

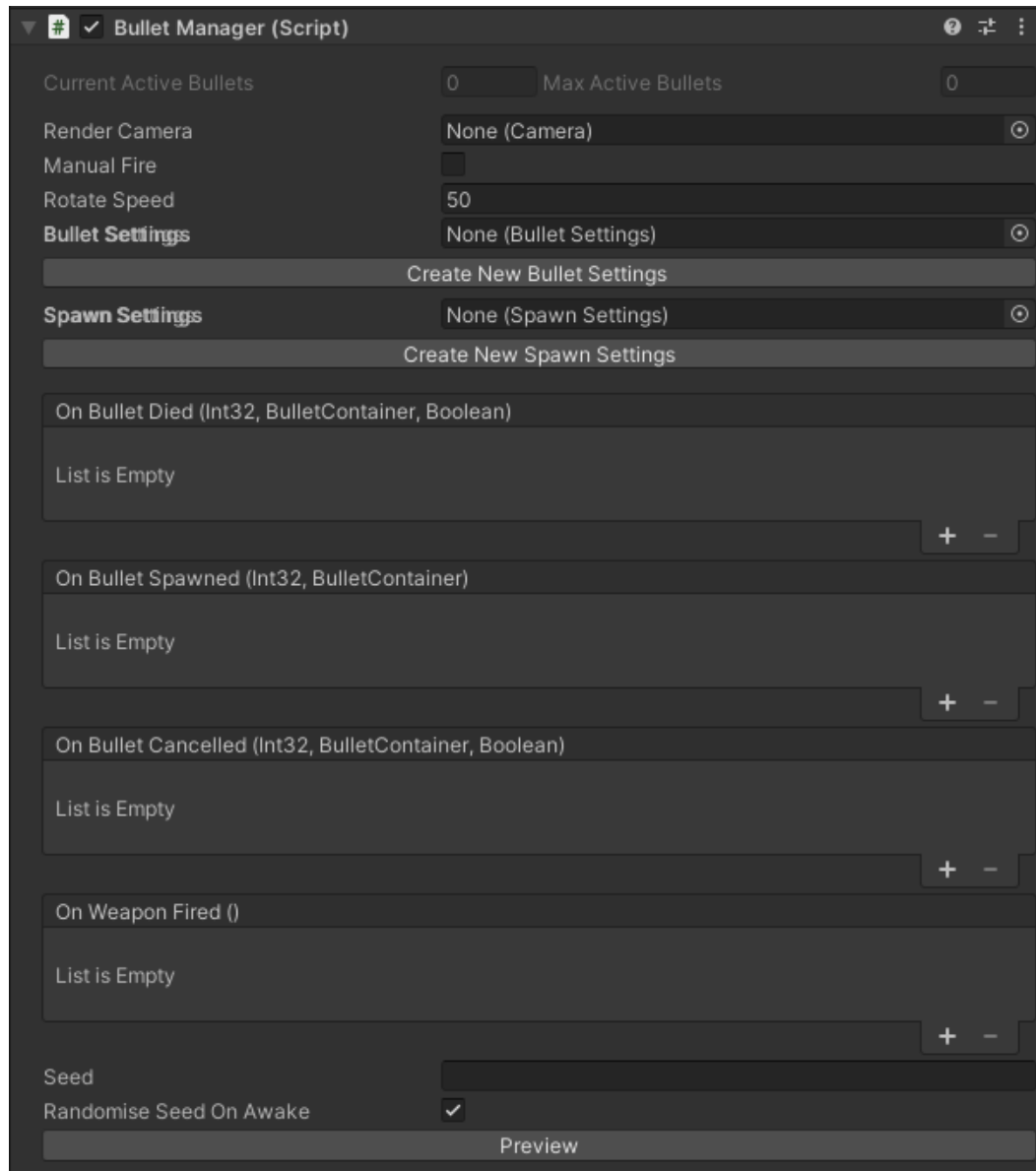
BulletFury

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Bullet Manager

This asset revolves around the “Bullet Manager” component. Attach it to a gameobject, and you should see the following:



There are a few things to note here:

- **Draw Camera:** the camera to use for rendering. If this is null, it will render as an overlay – i.e. above everything else in the game.
- **Manual Fire:** should this bullet wait for calls to Spawn to fire bullets, or should it fire them automatically?

