

The GIGABYTE logo is displayed in a bold, white, sans-serif font. The letters are closely spaced, and a small trademark symbol (TM) is located at the top right of the word. The logo is positioned in the upper left corner of the image, set against a dark blue background that features a futuristic scene with a glowing blue wireframe car and several people in a dimly lit room with server racks in the background.

GIGABYTE™



NVIDIA
Omniverse™
Enterprise

Distance Education and 3D Design Collaboration on the **NVIDIA Omniverse Platform**

The COVID-19 pandemic has impacted numerous sectors of the economy since the outbreak. To improve work efficiency and lower unnecessary costs, enterprises have shifted to video conferencing platforms to achieve effective team collaboration and communication. Industries that produce 3D content, such as animation, CGI, and architecture design, usually need to be able to collaborate spontaneously and remotely. Therefore, enhancing the ability to cooperate remotely is what enterprises have been pursuing lately. GIGABYTE has done such by promoting distance education and 3D design collaboration solutions.

NVIDIA Omniverse

A virtual reality platform for real-time collaborations amongst creators

In response to public demand, companies have pivoted to remote work to ensure smooth business operations, which is a challenge to IT specialists as they need to facilitate collaborations and communications to diverse locations. Compounding that challenge, 3D design uses diverse applications making it difficult to ensure cross platform compatibility. NVIDIA Omniverse, a 3D virtual collaboration platform, is designed to solve the abovementioned problems with technology such as NVIDIA RTX. This allows the industry's mainstream design and visualization software to share and exchange files simultaneously in real-time so designers can seamlessly collaborate across different time zones and software. And for creators, they can focus on content creation without worrying about technical issues.

GIGABYTE took note of the technology and promotes distance education and 3D design collaboration solutions through the advantages of the NVIDIA Omniverse virtual collaboration platform. The solution utilizes NVIDIA Omniverse as the core architecture upon GIGABYTE's workstation, W771-Z00, to set up virtual hosts with the help of connected BRIX Extreme products, GB-BEi7HS-1260 and GB-BER7HS-5800. The setup provides a complete solution containing both high performance computing and flexible deployment, which is well suited for 3D design industries, including but not limited to game development, engineering, manufacturing, architecture, and healthcare.



NVIDIA Omniverse Platform for 3D Simulation and Design Collaboration in Real Time



Simply put, one can place the W771-Z00 workstation in a room or data center in San Francisco and permit designers from different regions of the world to utilize the plentiful compute resources that the workstation provides via virtual hosting on a BRIX Extreme.

High-end workstations by GIGABYTE are feature rich

The various components of NVIDIA Omniverse can simultaneously collaborate with third-party digital content creation (DCC) tools and renderers that vary from concept design, 3D characters, scenes, and visual effects (VFX) to AI computing. Additionally, GIGABYTE W771-Z00 is a workstation that brings stability and performance supporting the latest AMD Ryzen™ Threadripper™ PRO 5000WX Series processors. The top tier processor - 5995WX - has 64 CPU cores, 128 threads, and 8-channel DDR4 memory that could be expanded to 2TB of memory storage while using PCIe Gen4 technology with M.2 SSDs and GPUs.

The W771-Z00 has room for four NVIDIA RTX A6000 cards that can quickly process and transfer data over high bandwidth PCIe 4.0 lanes. This solution satisfies the needs of CPU and GPU computation requirements for deploying virtual hosts while handling the rendering demand from multiple users on the local host.

Server grade remote management is also a strength in the W771-Z00. Onboard BMC allows IT specialists to access system resources and health via web browser. Furthermore, because of VDI (virtual desktop infrastructure), computing resources are better allocated, vulnerabilities are mitigated, and maintenance costs are reduced.



The W771-Z00 is a high-performance workstation to boost productivity with high stability and efficiency.

Mini PCs optimizes the work environment and space

Besides breaking the barriers involved with cross-functional teams across various locations, the NVIDIA Omniverse platform and the virtual host built on the GIGABYTE W771-Z00 substantially increase the flexibility of hardware planning. GIGABYTE's BRIX Extreme Mini PCs are the key components to expand flexibility as they redefine the essence of desktop computers while finding usage in homes, businesses, institutions, education, and more.



To optimize the working environment, both BRIX Extreme mini-PCs have high connectivity

Two light-weight, notable BRIX Extreme PCs by GIGABYTE: GB-BER7HS-5800 with an AMD Ryzen™ 5800U processor and AMD Radeon™ Graphics; GB-BEi7HS-1260 with a 12th Gen Intel® Core i7-1260P and Intel® Iris® Xe Graphics. Both models can simultaneously export four 4K video outputs, which is great for multiple monitor users working on architecture, exterior and interior design, animation, etc. In addition, they support M.2 SSDs.

NVIDIA-Certified Systems

Software and hardware are optimized for performance

Remote, collaborative work has been practiced across industries worldwide for many years. For example, the well-known visual effects and animation company DNEG uses virtual hosts for hundreds of special effect artists who work in their Montreal office. To assure this type of deployment can sustain the heavy workloads of 3D drawing so that the designers get to experience the same operational performance as a physical workstation, GIGABYTE actively collaborates with NVIDIA for seamless integration. By earning NVIDIA's approval in both hardware and performance verification, it ensures NVIDIA Omniverse and various design software will maximize their performance by using GIGABYTE products. As an NVIDIA partner, GIGABYTE guarantees users a great user experience with optimal workloads via remote management, information security, and high-density GPU scalability.



Applications



3D Design Collaboration

Pairing a powerful workstation with Omniverse seamlessly lets users integrate apps and collaborate real-time.



Remote Design

Remove geographical barriers and connect users for real-time collaborations using Omniverse on W771-Z00.



Digital Twin & Simulations

Omniverse and W771-Z00 facilitate web hosting with small, remote BRIX Extreme PCs from design stage to production via simulation.

Related Products

W771-Z00 Workstation

- Supports 4 x double wide accelerators
- AMD Ryzen™ Threadripper™ PRO 5000 WX-Series processors
- 8-Channel DDR4 UDIMM/ RDIMM/ LRDIMM, 8 x DIMMs
- 2 x 10GbE LAN and 1 x 1GbE LAN ports
- 1 x dedicated management port
- 7 x PCIe Gen4 slots for Multi-GPU
- Up to 8 x 3.5"/2.5" SATA hot-swap drives
- 2 x M.2 slots (NVMe and SATA mode)
- 6 x system fans (optional external 2 x GPU fans)
- Dual 80+ Platinum 2000W redundant power supply



GB-BEi7HS-1260 BRIX Extreme / Ultra Compact PC kit

- 12th Gen Intel® Core™ i7-1260P processor
- Intel® Iris® Xe Graphic, 96EU
- Super Fast 2.5G LAN + Wifi 6E module
- 4 x 4K outputs: 1x HDMI 2.1 / 1 x HDMI / 1 x Mini DP / 1 x USB type-C DP
- 1 x USB 4.0 (Type-C, support Intel Thunderbolt 4), 7 x USB 3.2 ports
- 3 x 2280 M.2 SSD or 1 x 2280 M.2 SSD + 1 x 2.5" SATA SSD/HDD

GB-BER7HS-5800 BRIX Extreme / Ultra Compact PC kit

- AMD Ryzen 5000U mobile processors
- AMD Radeon Graphic
- Super Fast 2.5G LAN + Wifi 6 module
- 4 x 4K outputs: 2 x HDMI / 1 x mini DP / 1x USB type-C DP
- 7 x USB 3.2 ports, 3 x 2280 M.2 SSDs



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