# MarkerBased AR Example 1.2.0

WebGL(beta) support(Unity5.3 or later)

iOS & Android support

WindowsStoreApps8.1 & WindowsPhone8.1 & Windows10 UWP(beta) support

Win & Mac & Linux Standalone support

Support for preview in the Editor

Work with Unity Free & Pro

System Requirements

Build Win Standalone & Preview Editor: Windows7 or later Build Mac Standalone & Preview Editor: OSX 10.8 or later

The execution of this asset is required "OpenCV for Unity".

This asset is the Augmented Reality Example that detect and recognize NxN block markers and display 3d model in WebCamTexture in real-time.

Code is the rewrite of  $\frac{\text{https://github.com/MasteringOpenCV/code/tree/master/Chapter2\_iPhoneAR}}{\text{Using the "OpenCV for Unity"}}.$ 

- Texture2DMakerBasedARExample By detecting the marker from Texture2D, display AR model.
- WebCamTextureMakerBasedARExample By detecting a marker from WebCamTexture, display AR model in real-time.

Official Site | ExampleCode | Android Demo WebGL Demo | Demo Video

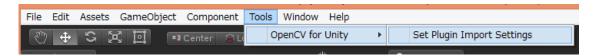
Cardboard With OpenCV for Unity Sample is available.

#### Version changes

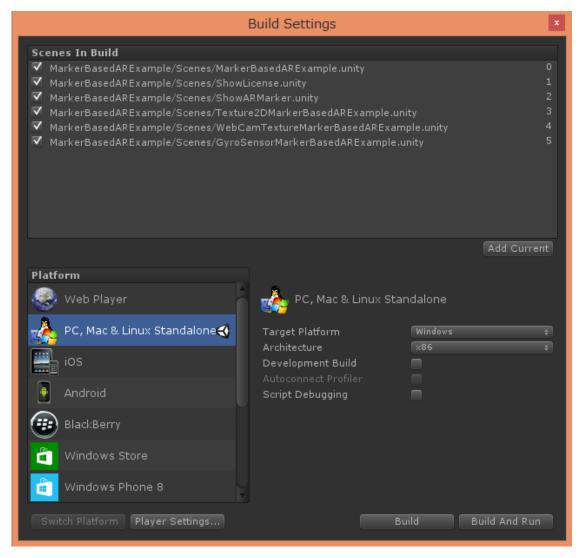
- 1.2.0 [Common] Changed the name of asset project. ("Sample" to "Example")
- 1.1.9 [Common] Fixed WebCamTextureToMatHelper.cs.(flipVertical and flipHorizontal flag)
- 1.1.8 [WebGL]Added WebGL(beta) support.(Unity5.3 or later)
- 1.1.7 [Common] Changed namespace to OpenCVMarkerBasedAR. (To avoid namespace and classname conflict.) [Common] Fixed CS0618 warnings: `UnityEngine.Application.LoadLevel(string)' is obsolete: `Use SceneManager.LoadScene'.
- **1.1.6** [Common]Added namespace. [Common]Added flipVertical flag, flapHorizontal flag and GetWebCamDevice() method to WebCamTextureToMatHelper.cs.
- 1.1.5 [Common] Changed to methods of moving the AR object.
- 1.1.4 [Common] Support for "OpenCV for Unity 2.0.0".
- **1.1.3** [Common]Fixed WebCamTextureToMatHelper.cs.(Add didUpdateThisFrame 0 method)
- **1.1.2** [Common] Renewed the samples using WebCamTextureToMatHelper.(Supports all screen orientation.)
- 1.1.1 [Common]Added Marker Design Inspector.( Improved procedures to change the marker image)
- 1.1.0 [Common] Change to use uGUI in SampleScene.
- 1.0.9 [iOS] Fix WebCamTexture bug of SampleScene in Unity5.2.
- 1.0.8 [Common] Rewrite Sample Scene.
- 1.0.7 [Common]Add the code to support Beta Version of "OpenCV for Untiy" based on "OpenCV3.0.0".
- 1.0.6 [Common] Fix Sample Scene.
- **1.0.5** [Common] Fix SampleScene. [Common] Change Property of Platform Dependent Compilation from UNITY\_IPHONE to UNITY\_IOS.
- **1.0.4** [Common]Fix the direction of rotation of the mat that is converted from WebCamTexture.
- 1.0.3 [Common] Fix direction of WebCamTexture.
- **1.0.2** [Common] Divide asset for Unity4 and Unity5.
- 1.0.1 [Common] Support for "OpenCV for Unity 1.0.9"
- 1.0.0 Initial version

#### Quick setup procedure to run the example scene:

- 1. Import "OpenCVForUnity".
- 2. Select MenuItem[Tools/OpenCV for Unity/Set Plugin Import Settings].



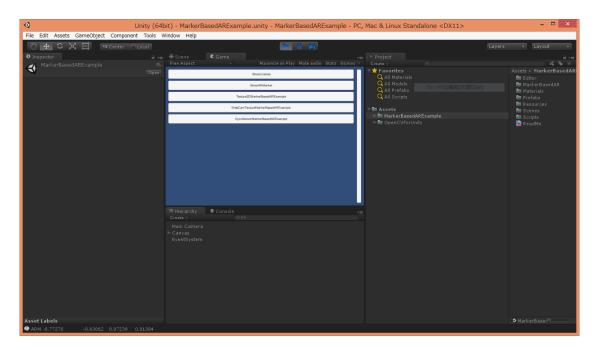
3. Add all of the "\*\*\*.unity" in the "MarkerBasedARExample" folder to [Build Settings] –[Scene In Build].



4. Run

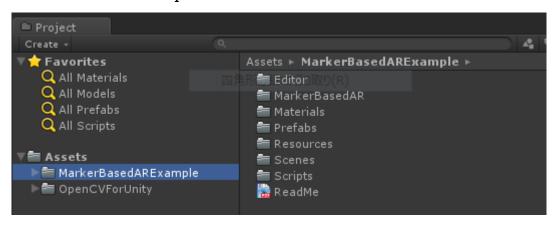
MarkerBasedARExample

Scene.



5. Print the marker image(MarkerBasedARExample/Resources/maker.png).

## Screenshot after the setup



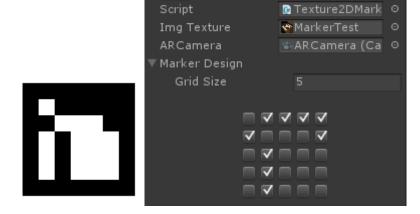
## Q&A

Q.

I want to change the Marker Image.

### A.

Marker design is changeable from the Inspector.



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