

Aston Martin Cognizant Formula One Team Accelerates High-Performance Computing with Altair

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Altair enables 97 percent utilization of HPC infrastructure to optimize processing compute-intensive simulations, powering innovation and cutting-edge design

TROY, Mich., May 6, 2021 /PRNewswire/ -- Altair (Nasdaq: ALTR), a global technology company providing solutions in simulation, high-performance computing (HPC), and artificial intelligence (AI), announces a new technical partnership agreement with the Aston Martin Cognizant Formula One™ Team, who has returned to the world's most prestigious motorsports series for the 2021 season. Aston Martin Cognizant Formula One™ Team engineers are using Altair Grid Engine™ to optimize the team's HPC infrastructure with its workload scheduling and management solution.



Modern Grand Prix racing has prioritized the construction of the most fuel- and energy-efficient cars, with a lower total cost. Establishing that efficiency occurs long before the car hits the track, where teams are running complex simulations using an optimized compute environment.

"Across our aerodynamics department, we're hugely reliant on high-performance computing to manage intensive workloads," said Bill Peters, chief technology officer, Aston Martin Cognizant Formula One™ Team. "That includes the 10 terabytes of data the team produces on a daily basisAltair's solutions give us a consistent and powerful infrastructure, enabling our team to gain strategic and performance advantages within a limit of 30 teraflops by achieving higher throughput, smaller wait-times, and reduced downtime."

Altair Grid Engine empowers the Aston Martin Cognizant Formula One™ Team engineering department to ensure the tens of thousands of simulations and other compute-intensive tasks are consistently and correctly sequenced and coordinated. It provides timely and efficient access to HPC, critical to powering simulations like wind tunnels, vehicle aerodynamics, tire performance, as well as fine tuning crucial design elements. HPC also powers full-car simulations, which creates a real-world simulator; allowing drivers like Lance Stroll and Sebastian Vettel to understand how design changes will impact race-day performance of their AMR21 cars.

"The impressive Aston Martin Cognizant Formula One™ Team operates in an environment where every split-second counts, not just on the racetrack, but in terms of rapid and informed design decisions utilizing HPC," said Sam Mahalingam, chief technical officer, Altair. "As Altair offers the industry's most comprehensive HPC toolset, we are proud to be part of the story and will be cheering for the team over every lap of the Formula One season."

As a result of utilizing Altair Grid Engine, the Aston Martin Cognizant Formula One engineering team's overall work throughput is faster, the most urgent requirements and results are prioritized, and applications and resources are used efficiently. Altair has helped the team to:

- Achieve a sustained 97 percent utilization of HPC infrastructure
- Properly manage the 10 terabytes of data the team produces daily
- Gain strategic and performance advantages within Formula One's 25 teraflop limits by achieving higher throughput, reduced wait times and downtime

To learn more, attend the Aston Martin Cognizant Formula One Team's presentation, "On and Off the Track, Every Second Counts: The Critical Role of HPC Optimization" at the Altair Global HPC Summit May 11-12. To register, visit https://web.altair.com/hpc-summit-2021.

About Altair (Nasdag: ALTR)

Altair is a global technology company that provides software and cloud solutions in the areas of simulation, high-performance computing (HPC), and

artificial intelligence (Al). Altair enables organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future. To learn more, please visit www.altair.com.

About Aston Martin Cognizant Formula One™ Team

After more than 60 years away from Formula One[™], Aston Martin returns to Grand Prix racing in 2021. With one of the most iconic emblems in the world above the garages and a team of almost 500 passionate men and women at its heart, this is a team with both a rich heritage and a fresh perspective – bringing new energy to the sport with a determination to shake up the order and compete at the sharp end. Our mission is to use the global platform of motorsport to engage a new wave of fans – showcasing the technology and innovation which live at our core while representing the values that resonate with the changing world in which we live. The new age of Aston Martin Cognizant Formula One[™] Team begins here.

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