

QRCode/Barcode Scanner/Generator plugin

QRCode Scanner/Generator plugin is a very useful tool if you want to decode Qrcode/Barcode ,we have developed custom webcam tool (EasyWebCam) different from unity3d ('WebcamTexture')to optimize performance.as you may have noticed,WebcamTexture can't support torch and focus control.this assets fixes all of these problems.

Integration Guide:

Follow these steps to integrate the plugin into your existing project

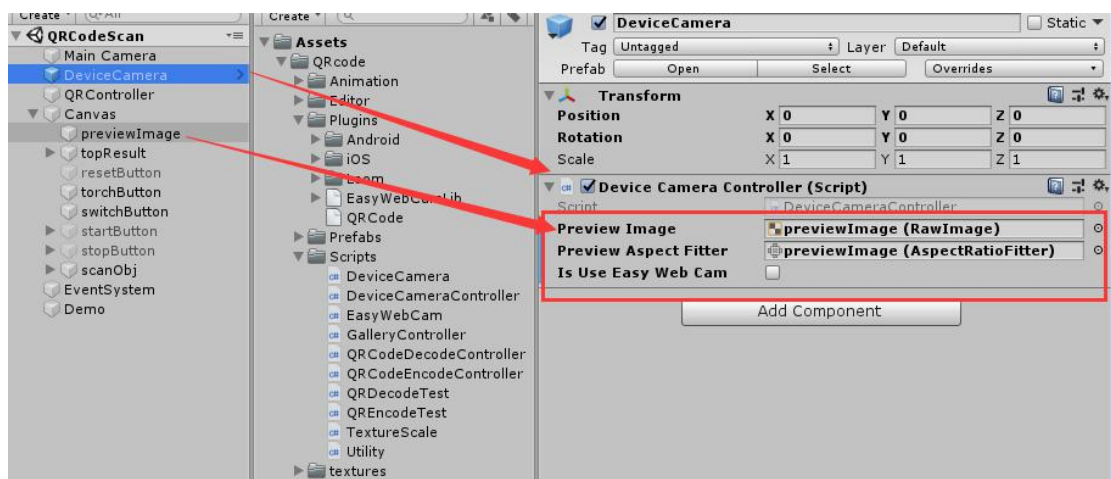
- 1). Import QRCode plugin into your project.
- 2). New a scene to create a QRCode Scanner.

How to use Decode(Scan QRCode):

1).Drag 'DeviceCamera' prefab into your scene.Like this

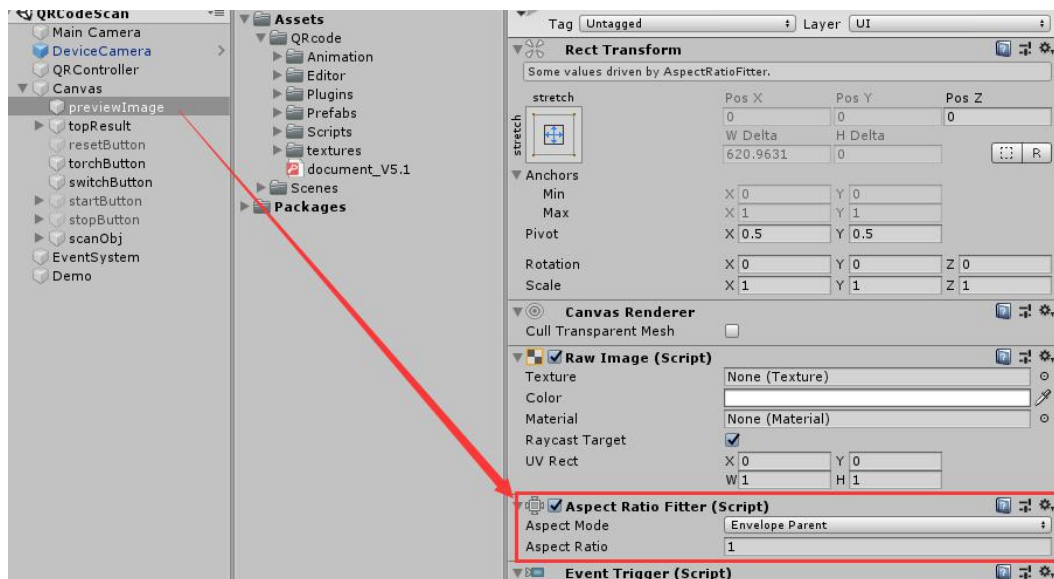
The fields are:

● **PreviewImage**: Create RawImage under the Canvas to show the webcam video, Drag it into this field .



● **PreviewAspectRatioFitter**: Add AspectFitter Component to PreviewImage Object which created on Previous step.And drag it into this fields.

it will be resized to match the webcam size that make the preview without stretch.



