

PRESS RELEASE

Media Contact

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

## **Silicon Studio “CEDEC 2020” to announce their new global illumination approach**

“Hybrid global illumination technology with real-time Ray Tracing and Enlighten”

**Tokyo, Japan, (Aug. 7, 2020)** – Silicon Studio Corporation, middleware and technology developer, focusing on entertainment, automotive, video, architecture and other industries, announced their intention to present at the upcoming “Computer Entertainment Developers Conference (CEDEC2020)” online, September 2nd through 4th, and to discuss their new global illumination approach, which integrates Enlighten with real-time Ray Tracing, at their special sponsored session .



CEDEC is a conference event for computer entertainment contents developers, featuring games. This year, due to the current COVID-19 epidemiological situation around the world, the physical conference has been canceled, and the event moved to online.

Silicon Studio will discuss their new global illumination (GI) approach, which combines Enlighten with real time Ray Tracing technology, at their sponsored session under the session title of “Hybrid global illumination technology with real-time Ray Tracing and Enlighten”.

Ray Tracing is a technique for photorealistic CG rendering by simulating refraction and reflection of light from light and other sources in accordance with the laws of physics. This technique has attracted considerable attention thanks to strengthened GPU and architectural CG advancement.

However, a large number of rays needs to be projected repeatedly to ensure high quality GI if creators adopt Ray Tracing only. Gaming requires highly interactive environments, where sufficient computation can be difficult to achieve even using the latest powerful GPU cards.

Therefore, Silicon Studio has been researching for a reasonable way to render photorealistic imagery by using Enlighten and real time Ray Tracing and has developed a hybrid global illumination method. At CEDEC 2020, Silicon Studio will share the problems the team encountered during development and how these issues were solved, along with the advantages of Enlighten’s new feature.

Title:

“Hybrid global illumination technology with real-time Ray Tracing and Enlighten”



Online Broadcast Date/Time:  
September 2, 2020, 11:00 to 12:00

Speaker:

Shaohua Su (Middleware Development, Technology Business Division, Silicon Studio Corporation)  
Jun Yoshino (Middleware Development, Technology Business Division, Silicon Studio Corporation)

For details about our session, please visit the official CEDEC2020 website as shown below.  
<https://cedec.cesa.or.jp/2020/session/detail/s5efae76e29336>  
(Japanese Only)

### **CEDEC 2020 Overview**

Name: Computer Entertainment Developers Conference 2020 (CEDEC 2020)  
Period: September 2 - September 4, 2020  
Venue: Online Broadcast  
Organizer: Computer Entertainment Supplier's Association (CESA)

### **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, Xbox One, Microsoft Windows

Enlighten SDK is available for the following platforms:

Nintendo Switch™, PlayStation®4, Xbox One, 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/>



\* Enlighten is a trademark or a registered trademark of Silicon Studio Corporation.

\* All other names and trademarks mentioned are the registered trademarks and property of the respective companies.