

Smarter drives virtual reality



Aston Martin: Tackling Modern Business Problems with Professional Virtual & Mixed Reality

Part of the design language at Aston Martin is to challenge both the physical and digital tools available, pushing beyond to achieve design perfection. Through their partnership with Lenovo, Aston Martin can fully explore this passion for using smarter technology to bring projects to life.

From design and engineering collaboration, to customer experiences, training and dealership support, Aston Martin is using professional virtual and mixed reality (ProVR & XR) to bring their vision to life.

The Challenge

For years, Aston Martin has used VR in various areas of their business; however, these historically have been individual use cases that haven't scaled. Without a clear path to seamless integration across all areas of their business, VR is seen as a novelty instead of a problem-solving tool for engineering & workflow challenges.

The Solution

By collaborating closely with technology partners like Lenovo, Aston Martin can take advantage of bleeding edge mixed reality technologies. Leveraging ultra-high resolution VR headsets from Varjo, advanced Unity3D software, and power-packed Lenovo Workstations with NVIDIA RTX A6000 graphics, Aston Martin has tapped into the true potential of immersive technology. With this new end-to-end solution, they now have the opportunity to explore using one of the highest quality XR experiences ever created to connect all business workstreams from design and engineering through to marketing, sales and beyond.



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How **Lenovo Workstation** transformed their process

Lenovo, and technology partners like Varjo, helped Aston Martin bring the world of mixed reality to the forefront of product design, engineering and innovation. With the Lenovo Thinkstation P620, powered by NVIDIA RTX A6000 graphics, and the latest Varjo XR-3 HMD headset, Aston Martin raised the bar on fidelity to reinvent the art of what is possible through mixed reality.

A Powerful Solution for ProVR Content Creation & Consumption

Unity3D software plays a key role in Aston Martin's VR content creation. With extensive collaboration features, video pass-through, real-time and realistic feedback, as well as the use of LiDAR depth cameras, users can experience a like-real simulation. This bleeding edge software thrives on high-core count workstations, making the ThinkStation P620 a perfect fit. Built with ultra-powerful NVIDIA RTX A6000 graphics, the P620 helps to deliver a smooth, silky XR experience.

The ThinkStation P620, paired with NVIDIA RTX A6000 graphics, is also ideal for content consumption. NVIDIA's new Ampere technology provides the display performance required by the latest generation of higher-resolution HMDs, enabling incredibly detailed, photo-realistic, and immersive experiences.



Varjo XR3 Head Mounted Display

Display: Full Frame Bionic Display with Human Eye Resolution. Up to 70ppd, and 2880 x 2720 per eye with 99% sRGB color accuracy

FOV: Horizontal 115° Refresh Rate: 90Hz

Mixed Reality: Ultra-low latency, dual 12-megapixel video pass-through at 90Hz

XR Depth: LiDAR+RGB fusion, 40cm-5m range

Hand & Eye Tracking: Yes

For more information: www.varjo.com/products/xr-3/

ThinkStation P620

Processor: AMD Threadripper Pro 3975WX 32C CPU

Memory: 64GB DDR4-3200 ECC Memory

Graphics: NVIDIA RTX A6000 48GB GPU

Storage: 1TB PCIe Gen.4 SSD

OS: MS Windows 10 Pro OS



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