine.Component.BroadcastMessage(System.String)
UnityEngine.Component.BroadcastMessage(System.String, UnityEngine.SendMessageOptions)
UnityEngine.Component.transform
UnityEngine.Component.gameObject
UnityEngine.Component.tag
UnityEngine.Component.rigidbody
UnityEngine.Component.rigidbody2D
UnityEngine.Component.camera
UnityEngine.Component.light
UnityEngine.Component.animation
UnityEngine.Component.constantForce
UnityEngine.Component.renderer
UnityEngine.Component.audio
UnityEngine.Component.guiText
UnityEngine.Component.networkView
UnityEngine.Component.guiElement
UnityEngine.Component.guiTexture
UnityEngine.Component.collider
UnityEngine.Component.collider2D
UnityEngine.Component.hingeJoint
UnityEngine.Component.particleEmitter
UnityEngine.Component.particleSystem
UnityEngine.Object.Destroy(UnityEngine.Object, System.Single)
UnityEngine.Object.Destroy(UnityEngine.Object)
UnityEngine.Object.DestroyImmediate(UnityEngine.Object, System.Boolean)
UnityEngine.Object.DestroyImmediate(UnityEngine.Object)
UnityEngine.Object.FindObjectsOfType(System.Type)
UnityEngine.Object.DontDestroyOnLoad(UnityEngine.Object)
UnityEngine.Object.DestroyObject(UnityEngine.Object, System.Single)

UnityEngine.Object.DestroyObject(UnityEngine.Object)
UnityEngine.Object.FindSceneObjectsOfType(System.Type)
UnityEngine.Object.FindObjectsOfTypeIncludingAssets(System.Type)
UnityEngine.Object.FindObjectsOfTypeAll(System.Type)
UnityEngine.Object.ToString()
UnityEngine.Object.GetInstanceID()
UnityEngine.Object.GetHashCode()
UnityEngine.Object.Equals(System.Object)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Vector3, UnityEngine.Quaternion)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Vector3, UnityEngine.Quaternion, UnityEngine.Transform)
UnityEngine.Object.Instantiate(UnityEngine.Object)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Transform)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Transform, System.Boolean)
UnityEngine.Object.Instantiate<T>(T)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Vector3, UnityEngine.Quaternion)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Vector3, UnityEngine.Quaternion, UnityEngine.Transform)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Transform)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Transform, System.Boolean)
UnityEngine.Object.FindObjectsOfType<T>()
UnityEngine.Object.FindObjectOfType<T>()
UnityEngine.Object.FindObjectOfType(System.Type)
UnityEngine.Object.name
UnityEngine.Object.hideFlags
System.Object.Equals(System.Object, System.Object)
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.GetType()
System.Object.MemberwiseClone()

**Namespace:** LeTai.Asset.TranslucentImage

**Assembly:** Assembly-CSharp.dll

**Syntax**

```
public class TranslucentImage : Image, ICanvasElement, IClippable, IMaskable, IMaterialModifier, ISerializationCallbackReceiver,
ILayoutElement, ICanvasRaycastFilter, IMeshModifier
```

## Fields

### brightness

Brighten/darken them image

**Declaration**

```
[Tooltip("Brighten/darken them image")]
[Range(-1F, 1F)]
public float brightness
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### correctShader

**Declaration**

```
Shader correctShader
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Shader | |

### flatten

Flatten the color behind to help keep contrast on varying background

Declaration

```
[Tooltip("Flatten the color behind to help keep contrast on varying background")]
[Range(0F, 1F)]
public float flatten
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### oldBrightness

Declaration

```
float oldBrightness
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### oldFlatten

Declaration

```
float oldFlatten
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### oldVibrancy

Declaration

```
float oldVibrancy
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### source

Source of blur for this image

Declaration

```
public TranslucentImageSource source
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| TranslucentImageSource | |

### spriteBlending

Declaration

```
[Tooltip("Blend between the sprite and background blur")]
[Range(0F, 1F)]
public float spriteBlending
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### vibrancy

(De)Saturate them image, 1 is normal, 0 is grey scale, below zero make the image negative

Declaration

```
[Tooltip("(De)Saturate them image, 1 is normal, 0 is black and white, below zero make the image negative")]
[Range(-1F, 3F)]
public float vibrancy
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

## Methods

### LateUpdate()

Declaration

```
void LateUpdate()
```

### ModifyMesh(Mesh)

Declaration

```
public virtual void ModifyMesh(Mesh mesh)
```

Parameters

| TYPE | NAME | DESCRIPTION |
| --- | --- | --- |
| UnityEngine.Mesh | mesh | |

### ModifyMesh(VertexHelper)

**Declaration**

