

Lenovo

OFFICIAL WORKSTATION PARTNER

ThinkStation PX, P7, and P5

The Pinnacle of Lenovo Technology





ThinkStation

High-Performance Technology for Complex IT Challenges

Meticulously designed to meet the ever-increasing demands for more power, performance, and speed, the new Lenovo ThinkStation PX, P7, and P5 desktop workstations can take on today's most extreme, high-computing workloads across industries with ease.

The ThinkStation PX, P7, and P5 feature a groundbreaking chassis design, the latest processor technology from Intel®, and support for even more highend NVIDIA RTX™. The new iconic chassis was co-designed with Aston Martin, featuring an advanced thermal architecture to maximize performance. Crafting the ultimate performance machines, Lenovo and Aston Martin created a new tool-less

chassis design for extreme flexibility and enhanced ergonomics, allowing power users to amplify every single stage of their complex workflows.

Professionals across any industry can vastly improve and expand their workflows — from real-time rendering and virtual production to machine and deep learning to metaverse exploration. The ThinkStation PX, P7, and P5 are ideal solutions in

- Architecture, Engineering & Construction
- Automotive & Manufacturing
- Healthcare & Life Science
- Media & Entertainment









The Most Powerful Solutions for Demanding Workflows

ThinkStation PX

Superior Thermals, Maximum Performance

Discover untapped workstation power and greater expandability in the all-new Lenovo ThinkStation PX. Co-designed with Aston Martin, masters of aerodynamics, the PX is the epitome of form and function-combining a premium chassis with a fine-tuned thermal design that achieves maximum performance from its ultra-high-end components. Featuring the latest dual 4th Gen Intel® Xeon® Scalable processors, up to 120 cores, and support for up to four NVIDIA RTX 6000 Ada Generation GPUs, this workstation goes beyond the limits of desktop performance to power even the most extreme workloads.

Offering flexibility for both desktop and data center environments, the ThinkStation PX is a versatile workstation that bridges the gap where previous solutions fell short. With an iconic, rack-optimized chassis and the processing power of multiple high-end GPUs, the PX was designed from the ground up to run the most complex computing tasks seamlessly.



Processor:

Dual CPUs 120 Cores

4th Gen Intel Xeon Scalable processors

Graphics:

4 NVIDIA RTX 6000 Ada Generation

Each with 48GB VRAM

2TB DDR5

16 DIMM Slots

Internal Storage:

60TB

Up to 9 Total Drives



ThinkStation P7

Staggering, Single-Socket Power

The bold ThinkStation P7 is a force to be reckoned with and brings together a breakthrough new compute architecture with an optimized thermal design. Featuring the latest Intel® Xeon® W processors, the P7 delivers up to 56 cores, robust PCIe Gen 5 connectivity, and high-speed DDR5 memory — all in a single-socket platform. Combined with the power of up to three NVIDIA RTX™ 6000 Ada Generation GPUs, the P7 is capable of handling by massive datasets and tackles compute-intensive, multithreaded tasks head-on.

Rack-optimized for enterprises that demand flexibility between desktop and data center environments, the ThinkStation P7 breaks new ground by taking on workloads that were traditionally reserved for cloud or server resources — all while maintaining nondisruptive workstation acoustics. Designed for data scientists, engineers, and high-end creatives, experience end-to-end workflow performance across game development, 3D rendering, computational fluid dynamics, and more.



Processor:

56 Cores 4.8GHz Intel Xeon W processor **Graphics:**

3 NVIDIA RTX 6000 Ada Generation 1TB
DDR5
8 DIMM Slots

Internal Storage:

52TB

Up to 7 Drives Total



ThinkStation P5

The Future-proof Industry Workhorse

Engineered for ultimate versatility, the Lenovo ThinkStation P5 is the all-around industry workhorse for professionals that demand scalable, future-proof solutions. Featuring an all-new **Aston Martin inspired chassis design**, the latest **Intel® Xeon® W processors**, and support for **up to two NVIDIA RTX™ A6000 graphics cards**, you can rely on the P5 to pack enough punch for any workflow, even in mission-critical environments.

