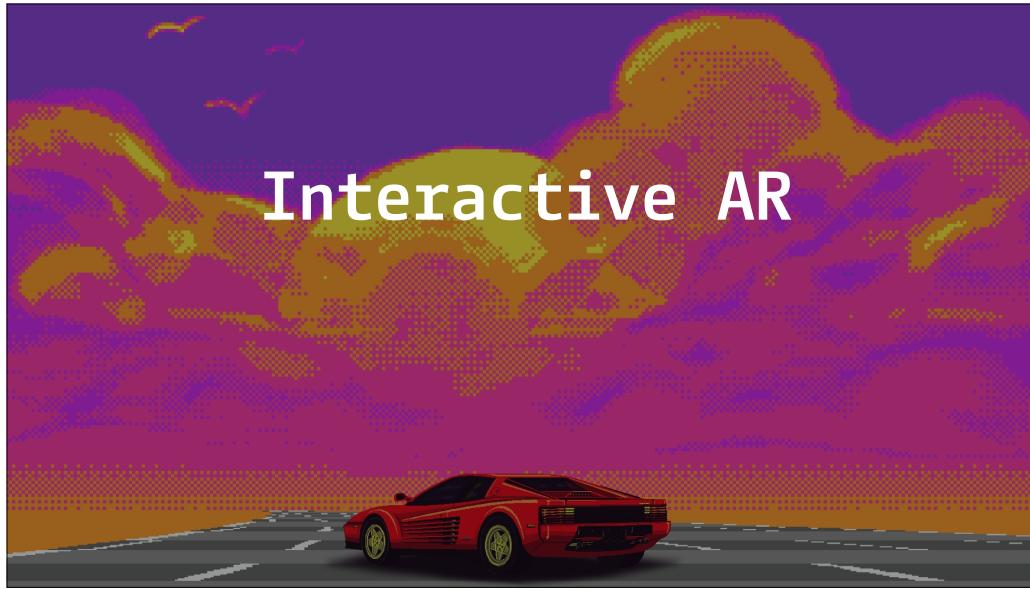




**TECH 3707 - Advanced Mixed Reality**



## Interactive AR

### Midterm Project

- You don't get any extra points for how complicated something is.
- Better to have something simple that works well than something complicated that breaks.
- Remember MVP - start small and increment from there.

Augmented Reality scene that can fit inside a  
1 x 1 x 1 meter volume

You must have one repeatable cause and effect

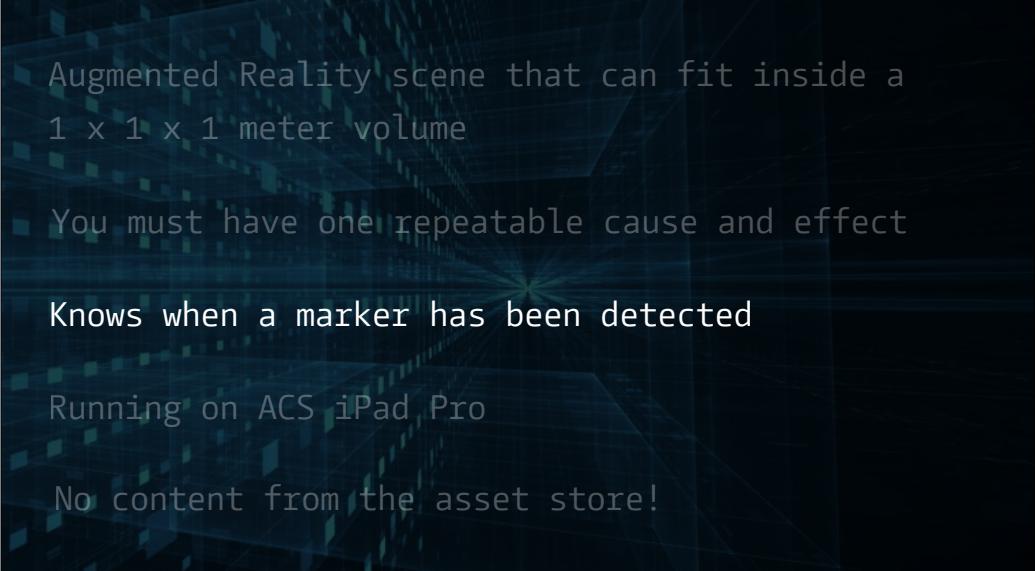
Knows when a marker has been detected

Running on ACS iPad Pro

No content from the asset store!



