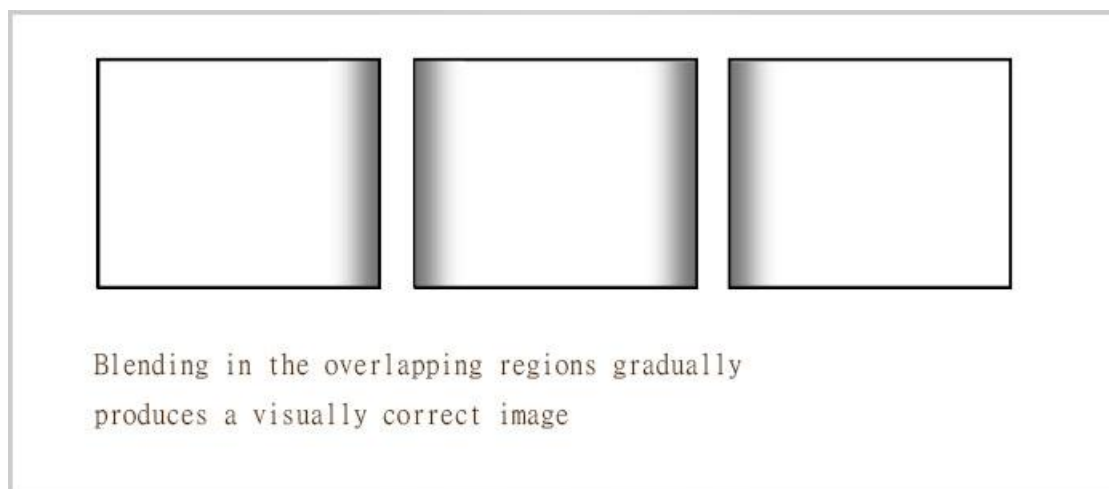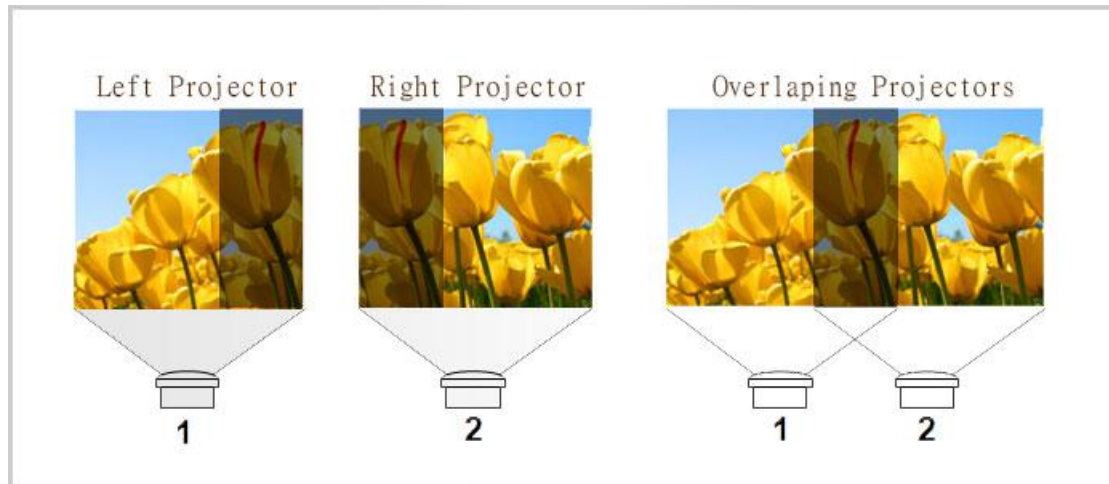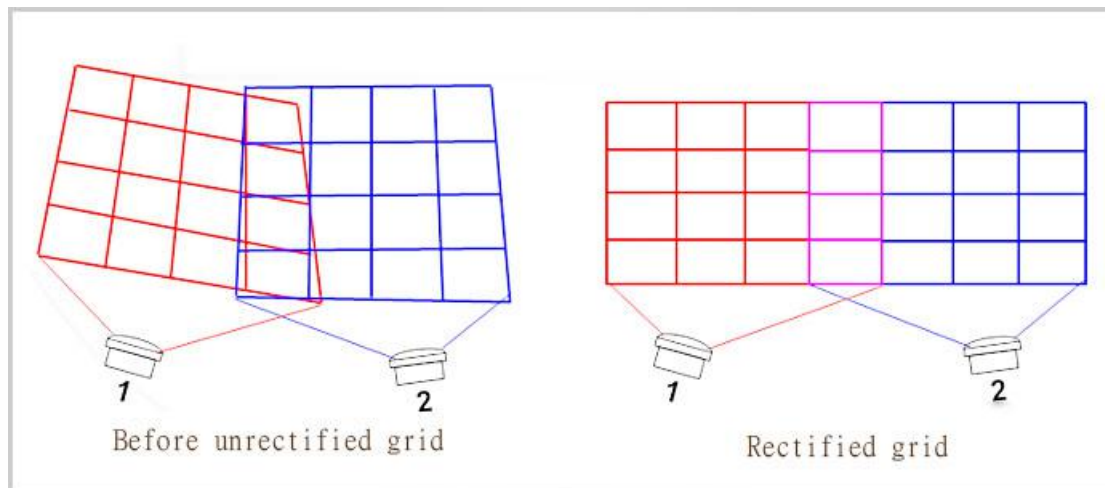# Multi-Projection Plugin for Unity

