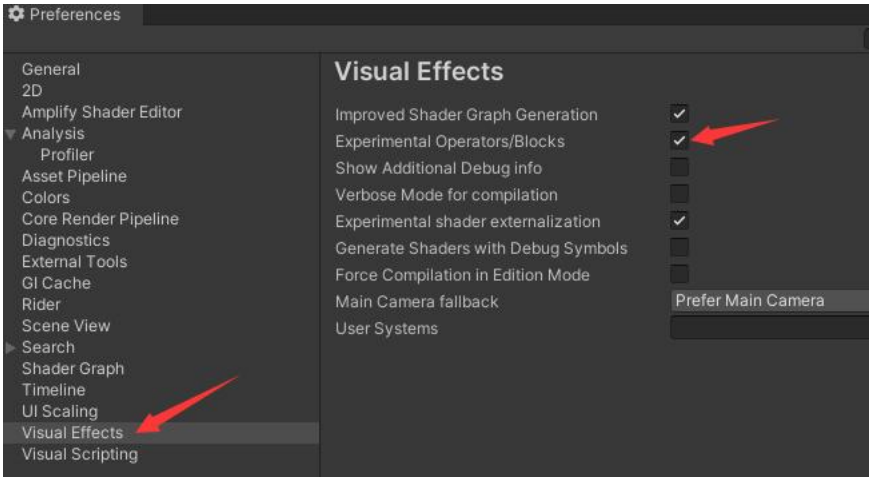
Documentation：

BoidsVFX must used with CS_Boids VFX Script together

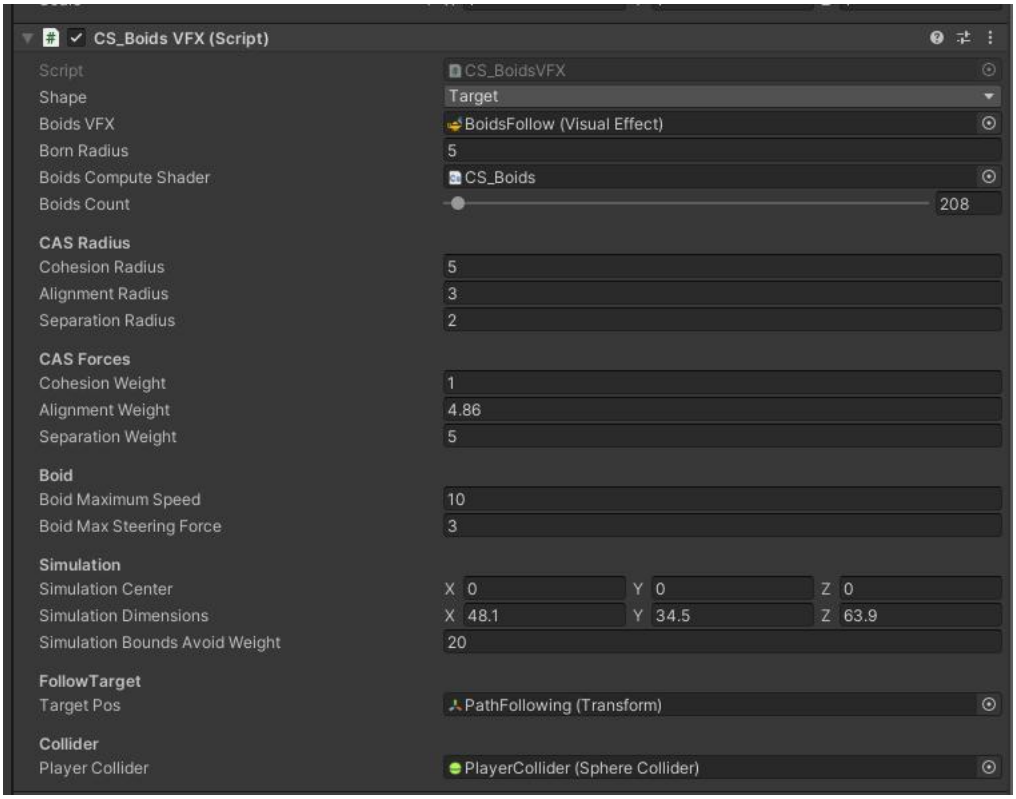
VFXGraph particle system settings：

If you don't see the option to put Shader Graph in the VFXGraph interface, then select Visual Effects in Editor-->Preferences and enable Experimental Operators/Blocks, and then you will see the settings to put in Shader Graph

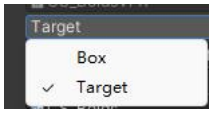


Parameter description

CS_Boids VFX：



Shape:



Box： fish move freely within a box range； Target: fish follows a target

Boids VFX: Fish VFX Graph

Born Radius: The radius of the fish when they spawn, and the spawn range is shown as a green ball in the Scene

Boids Compute Shader: Compute Shader that calculates fish movement

Boids Count: Fish Count

CAS Radius

Cohesion Radius:Each fish will have a convergence effect with other fish within this range The higher the value, the more fish per cluster

Alignment Radius:Each fish will move in line with other fish in this range The higher the value, the more fish will swim in one direction

Separation Radius:The greater the separation value of each fish from other fish in this range, the more scattered the fish will be

