CrossEngineOptimizer

Frequently Asked Questions

v1.0 | Leartes Studios

Compatible with Unreal Engine 5.1 - 5.7

Frequently Asked Questions

Installation and Setup

The CEO toolbar button is not visible after enabling the plugin.

Close and reopen the Level Editor. If the button is still missing, reset the toolbar layout via Window > Load Layout > Default Editor Layout.

The plugin fails to compile with errors about missing headers.

Some engine API headers moved between Unreal Engine versions. The plugin includes version-specific guards for all known API changes between 5.1 and 5.7. If you see a compilation error, verify that you are using the package built for your specific engine version. Do not mix packages across versions.

The package build fails for a specific engine version.

Confirm that the Unreal Engine installation for that version is located at the standard path: C:\Program Files\Epic Games\UE_5.x. If your installation is in a custom path, edit the UE_BASE variable at the top of PackagePlugin.bat.

Export

The export takes a very long time.

Export time scales with scene complexity. The primary bottleneck is FBX mesh export, which serializes every vertex for every unique static mesh in the scene. For scenes with hundreds of unique meshes, this can take several minutes. You can reduce time by excluding Nanite meshes using the Skip Nanite Meshes option in the export dialog.

Some actors are missing from the exported scene.

CEO exports AStaticMeshActor instances, Blueprint actors with StaticMeshComponent, InstancedStaticMeshComponent instances, ALandscapeProxy actors, InstancedFoliageActor instances, ACameraActor instances, and ALight actors. Actors that do not fall into these categories are skipped. Specifically, Blueprint actors with custom C++ components and procedurally generated actors may not export.

Foliage is missing from the exported scene.

Foliage must be placed using the standard Unreal Engine Foliage tool to be detected by CEO. Foliage placed via Blueprint or procedural systems is not exported. Confirm that the foliage actors appear as InstancedFoliageActor in the World Outliner.

The landscape does not appear in the export.

CEO exports landscapes that are present in the currently open level. If landscape data is in a sub-level that is not loaded, it will not be included. Ensure all sub-levels containing landscape data are loaded before exporting.

The exported CEO_pipeline.json file always contains URP even when HDRP was selected.

This was a known issue caused by the export dialog not correctly reading the selected pipeline option when it was not changed from the default. This is fixed in the current version. Ensure you are using the latest build of the plugin.

Unity Import

Unity import takes a very long time.

The importer processes all FBX files on first import. Secondary UV generation (lightmap unwrapping) and mesh optimization were previously enabled by default and are now disabled to significantly reduce import time. If you need secondary UVs for lightmap baking, enable generateSecondaryUV in the CEOImporter.cs file.

Meshes appear 100 times smaller than expected.

This is caused by a double scale factor. Unreal Engine uses centimetres internally. The CEO FBX exporter writes vertices at centimetre scale, and the Unity importer must apply a single 0.01 scale to convert to metres. Using useFileScale=true together with a globalScale of 0.01 applies the conversion twice. The current version sets useFileScale=false with an explicit globalScale of 0.01 to prevent this.

Materials appear pink in Unity.

Pink materials indicate that the assigned shader is not available in the current render pipeline. This happens when the project opens with a different render pipeline than was selected during export. Run Setup Scene again after the correct pipeline is assigned. Also ensure the correct render pipeline package is installed in the Unity project.

Mesh rotations are wrong. Objects appear twisted or facing the wrong direction.

CEO applies a coordinate system conversion when exporting: Unreal Engine uses X-forward, Y-right, Z-up (left-handed), while Unity uses X-right, Y-up, Z-forward (left-handed). The FBX export applies a Y-up vertex permutation. A compensating negative 90-degree Y rotation is applied to all placed actors in Setup Scene to account for this. If individual meshes still appear rotated, verify that the mesh was not modelled with a non-standard forward axis in its source application.

The terrain appears flat with no height.

The terrain heightmap is loaded from the exported PNG file using direct file I/O to bypass Unity's asynchronous reimport pipeline. If the heightmap PNG is missing from the Landscape folder, the terrain will be flat. Verify that the file exists at Assets/Landscape/[LandscapeName]/[LandscapeName]_Heightmap.png.

The terrain appears at the wrong position.

Terrain position is read from the landscape JSON and converted from Unreal Engine centimetres to Unity metres. The conversion maps UE.Y to Unity.X, UE.Z to Unity.Y, and UE.X to Unity.Z. If the position is significantly wrong, re-export the scene using the latest plugin version which includes the corrected coordinate conversion.

Foliage instances are scattered at wrong positions.

A coordinate conversion error in the foliage exporter caused X and Y axes to be swapped and the quaternion W component to be negated. This has been corrected. Re-export the scene with the updated plugin to fix foliage positions.

Foliage materials appear as black rectangles.

This is caused by the alpha channel not being read from the foliage texture. The fix involves setting alphaSource to FromInput and alphaIsTransparency to true in the texture importer, and ensuring the GPU instancing flag is enabled on the material. Run Tools > CEO > Reimport All CEO Assets after updating CEOImporter.cs.

Render Pipeline

HDRP is not being assigned even after selecting it in the export dialog.

CEO reads the pipeline selection from Assets/CEO_pipeline.json. If this file contains URP rather than HDRP, the pipeline selection was not written correctly during export. This was caused by the export dialog's dropdown not mapping the display text "High Definition Render Pipeline" to the HDRP enum value. This is fixed in the current version.

HDRP shows a Gamma mode warning.

HDRP requires the project to use Linear color space. CEO automatically sets PlayerSettings.colorSpace to ColorSpace.Linear when HDRP is assigned. If you see this warning, it means the color space was not updated. Open Edit > Project Settings > Player > Other Settings and change Color Space to Linear manually.

The HDRP Wizard shows configuration issues.

After the HDRP asset is assigned, run the HDRP Wizard from Window > Rendering > HDRP Wizard and click Fix All. This completes the HDRP setup by creating the default Volume Profile, Global Settings asset, and other required resources.

Godot Export

The Godot scene does not load correctly.

Confirm that the CEO plugin is enabled in Godot via Project > Project Settings > Plugins. Then run the scene import GDScript. If individual meshes are missing, verify that the corresponding FBX files were exported and exist in the res://Models directory.

The terrain does not appear in Godot.

The Godot terrain importer looks for a main heightmap PNG in the Landscape directory. It requires the file to be named [LandscapeName]_Heightmap.png. If the file is missing or named differently, the terrain will not be created.