Introduction:

Edge blending is the dark art of stitching together the output of two or more overlapping projectors and making one seamless screen out of them.

Blending in the overlapping regions gradually produces a visually correct image

Before unrectified grid   Rectified grid

WebGL Demo

How to Use

In Unity Developing

1 import MultiProjection.unitypackage into your project

2 Drag /MultiProjection/prefabs "MP_MappingCamera" into your scene

3 Change screen layout or blend count , try shortcut.

4 finish.

Hardware Requirement

You need a high performance PC ,

CPU I3 + VGA card   (for two projectors).

CPU I5 + VGA card(GTX 750)   (for 3 or 4   projectors).

CPU I7 + VGA card*2 (for 5 or 8   projectors).

You need install win7 or win8 or win10, and make sure your VGA card can connect all projectors.

*if you need blend 3 or more projectors , maybe you need two or more VGA card.
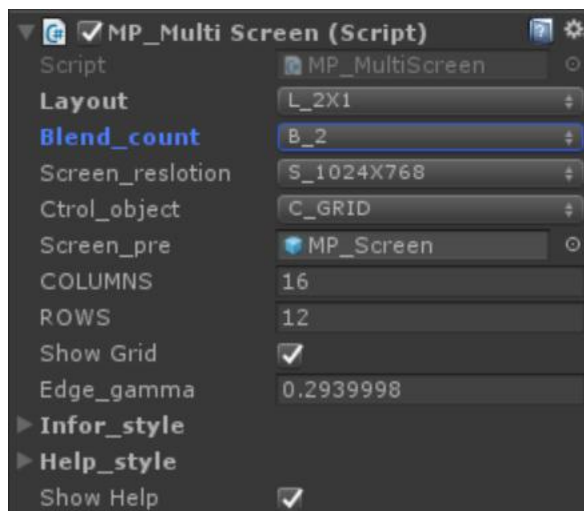
* be care of Unity max support 8 monitors

Tutorial 1: How to build two projector blending

●   If you want to build a 2048 *768 projection, first connect two projectors and