```
public virtual void ModifyMesh(VertexHelper vh)
```

**Parameters**

| TYPE | NAME | DESCRIPTION |
| --- | --- | --- |
| UnityEngine.UI.VertexHelper | vh | |

### OnDidApplyAnimationProperties()

**Declaration**

```
protected override void OnDidApplyAnimationProperties()
```

**Overrides**

UnityEngine.UI.Graphic.OnDidApplyAnimationProperties()

### OnDisable()

**Declaration**

```
protected override void OnDisable()
```

**Overrides**

UnityEngine.UI.MaskableGraphic.OnDisable()

### OnEnable()

**Declaration**

```
protected override void OnEnable()
```

**Overrides**

UnityEngine.UI.MaskableGraphic.OnEnable()

### PrepShader()

**Declaration**

```
void PrepShader()
```

### Start()

**Declaration**

```
protected override void Start()
```

**Overrides**

UnityEngine.EventSystems.UIBehaviour.Start()

### SyncMaterialProperty(Int32, ref Single, ref Single)

Sync material property with instance

**Declaration**

```
void SyncMaterialProperty(int propId, ref float value, ref float oldValue)
```

**Parameters**

| TYPE | NAME | DESCRIPTION |
| --- | --- | --- |
| System.Int32 | propId | material property id |
| System.Single | value | |
| System.Single | oldValue | |

### Update()

**Declaration**

