The Pinnacle of Lenovo Technology

ThinkStation PX, P7, and P5
AEC Solution Guide
High Performance Technology for Architecture, Engineering and Construction

For architects, designers, and engineers who require maximum performance for High Performance Compute (HPC) BIM workflows, the new ThinkStation PX and P7 are our most powerful workstation solutions ever.

The ThinkStation PX, P7, and P5 feature a groundbreaking chassis design, the latest Xeon® processor technology from Intel®, and support for even more high-end NVIDIA RTX™. The new tool-less chassis features an advanced thermal architecture to maximize performance for extreme flexibility and enhanced ergonomics, allowing power users to amplify every single stage of their complex workflows. From demanding BIM workflows, such as CAE simulation, digital fabrication, and artificial intelligence to rendering and VR, these powerhouse workstations provide architects, designers, and engineers with the ultimate power and performance needed to drive ultra-demanding experiences.
Architects, Designers & Engineers

Workflows: High-Performance Compute
BIM Workloads

Description: For architects, designers, and engineers who need maximum performance for computationally intensive workflows such as AI, CAE simulation, applied research, generative design, digital fabrication, and digital twin development - the ThinkStation PX and P7 offer rich configuration options to fine tune performance for virtually any BIM workflow requiring High Performance Compute. Advanced thermal management, a redundant power supply option, and a rack mountable kit ensure the ThinkStation PX and P7 perform optimally on the desktop or in a data center.

Recommended configurations vary based on workload:

**CPU:**
Up to Dual 4th Gen Intel Xeon Scalable (PX)
or Intel Xeon W9-3400 (P7)

**GPU:**
Up to NVIDIA RTX 6000 Ada

**Memory:**
1TB DDR5 4800MHz

**SSD:**
1TB M.2 NVMe Performance SSD

Key Software Applications:

CAE Simulation Solutions like Ansys® and
geospatial solutions like ArcGIS
Architects, Designers & Engineers

Workflows: BIM

Description: For architects, designers, and engineers who need a workstation that does it all, the ThinkStation P5 is a BIM design workhorse. With the P5, you can work with the most complex BIM models, visualize in real time, simulate, and analyze digital twins, create generative designs and reality models — all on a single workstation. The P5 offers rich configuration options to fine tune performance for virtually every BIM modeling, visualization, and simulation workflow in a standard desktop-sized workstation.

Recommended configuration for BIM:

CPU: Intel Xeon W7-2400 processor
GPU: Up to 2 NVIDIA RTX A6000
Memory: From 64GB up to 512GB DDR5, 4800MHz
SSD: Up to 4TB M.2 PCIe NVMe SSD

Key Software Applications:

BIM Solutions from: Autodesk®, Bentley® and Nemetschek
Rendering Solutions from: Chaos® V-Ray®, and Enscape™, Unreal Engine, Unity, Lumion, Twinmotion, and many more
Visualization Specialists

Workflows: Real-time rendering and visualization

Description: For visualization specialists who require the ultimate rendering and ProXR performance, the ThinkStation PX and P7 are our most powerful workstation solutions ever. The PX leverages both CPU and GPU to turbocharge offline rendering from solutions like Chaos V-Ray, or real-time visualization with tools like Enscape, Unreal Engine and Unity. Both workstations are rackmount ready and accessed remotely through our remote workstation solutions.

Recommended configuration for real-time rendering and visualization:

- CPU: Up to Dual 4th Gen Intel Xeon Scalable (PX) or Intel Xeon W9-3400 (P7)
- GPU: Up to 4 NVIDIA RTX 6000 Ada (PX) or 3 (P7)
- Memory: Up to 2TB DDR5 4800MHz (PX) or 1TB (P7)
- SSD: M.2 PCIe NVMe SSD up to 4TB

Key Software Applications:

- Chaos V-Ray and Enscape, Unreal Engine, Unity, Lumion, Twinmotion, and many more
Empower Your AEC Workflows with Our Tailored Accessory Solutions

Designing, creating, and innovating have never been more seamless. Our suite of AEC solution accessories are meticulously designed to transform your workspace into a powerhouse of productivity.

**Dual ThinkVision P27h-30 Monitors**
27-inch monitor with QHD resolution and an IPS panel for crystal-clear, vivid imaging. With its USB Type-C interface and integrated hub, it provides seamless connectivity and smart power management. This monitor is ideal for multitasking, enhancing productivity, and providing a superior viewing experience.

**ThinkReality VRX HMD**
This immersive, lightweight, slim profile six-degrees-of-freedom (6DoF) VR device provides full-color, high-resolution pass-through capabilities for mixed reality applications.

**ThinkReality A3**
Experience the fusion of the real and the virtual world in unparalleled detail with ThinkReality A3 glasses, your ultimate gateway to augmented reality.

**Varjo XR-3**
Varjo XR-3 delivers the most immersive mixed reality experience ever constructed, featuring photorealistic visual fidelity across the widest field of view of any XR headset. And with depth awareness, real and virtual elements blend together naturally.

**ThinkPad Thunderbolt 4 Workstation Dock**
Unleash the full potential of your workspace with the ThinkPad Thunderbolt 4 Workstation Dock, a one-stop solution for unrivaled connectivity and productivity.
Transforming the Art of What’s Possible

As data sets, project sizes, and complexity continue to evolve across organizations, workstation users are finding their current systems can’t keep up with their scaling and demanding workloads. The ThinkStation PX, P7, and P5 provide the superior level of performance needed to address these complex challenges.

**Iconic Chassis, Inspired by Aston Martin**
Features an advanced thermal architecture to maximize performance of ultra-high-end components

**Desktop-to-Data Center Flexibility**
Rack-optimized, 5U or 4U chassis with easy to attach rail kits and non-disruptive workstation acoustics in the ThinkStation PX and P7

**Breakthrough Compute Architecture**
Up to dual Intel Xeon Scalable processors delivering up to 56 cores in a single-socket platform

**Superior Graphics Support**
Up to 4 NVIDIA RTX 6000 Ada Generation GPUs can power virtual workstations and enable multi-user collaboration

**Innovative, Modular Design**
Offers greater expandability with hot-swap, front access storage for tool-less modifications and easy upgrades

**Flexible High-Performance Configurations**
CPU cores and memory are scalable based on workload with multiple options for power supplies and storage capacity

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