

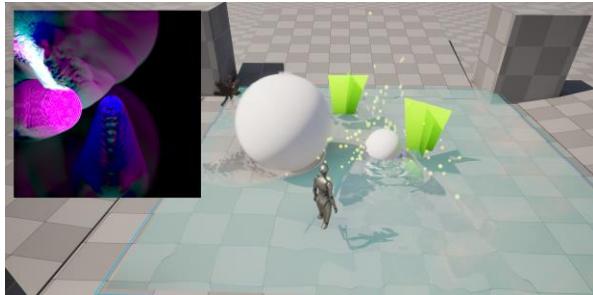
Environmental Interaction System (EIS)

Place the Whole Folder under Root/Plugins/

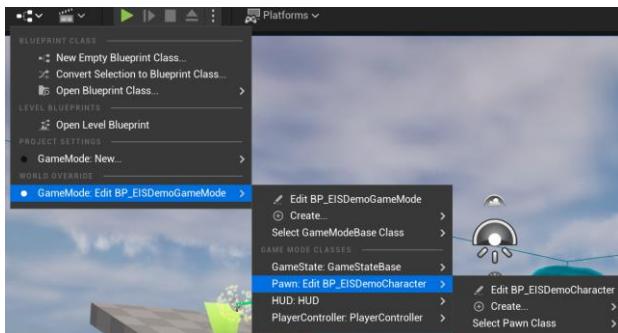
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.vs	25/03/2024 11:26	File
Binaries	07/03/2024 14:37	File
Config	17/05/2024 14:20	File
Content	20/05/2024 15:38	File
DerivedDataCache	07/03/2024 14:38	File
Intermediate	20/05/2024 15:38	File
Plugins	21/05/2024 11:42	File
Saved	20/05/2024 15:38	File
Source	07/03/2024 14:37	File
.vsconfig	07/03/2024 14:37	VSC
ShowCase5_3.sln	07/03/2024 14:37	Visi
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DemoMap

DemoMap should be able to straightly start, a default character will be seen.



If don't, please check GameMode Override and set it to BP_EISDemoGameMode



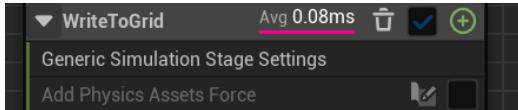
Getting Started

EIS is separate into 2D and 3D.

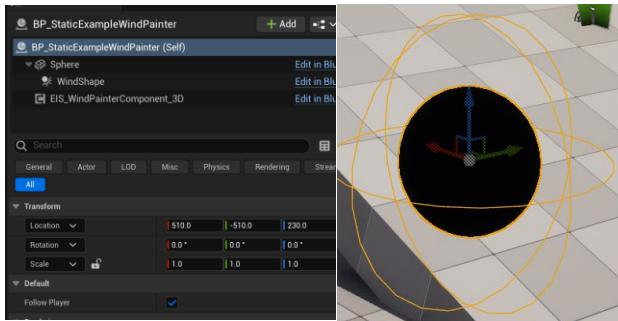


3D can have more vertical interactions || 2D can have more sophisticated horizontal interactions.

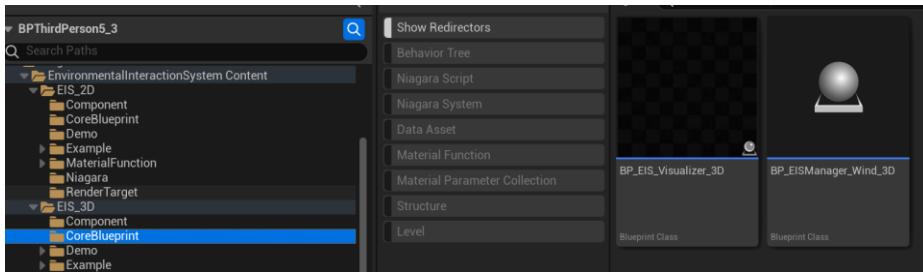
(**SkeletonMesh Interaction with PhysicAssets are turned off by default**, it can be turned on in NS_EIS_FluidSimulation, but make sure player has a physics asset, it will take more performance)



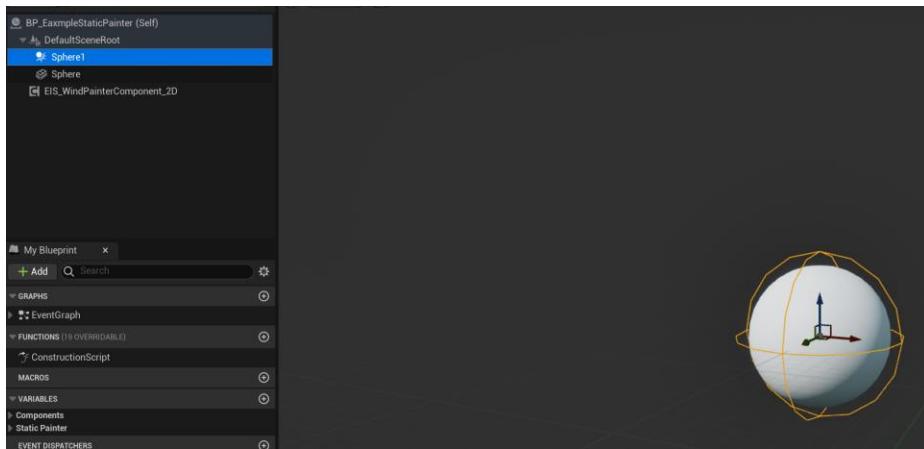
Currently **both 2D & 3D Demo** uses a StaticWindPainter that follows Player to generate interactions.