```
void Update()
```

### Implements

UnityEngine.UI.ICanvasElement
UnityEngine.UI.IClippable
UnityEngine.UI.IMaskable
UnityEngine.UI.IMaterialModifier
UnityEngine.ISerializationCallbackReceiver
UnityEngine.UI.ILayoutElement
UnityEngine.ICanvasRaycastFilter
UnityEngine.UI.IMeshModifier

# Class TranslucentImageSource

Common source of blur for Translucent Images.

**Inheritance**

System.Object
UnityEngine.Object
UnityEngine.Component
UnityEngine.Behaviour
UnityEngine.MonoBehaviour
TranslucentImageSource

**Inherited Members**

UnityEngine.MonoBehaviour.Invoke(System.String, System.Single)
UnityEngine.MonoBehaviour.InvokeRepeating(System.String, System.Single, System.Single)
UnityEngine.MonoBehaviour.CancelInvoke()
UnityEngine.MonoBehaviour.CancelInvoke(System.String)
UnityEngine.MonoBehaviour.IsInvoking(System.String)
UnityEngine.MonoBehaviour.IsInvoking()
UnityEngine.MonoBehaviour.StartCoroutine(System.Collections.IEnumerator)
UnityEngine.MonoBehaviour.StartCoroutine_Auto(System.Collections.IEnumerator)
UnityEngine.MonoBehaviour.StartCoroutine(System.String, System.Object)
UnityEngine.MonoBehaviour.StartCoroutine(System.String)
UnityEngine.MonoBehaviour.StopCoroutine(System.String)
UnityEngine.MonoBehaviour.StopCoroutine(System.Collections.IEnumerator)
UnityEngine.MonoBehaviour.StopCoroutine(UnityEngine.Coroutine)
UnityEngine.MonoBehaviour.StopAllCoroutines()
UnityEngine.MonoBehaviour.print(System.Object)
UnityEngine.MonoBehaviour.useGUILayout
UnityEngine.MonoBehaviour.runInEditMode
UnityEngine.Behaviour.enabled
UnityEngine.Behaviour.isActiveAndEnabled
UnityEngine.Component.GetComponent(System.Type)
UnityEngine.Component.GetComponent<T>()
UnityEngine.Component.GetComponent(System.String)
UnityEngine.Component.GetComponentInChildren(System.Type, System.Boolean)
UnityEngine.Component.GetComponentInChildren(System.Type)
UnityEngine.Component.GetComponentInChildren<T>()
UnityEngine.Component.GetComponentInChildren<T>(System.Boolean)
UnityEngine.Component.GetComponentsInChildren(System.Type)
UnityEngine.Component.GetComponentsInChildren(System.Type, System.Boolean)
UnityEngine.Component.GetComponentsInChildren<T>(System.Boolean)
UnityEngine.Component.GetComponentsInChildren<T>(System.Boolean, System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponentsInChildren<T>()
UnityEngine.Component.GetComponentsInChildren<T>(System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponentInParent(System.Type)
UnityEngine.Component.GetComponentInParent<T>()
UnityEngine.Component.GetComponentsInParent(System.Type)
UnityEngine.Component.GetComponentsInParent(System.Type, System.Boolean)
UnityEngine.Component.GetComponentsInParent<T>(System.Boolean)
UnityEngine.Component.GetComponentsInParent<T>(System.Boolean, System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponentsInParent<T>()
UnityEngine.Component.GetComponents(System.Type)

UnityEngine.Component.GetComponents(System.Type, System.Collections.Generic.List<UnityEngine.Component>)
UnityEngine.Component.GetComponents<T>(System.Collections.Generic.List<T>)
UnityEngine.Component.GetComponents<T>()
UnityEngine.Component.CompareTag(System.String)
UnityEngine.Component.SendMessageUpwards(System.String, System.Object, UnityEngine.SendMessageOptions)
UnityEngine.Component.SendMessageUpwards(System.String, System.Object)
UnityEngine.Component.SendMessageUpwards(System.String)
UnityEngine.Component.SendMessageUpwards(System.String, UnityEngine.SendMessageOptions)
UnityEngine.Component.SendMessage(System.String, System.Object, UnityEngine.SendMessageOptions)
UnityEngine.Component.SendMessage(System.String, System.Object)
UnityEngine.Component.SendMessage(System.String)
UnityEngine.Component.SendMessage(System.String, UnityEngine.SendMessageOptions)
UnityEngine.Component.BroadcastMessage(System.String, System.Object, UnityEngine.SendMessageOptions)
UnityEngine.Component.BroadcastMessage(System.String, System.Object)
UnityEngine.Component.BroadcastMessage(System.String)
UnityEngine.Component.BroadcastMessage(System.String, UnityEngine.SendMessageOptions)
UnityEngine.Component.transform
UnityEngine.Component.gameObject
UnityEngine.Component.tag
UnityEngine.Component.rigidbody
UnityEngine.Component.rigidbody2D
UnityEngine.Component.light
UnityEngine.Component.animation
UnityEngine.Component.constantForce
UnityEngine.Component.renderer
UnityEngine.Component.audio
UnityEngine.Component.guiText
UnityEngine.Component.networkView
UnityEngine.Component.guiElement
UnityEngine.Component.guiTexture
UnityEngine.Component.collider
UnityEngine.Component.collider2D
UnityEngine.Component.hingeJoint
UnityEngine.Component.particleEmitter
UnityEngine.Component.particleSystem
UnityEngine.Object.Destroy(UnityEngine.Object, System.Single)
UnityEngine.Object.Destroy(UnityEngine.Object)
UnityEngine.Object.DestroyImmediate(UnityEngine.Object, System.Boolean)
UnityEngine.Object.DestroyImmediate(UnityEngine.Object)
UnityEngine.Object.FindObjectsOfType(System.Type)
UnityEngine.Object.DontDestroyOnLoad(UnityEngine.Object)
UnityEngine.Object.DestroyObject(UnityEngine.Object, System.Single)
UnityEngine.Object.DestroyObject(UnityEngine.Object)
UnityEngine.Object.FindSceneObjectsOfType(System.Type)
UnityEngine.Object.FindObjectsOfTypeIncludingAssets(System.Type)
UnityEngine.Object.FindObjectsOfTypeAll(System.Type)
UnityEngine.Object.ToString()
UnityEngine.Object.GetInstanceID()
UnityEngine.Object.GetHashCode()
UnityEngine.Object.Equals(System.Object)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Vector3, UnityEngine.Quaternion)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Vector3, UnityEngine.Quaternion, UnityEngine.Transform)

UnityEngine.Object.Instantiate(UnityEngine.Object)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Transform)
UnityEngine.Object.Instantiate(UnityEngine.Object, UnityEngine.Transform, System.Boolean)
UnityEngine.Object.Instantiate<T>(T)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Vector3, UnityEngine.Quaternion)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Vector3, UnityEngine.Quaternion, UnityEngine.Transform)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Transform)
UnityEngine.Object.Instantiate<T>(T, UnityEngine.Transform, System.Boolean)
UnityEngine.Object.FindObjectsOfType<T>()
UnityEngine.Object.FindObjectOfType<T>()
UnityEngine.Object.FindObjectOfType(System.Type)
UnityEngine.Object.name
UnityEngine.Object.hideFlags
System.Object.Equals(System.Object, System.Object)
System.Object.ReferenceEquals(System.Object, System.Object)
System.Object.GetType()
System.Object.MemberwiseClone()

**Namespace:** LeTai.Asset.TranslucentImage

**Assembly:** Assembly-CSharp.dll

**Syntax**

```
[ExecuteInEditMode]
[RequireComponent(typeof(Camera))]
[AddComponentMenu("Image Effects/Tai Le Assets/Translucent Image Source")]
public class TranslucentImageSource : MonoBehaviour
```

**Remarks**

It is an Image effect that blur the render target of the Camera it attached to, then save the result to a global read-only Render Texture

## Fields

### blurRegion

**Declaration**