Optimized for designers, engineers, and creatives alike, this workstation supports a broad range of compute-intensive tasks with ease, including BIM, complex 3D CAD, VFX, and edge deployments. Improve your productivity with high-speed DDR5 memory and ultra-fast PCIe Gen 5 bandwidth. With convenient front access storage and an array of high-performance configurations. Plus, enjoy the flexibility of customizing your P5 to tackle the workload needs of today, knowing you can easily upgrade for the ever-increasing datasets of tomorrow.



Processor:

24 Cores 4.8GHz

Intel Xeon W processor

Graphics:

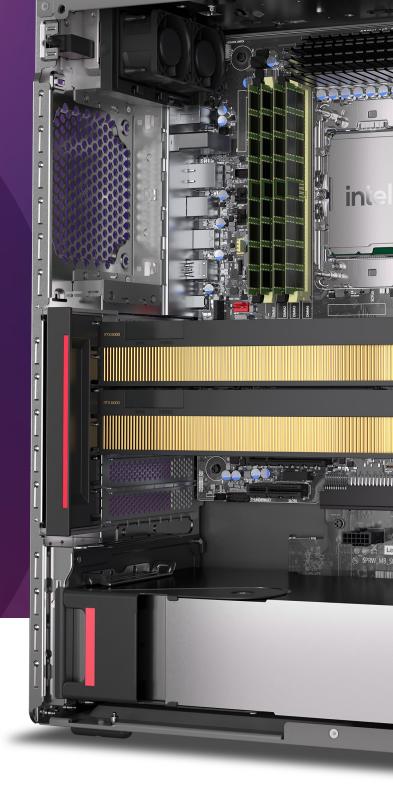
2 NVIDIA RTX A6000

Fach with 48GB VRAM

512GB DDR5 Internal Storage:

48TB

Up to 6 Drives Total



Architecture, Engineering & 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.

From demanding workflows, such as CAE simulation, digital fabrication, generative design, and artificial intelligence to rendering, VR, reality modeling, and geospatial simulation, the ThinkStation PX and P7 workstation powerhouses offer maximum performance. With the ThinkStation P5, you can work with the most complex BIM models, visualize in real time, simulate, and analyze digital twins all on a single workstation. Lenovo's next generation of ThinkStation desktop workstations offer architects, designers, and engineers the ultimate power and performance needed to drive ultra-demanding experiences.





Enhancing Architecture, Engineering & Construction Workflows

Architects, Designers & Engineers

Description: For architects, designers, and engineers who need maximum performance for computationally intensive workflows, such as 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 or Visualization. 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. With a chassis co-designed with Aston Martin, the next generation ThinkStations are a design and engineering marvel.





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.



Key Software Applications:

CAD: Autodesk AutoCAD, Revit, Bentley MicroStation, ALLPLAN Rendering: Chaos V-Ray, Unreal Engine, Unity, Twinmotion, Autodesk VRED

Enhancing Architecture, Engineering & Construction Workflows

Visualization Specialists

Description: For visualization specialists who require the ultimate rendering 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.



Key Software Applications:

Chaos V-Ray and Enscape, Unreal Engine, Unity, Lumion, Twinmotion, and many more





Simulation and Data Scientists

Description: The ThinkStation PX and P7 are our most powerful workstation solutions for architects, designers, and engineers who specialize in workflows requiring High Performance Compute (HPC). From geospatial to generative design to AI, simulation and applied research, the PX and P7 can be configured to tackle any HPC workflow challenge. Featuring up to 120 cores for CPU processing and up to 4 NVIDA RTX 6000 Ada Generation graphics for GPU compute, the ThinkStation PX and P7 are built with maximum performance and speed to handle the most computationally intensive workloads.



NVIDIA RTX 6000 Ada Generation graphics card

Automotive & Manufacturing

The ThinkStation PX, P7, and P5 go beyond the limits of desktop performance to power real-time visualization, simulation, and highperformance CAD and CAE.