Due 10/26



- Augmented Reality scene that can fit inside a 1 x 1 x 1 meter volume

- You must have one repeatable cause and effect

- Knows when a marker has been detected

- Running on ACS iPad Pro

- No content from the asset store!

Today we'll talk about how to detect when marker is detected.

Augmented Reality scene that can fit inside a  
1 x 1 x 1 meter volume

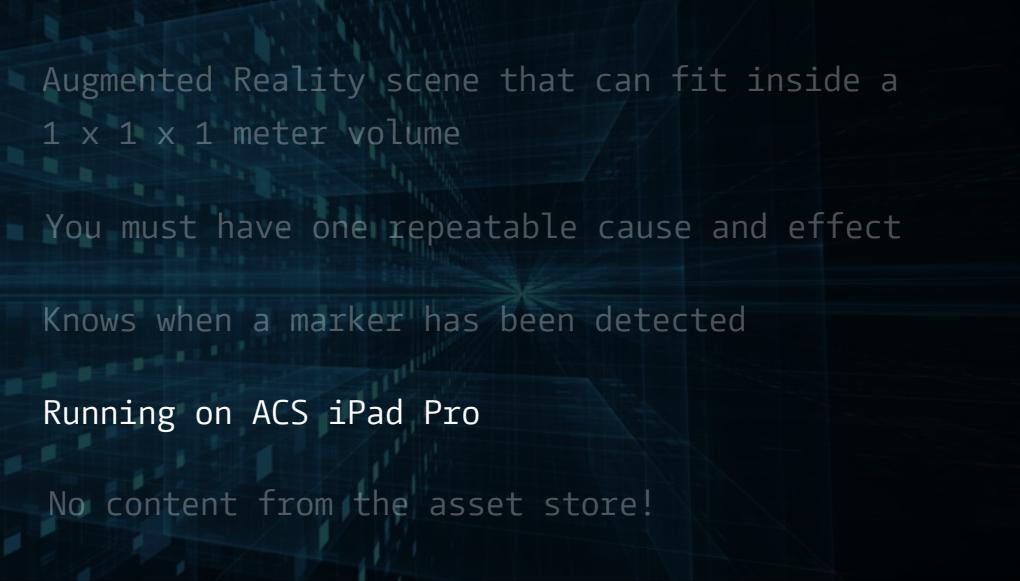
You must have one repeatable cause and effect

Knows when a marker has been detected

Running on ACS iPad Pro

No content from the asset store!

You will have time to work on your project while I go around the room and talk to each of you about your projects



- Augmented Reality scene that can fit inside a 1 x 1 x 1 meter volume

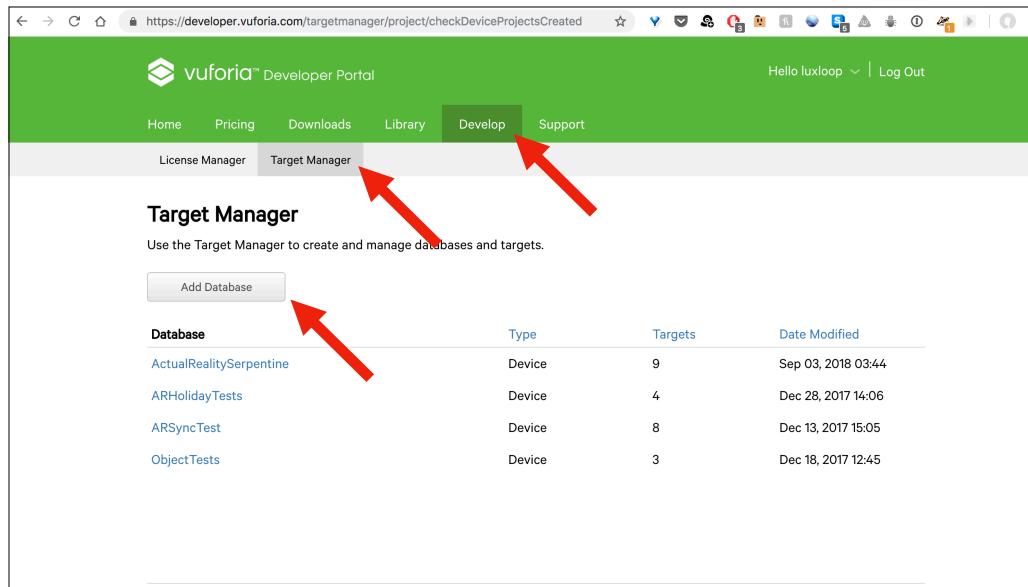
- You must have one repeatable cause and effect

