

Insect VFX [HDRP, URP]

User Guide



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Package requirements (dependencies):

High-definition rendering pipeline/Universal rendering pipeline (at least version 7.3.1);
Visual Effect Graph (atleast version 7.3.1, NOTE: URP Particle Lit only works with 12.0.0 and up);

Unity version 2019.4 and up (NOTE: URP Particle Lit only works with Unity version 2021.2 and up);

Post-processing stack (optional)

TextMeshPro (optional, this is for text to appear in the demo scene)

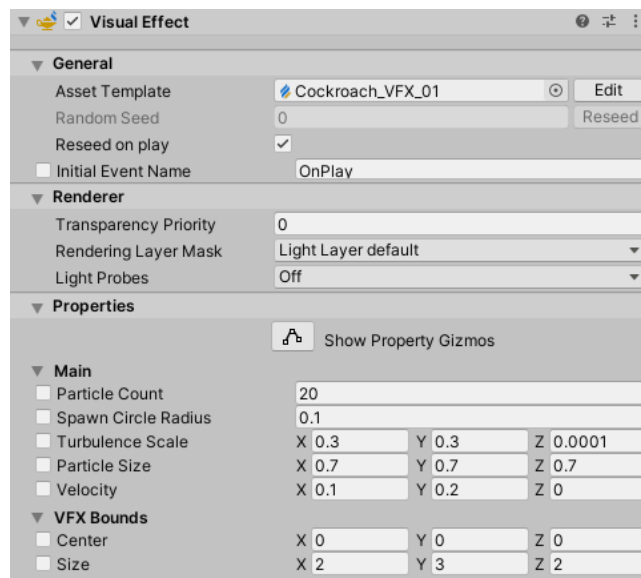
How to use:

1. Drag and drop Visual Effect into the scene;
2. Click on the Visual Effect in the hierarchy to quickly tweak it with exposed parameters.

If more settings are needed to be tweaked open up the Visual Effect in the VFX graph.

- **How to tweak the effect?**

- Drag visual effect into the scene;
- Select the visual effect in the hierarchy;
- Tweak in the Inspector view:



Exposed parametre meanings

Cockroach VFX:

- **Particle Count** – set how many particle are spawned. (Note for the Cockroach_VFX_01 the particle spawning happens constantly, while in Cockroach_VFX_02 it is a single burst);
- **Cockroach Size** – the size of the particles.

- **Spawn Circle Radius** – the circle radius size where the particles are spawned;
- **Turbulence Scale** – turbulence generates a noise field which applies to the particle's velocity, set how big it is.
- **Cockroach Size** – the size of the particles.
- **Velocity** – velocity of the particles.
- **Particle Lifetime Min/Max [Random]** – the particle lifetime range, set how long the particles will live on the screen.
- **VFX Bounds Center** - VFX bounds coordinates.
- **VFX Bounds Size** – the VFX bounds size in which effect will be spawned.

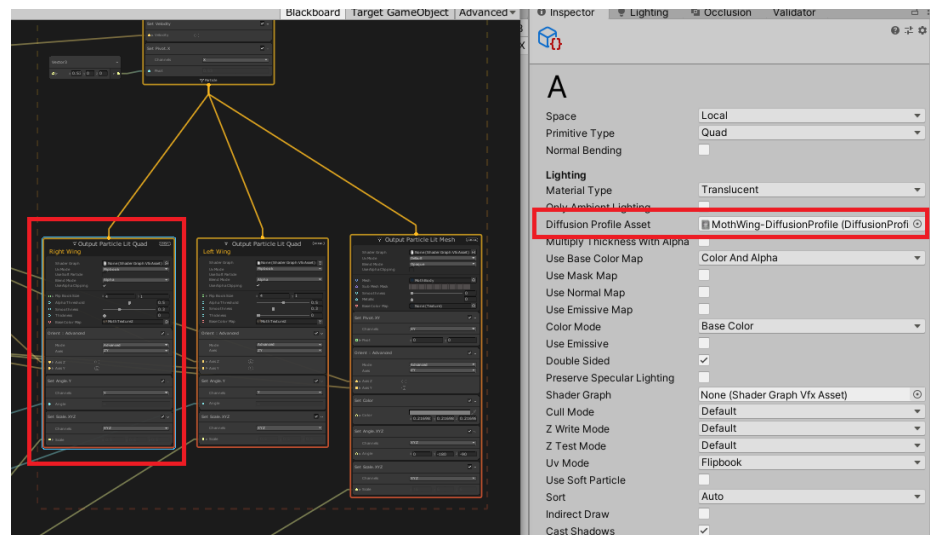
Moth VFX:

- **Moth Size** – the size of moths (this sizes all of the elements: wings & body).
- **Particle Count** – set how many particle are spawned.
- **Spawn Sphere Size** – the sphere radius size where the particles are spawned.
- **Swarm Size** – tweak the swarm size (the lower the number is the tighter the swarm).
- **Turbulence Scale** – turbulence generates a noise field which applies to the particle's velocity, set how big it is.
- **Moth body tilt** – tweak how much is the moth tilted.
- **Maximum Velocity** – set maximum velocity so that the swarm would not accelerate infinitely.
- **VFX Bounds Size** – the VFX bounds size in which effect will be spawned.
- **VFX Bounds Center** - VFX bounds coordinates.
- **Wing Flap Frequency Min/Max** - set how frequently the wings are flapped.
- **Wing Flap Angle** – set the minimum and maximum wing flap angle.

Fly VFX:

- **Fly Size** – the size of the particles.
- **Particle Count** – set how many particle are spawned.
- **Spawn Sphere Size** – the sphere radius size where the particles are spawned.
- **Swarm Size** – tweak the swarm size (the lower the number is the tighter the swarm).
- **Turbulence Scale** – turbulence generates a noise field which applies to the particle's velocity, set how big it is.
- **Maximum Velocity** – set maximum velocity so that the swarm would not accelerate infinitely.
- **VFX Bounds Center** - VFX bounds coordinates.

- **VFX Bounds Size** – the VFX bounds size in which effect will be spawned.
- **The moths wings are green, what to do?**
 - The moth visual effect requires Diffusion profile to solve this issue. Please follow these steps if you see the green tint on the wings:
 1. Locate your HdPipeline Asset (Edit>Project Settings...>Graphics>Scriptable Render Pipeline Settings) and click on it.
 2. Find the tab named Material and locate Diffusion Profile List.
 3. Add to the list 'MothWing-DiffusionProfile' profile.
 4. Make sure that the diffusion profile is also set on the moth wings in the Visual Effects Graph by opening the moth effect in the Visual Effect Graph and selecting the Output Particle Lit Quad. The Inspector should show there is a diffusion profile added, if there isn't add 'MothWing-DiffusionProfile' profile on both wings.



Please note that after tweaking diffusion profiles you will need to re-add effects into the project hierarchy in order to work.

- **How to install URP version of the package?**
 - When you import the package from the Asset Store the main extracted asset will be HDRP. To avoid confusion or overwriting your default URP settings please install this package first in an empty new project and get the URP .unitypackage from the Insect VFX [URP] folder. To install it, just simply open the .unitypackage inside the project where you want it to exist. Make sure that you have Visual Effect Graph installed through Package Manager as URP packages do not have it installed by default.

- **Lit versions of the effect do not work on URP, what to do?**
 - The lit URP versions of the effect will only work on Unity version 2021.2 and up, since this feature has only been introduced in this version.
- **What to do if the demo scene does not look as expected/I am having troubles?**
 - This is most likely due to Post-Processing stack. Make sure that you have it installed. This issue can happen because of the HDRP and Post-Processing stack version change. If you are having difficulties please contact info.paulinami@gmail.com and I will gladly help.