Mesh Tracer

Dog Eat Dog Games

Thank you for your purchase!

Links

Tutorial Videos on how to use this tool:

https://www.youtube.com/playlist?list=PLc2O4sFLm5sQ94P6NUQdmGISNlnfa3Omt

Support forum:

http://www.dogeatdoggames.com/#!support/c1x9v

(support link may change, visit www.dogeatdoggames.com and navigate to support)

Checkout some of our other tools or games here:

www.dogeatdoggames.com

www.facebook.com/dogeatdoggames

www.twitter.com/dogeatdoggames

What's Included

- **Tons of premade Particle Effects and Trail Renderer prefabs to get you started.**
- **5 example scenes**
- **4 unique scripts**
    - Vertex Particles
    - Vertex Tracer
    - Triangle Tracer
    - Edge Tracer

Examples

- Beach – relax at a particle beach!
- LineTracer – create awesome effects on top of 3D models.
- NightClub – get your dance on.
- Random – an overview of many different effects.
- Tree – an artistic tree scene.

Scripts

This section describes the parameters used in each core script.

Vertex Particles

- Wave animation – control particle animations.
    - AnimCurve – curve of the animation
        - If type == static, this controls the grow/shrink over time.
        - If type == wave, this controls the position of the wave over time.
    - AnimTime – time it takes for one cycle of the animation to complete.
    - Min/max size – min/max size of the emitted particles.
- Particle LifeTime – the lifetime of each emitted particle.
- Particle System Prefab – use particles from this prefab.
    - Note: In this script, we often have hundreds of verticies, so the script emits 1 particle at each vertex, instead of instantiating an entire particle system at each vertex.
- OnStart – PlayEffect () in the Start() method
- HideMesh – hide the original mesh when you play the effect
- Type
    - Static – put 1 particle at every vertex point. Make it grow/shrink with the waveAnimation.
    - Wave_Right (and other directions) – grow/shrink particles in a wave across the mesh in local space.
- numTracers – for the wave animations, number of waves we can simultaneously move across the mesh.
- percentVerticies – what percent of the verticies to use (setting to a low value improves performance on larger meshes).
- randStartPos – for the wave animations, start the waves at random positions on the mesh. If this is false, the waves will be evenly spaced.

Vertex Tracer

- Trace animation – control tracer animations.
    - AnimCurve – curve of the animation
        - This controls the postion of the tracer over time.
    - AnimTime – time it takes for one cycle of the animation to complete.
- Particle System Prefab – use a tracer from this prefab.
    - Note: In this script, this must be something with a TrailRenderer attached to it. The script then creates multiple instances of the prefab and moves them across the mesh.
- OnStart – PlayEffect () in the Start() method
- HideMesh – hide the original mesh when you play the effect
- Type
    - All of these types work by instantiating 1 or more instances of the Particle System Prefab. It then moves them across the mesh in different patterns, using TrailRenderes to draw lines.
    - Natural – move through all verticies, use whatever order they we loaded into the machine with.
    - Random – move through each vertex, ordered randomly.
    - Right,Left,Up,etc – move through each vertex, ordered in local space using the direction specified.
- numTracers – for the tracer animations, number of tracers we can simultaneously move across the mesh.
- randStartPos – for the tracer animations, start the tracer at random positions on the mesh. If this is false, the waves will be evenly spaced.

Triangle Tracer

-
- Line animation – control tracer animations.
    - AnimCurve – curve of the animation
        - This controls the postion of the tracer over time.
    - AnimTime – time it takes for one cycle of the animation to complete.
- Tracer – use a tracer from this prefab.
    - Note: In this script, this must be something with a TrailRenderer attached to it. The script then creates multiple instances of the prefab and moves them across the mesh.
- Type
    - All of these types work by instantiating 1 or more instances of the Particle System Prefab. It then moves them across the mesh in different patterns, using TrailRenderes to draw lines.
    - All – trace out every triangle. This is very expensive for high poly meshes.
    - Loop – trace out each triangle, 1 by 1, using their natural order.
    - Trace Random – trace out each triangle, in random order.
    - Trace Connected – trace out each triangle, moving across touching triangles.
    - Disco – trace out 'numTracer' number of triangles at once across the mesh. Get new triangles every animation loop.
- numTracers – for the tracer animations, number of tracers we can simultaneously move across the mesh.
- OnStart – PlayEffect () in the Start() method
- HideMesh – hide the original mesh when you play the effect
- randStartPos – for the tracer animations, start the tracer at random positions on the mesh. If this is false, the waves will be evenly spaced.
- Debug – display the triangles being traced in the Scene view.

Edge Tracer

- Line Tracers – list of lines used to trace out the mesh.
    - Name – name each line in the inspector.
    - Draw Point – where the edge is drawn from (Only valid of IntantDraw is disabled and if start/end times for each LineTracer have been set).
    - Start Time – the time after calling AnimatedDraw(), that this line will start drawing.
    - End Time – the time after calling AnimatedDraw(), that this line will end drawing.
    - Curve – each edge on your mesh is replaced with this curve.
    - Amplitude – height of the curve.
    - LineMat – material used in the LineRenderers that get created.
    - Start/End Color – start/end color of each line.
    - Start/End Width – start/end width of each line.
    - Line Segments – line segments in each line, reduce when possible to increase performance.
- Use Outline – only use the outline of the mesh, instead of the whole thing. Significantly improves runtime performance when enabled.
- On Start – start tracing the edges OnStart().
- InstantDraw – draw the edges instantly, instead of using start/end time.
- HideMesh – hide the mesh when you draw lines.
- OnFinish() – add events that get called when the edge has been traced.

Trail Renderer Helper

- This helper class handles the issue where trails persist though disable-move-enable logic.

Sources

- SpaceShip Model - http://www.turbosquid.com/3d-models/free-max-model-space/588767
- Stone Pine Tree Model- http://www.turbosquid.com/3d-models/realistic-stone-pine-obj/857432
- Triangle Renderer Helper - http://forum.unity3d.com/threads/trailrenderer-reset.38927/
- Unity Standard Assets Packages
  - Camera
  - Particle Effects
- Sky5X Unity Skyboxes - https://www.assetstore.unity3d.com/en/#!/content/6332

License Info

Subject to Unity's EULA: http://unity3d.com/legal/as_terms