- Knows when a marker has been detected

- Running on ACS iPad Pro

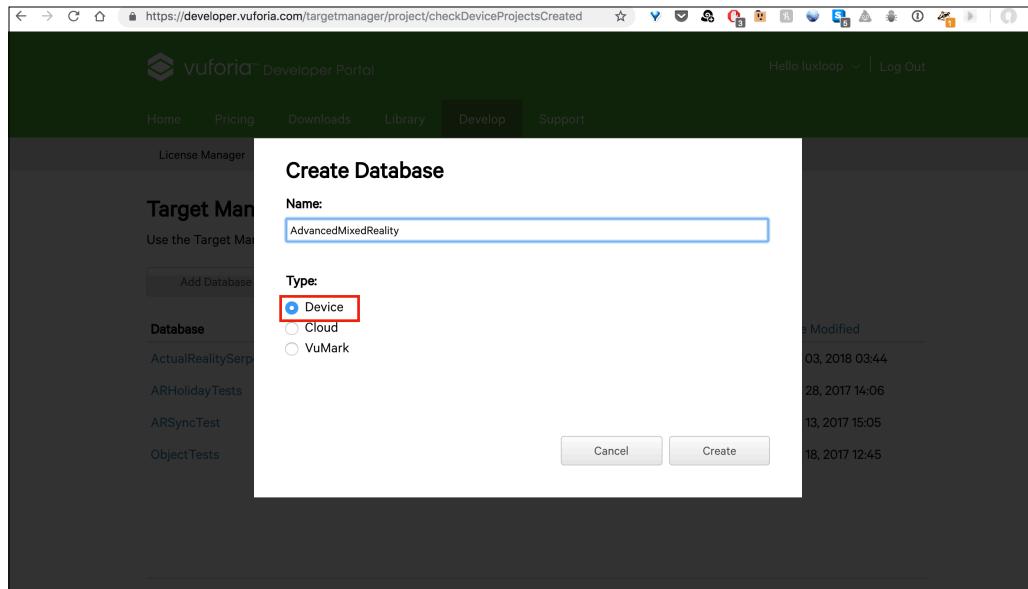
- No content from the asset store!

Next class we'll talk about this.



<https://developer.vuforia.com/>

Log in, click on **Develop**, then **Target Manager**, then **Add Database**



Give your database a name and **make sure the Type is set to Device**

https://developer.vuforia.com/targetmanager/project/deviceTargetListing

Hello luxloop | Log Out

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Target Manager > AdvancedMixedReal...

