Smooth Sprite Outline
by Codekeep

DESCRIPTION

Smooth Sprite Outline is a Shader program designed to draw a customizable outline around a sprite. It works without the need to create additional layers or camera effects – it's as simple as creating a new material and assigning it to a Sprite Renderer Component. The Shader is structured to only use one draw pass to make it compatible with dynamic batching. For more information on the subject please refer to the Unity official documentation on dynamic batching.

The following Shader parameters are available after creating a material:

- **Outline Quality** – There are 3 quality types to choose from.
  - *Simple* – draws an outline in 4 directions of the sprite. It i salso the most efficient quality level.
  - *Simple With Diagonals* – similar to *Simple*, but draws an outline in 8 directions instead of 4. It's a bit more resource consuming, but provides a much better visual result.
  - *Smooth* – draws an 8-sided outline, and also simulates a blur, which results in a much more pleasant, smooth look. Its considerably more expensive than the former two types. When developing for Mobile, it's advised not to create too many sprites with *Smooth* outline types at the same time.

- **Outline Color** – The tint for an outline, and also its alpha value.
- **Outline Size** – Thickness of the outline.
- **Outline Power** – The color intensity of an outline.
- **Transparency Tolerance** – How the sprite's source image transparency should be interpreted while drawing the outline. A value of 1 (default) means, that the outline wont be drawn where the sprite's alpha is fully opaque. It produces a nice smooth contour outline around the sprite. Values below 1 render the outline color even when the sprite's alpha is equal to 1, which results in a „filled" outline. Values above 1 change the threshold at which the outline is drawn for semi-transparent sprites.

ADDITIONAL INFO

In order for this effect to work, the sprite needs an additional margin of transparency – this is where the outline will be drawn. Default sprite import settings trim the excess transparency. This can be readjusted by changing **"Mesh Type"** to **"Full Rect"** in the Sprite Import Settings.

If changing the import settings does not solve the problem completely, Smooth Sprite Outline package contains a component called **"Expand Sprite Rect"**, which is designed specifically to fix this issue. To use it, add the component to the same object your Sprite Renderer is on, and move the "Expand Amount" slider until a satisfying effect is achieved. The generated sprite is automatically assigned to the Sprite Renderer, so the Expand Sprite Rect component can be safely removed after that. It also features an option to export the generated texture and

save it in the project for further use. Please note, that in order to create an expanded texture copy, the original texture has to be marked as Read/Write enabled in the texture import settings. This option can be turned off after the expanded texture is generated.

Smooth Sprite Outline examples can be found in scene: **SmoothSpriteOutline_Example**.

Thank you for buying Smooth Sprite Outline, I hope the asset will be suitable for your needs! Feel free to send any questions or requests to codekeep.assets@gmail.com.

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