

PRESS RELEASE

Media Contact

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

## Enlighten global illumination 3.12 released

### Massively scalable probe lighting & real-time ray tracing

**Tokyo, Japan, (Jan. 5, 2021)** – Silicon Studio Corporation; middleware and technology developer, focusing on entertainment, gaming, automotive, video, architecture and other industries; Enlighten global illumination the team is proud to release Enlighten 3.12, which features major improvements to probe lighting and combines Enlighten GI technology in perfect harmony with UE4 real time ray tracing.



To meet the needs of creators working with massive worlds, this release provides significant performance and scalability improvements to probe lighting. Enlighten's automatic probe placement system now includes additional resolution options that provide efficient lighting across large open spaces and significantly reduces precompute time. A complete overhaul of automatic probe placement and per pixel probe lighting brings major performance and precompute time improvements when large amounts of probes are placed throughout a massive world.

At Cedec Online 2020, the team presented its groundbreaking work to create a hybrid of Enlighten and Unreal Engine's real-time ray tracing. These features, now available as an early access preview, use Enlighten to boost the quality of real-time ray traced global illumination, reflections and other ray traced effects and produce outstanding results. Although based on Unreal Engine 4 ray-tracing technology, these new features can be implemented with custom engines with ray tracing implemented utilizing techniques similar to UE4's, with the Enlighten SDK version.



Along with a number of other improvements and fixes, Enlighten 3.12 is the result of the continued dedication of the team to provide new features and improve the technology to meet the needs of creators everywhere.

For further details and information, readers are welcome to access the documentation and release notes here:

SDK:

<https://enlighten.atlassian.net/wiki/display/SDK312/Enlighten+SDK+3.12+Release+Notes>

<https://enlighten.atlassian.net/wiki/spaces/SDK312/>

Unreal Engine:

<https://enlighten.atlassian.net/wiki/display/UEF312/Enlighten+UE4+3.12+Release+Notes>

<https://enlighten.atlassian.net/wiki/spaces/UEF312/>

### **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.

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

Enlighten for Unreal 4 is available for the following platforms:

Nintendo Switch™, PlayStation®4, PlayStation®5, Xbox One, Xbox Series X, Stadia™, Microsoft Windows

Enlighten SDK is available for the following platforms:

Nintendo Switch™, PlayStation®4, PlayStation®5, Xbox One, Xbox Series X, Stadia™, Microsoft Windows, Android™, iOS

Enlighten also supports VR development

### **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.

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

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