

PRESS RELEASE

Media Contact

pr@siliconstudio.co.jp | +81 (0)3 5488 7070

Enlighten global illumination releases version 3.10

Tokyo, Japan, (Nov. 18, 2019) – Silicon Studio; developer of technology solutions for middleware, gaming, automotive, video production and other digital content; is excited to announce the release of the highly anticipated update to Enlighten global illumination, version 3.10.



This release marks a culmination of the first stage of work the Enlighten team has been developing since the acquisition of the technology in 2017. Although there have been a large number of releases of Unreal Engine updates with a number of features introduced, this is the first update to the technology overall. The team believes it is a highly impactful step forward that will benefit custom engine users and Unreal users alike. It should also be noted that this is only the beginning of the team's efforts with even more features such as ray tracing to come.

The emphasis on this update was the usability and accessibility of the technology for users of every aspect, providing more resources to understand the functions and integration as well as strong new features to enhance development capability and results. The released features can be seen below:

Enlighten 3.10 SDK

- The prebuilt libraries for VS2017 (15.7 and later) are now provided to access building internally.
- Out-of-core Precompute: limits memory usage when precomputing a massive world.
- Automatic system generation during HLBS precompute to simplify Enlighten integration for SDK users.

(Pipeline library to simplify Enlighten integration for SDK users)

(The Enlighten Pipeline library will be released in 3.10 as early access. Details can be found in the online documentation.)

- When you build the Enlighten runtime libraries and use IncrediBuild to accelerate build, multiple PDB files are no longer created for each library.
- New online documentation to make it easier to integrate Enlighten for SDK users.
- Bug fixes.

Enlighten 3.10 Unreal Engine 4 (based off of UE4.23)

- Use Enlighten in combination with volumetric fog.
- Enlighten indirect lighting for UE4 Volumetric Fog
- Out-of-core Precompute: limit memory usage when running the Precompute for a massive world.
- Per-pixel probe sampling falls back to sky lighting in areas where there are no probes to sample from.
- Enlighten compatibility and support for Niagara pipeline
(As this is still a beta system, we are doing our best to support the new system while exploring ways to use its abilities to improve Enlighten output.)
- Mobile implementation improvement.
Mobile implementation in UE4 has proven challenging and we are planning to bring a number of improvements either with the release or shortly thereafter.
- Bug fixes

The new online SDK documentation will become available shortly after release.

Tutorials, blogs and additional information

The team is planning to follow up this release with additional information through blogs, video, and media discussing the development process, benefits and future plans. The first series in this process has been released on YouTube as a series of beginner tutorial videos based on the beginner tutorials found in the Unreal Engine documentation, which can be found here:

<https://www.siliconstudio.co.jp/middleware/enlighten/en/blog/2019/20191015/>

About Enlighten

"Enlighten" is a high quality real-time global illumination (indirect light expression) technology used for the game, movie, real estate and product visualization industries. The technology can efficiently calculate a large amount of mathematical processes which are an important task in real-time global illumination to generate and maintain beautiful high-quality images through the usage of light maps, spherical harmonic probes, and reflection captures.

<http://www.siliconstudio.co.jp/enlighten/>



Enlighten for Unreal 4 is available for the following platforms:

[Console] Nintendo Switch™, PlayStation®4, Xbox One [PC] Microsoft Windows [Mobile] Android™

Enlighten SDK is available for the following platforms:

[Console] Nintendo Switch™, PlayStation®4, Xbox One [PC] Microsoft Windows [Mobile] Android™, iOS

Enlighten also supports VR development

Enlighten Official Site:

<https://www.siliconstudio.co.jp/middleware/enlighten/en/>

About Silicon Studio Corporation

Silicon Studio, a Japan-based game engine and middleware company, develops and provides advanced technologies such as "YEBIS" post effects, "Enlighten" real-time global illumination, and "Mizuchi" real-time rendering to major game and entertainment production studios worldwide. These technologies have helped to bring high quality graphics to a large number of successful AAA titles.

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