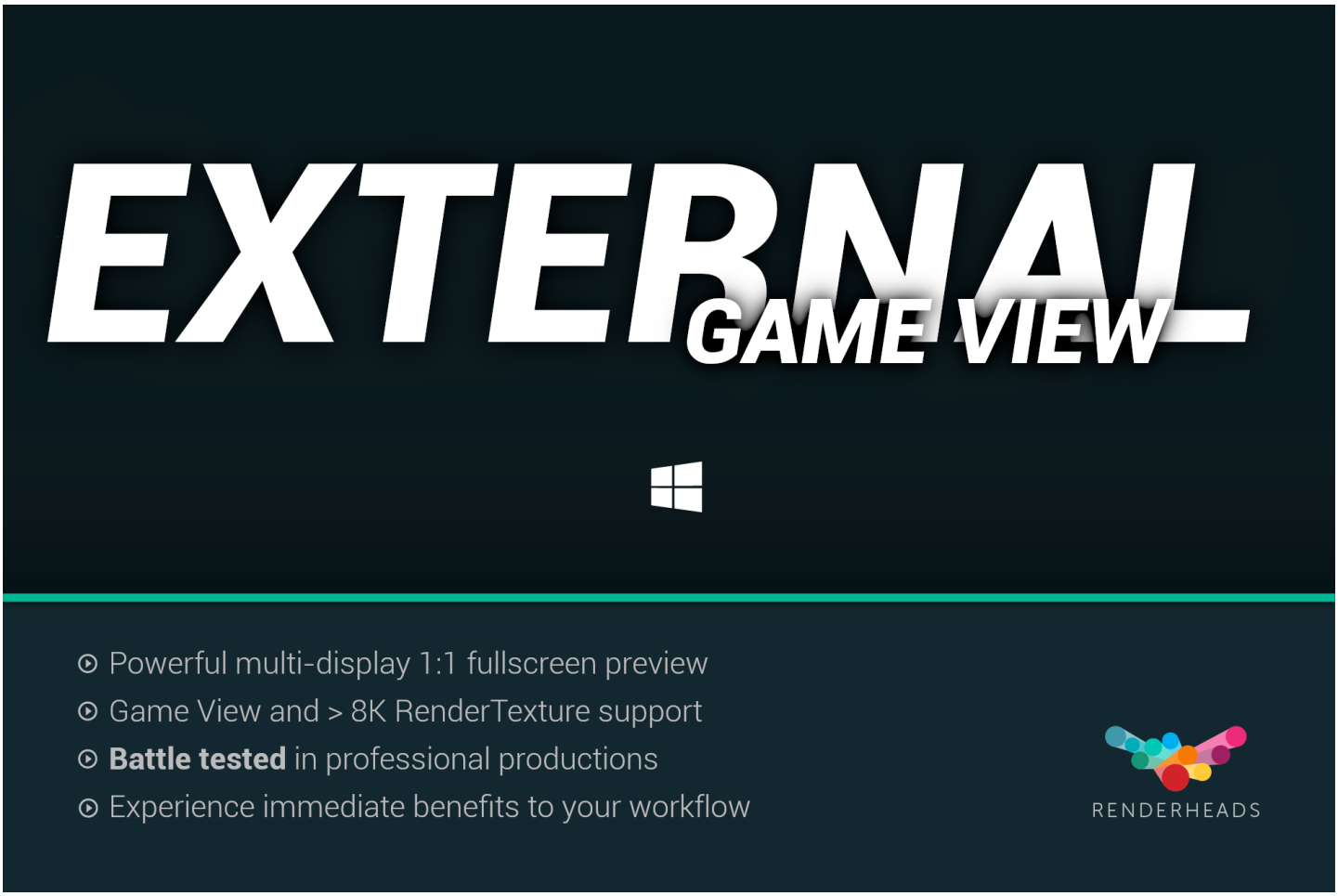


For full documentation, visit the Developer Portal

Table of Contents

Introduction

External Game View (EGV) is a workflow extension for the Unity editor which allows seamless powerful control of rendering content to external monitors.

