Documentation

Welcome to the documentation for the UE5 Warehouse Kit.

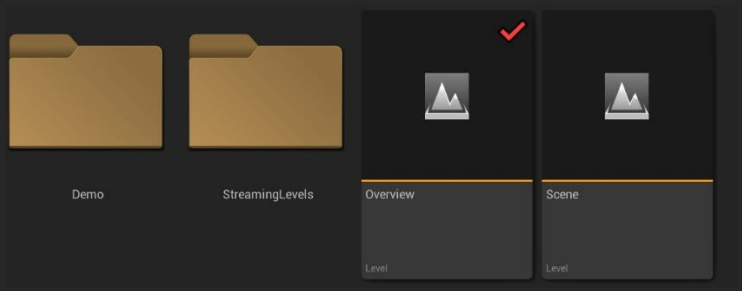
We will keep this documentation short but powerful, in this documentation you can find information on how the environment is constructed, how to control the levels and turn on/off sections of the environment and other general information.

Support email: support@scansmatter.com

Getting Started

This project uses Lumen, you can learn how to activate it HERE if needed.

When loading up the project for the first time it should open on the warehouse level right away. If-not then you can navigate to “Warehouse > Scene” Where you can find multiple levels.



Scene > The main Warehouse Level

Overview > Individual assets laid out for preview

Next to this within the main Warehouse scene you can also use levels to turn on&off sections of the Warehouse. You can do so by going to “Window>Levels”

This is pretty much all you need to know to navigate our environment!

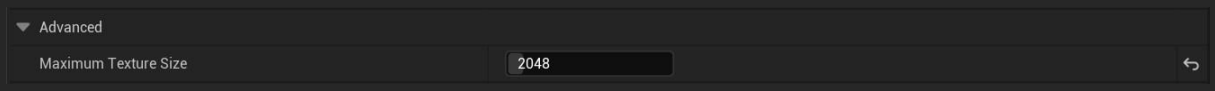
Performance

When you download the environment it will come with Medium settings. (We did already optimize the textures and assets so textures are not rendered at 100% resolution)

You can set the project quality to your liking in the engine scalability settings.

If you experience performance issues (for example due to an older system) we recommend you do the following:

1. Turn off Raytraced Shadows if on, this is often a big performance impact (example command for turning off raytracing: “r.raytracing.ForceAllRayTracingEffects 0”
2. Set texture resolution lower (We already did this to an extend but when opening a texture you can set a lower resolution by going to Compression > Advanced > Maximum Texture Size. – You can also set them higher here as all our textures are 4096x4096



3. Lower the overall quality settings.

How the environment is constructed.

Structure

This environment has been made out of mostly Modular assets that can be used to change the Warehouse into any structure you want. The structural assets feature a master shader with additional roughness control and world space textures.

Assets

Assets have also been made modular where needed. Next to this most of them feature unique textures. (optimized of course) However some assets where it makes sense to change the colors have a special mask in the material so you can change the color of the

assets. (In this environment these are mostly assets with strong colors like orange, blue, white etc.)

Textures

All textures come in PBR 4k resolution and are after that downscaled in engine to have logical texture resolution and performance. You will need to open the textures and reset their resolution to use full resolution.

Textures have been packed in the following way:

Color

- RGB: Basecolor
- A: Cutout alpha (if applicable)

Normal

- RGB: Normal Map

ORME

- R: Ambient Occlusion
- G: Roughness map
- B: Metallic
- E: Emissive

Please note some textures come un-packed in order to work with world-space shaders

Shaders/Master Materials

Our environment has a core master material. In this material you will have multiple controls

1. Basic controls like tilling, color and intensity controls and of course texture inputs,
2. Detail normal support
3. World Space dust support

Next to our master shader we also have some variations based on it which support world space UV mapping and 2-sided rendering. (And we have some very basic materials for plain colors, glass, decals, and foliage)

Lighting

We make full use of Lumen in this scene. All assets have been optimized to work with lumen and follow the lumen technical validation documentation (proper thickness, correct distance field and no light errors) – our assets do not come with traditional lightmap UV's but you can always auto generate those if needed.

All lights have been set-up using blueprints with simple on & off + color controls.

Nanite

All of our assets have been set-up using nanite where possible (some assets use traditional LOD's due to transparent materials)

Please note that even through we use nanite. Our assets are created using traditional workflows and are still at standardized game resolution to work in any engine or DCC application. We make heavy use of weighted normal to push the quality of our assets.

Additional Information

1. This project uses Lumen, you can learn how to activate it HERE if needed.
2. All our assets are made while keeping the default UE character scale in mind.
3. Most scaffolding and boxes with plastic have been set-up in Blueprints for easy assembly and to make them work with nanite.
4. The main focus of this environment was the interior, therefor please understand that the exterior scenes are less polished.
5. All the branding/Advertisements you see are 100% copyright free and created by our in-house graphic designer.
6. We use raytracing to make the wrapped plastic look better. You can turn it off (for example with the command "r.raytracing.ForceAllRayTracingEffects 0") however please note that you then will have to tweak the wrapped plastic material to your liking.

For any questions or concerns please feel free to contact us at: support@scansmatter.com