Lenovo ThinkStation PGX for Architecture, Engineering and Construction

Build, fine-tune, and run large AI models with the NVIDIA GB10 Grace Blackwell Superchip, without sending confidential project data to the cloud.



Accelerated by NVIDIA

128GB Unified Memory | Up to **4TB** SSD Storage | Up to **1 petaFLOP**

AI development for the built environment: on the desk, not in the cloud

AEC AI challenges

Compute Bottlenecks
Shared clusters and cloud GPUs queue your renders and simulations, scaling costs unpredictably.

Cloud Dependency
Confidential project models and client data can't leave the firm, so cloud-only AI creates IP and NDA exposure.

Software Complexity
Teams spend more time assembling libraries and drivers than building models.

Environment Mismatch
Cloud-built models rarely run unchanged in the BIM pipeline, forcing rework.

Industry segments:

- Architecture & Design
- Civil & Structural Engineering
- MEP Engineering
- Construction & Contracting
- Infrastructure & Urban Planning



Personal AI supercomputer for your design desk

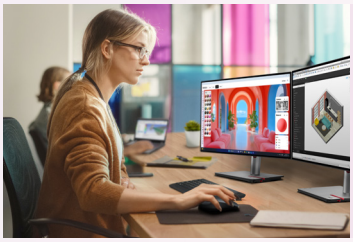
AI performance
NVIDIA Blackwell architecture accelerates AI training and inference

Scalability
Dual QSFP 200 Gb/s ports pair two PGX units for models up to 405B parameters

Unified memory
128GB shared CPU-GPU memory for large models without splitting

AI-Ready stack
Validated for NVIDIA AI software stack and NVIDIA DGX™ OS

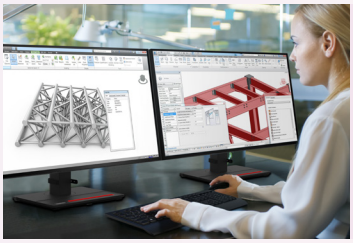
Powering the AI-driven BIM pipeline



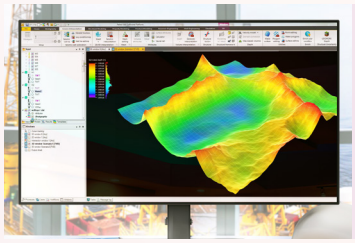
Generative design
Computational designers generate and test design options locally.



Custom design models
AI and ML R&D teams fine-tune generative models on the firm's design language.



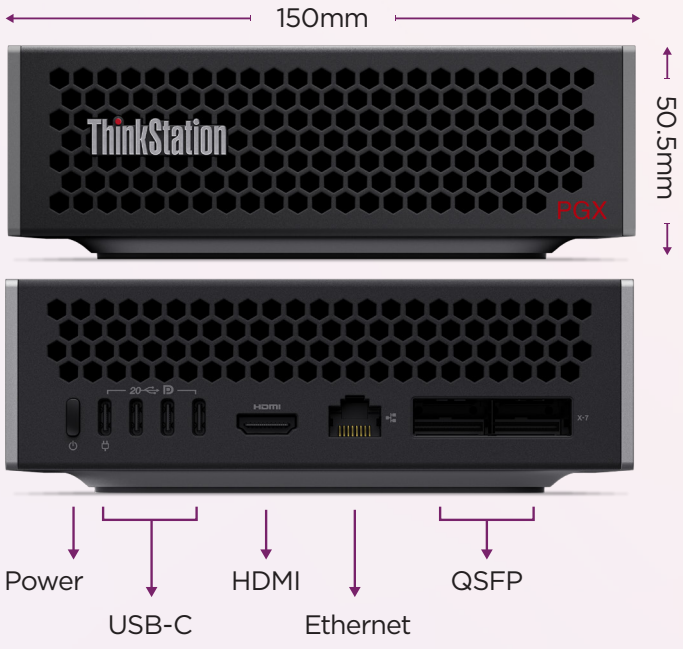
AI-assisted visualization
Visualization specialists run rendering and denoising on the desk.



Reality capture and digital twins
Survey engineers turn lidar and photogrammetry into 3D models.

What makes ThinkStation PGX different

Server-grade AI power in a desktop form factor. NVIDIA Grace Blackwell architecture, enterprise-class cooling, and the option to pair two units for larger models.



Features & specifications

NVIDIA GB10 Grace Blackwell Superchip
NVIDIA CUDA® cores · Tensor cores · RT cores

Up to 1 PFLOP (FP4) ·
273 GB/s memory bandwidth

4x USB Type-C (20 Gb/s) · HDMI 2.1a
RJ-45 10 GbE · Wi-Fi 7 · Bluetooth 5.3

128GB Coherent
unified system memory

1TB or **4TB**
NVMe M.2 (self-encrypting)

Discover more about Lenovo ThinkStation PGX and how it powers AI-driven design and construction

Learn more ▸

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