We made this extension to:

- Improve the in-editor creative feedback process by allowing fullscreen multi-display content rendering, which allows final designs to be tweaked accurately without having to make a build or squint into a scaled-down window.
- Throw content up on large public screens (using multi-display pinning) in-editor without showing any signs of editor toolbars menus etc, so only the final canvas gets rendered.
- Display very high resolution (more than 8K) content rendered 1:1 (without scaling) for better client preview.

To do this we had to get around some limitations of the Unity editor, and while there were a couple of good plugins for Unity that also allow fullscreen game view in some ways, these did not fit our requirements and thus External Game View was created.

At RenderHeads we use External Game View on a wide range of Unity projects, and believe we have made it easy to use, light on resources and seamless to integrate. We hope you will find it as useful as we have.

Features

Features include:

- Fullscreen display of Game View (or other RenderTextures) in editor
- Pinning this display to an external monitor
- Display over several monitors
- Various scaling modes:
    - 1:1 Pixel perfect
    - Scale to fit single display
    - Scale to fit all displays
    - Custom
- Supports displaying > 8K textures (GameView in Unity is limited to 8K)
- Pass through most keyboard and mouse inputs
- Easy to use UI, with no scripting required
- Works with Unity 5.6, 2017, 2018, 2019, 2020, 2021, 2022
- Works with all render pipelines including built-in, URP and HDRP
- Includes full source code

> ⚠ **WARNING**
>
> Some versions of Unity on macOS have a limitation where it doesn't allow textures to be displayed larger than the primary monitor resolution. We have submitted a bug report to Unity for this issue and they have a fix in 2021.2.0 and are backporting to 2019.4.x and 2020.2.3.

Requirements

- Unity 5.6 and above (currently up to 2022)
- Windows 7 and above
- macOS 10.7 and above
- Any render pipeline (built-in, URP and HDRP)

Download

Download via the Unity Asset Store

Installation

- Download via the Unity Asset Store
- Import the package into Unity
- Go to the `Edit/Preferences` menu to configure

Shortcuts

- Press the Escape key to close the External Game View.
- Press CTRL-E (or Command-E) to toggle the External Game View.
- Right-click on the External Game View to show the context menu.