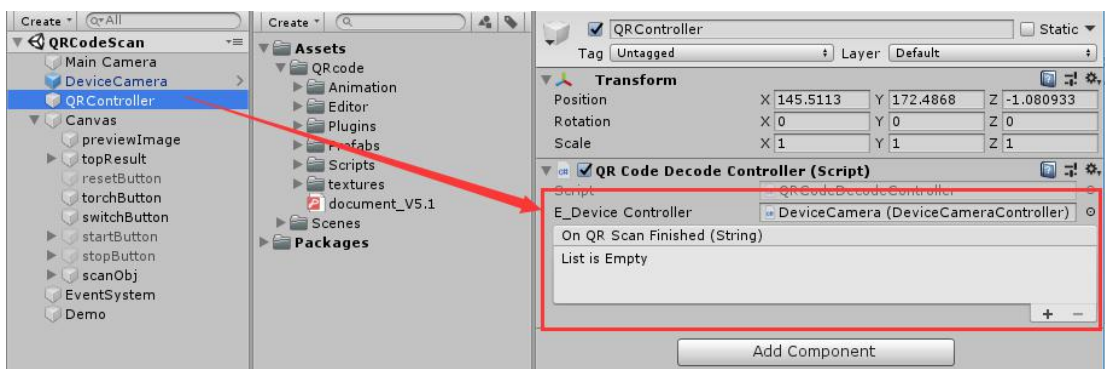
● **IsUseEasyWebCam**:

Checked:It will use the native webcam tool .and it supports autofocus and torch on/off features in android/ios platform .

unChecked: It will use the unity3d's webcamtexture component.

2). Drag "QRController " prefab into your scene

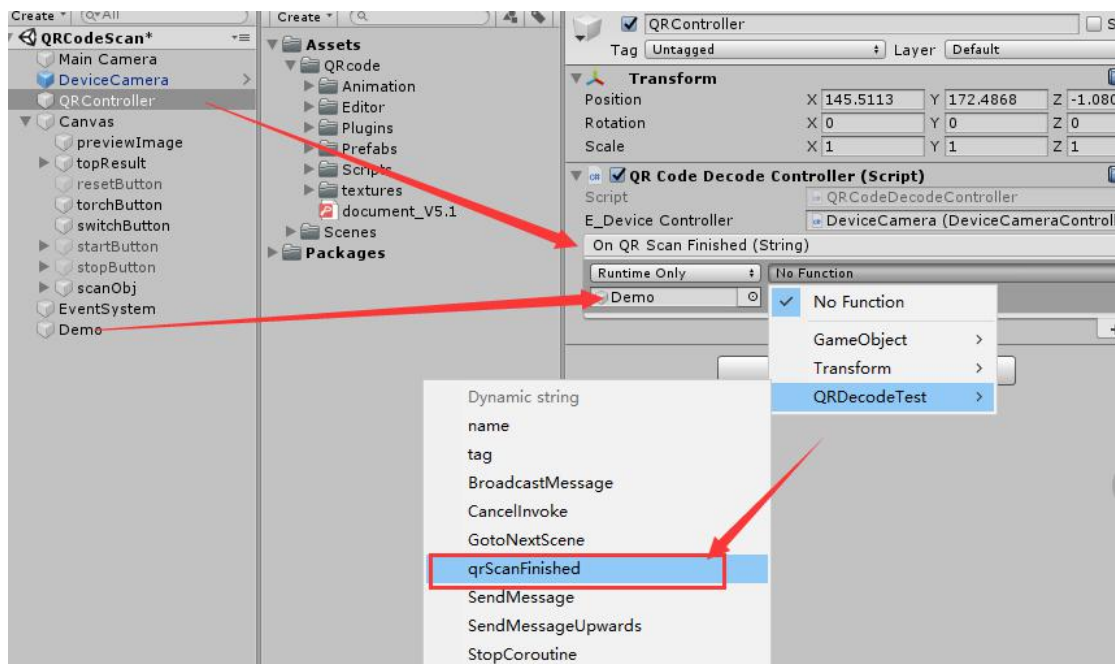
The fields are:



● **e_DeviceController**: DeviceCamera object, Drag the 'DeviceCamera' obj (attach with DeviceCameraController.cs) into this .

● **onQRScanFinished**: You can fill in this field with a callback that will be called when getting the scan result. The mentioned string will be passed to the callback (it need to have a string parameter). like this :

```
public void qrScanFinished(string dataText)
{
    Debug.Log(dataText);
}
```



3) .Reset Scan :

If you received a result from **onQRScanFinished** event, and you want to decode/scan again at the same time , you need call the API: **QRCodeDecodeController->reset();**

like this:

```
public QRCodeDecodeController e_qrController;
public void Reset()
{
    if (this.e_qrController != null)
    {
        this.e_qrController.Reset();
    }
}
```

You can see the demo scene to know more about this case.

