

Accelerating engineering and design processes

Global manufacturer capitalizes on the benefits of a pre-configured software and hardware solution from Altair and Dell Technologies.



“Wherever it does business, Martinrea’s vision is clear: to make lives better by being the best supplier the company can be.”

Business needs

Martinrea’s engineering and design teams need reliable high performance solutions to accelerate product-development cycles.

Business results

- Accelerating engineering and design processes
- Bringing reliable products to market in less time
- Simplifying technology with a turnkey appliance solution delivered as a service

Solutions at a glance

- [Altair Unlimited](#)
- [Altair simulation software](#)
- [Dell EMC PowerEdge servers with Intel® Xeon® processors](#)
- [Dell EMC PowerSwitch N-Series switches](#)
- [ProSupport Enterprise Suite](#)

Making lives better

Martinrea International Inc. is a leader in the development and production of quality metal parts, assemblies and modules, fluid management systems, and complex aluminum products. The company focuses primarily on the automotive sector, with an eye toward addressing the industry's current and future needs.

A true global company, Martinrea operates in 57 locations in Canada, the United States, Mexico, Brazil, Germany, Slovakia, Spain, China, South Africa and Japan. Wherever it does business, Martinrea's vision is clear: to make lives better by being the best supplier the company can be in the products it makes and the services it provides.

The business and IT environment

To compete effectively, Martinrea continually strives to increase its IT efficiency and to support its engineering divisions with high performance computing systems to run large, complex engineering simulations.

When it evaluates IT systems, Martinrea looks for reliable, proven HPC solutions. The company recognizes that with fewer IT issues, its engineers, designers and analysts can get better products into the market in less time.

The company also looks for solutions that allow its product-development teams to run multiple large-model simulations quickly and efficiently using many-core computing systems. These solutions help reduce computer-aided engineering (CAE) turnaround times and accelerate design cycles. That, in turn, helps Martinrea respond faster and more effectively to its customers' needs.

Martinrea achieved all these goals when it adopted Altair Unlimited™, an appliance built on Dell Technologies hardware.

The solution

The components of the Altair Unlimited solution deployed at Martinrea include:

- Altair HyperWorks® simulation suite
- A cluster of Dell EMC PowerEdge rack servers with Intel® Xeon® processors, including PowerEdge R640 and R740xd servers
- Dell EMC PowerSwitch networking

Additionally, the Altair solution is backed by services from Dell Technologies, including ProSupport Enterprise Suite.

The turnkey appliance is unique in how it is delivered. Specifically, this is an on-premises platform-as-a-service offering leveraging Altair PBS Works enterprise software suite. The solution offers unlimited access to simulations across the entire Altair product range.

Elsewhere in its IT environment, Martinrea uses Altair OptiStruct™ analysis solution for structural simulations, along with other third-party solvers. These simulations help Martinrea demonstrate the strength and durability of its products while avoiding the high costs of physical tests.

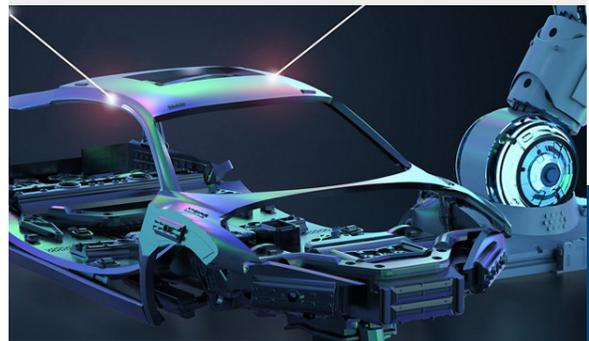
Looking ahead, Martinrea is interested in exploring manufacturing simulations driven by HPC systems and enabled by software and support from Altair and systems from Dell Technologies with Intel® inside.

Business benefits

With the use of solutions from Altair and Dell Technologies, Martinrea is saving both time and money. The appliance simplifies the deployment of technology and the complexities that can come with working with multiple vendors, as opposed to a single team.

In addition, Martinrea is saving a huge amount of time by accelerating CAE workloads on HPC systems with large core counts.

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