Walkthrough

Preferences

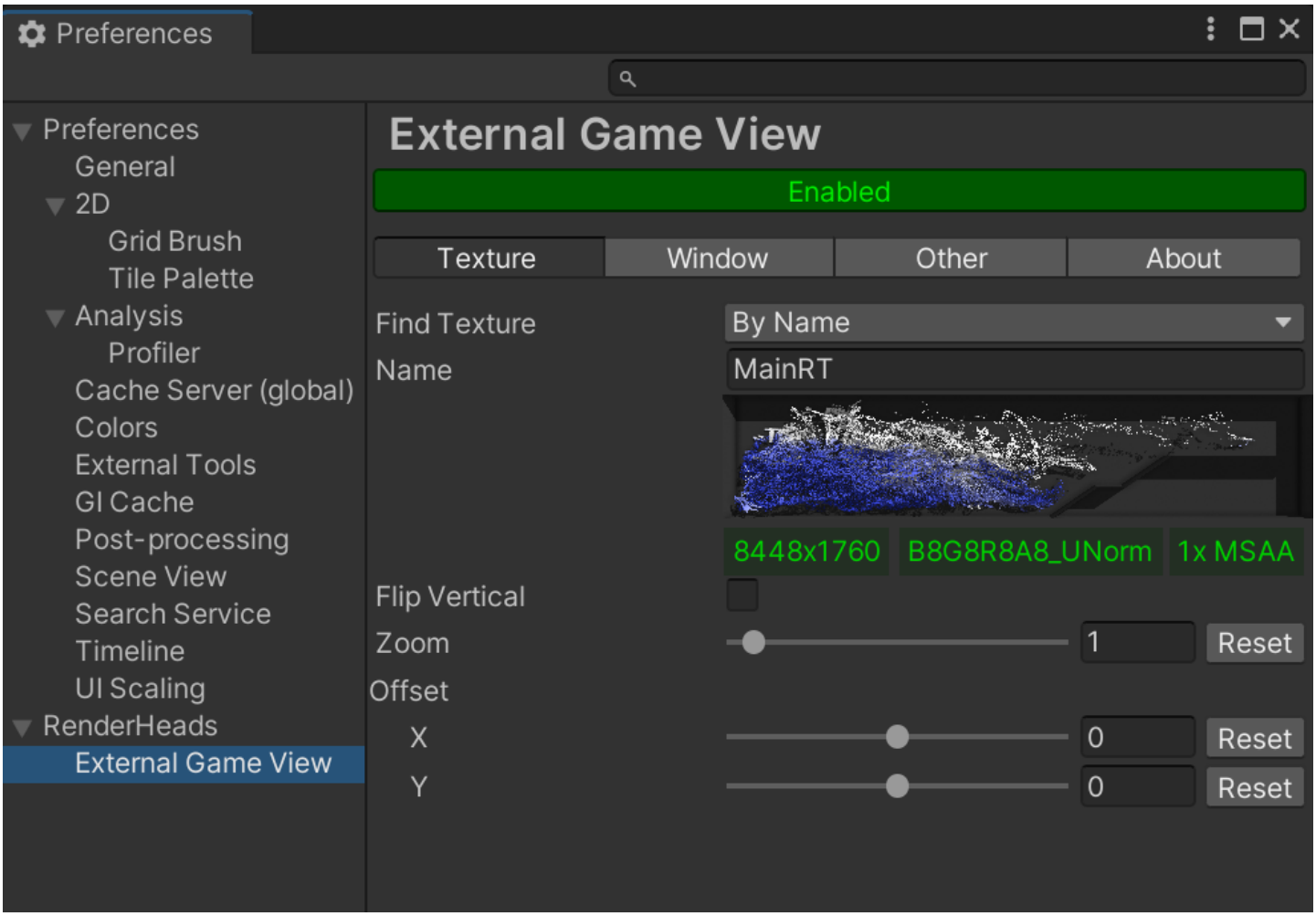
The preferences are stored per-project so you can have custom External Game View settings for each project.

Go to `Edit/Preferences` menu to change the preferences.

At the top of the window is a button `External Game View: Disabled` which toggles the External Game View window to show or hide.

The several tabs are presented:

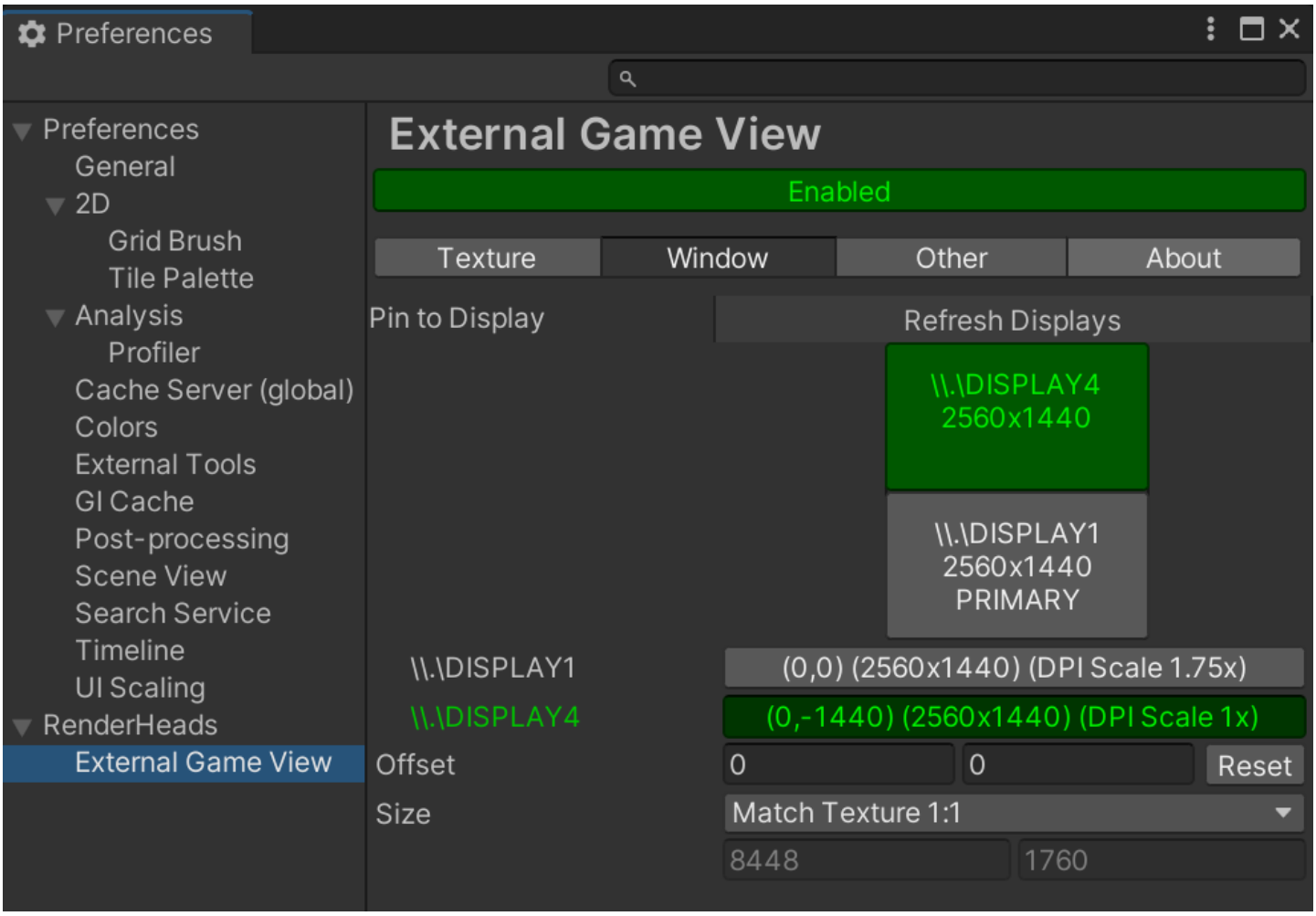
Texture Tab



The Window tab has settings to specify which texture to display and how to display it.

PROPERTY	OPTIONS
Find Texture	Select the method to use to find the texture to display: Game View - Uses the built in `GameView RT` RenderTexture in Unity which is has a maximum dimension of 8192 pixels. By Name - Allows specifying the name of a custom RenderTexture. This texture will be searched for until it is found.
Preview	Shows a preview of the last found texture and shows its dimensions, format and anti-aliasing properties.
Flip Vertical	Flips the texture vertically. Some textures require this, for example the default Game View texture.
Zoom	Texture zoom level
Offset	Texture offset in pixels

