

Smarter redefines your potential



PREDATOR CYCLING CUSTOMER STORY

Predator Cycling, a manufacturer and designer of high-end custom-built carbon fiber bicycles, have forged new technology concepts in bicycle manufacturing. For the past 15 years, the team has not only designed all of their frames and conducted all of their simulation, rendering and manufacturing process in house, but they also manufacture, build and simulate all of the machinery and equipment used to build their custom bikes. Any chance to optimize these processes throughout the design and production lifecycle is essential.

“The real power is that our team can run CFD analysis, be modelling and screen-sharing on a video call, all simultaneously.”

- Aram Goganian, Co-founder

The Challenge: Increasing complexity of design workflows makes bringing new products to market difficult

The Predator Cycling team recently worked on their most innovative project to date—their new RF20 frame. With the project in research and development stages for years, the team wasn't sure the new road bike would ever see the light of day. Increasing costs of materials and the complexity of the design ultimately impacted the manufacturing and assembly of the bike. Predator knew they needed tremendous performance and efficiency gains to bring the RF20 to market at a competitive price.



**Smarter
technology
for all**

Lenovo

HOW **LENOVO** **WORKSTATIONS** TRANSFORMED THEIR PROCESS

Solution

Predator Cycling found the solution they needed to bring the RF20 frame to life by leveraging the sheer power and speed of Lenovo's ThinkStation® P620. Built with NVIDIA's new RTX A6000 GPU and AMD's ThreadRipper™ PRO processor, the ThinkStation P620 can handle real-time computing and extreme multitasking, allowing Predator to efficiently accelerate their workflows.

Built with the ability to process more complex models, render and run simulations in real-time, and streamline their manufacturing processes, the ThinkStation P620 gave Predator Cycling the edge they needed to bring their innovative project to life.

THE POWER TO RELEASE THEIR POTENTIAL

Improving design-to-manufacturing turnaround

Even beyond their newest product offering, Predator Cycling has been able to use the efficiency gained from the ThinkStation P620 to grow and scale their business. Since each of their bikes are custom-built, customers needed real-life representations to select their components and finishes. To accomplish this previously, the Predator team built physical prototypes that took months to complete from start to finish. Now with the power and speed of the P620, they can show customers bike renders long before they get to production or even physical prototyping. Thanks to the instant feedback they receive from customers, they can go from prototyping straight to testing—providing them with an estimated time savings of 12-16 weeks in their go-to-market timelines.

These efficiency gains are only just the beginning. With the game-changing power of the ThinkStation P620 and NVIDIA® RTX™ A6000 GPUs, Predator Cycling is now free to unleash their full innovative potential.

Application performance gains

Predator has also drastically improved internal workflows on simulations they're running as well as more efficient validation and testing. They've seen performance gains of 2-6x across a number of key applications including Luxion Keyshot®, ANSYS® Discovery™, ANSYS® Fluent®, and Autodesk® Fusion 360®.

ThinkStation
P620

Up to
64
Cores



NVIDIA
RTX
A6000

Up to
1TB
Memory

Up to
20TB
Storage

Up to
48GB
GPU Memory
with ECC



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5D MANUFACTURING METHOD



1 DESIGN
Generative design technology drives the evolution of form vs. function.

2 DEVELOP
The P620 makes CAD modelling, complex rendering and simulations twice as fast, allowing quick and precise insight into real-world performance.

3 DATA LOG
Beyond simulation data, manufacturing by instituting Industry 4.0 standards.

4 DRIVE
Quality and innovation. Designed and built by hand.

5 DELIVER
Providing the most advanced and cutting-edge quality available in bicycle frame technology.