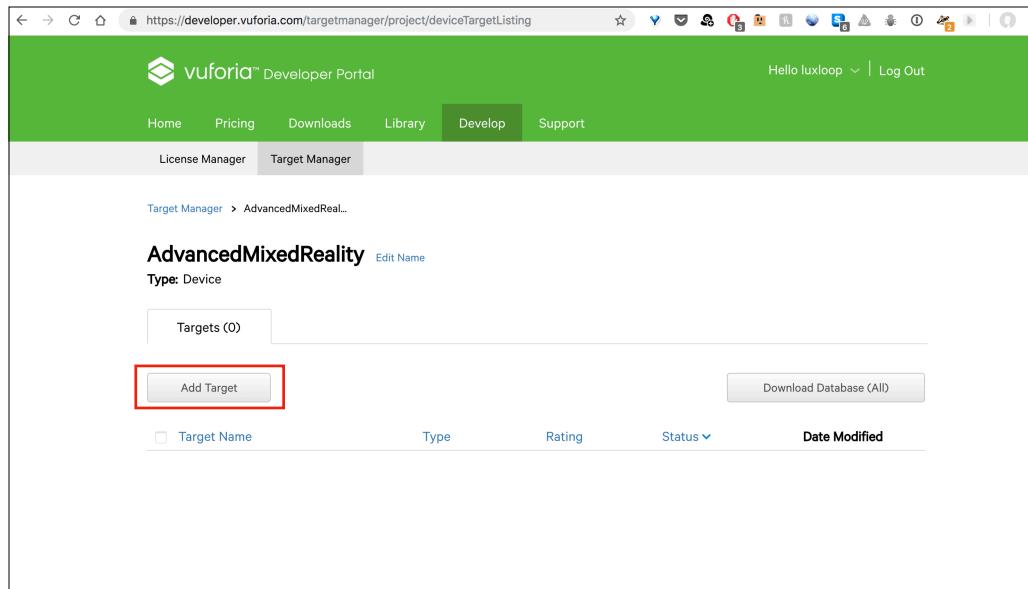
**AdvancedMixedReality** Edit Name

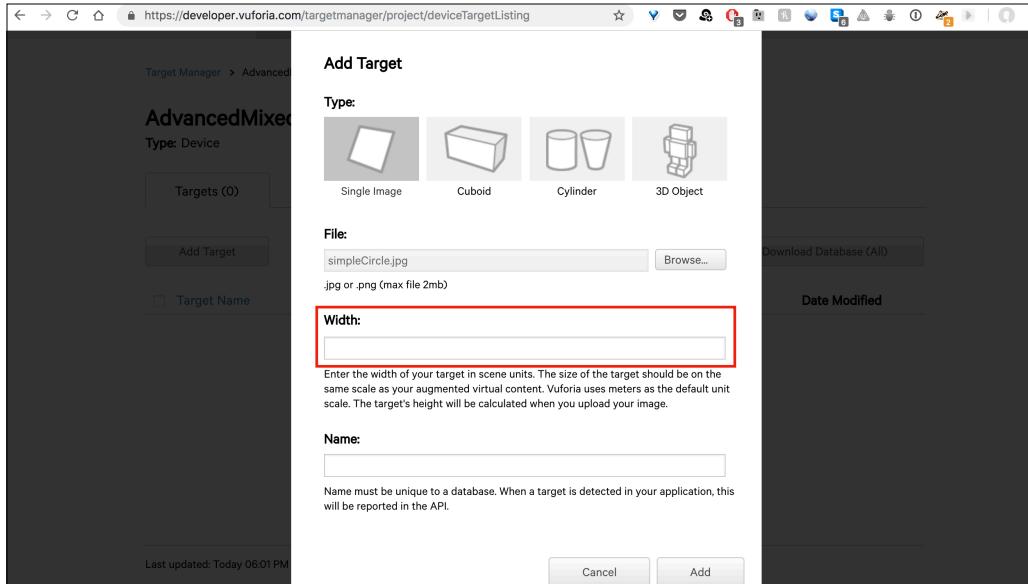
Type: Device

Targets (0)

Add Target Download Database (All)

Target Name Type Rating Status Date Modified





Make sure you specify the width of your marker image in meters!

For an image that is 6 inches wide, you would enter 0.1524 here because  $6'' = 0.1524\text{m}$

The screenshot shows the Vuforia Target Manager interface on a web browser. The URL is https://developer.vuforia.com/targetmanager/project/deviceTargetListing. The page displays a list of three targets under the heading "AdvancedMixedReality".

Target Name	Type	Rating	Status	Date Modified
qrCode	Single Image	★★★★★	Active	Oct 11, 2018 18:03
multiCircle	Single Image	★★★★★	Active	Oct 11, 2018 18:02
simpleCircle	Single Image	★★★★★	Active	Oct 11, 2018 18:02

A red box highlights the "Rating" column for the first target, "qrCode".

As you add images, pay attention to their rating

## What makes a good marker image?

<https://library.vuforia.com/articles/Solution/Optimizing-Target-Detection-and-Tracking-Stability.html>