These brand-new, thermally optimized workstations provide the most configuration options, savings on simulation process times, and offer high-performance flexibility and scalability never seen before. Offering maximum performance for both CPU and GPU based compute tasks and rich configuration options to fine tune performance for virtually any product development or automotive HPC task, these desktop workstations are the most powerful workstation solutions we have ever created.

As Lenovo workstation customers ourselves this project was a unique opportunity to craft a high-performance system we will use to design and develop our high-performance vehicles.

Cathal Loughnane, head of global partnerships at Aston Martin





Enhancing Automotive & Manufacturing Workflows

CAE Engineers & Specialists

Description: CAE engineers running computationally intensive multiphysics workflows will benefit from the power and performance of the ThinkStation PX, P7, and P5. With multi-core CPU and GPU configuration flexibility, the PX offers data center-like performance on the desktop, providing maximum GPU performance. Faster DDR5 RAM increases bandwidth for memory sensitive solutions.



Key Software Applications:

Altair, Ansys, Autodesk VRED, IC.CIDO, Mathworks - MATLAB, Siemens Simcenter STAR CCM+





CAD Designers & Engineers

Description: For manufacturing product development designers and engineers who need a workstation that does it all, the ThinkStation P5 is a CAD design and compute workhorse. The P5 offers an excellence balance of Intel Xeon processors with high clock speed and high core count, paired with powerful NVIDIA RTX graphics for visualization and rendering. Tackle with the most complex CAD models with ease, use visualization tools and render in real time, as well as running simulations, analyzing digital twins, and creating generative designs—all on a single workstation. The ThinkStation P5 has been engineered for ultimate versatility and flexibility.



Key Software Applications:

Autodesk AutoCAD, SOLIDWORKS, CATIA, Siemens NX, PTC Creo, 3DEXPERIENCE (3DX)

Healthcare & Life Science

Purpose built to meet the ever-increasing demands for more power and speed, the ThinkStation PX, P7, and P5 are ideal for medical imaging, radiology, data science, 3D molecular dynamics simulations, and the most complex computational demands of biology and chemistry.

The ThinkStation PX can expand up to 4TB of memory and 4x NVIDIA RTX 6000 Ada Generation graphics cards for those researchers and scientists who are trying to accelerate their time to insight. The PX can be installed under the desk or rack mounted, this new system gives users complete control and access with remote workstation software. This workstation powerhouse offers superior thermals and maximum power to go beyond the limits of desktop performance, running complex healthcare and life science workloads seamlessly.



Breakthrough compute architecture



Future-proof solutions



Mission critical certified





Enhancing Healthcare & Life Science Workflows

Pharmacology Research

Description: The ThinkStation PX and P7, featuring the latest technology from Intel and NVIDIA, are ideal for the pharmaceutical sciences tasked with the critical role of discovering and developing new drugs and therapies to combat diseases and viruses that affect human life. Whether it be drug discovery and design, determining how a drug interacts with a living system at the molecular level or gathering data during clinical trials, the PX and P7 are purpose built for multiple use cases throughout the pharmaceutical and biotechnology industries.



Key Software Applications:

NVIDIA Clara Parabricks, NVIDIA Clara Discovery, Schrodinger, Amber





Computational Bio/ Chem/ Physicist

Description: The ThinkStation PX and P7, featuring the latest technology from Intel with up to 120 Cores and up to 4x NVIDIA RTX 6000 Ada Generation GPUs, enables scientists to analyze huge sets of biological data, and run computer simulations to assist in solving complex chemical problems, and use the high-performance computing to study scientific problems to develop solutions to world's most complex problems.



