"Enlighten 4", the long-awaited major version update of global illumination middleware, "Enlighten", now available

**Combined with Real-Time Ray Tracing to bring
dramatically enhanced light rendering and strengthened probe lighting**

Tokyo, Japan, (Sep. 28, 2021) – Silicon Studio Corporation; middleware and technology developer, focusing on entertainment, gaming, automotive, video production and other industries, is pleased to announce the release of "Enlighten 4", major version upgrade of the real-time global illumination middleware "Enlighten" (https://www.siliconstudio.co.jp/middleware/enlighten/en/).

Enlighten is a real-time global illumination (GI) middleware. GI is a group of algorithms that simulate the complex interaction of light reflected or absorbed by surfaces in a game world.
"Enlighten 4" is Silicon Studio's first major version update after the acquisition of the Enlighten software, support, and business in 2017. Along with a vast number of other improvements and upgrades, Enlighten has been combined with real-time ray tracing and introduced a greatly strengthened probe lighting system.
Below are some of the highlighted updates in Enlighten 4.0.

When combined with real-time ray tracing

- Can now reproduce light reflections from movable objects and small objects, which was previously not possible.

- Indirect light rendering for ray traced reflections and fallback to Enlighten cube maps have been added, drastically improving performance.

- Enlighten's light source occlusion information can now be efficiently updated in real-time greatly improving GI lighting accuracy.

Strengthened probe lighting

- Internal processes have been refurbished allowing for greatly improved usage efficiency

- UV maintenance and other lightmaps related issues are no longer a problem for artists.

- Quality now equal to and in some cases exceeding 'lightmaps'.

- Substantially increased efficiency in massive scenes where large amounts of complex meshes are placed.

Enlighten 4 GI implemented scenes

In the pictured scenes all indirect light, excepting the terrain, has been lit by probes
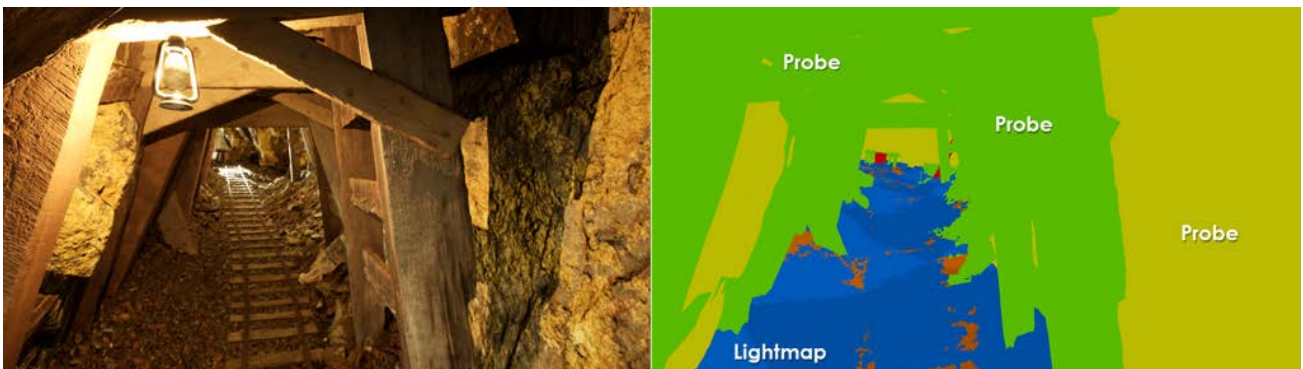
About Enlighten

"Enlighten" is a high quality real-time global illumination technology used for the game, cinematic, entertainment, architectural, and a number of other industries. The technology can efficiently calculate a large amount of mathematical processes 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|S, Stadia™, Microsoft Windows

Enlighten SDK is available for the following platforms:

Nintendo Switch™, PlayStation®4, PlayStation®5, Xbox One, Xbox Series X|S, 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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