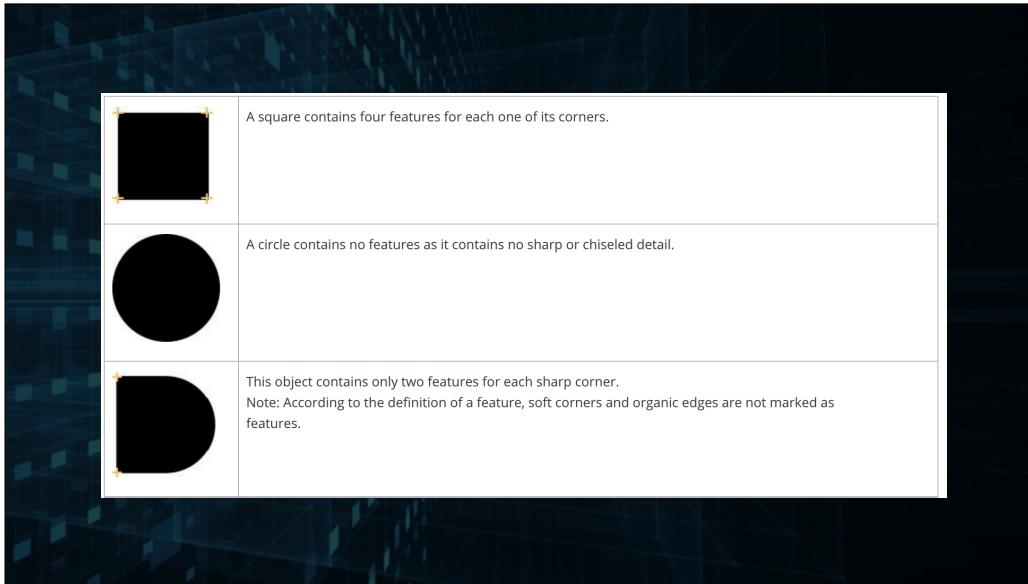
What makes a good marker image?

## Attributes of an Ideal Image Target

Image Targets possessing the following attributes will enable the best detection and tracking performance from the Vuforia SDK.

Attribute	Example
Rich in detail	Street scene, group of people, collages and mixtures of items, and sport scenes
Good contrast	Bright and dark regions, and well-lit
No repetitive patterns	A grassy field, the façade of modern house with identical windows, and a checkerboard
Format	Must be 8- or 24-bit PNG and JPG formats; less than 2 MB in size; JPGs must be RGB or greyscale (no CMYK)

<https://library.vuforia.com/articles/Solution/Optimizing-Target-Detection-and-Tracking-Stability.html>



<https://library.vuforia.com/articles/Solution/Optimizing-Target-Detection-and-Tracking-Stability.html>

https://developer.vuforia.com/targetmanager/project/deviceTargetListing

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Target Manager > AdvancedMixedReal...

**AdvancedMixedReality** Edit Name

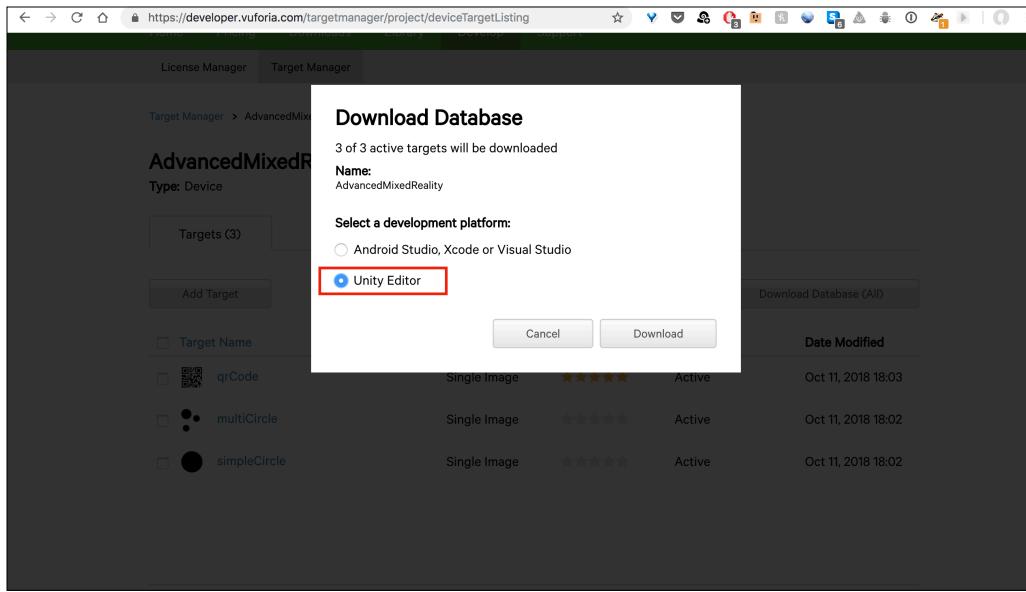
Type: Device

Targets (3)