- **Rotate Speed:** should the bullet manager rotate? If so, at what speed? This does not rotate the object, it just applies a rotation to any calls to Spawn
- **Bullet Settings:** this controls the properties of the bullets – more on this later. Pressing the button will create a new Bullet Settings file – Assets/New Bullet Settings.asset.
- **Spawn Settings:** this controls how bullets are spawned, including spawn rate, quantity, bursts, etc.
- **Events:** there are several events that can be listened to, to help do various things when bullets are created/destroyed/cancelled
- **Seed:** used for randomisation. Set a seed here to ensure randomised bullet patterns use the same random seed.
- **Randomise Seed On Awake:** this will set a new random seed when the game starts

API

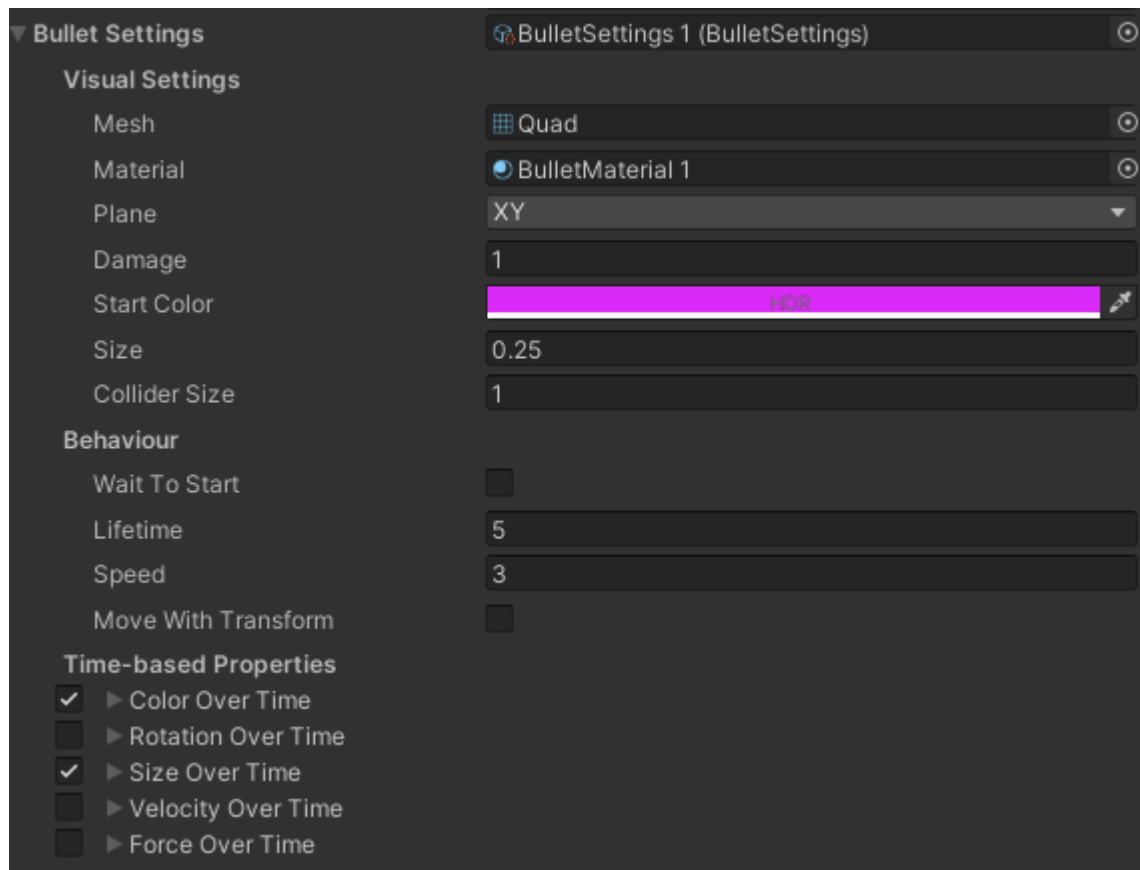
Spawning

```
bulletManager.Spawn(transform.position, forward: bulletManager.Plane == BulletPlane.XY ? transform.up : transform.forward);
```