4) Start/Stop Scanner

If you Start or Stop Scanner during your app running, you can call API

Start: **QRCodeDecodeController->StartWork();**

Stop: **QRCodeDecodeController->StopWork();**

```
public QRCodeDecodeController e_qrController;
public void StartWork()
{
    if (this.e_qrController != null)
    {
        this.e_qrController.StartWork();
    }
}

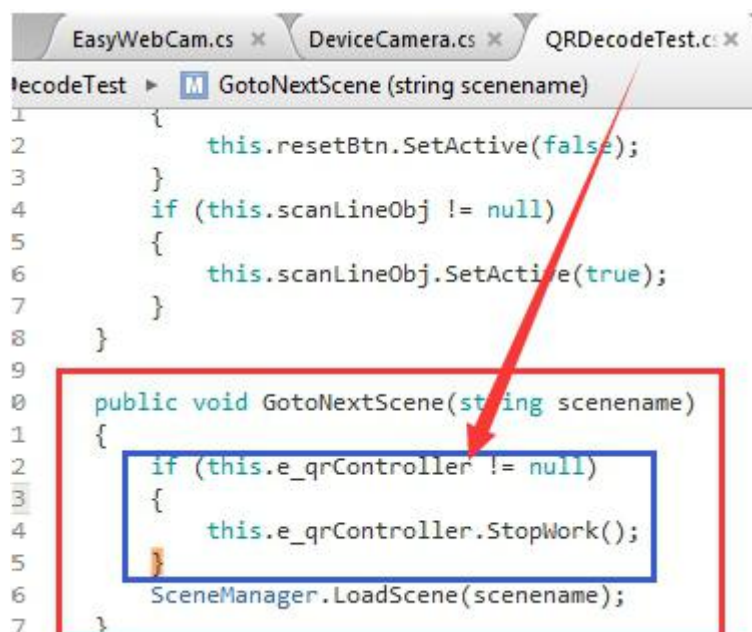
public void StopWork()
{
    if (this.e_qrController != null)
    {
        this.e_qrController.StopWork();
    }
}
```

You can see the demo scene to know more about this case.

5) .Load new Scene from QRCode Scan Scene:

If you want to switch scene after Scanning code. Please call the QRCodeDecodeController->StopWork() before loading other scene to avoid occurring crash issues.

Like this:



As of now,the complete qr/barcode decode steps is over and it will work for you.

#Speical APIs:

1) Torch control (require checked 'isUseEasyWebCam')

API: *EasyWebCam.setTorchMode(TorchMode paramode)*

param	values	descriptions
paramode	TorchMode.On	open the torch.
	TorchMode.Off	close the torch.

Sample scrpit:

```
bool isTorchOn = false;
// toggle the torch
public void toggleTorch()
{
    isTorchOn = !isTorchOn;
    EasyWebCam.setTorchMode(isTorchOn? TorchMode.On: TorchMode.Off);
}
```

2) Camera control

You can switch camera between rear and front.

API:*EasyWebCam.SwitchCamera(CameraMode mode)*

param	values	descriptions
mode	CameraMode.Rear	open rear camera on mobile.
	CameraMode.Front	open front camera on mobile.

Sample scrpit:

```

CameraMode cameraMode = CameraMode.Rear;
// switch the camera between rear and front
public void switchCamera()
{
    cameraMode = cameraMode == CameraMode.Rear ? CameraMode.Front :
CameraMode.Rear;
    EasyWebCam.SwitchCamera(cameraMode);
}

```

3) tapfocus control

If you camera is blur , you can try to use this api.

API: *EasyWebCam.tapFocus()*

Sample scrpit:

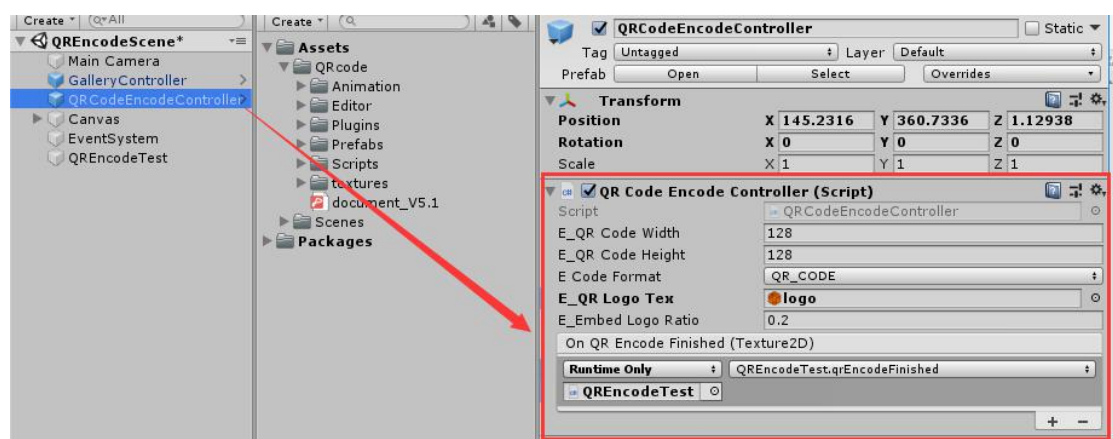
```

public void tapFocus()
{
    EasyWebCam.tapFocus()
}

