

Butterflies asset.

Introduction

This assets provides you to place area with butterflies on different surfaces. They have they own behaviour, and it depends on flying time and how close is player to them. You can explore example scene in Assets/Butterflies/Scenes/

Prefabs

There are two prefabs in folder Assets/Butterflies/Prefabs. The first one is Butterfly that is example of prefabs you can use [Image 1].

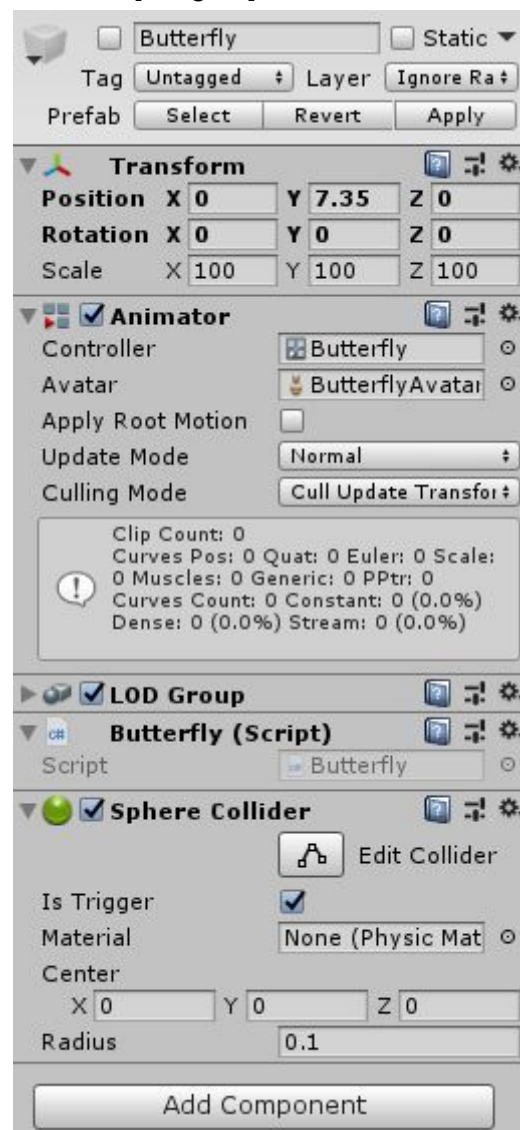


Image 1. Components of Butterfly prefab.

Every butterfly must have Animator, with one variable called State, and Sphere Collider trigger which detects Players nearby.

And the second is ButterflyArea. You can use it on any scene.

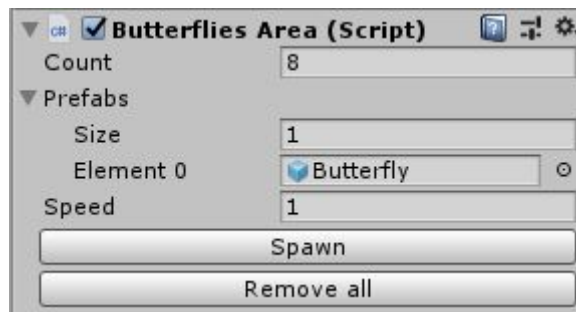


Image 2. ButterfliesArea component.

It has component ButterfliesArea [Img. 2]. You can pick the number of butterflies that you want to place. You can put array of prefabs in it. And also you can save the speed of butterflies.

This component has 2 buttons. Spawn - spawns GameObjects from random prefab. And all butterflies will be placed on the surface. RemoveAll - destroys all objects in current area.

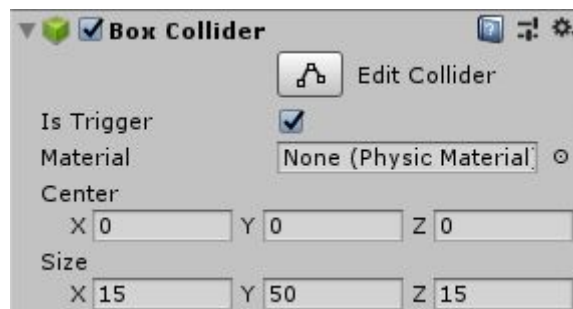


Image 3. Box Collider of ButtergliesArea prefab.

Box collider [Img. 3] on this object defines the area where butterflies can be spawned. The y Axis of size defines how high can butterflies fly.

If you don't want to change code in this asset it is enough to use this prefab.

Scripts

ButterfliesArea.cs

Component controls butterflies in current area.

public void InitializeAllButterflies() - initializes all instances of Butterfly components in child objects.

public void RemoveButterflies() - deletes all child GameObjects with Butterfly component.

public void SpawnButterflies() - spawns or destroys butterflies until their number equals to count filed.

public void SpawnButterFly() - spawns GameObject from random prefab.

public void MixPositions() - mixes positions of Butterflies.

protected GameObject GetRandomPrefab() - get random prefab from array.

protected Vector3 GetFreeRandomPoint(out Vector3 normal) - get random point on the surface, and out of this method is normal of the surface.

Butterfly.cs

Component that controls animation and behaviour of butterfly.

internal void Move() - main behaviour of butterfly. It can fly inside box, and sometimes stay on the surface. If player comes close to it, it will fly away from him.

internal void Initialize(ButterfliesArea butterfliesArea) - initialization method.

public void AddPlayer(Transform t) - add Player near the butterfly who needs to be avoided.

public void RemovePlayer(Transform t) - remove Player from avoidance list if he is far enough.

ButterfliesAreaInspector.cs

Custom inspector for ButterfliesArea comopnent.