Inspiring the future of the built environment

The future of AEC is powered by AI. By integrating AI with BIM powered by NVIDIA RTX™ GPUs, the industry can manage built assets more efficiently and innovatively, transforming BIM into dynamic digital twins.

NVIDIA.

Lenovo

Technology solutions for BIM 2.0

As the AEC industry advances, new workflows have emerged to help architects, designers, engineers, and building owners extend BIM's potential. From AI-assisted automation, generative design, and visualization to high-performance computing like reality capture and CAE simulation, the BIM model has evolved from documentation to a digital twin. These workflows require Lenovo Workstations with NVIDIA RTX™ Ada Generation GPUs.

Design

AI-driven tools and advanced workstations have transformed design workflows, enabling rapid concept development, optimal generative design, and photorealistic visualization, all of which push the boundaries of architectural innovation.
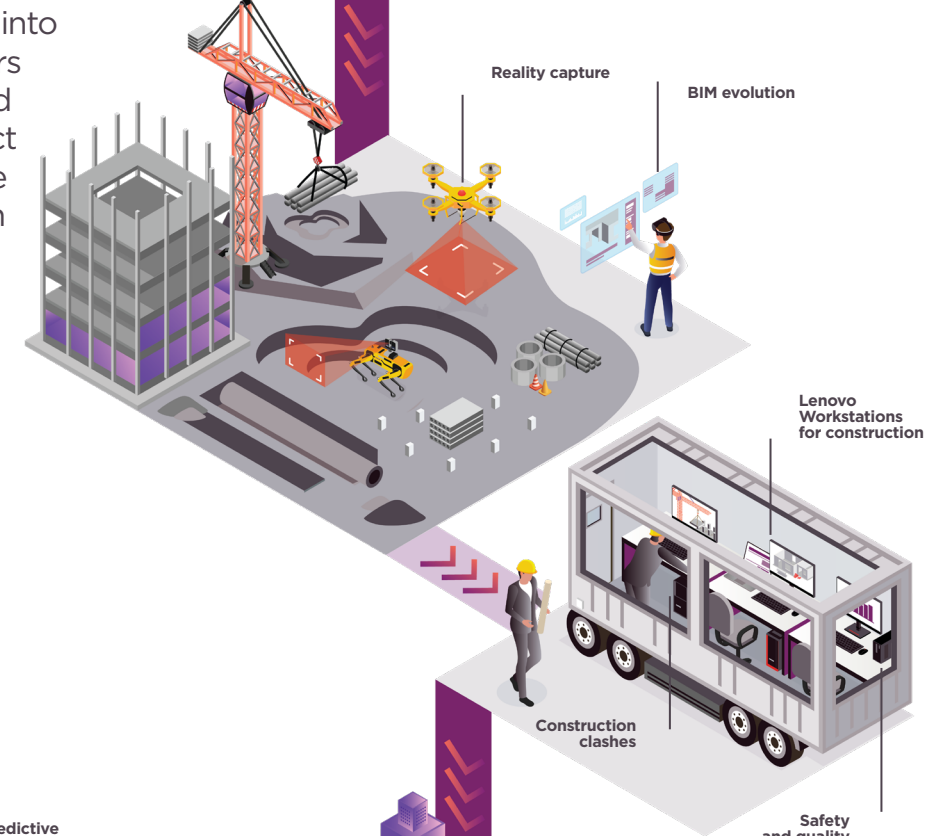
01

LoRA customization
Rapid concept generation
Early design validation
Pro visualisation
Multi-physics simulation

Construction

As BIM evolves from 3D models into complex digital twins, contractors can leverage Reality Capture and AI to streamline efficiency, detect construction clashes, and reduce waste—resulting in better design and environmental outcomes.
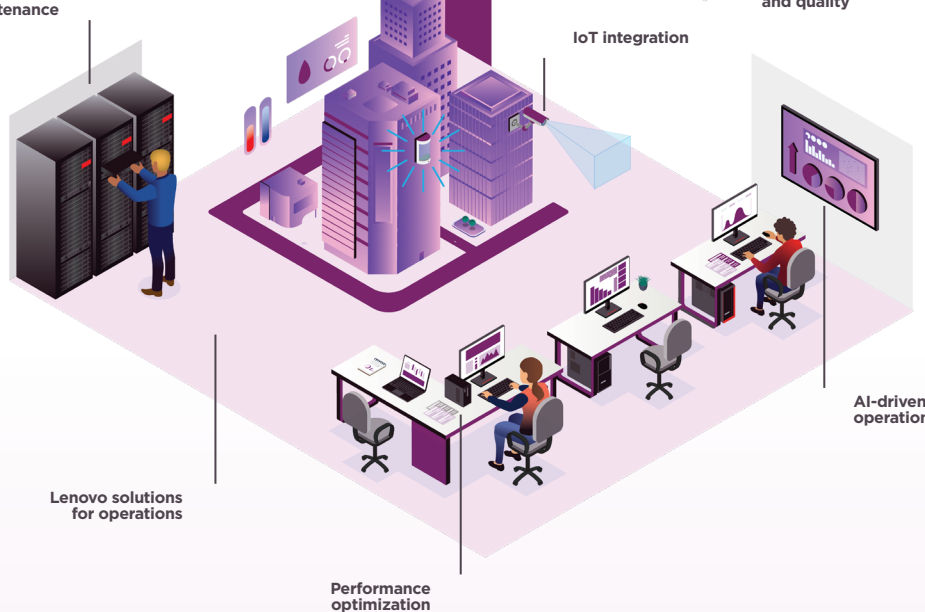
02

Reality capture
BIM evolution
Lenovo Workstations for construction
Construction clashes
Safety and quality

Operations

AI and Omniverse are transforming building operations by enabling real-time management and optimization, ensuring facilities are safer, more secure, and highly efficient.

03

Predictive maintenance
IoT integration
AI-driven operations
Lenovo solutions for operations
Performance optimization

How Lenovo & NVIDIA® power AI in AEC

AI devices and infrastructure
Build a sustainable AI foundation with scalable, powerful, and energy-efficient workstations.

Sustainable AI with Neptune™ Liquid Cooling
Optimize performance and efficiency with advanced liquid cooling for demanding AI tasks.

Lenovo AI Innovators program & AI services
Collaborate with AI partners to develop, deploy, and scale solutions using cutting-edge tools.

ThinkShield security
Safeguard devices with comprehensive security, from component-level protection to cloud security.

AI center of excellence & responsible AI
Accelerate AI adoption with expertise, workshops, and responsible AI ensuring ethical solutions.

AI innovation with NVIDIA®
NVIDIA® drives AI with powerful GPUs and platforms that accelerate deep learning, machine learning, and data science.

Contact us

Find out how Lenovo can help empower the future of the built environment.

Learn more about AEC   AI

NVIDIA.

Smarter technology for all

Lenovo