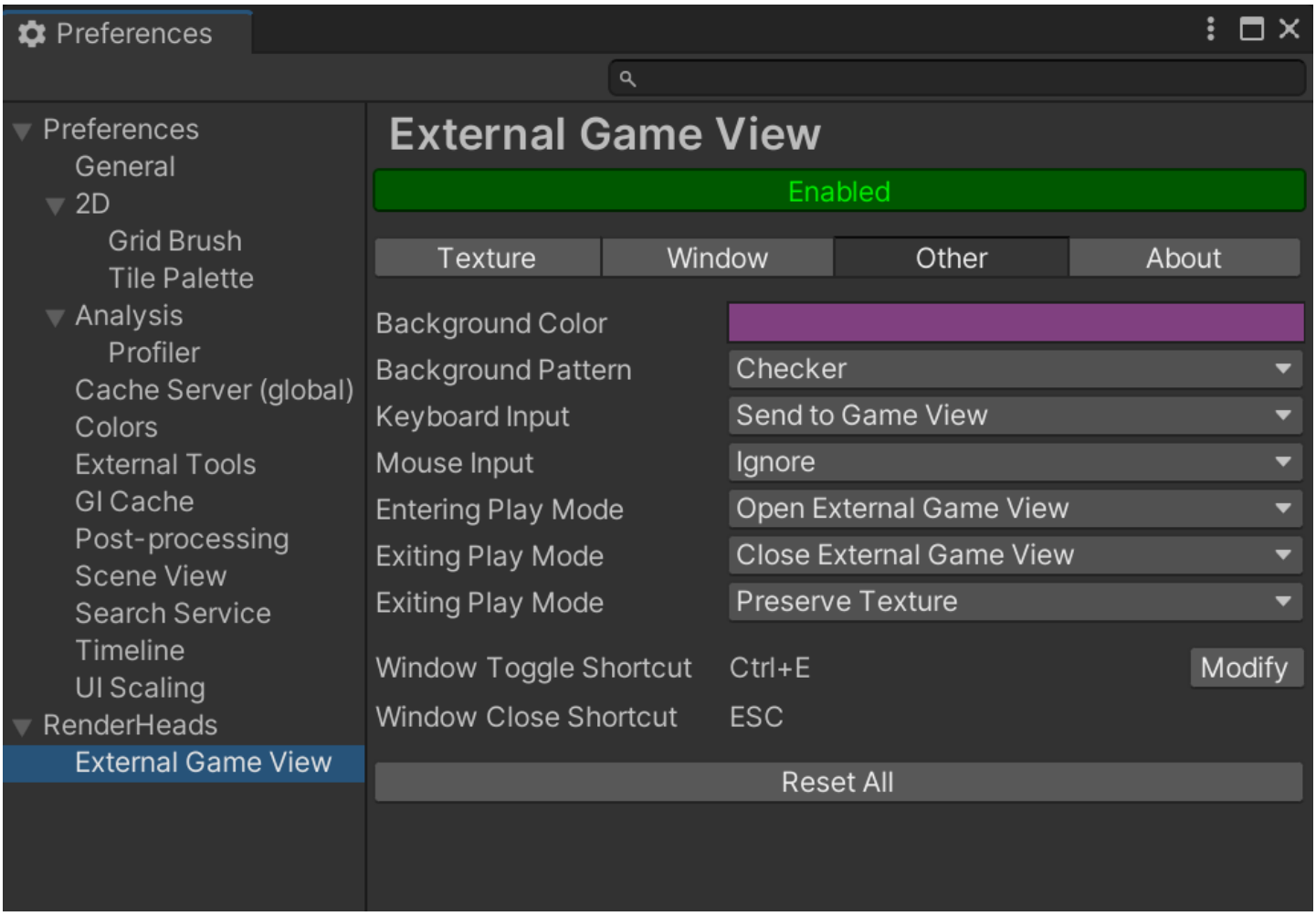
Window Tab



The Window tab has settings to specify the position and size of the External Game View window.

PROPERTY	OPTIONS
Pin to Display	Select the display to pin the window to. The window will be pinned ot the top-left corner of the display. Displays are drawn in physical layout and also as a list
Offset	Apply a pixel offset to the window position
Size	Set the size of the window: Match Texture 1:1 - Makes the window the same size as the texture Fit Single Display - Scales the window to the fullscreen size of the pinned display Fit All Displays - Scales the window as large as possible to cover multiple displays Custom - Allows a custom window size to be set

Other Tab



The Other tab has all other settings.

PROPERTY	OPTIONS
Background Color	Specify the background color to render when the content doesn't fill the entire window
Keyboard Input	While the window is in focus, send any keyboard input to the Game View, making it interactive
Mouse Input	While the window is in focus, send any mouse input to the Game View, making it interactive
Entering Play Mode	Open the window when entering play mode
Exiting Play Mode	Close the window when exiting play mode
Exiting Play Mode	Preserve Texture - make a copy and display the texture when exiting play mode