Below picture is setting from windows 7 , first active your two projector, and layout as below 2*1.
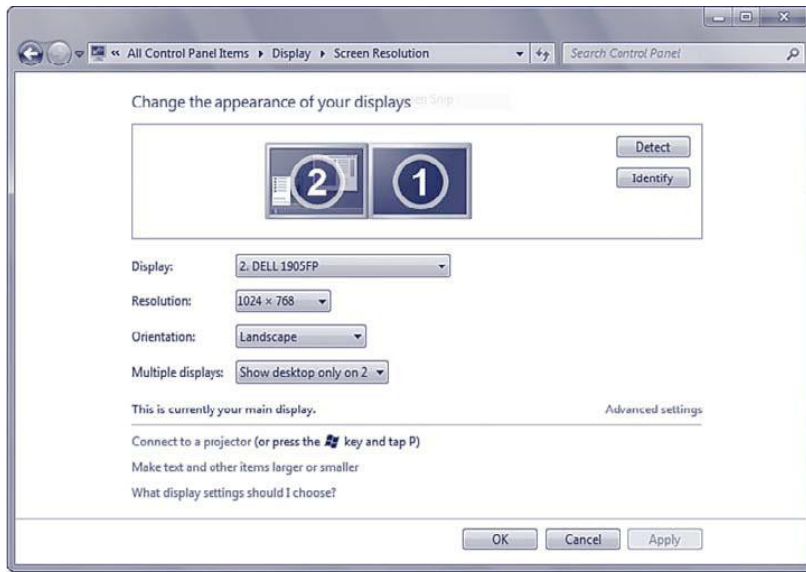
- Go to your unity project and set layout to L_2*1 , and set blend_count base your overlapping.

- Build a execute , and run it. Use shortcut change grid .
- Adjust grid one by one

  First use grid FOUR_CONNER change all grid to match some good,

  Next use grid single move, to match more accurate points.

  After got perfect matching.

  Press R,G,B key + Up/Down to made two projectors color same.

  Press key 1 or 2 open blend edge.

  Press -,= adjust blend edge gamma.

  All finished, Press F5 save. If you want to rest all Press F8 key.

  After your release your app, you need set showHelp and showGrid into false.

- Shortcut List:

  F1: show help or not

  H: hide grid or not

  W/S/A/D : choose control point
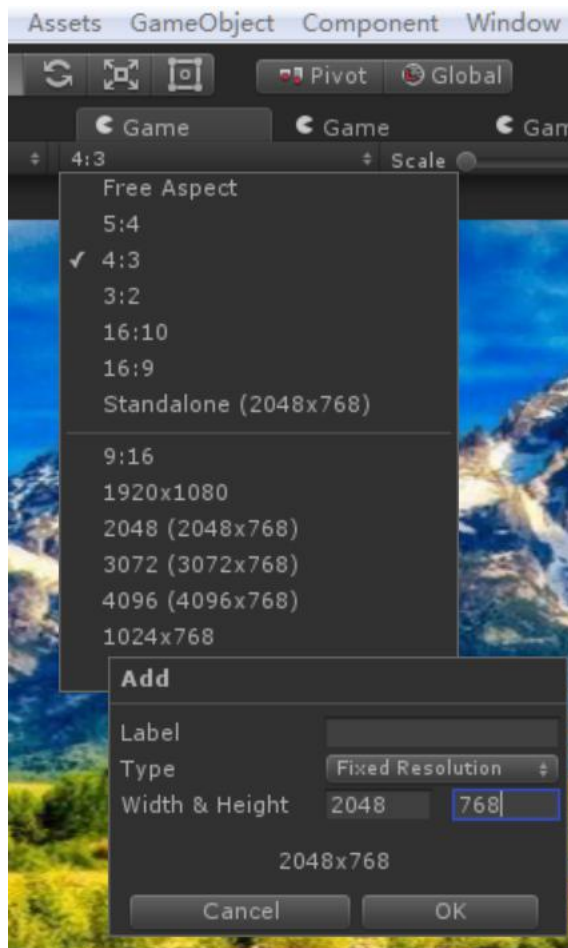
Tips

1 how to view multi-monitor in Unity editor ?
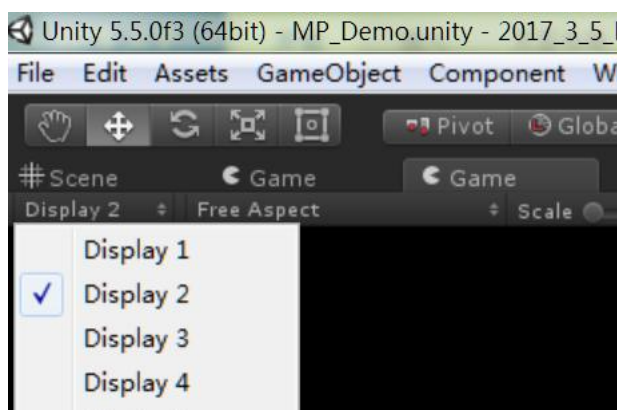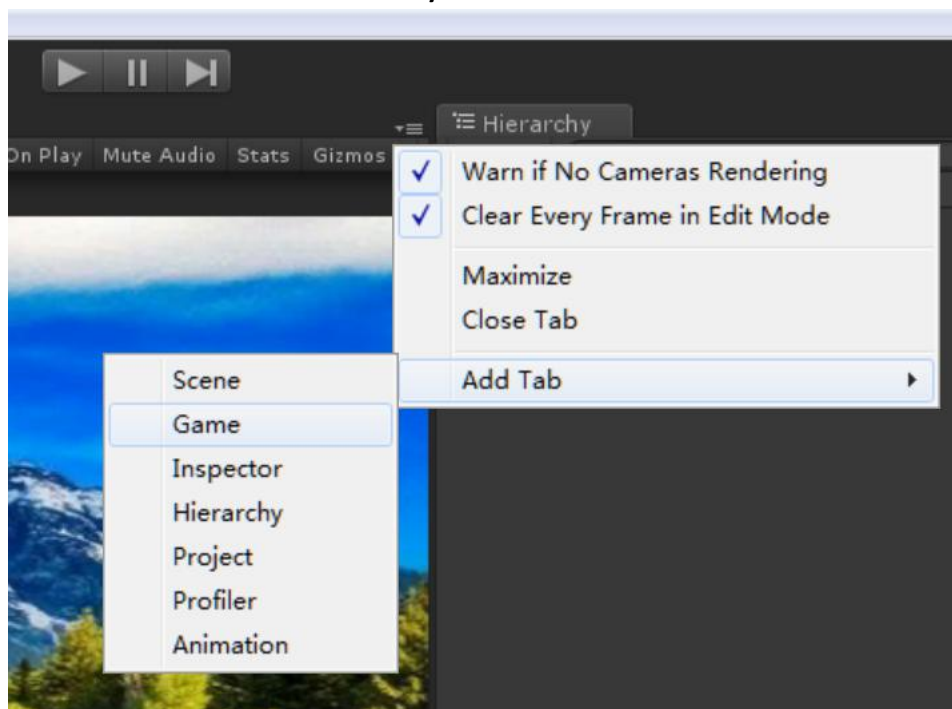
Add a Game Tab and change game display

2 how to made full screen show inside my previous camera ?

You can add your own resolution, and check your origin camera is work good.

Key Features

* Support 1*1   (very useful for 3d mapping)

* Support 1*2,1*3,1*4

* Support 2*1,2*2,2*3,2*4 (in processing ,not finished)

* Dynamic Mesh, low CPU and GPU overload

* Full keyboard control

* Full source code , create your own blending software

● **Links**

Website: http://vvvision.net/zblog/post/MultiProjectionUnity.html

WebGL Demo https://hardybbs.itch.io/multiporjection

Asset Store   https://www.assetstore.unity3d.com/#!/content/85466

Video Tutorials   **https://youtu.be/kCgO-ok8zek**

Change Log

1.0.1

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