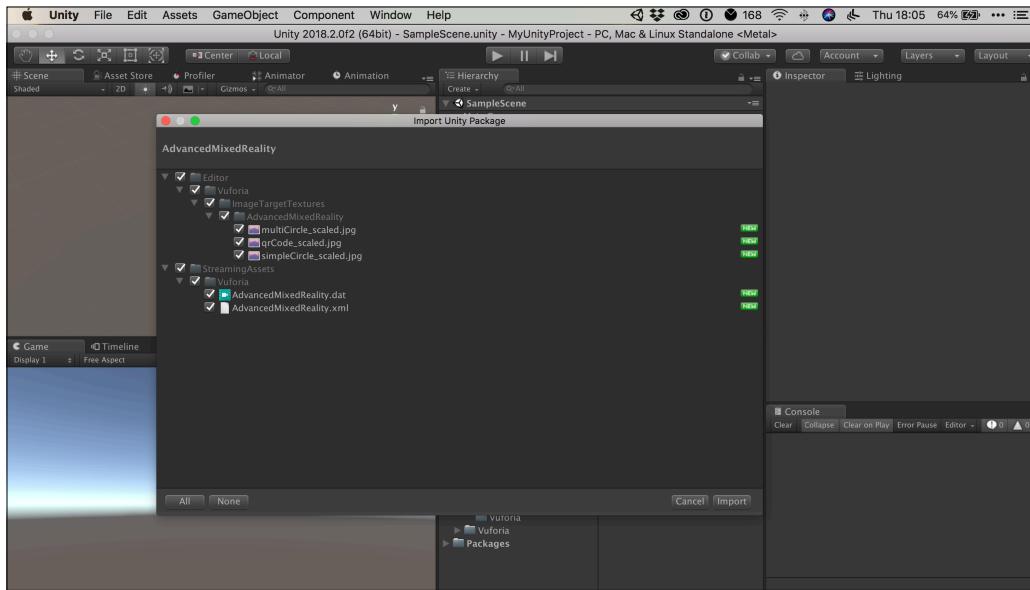
Add Target

Download Database (All)

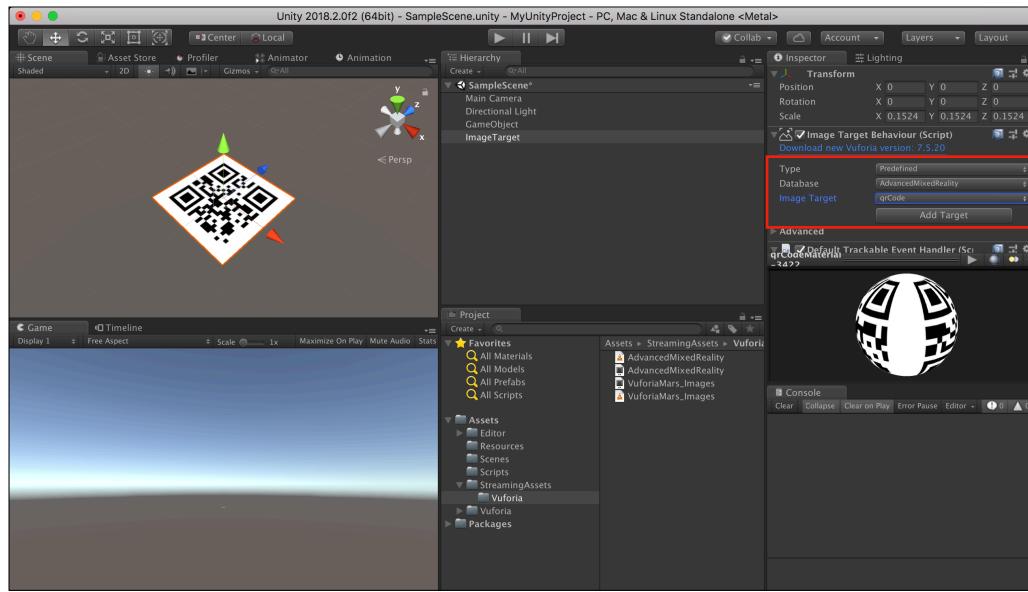
Target Name	Type	Rating	Status	Date Modified
qrCode	Single Image	★★★★★	Active	Oct 11, 2018 18:03
multiCircle	Single Image	★★★★★	Active	Oct 11, 2018 18:02
simpleCircle	Single Image	★★★★★	Active	Oct 11, 2018 18:02



Make sure you have **Unity Editor** selected!



Import into Unity as usual...



...and now your images are available in Unity as Vuforia markers



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Thank you!