



Minecraft with RTX Windows Beta Launch Brings Stunning Ray-Traced Visuals to Millions of Gamers

World's Best-Selling Game Gets Next-Generation Graphics Makeover with Real-Time Ray Tracing and NVIDIA DLSS 2.0

Millions of *Minecraft* gamers across the globe will get to experience their self-created worlds more vividly than ever before when *Minecraft* with RTX moves to open beta on Windows 10 this week and introduces realistic shadows, lighting and vibrant colors to the best-selling videogame of all time.

"We teamed up with Mojang Studios to bring next-generation ray tracing and AI to *Minecraft* and the results are truly amazing," said Jeff Fisher, senior vice president of gaming at NVIDIA. "There is a ton of excitement from the community for *Minecraft* with RTX, and we can't wait to see what they create."

On Thursday, at 10 a.m. Pacific time, *Minecraft* players on Windows 10 can download the beta of the highly anticipated free game update, unleashing a next-generation graphical makeover that includes real-time ray tracing, more realistic materials and [NVIDIA DLSS 2.0](#).

NVIDIA will also give players six new *Minecraft* worlds to download for free from the *Minecraft* Marketplace, allowing them to experience what is possible in *Minecraft* when real-time ray tracing is applied.

"The next big evolution for *Minecraft* has arrived with *Minecraft* with RTX," said Saxs Persson, franchise creative director of *Minecraft* at Microsoft. "The core of regular *Minecraft* is building with blocks. GeForce RTX GPUs transform the *Minecraft* world with a dramatically more realistic look by adding life-like lighting effects, shadows, reflections, refraction and more to the builder's tool kit."

Ray Tracing Comes to *Minecraft*

Together, NVIDIA, Microsoft and Mojang Studios, the developer of *Minecraft*, have added 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
- Realistic hard and soft shadows
- Emissive lighting from surfaces such as glowstone and lava
- Global illumination
- Accurate reflections in water and metallic surfaces
- Transparent materials such as stained glass, water and ice with reflection and refraction
- Volumetric fog and light shafts

Ray tracing was added to *Minecraft* using the industry-standard Microsoft DirectX 12 Ultimate API. [NVIDIA GeForce RTX™ GPUs](#) are the only GPUs with dedicated ray-tracing cores that allow games to be ray traced in real time.

New Physically Based Materials System

Building blocks in *Minecraft* are now upgraded with material properties that emulate real life — a technique known as physically based rendering (PBR). This PBR system supports material properties for light emission, roughness, depth and metallicity that combine with ray tracing to enable lighting effects such as reflections, refraction, translucency, transparency and global illumination that open new possibilities and ways to create in *Minecraft*.

Using AI to Boost Image Quality in *Minecraft*

Minecraft with RTX also introduces NVIDIA DLSS 2.0 to the game. Powered by RTX Tensor Cores, DLSS 2.0 is an improved deep learning neural network that boosts frame rates while generating beautiful, sharp images for games. It provides the performance headroom — 1.7x+ faster frame rates — to power full path tracing in *Minecraft* with RTX.

Six Gorgeous New *Minecraft* Worlds to Play in, Build and Explore

To celebrate the open beta of *Minecraft* with RTX, NVIDIA has worked with some of the most talented *Minecraft* creators to make six new *Minecraft* worlds available to gamers that show off the dramatic possibilities that ray tracing and PBR textures bring to the game. Selected due to their fantastic track record of making captivating contributions in the *Minecraft* community, these creators delivered exciting results.

"What *Minecraft* with RTX introduces to the game can only be described as mind-blowing," said RazzleberryFox, CEO at [Razzleberries](#), a founding partner and industry leader on the *Minecraft* Marketplace. "The added dimension these incredible

visuals add to *Minecraft* has reinvigorated our collective creativity and enabled us to create amazing new worlds and experiences for *Minecraft* that just were not possible before.”

The six new worlds will be downloadable for free from the in-game *Minecraft* Marketplace and include:

- *Aquatic Adventure RTX* by Dr_Bond
- *Color, Light and Shadow RTX* by PearlescentMoon
- *Crystal Palace RTX* by GeminiTay
- *Imagination Island RTX* by BlockWorks
- *Neon District RTX* by Elysium Fire
- *Of Temples and Totems RTX* by Razzleberries

Minecraft with RTX will come as a free update later this year to users that own *Minecraft* on Windows 10. Players will need to sign up for the *Minecraft* Windows 10 RTX beta through the Xbox Insider Hub on April 16. The beta worlds will be downloadable for free from the *Minecraft* Marketplace on April 16. Players will also need a GeForce RTX 2060 GPU or higher and the latest NVIDIA Game Ready Driver.

Minecraft rendered in real time with RTX-accelerated ray tracing, physically based materials and NVIDIA DLSS 2.0 can be seen in the [new gameplay trailer](#) and [screenshots](#) released by NVIDIA. Press can get more information, b-roll and screenshots from www.nvidia-press.com.

About Minecraft

With over 112 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 21st 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 *Minecraft* gamers; the benefits, impact and availability of *Minecraft* with RTX, including the beta; the impact, benefits and performance of NVIDIA’s products and technologies, including RTX, ray tracing, path tracing and NVIDIA DLSS 2.0; the new worlds available in *Minecraft*; GeForce RTX GPUs transforming the world of *Minecraft*; the benefits of combining ray tracing with PBR; *Minecraft* with RTX enabling the creation of new worlds and experiences; and the technology needed to use RTX in *Minecraft* 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.

© 2020 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.

Brian Burke
GameWorks
NVIDIA Corp.

+1-512-401-4385

bburke@nvidia.com

Rebecca Gordius

Microsoft

+1-253-332-5571

rgordius@microsoft.com