

# 'Minecraft' is RTX On! Real-Time Ray Tracing Comes to World's Best-Selling Video Game

## NVIDIA and Microsoft Bring Stunning New Visuals to Millions of Minecrafters

Gamescom--[Minecraft](#), the world's best-selling video game with over 176 million copies sold, will be dramatically more realistic through support for real-time ray tracing on PC, NVIDIA and Microsoft today announced.

A free game update will provide Minecraft players with vivid visualizations of their self-created worlds, with more realistic shadows, lighting and vibrant colors.

"Minecraft will expose ray tracing to millions of gamers of all ages and backgrounds that may not play more hardcore video games," said Matt Wuebling, head of GeForce marketing at NVIDIA. "The world's best-selling video game adding ray tracing on PC illustrates the momentum that ray tracing has built in the gaming ecosystem."

"Ray tracing sits at the center of what we think is next for Minecraft," said Saxe Persson, franchise creative director of Minecraft at Microsoft. "GeForce RTX gives the Minecraft world a brand-new feel to it. In normal Minecraft, a block of gold just appears yellow, but with ray tracing turned on, you really get to see the specular highlight, you get to see the reflection, you can even see a mob reflected in it."

Together, NVIDIA and Mojang, the developer of the game, are adding a form of ray tracing known as path tracing for the Windows 10 version of the game. Path tracing simulates the way light is transported throughout a scene. It presents a unified model for lighting calculations for many different types of effects that have traditionally been implemented separately using rasterized or hybrid renderers. Among these are:

- Direct lighting from the sun, sky and various light sources, including emissive surfaces such as glowstone and lava
- Realistic hard and soft shadows depending on the size, shape and distance of the light source
- Per-pixel emissive lighting
- Indirect diffuse illumination (diffuse global illumination)
- Indirect specular illumination (reflections)
- Transparent materials with reflection, refraction and scattering (stained glass, water, ice)
- Atmospheric scattering and density (volumetric fog, light shafts, realistic sky)

Real-time ray tracing is changing the way games are created and dramatically increases the image quality they can achieve. Ray tracing is built upon a robust ecosystem that includes industry-standard application programming interfaces, support in an array of popular and private game engines, and games from the biggest publishers for their most anticipated titles.

[NVIDIA GeForce RTX™ GPUs](#) are the only GPUs capable of playing games with real-time ray tracing.

NVIDIA is kicking off Gamescom 2019 at an exclusive invitation-only event that features some of the world's most anticipated titles premiered with ray-traced graphics. Attendees can play Minecraft and capture their ray-traced gameplay to share later.

Minecraft rendered in real time with ray tracing can be seen in the [new gameplay trailer](#) and [screenshots](#) released by NVIDIA. Press can download the screenshots from [www.nvidia-press.com](http://www.nvidia-press.com).

### About Minecraft

With over 91 million unique *Minecraft* players engaged across all platforms and over 176 million copies sold worldwide, *Minecraft* is the best-selling video game in history. The *Minecraft* franchise continues to reach new players through an expanding line of consumer products, game updates, *Minecraft* Marketplace and the amazing content created by its vibrant and growing community. *Minecraft* is a game about placing blocks and going on adventures, and we're excited to see its world expand with new games like "*Minecraft Dungeons*" and "*Minecraft Earth*." "*Minecraft: Education Edition*" is a special version of the game designed for schools and educational settings, supporting 21<sup>st</sup> century learning across subjects from coding to chemistry.

*Minecraft* is available on 20 platforms: Xbox One, PlayStation 4, Nintendo Switch, Fire TV, Windows, Mac OS, Windows 10, Linux, iOS, Windows 10 Mobile, Android, Kindle Fire, Oculus Rift, Gear VR, Windows MR, Xbox 360, PlayStation 3, PlayStation Vita, Wii U, Nintendo 3DS (includes New Nintendo 3DS).

### About NVIDIA

[NVIDIA](#)'s (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world. More information at <http://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: real-time ray tracing coming to the world's best-selling video game; NVIDIA and Microsoft bringing new visuals to millions of Minecrafters; Minecraft being dramatically more realistic through support for real-time ray tracing; the benefits and performance of the impact that the game update will bring to Minecraft players; Minecraft exposing ray tracing to millions of gamers; the benefits, impact, abilities and performance of ray tracing, path tracing and GeForce RTX; ray tracing on Minecraft illustrating the momentum of ray tracing; ray tracing sitting at the center of what is next for Minecraft; NVIDIA and Mojang adding path tracing to the Windows 10 version of the game; ray tracing changing the way games are created and increasing image quality; what ray tracing is built upon; information about NVIDIA's events at Gamescom; and the availability of Minecraft with ray tracing are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into

systems; as well as other factors detailed from time to time in the most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

© 2019 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, GeForce, and GeForce RTX are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Other company and product names may be trademarks of the respective companies with which they are associated. Features, pricing, availability and specifications are subject to change without notice.

#### **Media Contacts**

Brian Burke

+1-512-401-4385

[bburke@nvidia.com](mailto:bburke@nvidia.com)

Rebecca Gordius

+1-253-332-5571

[rgordius@microsoft.com](mailto:rgordius@microsoft.com)