Bird Flock Documentation

Online Documentation
Assets available at the Unity Asset Store.
Bird Flock Complete Bundle
Bird Flock Bundle
Bird Flock Bundle II
Toon Bird Flock Bundle

Custom bird prefab

Create a new bird prefab using a custom bird model.

1. Make sure the custom model uses the **Legacy** animation system. (version 3.0+ allows Generic)
2. Drag the custom model to the scene.
3. Duplicate an existing Bird prefab in the project.
4. Drag the new prefab to the scene.
5. Drag the custom model in scenel into bird game object.
6. Adjust scale, rotation and position so that it aligns with the current bird.
7. Configure animations of custom model.
8. Delete old model.
9. Rename custom model to "Model".
10. Click apply in the inspector to save changes.
11. Drag the new prefab into desired Bird Flock "Bird Prefab" property.

Free moving flock

Flock that can be moved around in the scene.

1. Set roaming area to ***0,0,0***. So that only the flock box is visible.
2. Disable ***Group to flock***. Now birds will not be connected as child objects to the flock gameObject.
3. Set ***Automatic flock waypoint*** to **1**. This will make the flock follow the new position faster.
4. Enable ***Force Bird Waypoints*** This makes birds also change direction when the flock has been moved.

Baked birds

Use a series of regular meshes instead of skinned mesh to improve preformance, at the cost of crossfading.

For more information see example scenes and prefabs located in the **Baked (preformance)** folder.
Bird prefabs with baked animations can be used in any previously made flock.
To create custom baked animations there is a handy tool created for that in the Asset Store
SkinnedMesh Baker

Properties

Roaming area	Area that the flock flies within.
Area width, depth, height	X, Z, Y
Grouping	
Group to flock	Parent each bird as a child of the flock object.
Group to new game object	Create a new parent object.
Group name	Name of the parent object.
Size of the flock	
Bird amount	Number of birds to spawn when the game starts.
Flock width, depth, height	X, Z, Y
Start position offset	Offset the position the flock is instantiated.
Slow spawn birds	Slowly instantiate birds on at a time.
Behaviour and appearance	
Birds min / max speed	Speed of each bird. (Randomly set each waypoint change)
Birds dive depth	How far to dive.
Birds dive chance	Make birds dive downwards randomly.
Birds soar chance	Randomly makes birds soar instead of flapping wings. (Triggered at waypoint)
Soar time	How long birds soar (0 = Always)
Birds min / max damping turns	How fast birds should turn towards next waypoint. (Bigger number = faster turns)
Birds min / max scale	Randomize size of birds when added
Disable Pitch Rotation	Flattens out rotation when flying or soaring upwards
Flat Soar	Disable rotation when soaring.
Flat Fly	Disable rotation when flapping wings.
Animations	
*** animation	Name of animations (Must exist in model animation list)
Bird Trigger Flock Waypoint	
Bird Trigger Waypoint	Birds waypoint triggers a new flock waypoint.
Distance To Waypoint	Distance from waypoint before trigger.
Automatic Flock Waypoint	Automatically change the flock waypoint
Auto Waypoint Delay	(0 = never)
Force Bird Waypoints	
Force Bird Waypoints	Force all birds to change waypoints when flock changes waypoint.
Bird Waypoint Delay	Randomized delay for changing waypoints.
Avoidance	
Bird Avoid	Birds will steer away from colliders (Ray)
Collider Mask	Collision layers to avoid.
Avoid Horizontal Force	How fast to steer when avoiding.
Min / max avoid distance	How far away bird should be before starting to steer away from objects.
Bird Avoid Up	Avoid objects above.
Bird Avoid Down	Avoid objects below.
Avoid Vertical Force	How fast to steer away from objects above and below.

Landing Spots

Landing spots is used to make birds able to land on manually set positions. Landing spots have to be placed within a Landing spot controller. Please see landing spot example scenes.

Auto Catch Delay	How often the landing spots should try to find a bird to land on it. Min/Max sec.
Auto Dismount Delay	How long a bird should sit on a landing spot. Min/Max sec.
Max Bird Distance	Max distance a bird can be to be captured by a landing spot.
Min Bird Distance	How far away a bird has to be to be captured. (to avoid landing spot capturing birds too close or the same bird once it has been released)
Take Closest	Landing spot finds the closest possible bird to land.
Flock	Bird Flock that the landing spots will find birds.
Land On Start	Find birds to land instantly on start.
Only Birds Above	Only land birds above the landing spot, avoid strange behaviors.
Landing Speed Modifier	Modifies the birds speed when they land, adjust manually to improve landing.
Landing Speed Turns	How fast birds turn when landing.
Feather PS	The feather particle object.
This T	Cached transform object.
Active Landing Spots	Keeps track of how many birds have landed or are landing.
Snap Land Distance	Snaps the bird in place once it gets within a certain distance.
Landed Rotate Speed	How fast birds rotate to the correct position after landing.
Gizmo size	Editor gizmo sizes.

Misc functions

A selection of functions that could be useful for controlling the flock behavior.
LandingSpotController.ScareAll(); Scares all birds that are sitting on landing spots.

Convert to URP or HDRP

https://docs.unity3d.com/Packages/com.unity.render-pipelines.universal@15.0/manual/features/rp-converter.html

More information about functions can be found in the code comments.
For additional information or help, please visit **support**.