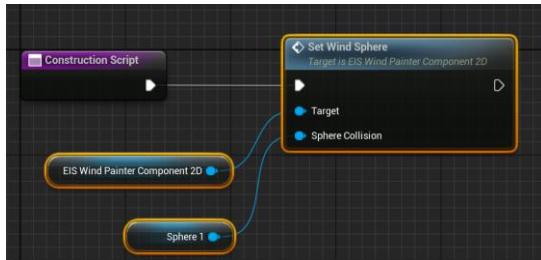
Step1 : Get a Manager into the Level, each level should only have one manager exist.



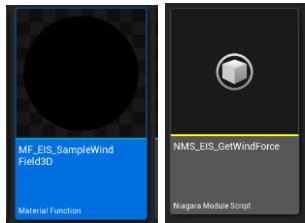
Step2: Add an EIS Component on the Object that you want to generate interaction, also add a Sphere Collision Component to view the Wind Generation Range.



Step3: Call SetWindShape function with EIS component on the Actor Construction Script all begin Event, and give it the Sphere for the wind generation.



Step4: Use Material Function to interact with Material, or NMS to interact with Niagara.



(For more detail please look at the demo setting)

PS: Sometime you can't see the interaction, usually it's the velocity is too small, try tweak the intensity or the velocityScalar on components

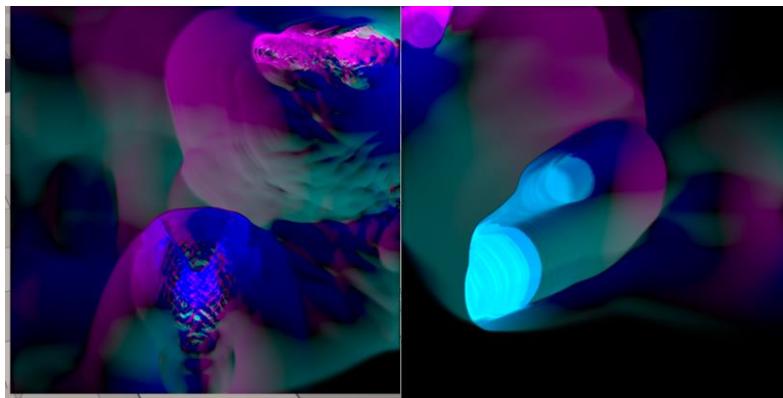
EIS_Manager Overview

You can choose to let the Manager follows Main Local Player or not, and also tweak all the other settings.

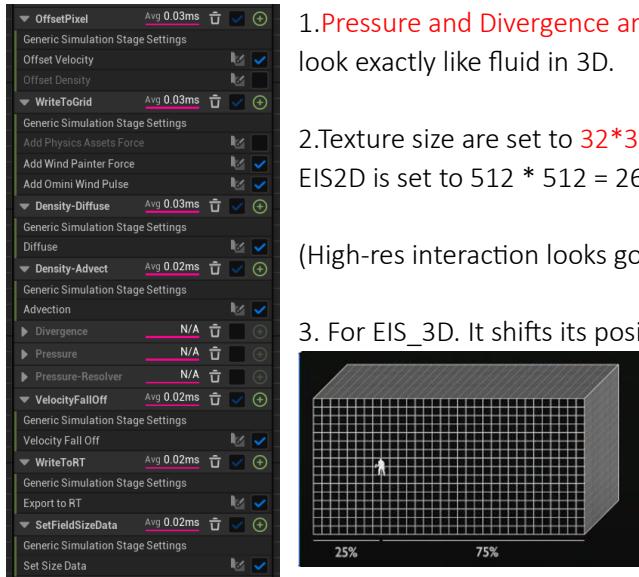


Overrelaxation changes the divergence for the fluid, it reflects the spreading speed.

Usually between 0- 2



Existing Optimization:



1. Pressure and Divergence are turned off by default for 3D since it doesn't need to look exactly like fluid in 3D.

2. Texture size are set to $32 * 32 * 16 = 16384$ (Can go $64 * 64 * 32 = 131072$) by default
EIS2D is set to $512 * 512 = 262144$ by default.

(High-res interaction looks good, but performance increases drastically in runtime)

3. For EIS_3D. It shifts its position to fit in camera view, to cover more view range.

