

Spacetime

This component allows you to deform meshes with gravity wells. This feature is useful if you want to visualize gravity, or need to create bomb effects in the style of Geometry Wars and other games.

Gravity wells can be added via the context menu for this component, or by adding the `SgtSpacetimeWell` component to a `GameObject`.

Color

This allows you to set the final color tint.

Brightness

This allows you to set the final color brightness. This is useful in combination with HDR.

Render Queue

This allows you to set which render queue group the spacetime will be placed in. By default this is set to Transparent, but you can also use Background if you want the spacetime to render before other transparent objects.

Render Queue Offset

This allows you to tweak the render queue position. For example, the Transparent render queue is 3000, so an offset of 5 will set the render queue to 3005.

Main Tex

This allows you to set the main texture applied to the meshes (e.g. a grid).

NOTE: This texture's **Wrap Mode** should be set to **Repeat**.

Tile

This allows you to set how many times the texture will be tiles across the meshes.

Ambient Color

This allows you to set the base color of the spacetime.

Ambient Brightness

This allows you to set the base color brightness of the spacetime.

Displacement Color

This allows you to set the color of the spacetime depending on how much it gets deformed.

Displacement Brightness

This allows you to set the color brightness of the spacetime depending on how much it gets deformed.

Highlight Color

This allows you to set an additional color of the spacetime depending on how much it gets deformed.

Highlight Brightness

This allows you to set an additional color brightness of the spacetime depending on how much it gets deformed.

Highlight Scale

This allows you to set how powerful the additional highlight will be before it's sharpened.

Highlight Power

This allows you to set how sharp the additional highlight will be.

Displacement

This allows you to set how the spacetime meshes will be modified. The Pinch mode causes any vertices within a well's radius to be attracted toward its center. The Offset mode causes any vertices within a well's radius to be pushed in a specific direction.

Accumulate

If you enable this, then each spacetime well will distort the spacetime meshes using the original mesh data and the final result will be added together. This means the spacetime mesh will look the same, regardless of the spacetime well order.

If you disable this, then the wells will be applied one at a time, giving the first well a higher impact if multiple wells cover the same area.

Power

This allows you to set how strong the pinching effect is.

Offset

This allows you to set how far vertices should be moved if they're within a spacetime well.

Renderers

This allows you to set which renderers (e.g. MeshRenderer) the effect will be applied to.

Use All Wells

If you enable this then the spacetime meshes will automatically be distorted with all the SgtSpacetimeWell components in the scene that are enabled.

If you disable this then you must manually specify which wells you want to use in the list below.

NOTE: There's a limit of 12 activate spacetime wells.

Require Same Layer

If you enable this, then the wells that get automatically added to the spacetime must have the same layer.

Require Same Tag

If you enable this, then the wells that get automatically added to the spacetime must have the same tag.

Require Name Contains

If you enable this, then the wells that get automatically added to the spacetime must have a name that contains this string.

Wells

This allows you to set which wells will be used to deform the spacetime meshes.

[CONTEXT] Update Material

This option will force the spacetime material and its settings to be updated.

NOTE: This should automatically get called when modifying values in the inspector.

[CONTEXT] Update Wells

This option will force the wells to be updated.

NOTE: This should automatically get called when modifying values in the inspector.

[CONTEXT] Apply Material

This option will add the current material to all Renderers.

NOTE: This should automatically get called when modifying values in the inspector.

[CONTEXT] Remove Material

This option will remove the current material from all Renderers.

NOTE: This should automatically get called when modifying values in the inspector.

[CONTEXT] Add Well

If you choose this a new well will be added as a child of this GameObject.