



Flow Fire Games

SUPER SAMPLING SSAA

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How to use:

Simply apply the **SuperSampling_SSAA** script to your camera, and you're done! Adjust the desired amount of scaling in the inspector, or call **ChangeScale()** via script. To remove the effect, simply remove the Inspector script or call **GameObject.Destroy()** Setting the Resolution Multiplier to 1 also disables the effect.

Multi Camera Setups:

Add SSAA to all cameras, clear flags as usual.

(First camera: Clear with **Background / Skybox**, for the other cameras: **depth only** or **don't clear**.)

Add your world space UI (if existing) on a camera on top (using the highest depth value), no SSAA is needed here.

Render Targets:

As of 1.4 it is possible to Super Sample your render target textures, just apply the script to these cameras just as usual. For multi camera render target setups, the same rules apply as above.

You could even possibly use SSAA exclusively on a render target texture, such as a 3D character avatar window, showcase or similar.

Filter Algorithms:

SSAA Features various sampling methods as of version 1.2

Try staying within the recommended multipliers for good results.

- | | |
|---------------------------|--|
| - Nearest Neighbor | - Fastest, and with sharpest look and edges. (Multiplier: 0.5-2) |
| - Bilinear Sharper | - compromise between the soft Bilinear and sharp NN (1-2) |
| - Bilinear Default | - a softer image (2-3) |
| - Bilinear High | - a softer image, optimized for high scaling (2-4) |
| - Lanczos High | - smoothest image, optimized for high scaling (2-4) |

High Res Screenshots:

SSAA Features a screenshot mode as of version 1.4, allowing the taking of screenshots while in **Play or Pause** mode **regardless** of the current window size, **format** and resolution, essentially granting the opportunity to take very high resolution screenshots which are then Super Sampled in addition.

The upper limit in final texture resolution is capped by your GPU memory. You can also take super widescreen pictures without caring about window format.

All necessary functions are accessible, allowing you to integrate the screenshot functionality into your game or application, potentially allowing users to take screenshots themselves.

Additional Info:

Super Sampling is a quite performance intensive method and is best used with care. Resolution Multiplier values above 1 will improve image quality at increased performance cost, while values below 1 may be used to reduce rendering time by lowering image quality. Keep in mind that some Algorithms may not improve, even degrade your image below a certain scaling. Nearest Neighbor scales very linearly, while both "High" start looking good at a Multiplier of 2.

The resolution Multiplier of **1.25 - 2** brings great visual results at reasonable performance cost, and values over 2 should be used with caution. Multiplier 2 already gives a very high quality image and can be considered "luxury". Letting your user choose his/her own value is generally a good idea in case of games and makes sure your project properly uses end-user hardware and looks good a couple years down the road!

View the change log in your Asset Store download window. If you enjoy SSAA, consider giving us a rating (or shoutout), more interest allows us to add more features and polish! **Have fun!**

You can read the **patchlog** in your Asset Store download window.

For more great assets and support, visit www.flowfiregames.com