Key Software Applications:

Schrodinger, ChemComp, MATLAB, Wolfram Mathematica, GATK, Oxford Instruments

Enhancing Healthcare & Life Science Workflows

Radiologist (Medical Imaging)

Description: The ThinkStation P7 and P5 are our most versatile workstations, designed to meet the needs of medical imaging specialists — from medical OEMs that require industry certifications like IEC 60601 and 60950 or long lifecycle products for embedding into a medical modality like an ultrasound, MRI, or CT, to radiologists diagnosing patients' medical images. For those who need real-time 3D rendering, these new workhorses are future-proofed for reliability and performance. The ThinkStation P7 and P5 are the ideal workstations to accelerate your time to insight and to help develop treatment plans for patients in need.





Key Software Applications:

Syngo, Synapse, Centricity, Intellispace, eRAD, IntellaPACS, MONAI.

Versatile workstations for medical imaging specialists with long lifecycles and reliable performance for real-time 3D rendering.



Media & Entertainment

Designed in conjunction with artists and studios, the ThinkStation PX and P7 have the flexibility to power any production function, from 2D/3D animation, compositing, and editing to creative finishing and virtual production. Rack optimization provides deployment flexibility from the desktop to the data center.

With features including multi-NVIDIA RTX GPU support for remote artists and complex production functions, and redundant PSUs to mitigate risk, these next-generation ThinkStations are the ultimate workstations for media and entertainment professionals. Whether you are color grading a project, on a virtual production set, or sitting in your office, the PX, P7, and P5 can power the most demanding workflows and offer high-performance flexibility and scalability like never before.



Deployment flexibility, from desktop to data center



Superior graphics support



Ultimate system stability





Enhancing Media & Entertainment Workflows

3D Modelers and Animators

Description: The ThinkStation P7 and P5 deliver what is most important for you as an artist — a workstation that can keep up with the speed of your creativity. Perfect for animation specialists creating photorealistic or stylized characters, environments, and props for film, television, and gaming, these next-generation ThinkStations deliver game-changing power and performance. With the latest, most advanced Intel Xeon technology and NVIDIA RTX Ada Generation GPUs to accelerate 3D modeling and animation workflows with real-time ray tracing and Al enhanced tools, the P7 and P5 provide a flexible platform to maximize your productivity and creative capabilities.



Key Software Applications:

Autodesk 3ds Max, Autodesk Maya, Blender, Maxon Cinema 4D, Pixologic ZBrush, SideFX Houdini





Compositors, Editors, and Colorists

Description: Artists tasked with bringing the director's vision to life need a workstation that is capable and can reliably run at peak performance. The ThinkStation PX and P7 deliver both high clock speed and high core count Intel Xeon CPUs — ideal for compositing, editing, and creative finishing solutions. With a rack optimized chassis, DDR5 memory and larger and redundant PSUs, you have what you need to iterate more easily and bring your creative vision to life without worrying about the technology driving your art.



Key Software Applications:

Autodesk Flame, Blackmagic Design DaVinci Resolve, Adobe After Effects, Adobe Premiere Pro, Foundry Nuke, Avid Media Composer

Enhancing Media & Entertainment Workflows

Game Developers

Description: The ThinkStation PX, P7, and P5 are ideal for all aspects of game development, from asset creation and performance capture, to programming and compiling or building. With never-before-seen compute capabilities and NVIDIA RTX technology delivering state-of-the-art on-screen performance faster than ever before, these new workhorses can power artists and studios developing the most engaging and immersive game titles for consoles, PCs or mobile devices.



Key Software Applications:

Epic Unreal Engine, Unity real-time development platform, in-house developed technologies

These new workhorses can power artists and studios from asset creation and performance capture, to programming and compiling or building.





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.

Packed with high-powered visual computing GPUs, NVIDIA RTX™ 6000 Ada Generation combines the latest-generation RT Cores, Tensor Cores, and CUDA® cores with 48GB of graphics memory to deliver the ultimate desktop performance needed to propel innovation forward. Seamlessly tackling advanced workflows, the ThinkStation PX, P7, and P5 equip data scientists, engineers, and creative professionals with high-performance technology to work with massive datasets, innovate faster, and elevate their AI and the compute-intensive workflows of tomorrow.



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