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Trimble and Umbra to Explore the Integration of Technologies to Optimize 3D Data for Mixed-Reality Solutions

Trimble to Integrate Umbra Technology as Part of its Mixed-Reality Pilot Program to Enhance 3D Visualization and User Interaction

SUNNYVALE, Calif., Dec. 14, 2016 /PRNewswire/ -- Trimble (NASDAQ:TRMB) announced today that it is collaborating with Umbra to explore the use and integration of Umbra 3D graphics optimization technology as part of its mixed-reality solutions to process and optimize complex 3D Building Information Models (BIM). The collaboration is part of Trimble's Mixed-Reality Pilot Program and solutions strategy to enable users to gather, analyze, visualize and share spatial information in a mixed-reality environment.

The growth of BIM and mixed reality has placed increased demands on wearable technology when working with large or complex 3D models. As part of the Trimble Mixed-Reality Pilot Program, Umbra technology can be used to optimize the performance of 3D graphics applications. The software automatically reduces the triangle count and generates varied levels of detail of the 3D content. When viewing the 3D visualization, Umbra is able to choose the right level of detail and show only the objects that are visible to the camera at any given time, essentially streaming in only the necessary 3D assets based on what the user sees.

When working in conjunction with Trimble technologies for BIM and mixed reality, Umbra can preprocess 3D BIM models and produce optimized content that can enable Trimble clients to work with large amounts of 3D content on virtual and mixed-reality devices. "Mixed reality enables professionals and their clients to interact with 3D models. Trimble customers are involved in some of the largest and most complex projects in the world and it's important to provide a solution which will support their needs," said Aviad Almagor, director of Trimble's Mixed-Reality Program. "The computing power needed to visualize large and highly detailed 3D models can outpace the capabilities of mobile and wearable devices, which lack the processing power of professional high-end desktop machines. By collaborating with Umbra, we can leverage technology proven in video gaming to improve the user experience and enable visualization of large and complex Architecture, Engineering and Construction 3D models."

Umbra's new product development extends beyond gaming. "Using Umbra, Trimble pilot program users will be able to focus on what's important about 3D and mixed reality: better communication, richer interaction and faster design review cycles," said Otso Mäkinen, CEO of Umbra. "With Trimble's global presence and industry knowledge, this collaboration can enable Umbra to enter new markets and accelerate the 3D revolution. We are very excited to work with Trimble as part of its Mixed-Reality Pilot Program."

About Umbra

Umbra has been powering up graphics performance in more than 125 video games during the last 10 years. Clients include internationally renowned game studios that have produced commercially successful AAA productions such as Call of Duty®: Infinite Warfare, Fallout 4, Quantum Break, Deus Ex: Mankind Divided and The Witcher 3: Wild Hunt. Umbra is a Helsinki based company that was founded in 2006.

Umbra is on a mission to make it possible to display any 3D content in real time on any piece of hardware. Umbra's solutions are the backbone of a wide range of 3D applications used by millions of people every day.

Today the company employs a team of 20 specialists working in Finland, United States, Korea, China and Japan. For more information, visit: www.umbra3d.com.

About Trimble's Mixed-Reality Pilot Program

Trimble's Mixed-Reality Pilot Program provides visionary Architecture, Engineering, Construction and Operations (AECO) companies an opportunity to experience how mixed-reality technology can transform the way they work. Working together with Trimble, pilot participants can explore and utilize mixed reality in their projects to improve team communication, data interpretation and collaboration during the design development and pre-construction stages of their projects. As part of the program, Trimble provides training and implementation support on Microsoft HoloLens and Trimble mixed-reality solutions.

About Trimble

Trimble is transforming the way the world works by delivering products and services that connect the physical and digital worlds. Core technologies in positioning, modeling, connectivity and data analytics enable customers to improve productivity, quality, safety and sustainability. From purpose built products to enterprise lifecycle solutions, Trimble software, hardware and services are transforming a broad range of industries such as agriculture, construction, geospatial and transportation and logistics. For more information about Trimble (NASDAQ:TRMB), visit: www.trimble.com.

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