CAS Forces

Cohesion Weight: The higher the value, the denser the fish will gather

Alignment Weight: The higher the value, the less likely it is for the fish to separate

Separation Weight: The higher the value, the easier it is for the schools of fish to separate and how much of the force that gathers exceeds the force that separates, the fish will superimpose

Boid

Boid Maximum Speed: The higher the value, the faster swim

Boid Max Steering Force: The higher the value, the faster the fish turn

Simulation

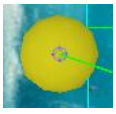
Simulation Center:

Simulation Dimensions:

Simulation Bounds Avoid Weight: The amount of force that a school of fish will experience at the boundary of the simulation, if it is 0, the school of fish will swim out of the boundary

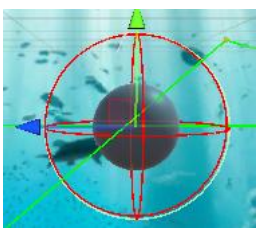
Follow Target

Target Pos: If shape is set to Target, the fish will follow the object, and the ball will be solid, yellow

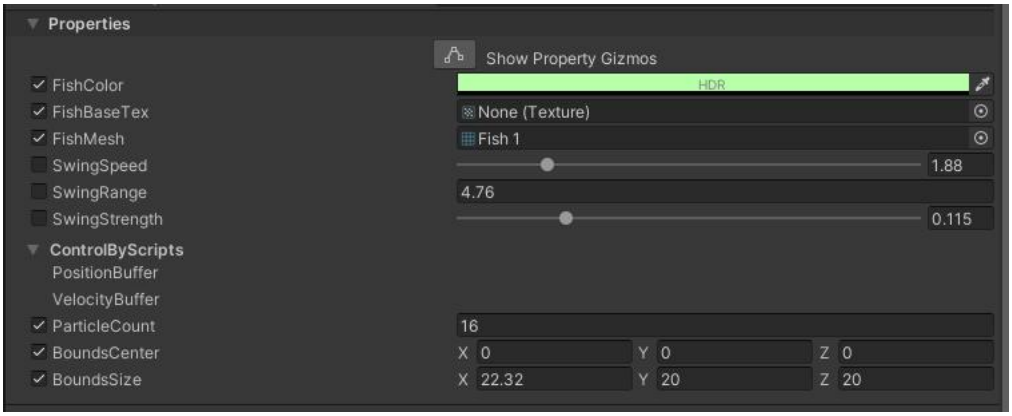


SphereCollider

PlayerCollider: The fish will bypass the collision of the set object, and will be displayed as a red ball after the setting, and the radius of the Collider can be adjusted directly



BoidsVFX:

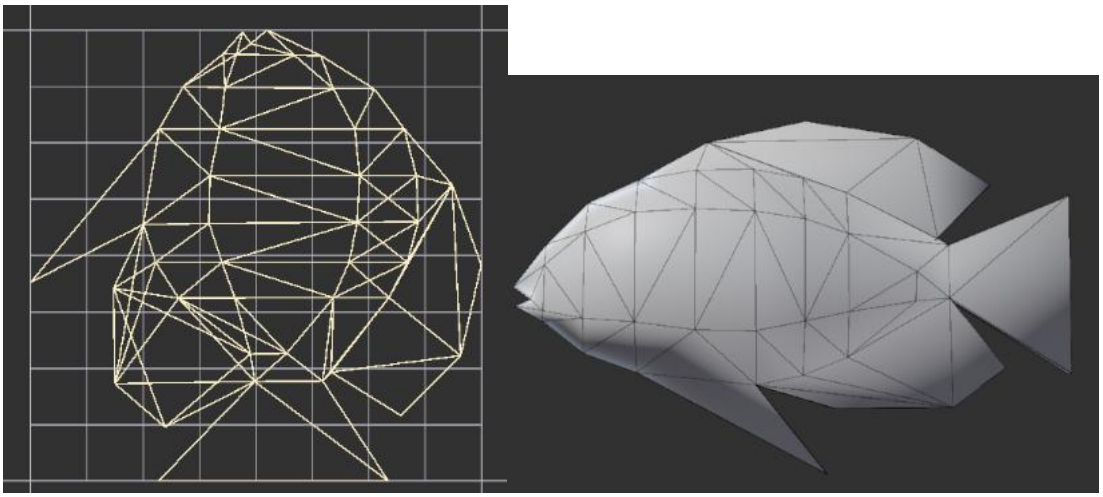


FishColor:
FishBaseTex:
FishMesh:
SwingSpeed: The swimming swing speed of each fish
SwingRange: Swimming swing range for each fish
SwingStrength: The strength of the swimming swing for each fish

ControlByScritps: The following parameters are controlled by CS_Boids VFX scripts
PositionBuffer:
VelocityBuffer:
ParticleCount: Controlled by Boids Count
BoundsCenter: controlled by the Simulation Center
BoundsSize: controlled by Simulation Dimensions

About the fish model and shader:：

The UV of the fish model is this



Shader will use the vertex function and the V direction of UV0 to offset the vertices to form the animation of the fish swinging. If the UV of your model is not like this, you need to change the Shader to adjust the swimming animation.