```

#How to use Encode(Generator QRCode):

1).Drag "QRCodeEncodeController" prefab into your hierarchy, and set values in inspector.



The fields are:

- e_QRCodeWidth: generator QR/Barcode width (Recommendation: 256px);
- e_QRCodeHeight: generator QR/Barcode height(Recommendation: 256px);
- e_QRCodeFormat: generator code type,contain QRCode,EAN_13,EAN_8 etc.
- e_QRLogoTex: If you want to embed logo into code , Please put your logo pic into

here .

- **e_EmbedLogoRatio**: the embed logo's ratio for the code image.

- **onQRScanFinished**: You can fill in this field with a callback that will be called when getting the Encode Texture. The mentioned texture2d will be passed to the callback (it need to have a texture2d parameter). like this :

```
public void qrEncodeFinished(Texture2D tex)
{
    if (tex != null && tex != null) {
        //todo
    }
}
```

2).Save QRCode Image to Gallery

If you want to save the qr/code image to gallery , please drag "GalleryController " prefab into your scene.

Call API : GalleryController.SaveImageToGallery(Texture2d qrcode)

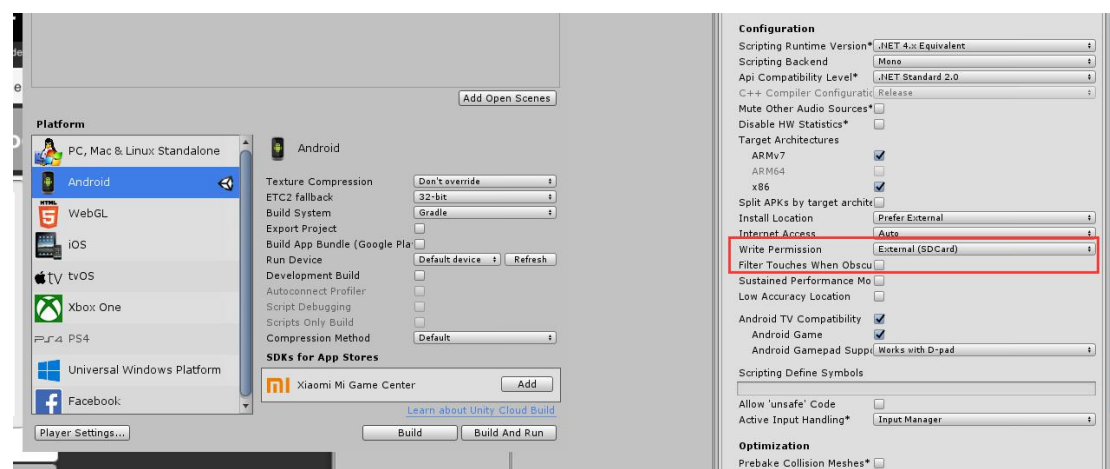
You can see the demo scene and sample scripts.

```
public void SaveCode()
{
    GalleryController.SaveImageToGallery(codeTex);
}
```

3) .Save image in android :

If you want save image to Android Gallery ,You need do like this:

Set "Write Access" as "External(SDCard)" in Player setting,it will permit you access the gallery.Like this:



4).Save image in iOS :

If you want save image to iOS gallery ,You need do like this:
 Add "Privacy – Photo Library Usage Description" to info.plist
 Add "Privacy – Photo Library Additions Usage Description" to info.plist

Key	Type	Value
Information Property List	Dictionary (29 items)	
Privacy - Photo Library Additions Usage Description	String	Photo Save
Privacy - Photo Library Usage Description	String	Photo Save
Localization native development region	String	en

Build for Andriod:

Minimum API Level: API level 26+

Identification	
Package Name	com.unity.3d
Version*	0.1
Bundle Version Code	1
Minimum API Level	Android 8.0 'Oreo' (API level 26)
Target API Level	Android 8.0 'Oreo' (API level 26)

Build for IOS:

if you want to build on ios device(ios 10.x+),you must
 Add "Privacy – Camera Usage Description" to the Info.plist Property List. if you do not set
 this item ,it will crash in startup.



We have provided demo scene for you ,you can see some detail infomations in it .

Thank you for your support again,you can contact us with email

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