To create bullets, use `bulletManager.Spawn` – passing through a position and forward direction. This will usually be `transform.position` and `transform.up` (in the X-Y Plane)/`transform.forward` (in the X-Z plane).

Bullet Settings

The bullet settings asset controls the bullet visuals and properties.



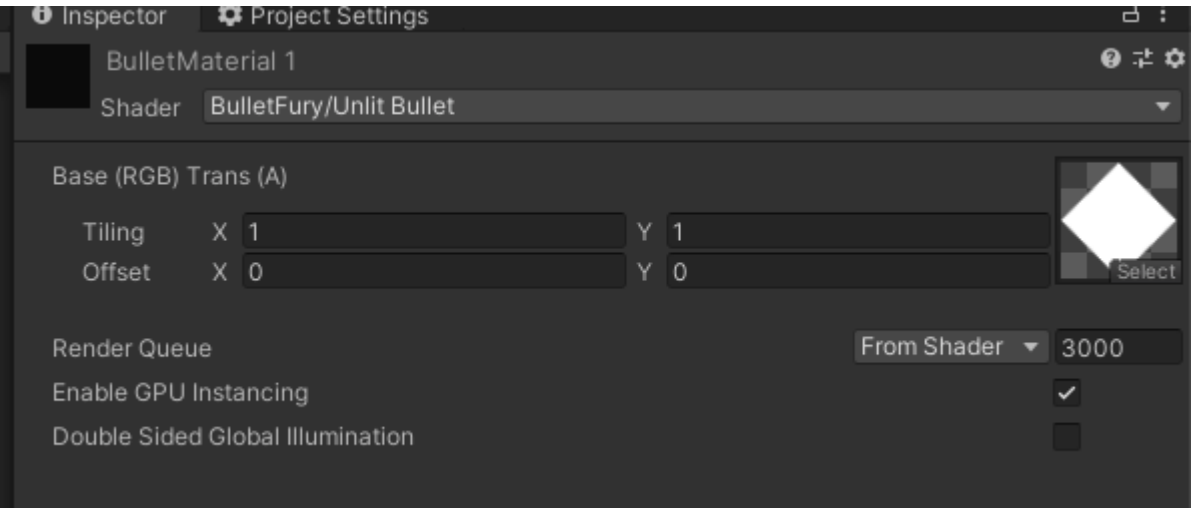
The settings themselves should be fairly self explanatory – though there are a couple of things to note.

Mesh

If you're using 2D bullets, use the "Quad" Mesh here, it should be available if you click the little target icon.

Material

You will **need** to use the "**BulletFury/Unlit Bullet**" shader for your material, and **enable GPU Instancing**. Without this, your bullets won't be visible!



Spawn Settings

The spawn settings asset controls how the bullets are spawned. It can also be used elsewhere for any other types of spawning (e.g. enemies, collectibles, etc).

▼ Spawn Settings

SpawnSettings 1 (SpawnSettings)

Fire Rate0.1

Burst Count1

Burst Delay0.45

Spawn DirSpherised

Num Sides20

Num Per Side1

Radius1

Randomise☐

Arc360

Collision

Use the BulletCollider component to get collisions between objects and bullets. This system **does not interact with Unity's physics system**. This is intentional, it is a multithreaded custom physics simulation. It currently supports spheres, axis-aligned boxes and oriented boxes.