```
[SerializeField]
Rect blurRegion
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Rect | |

### camera

**Declaration**

```
Camera camera
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Camera | |

### downsample

**Declaration**

```
[SerializeField]
int downsample
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | |

### iteration

**Declaration**

```
[SerializeField]
int iteration
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | |

### lastBlurRegion

**Declaration**

```
Rect lastBlurRegion
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Rect | |

### lastDownsample

**Declaration**

```
[SerializeField]
int lastDownsample
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | |

### lastUpdate

**Declaration**

```
float lastUpdate
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

| TYPE | DESCRIPTION |
| --- | --- |
| | |

### material

Declaration

```
Material material
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Material | |

### maxDepth

Declaration

```
[SerializeField]
int maxDepth
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | |

### maxUpdateRate

Maximum number of times to update the blurred image each second

Declaration

```
public float maxUpdateRate
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### preview

Render the blurred result to the render target

Declaration

```
[Tooltip("Preview the effect on entire screen")]
public bool preview
```

Field Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Boolean | |

### previewMaterial

Declaration

```
Material previewMaterial
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Material | |

### shader

**Declaration**

```
Shader shader
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Shader | |

### size

**Declaration**

```
[SerializeField]
float size
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### strength

**Declaration**

```
[SerializeField]
float strength
```

**Field Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

## Properties

### BlurredScreen

Result of the image effect. Translucent Image use this as their content (read-only)

**Declaration**

```
public RenderTexture BlurredScreen { get; }
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.RenderTexture | |

### BlurRegion

Define the rectangular area on screen that will be blurred.

**Declaration**

```
public Rect BlurRegion { get; set; }
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Rect | Between 0 and 1 |

### Cam

The Camera attached to the same GameObject. Cached in field 'camera'

**Declaration**

```
Camera Cam
{
}
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| UnityEngine.Camera | |

### Downsample

The rendered image will be shrinked by a factor of 2^{{this}} before bluring to reduce processing time

**Declaration**

```
public int Downsample { get; set; }
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | Must be non-negative. Default to 0 |

### Iteration

Half the number of time to process the image. It is half because the real number of iteration must alway be even. Using half also make calculation simpler

**Declaration**

```
public int Iteration { get; set; }
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| | |

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | Must be non-negative |

### MaxDepth

Clamp the minimum size of the intermediate texture. Reduce flickering and blur

**Declaration**

```
public int MaxDepth { get; set; }
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Int32 | Must larger than 0 |

### MinUpdateCycle

Minimum time in second to wait before refresh the blurred image. If maxUpdateRate non-positive then just stop updating

**Declaration**

```
float MinUpdateCycle
{
}
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### ScreenSize

A small number base on the smaller dimension of the camera render target. Used to retain the blur amount across screen size

**Declaration**

```
float ScreenSize
{
}
```

**Property Value**

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### Size

Distance between the base texel and the texel to be sampled.

**Declaration**

```
public float Size { get; set; }
```

Property Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | |

### Strength

User friendly property to control the amount of blur

Declaration

```
public float Strength { get; set; }
```

Property Value

| TYPE | DESCRIPTION |
| --- | --- |
| System.Single | Must be non-negative |

## Methods

### CreateNewBlurredScreen()

Declaration

```
protected virtual void CreateNewBlurredScreen()
```

### OnRenderImage(RenderTexture, RenderTexture)

Declaration

```
protected virtual void OnRenderImage(RenderTexture source, RenderTexture destination)
```

Parameters

| TYPE | NAME | DESCRIPTION |
| --- | --- | --- |
| UnityEngine.RenderTexture | source | |
| UnityEngine.RenderTexture | destination | |

### ProgressiveBlur(RenderTexture)

Declaration

```
protected virtual void ProgressiveBlur(RenderTexture sourceRt)
```

Parameters

| TYPE | NAME | DESCRIPTION |
| --- | --- | --- |
| UnityEngine.RenderTexture | sourceRt | |

### ProgressiveResampling(Int32, ref RenderTexture)

Resize the source texture then run it through a shader before assign to target texure

Declaration

```
protected virtual void ProgressiveResampling(int level, ref RenderTexture target)
```

**Parameters**

| TYPE | NAME | DESCRIPTION |
| --- | --- | --- |
| System.Int32 | level | Resampling depth |
| UnityEngine.RenderTexture | target | |

### SetAdvancedFieldFromSimple()

Calculate size and iteration from strength

**Declaration**

```
protected virtual void SetAdvancedFieldFromSimple()
```

### Start()

**Declaration**

```
protected virtual void Start()
```