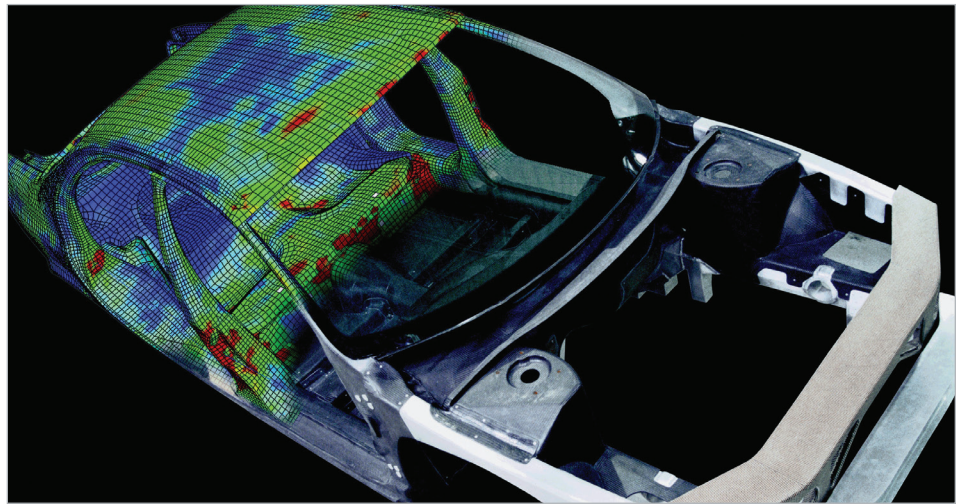
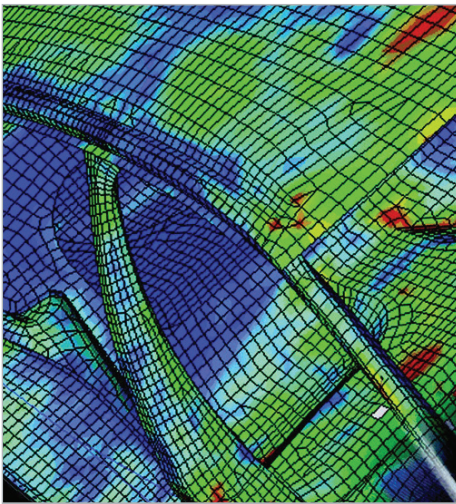


Multimatic Engages Altair Partner Alliance to Boost Business and Extend Analysis of Its Automotive Systems



Key Highlights

Industry

Automotive

Challenge

Needed to adopt new software and expand engineering capabilities while controlling cost

Altair Solution

Use HyperWorks Units to access third party software on demand

Benefits

- Increased flexibility
- Added value to HyperWorks investment
- Ability to offer customers broader range of analysis

Customer Profile

Multimatic, based in Markham, Ontario, Canada, is a Tier One Full Service automotive supplier, for whom “Strength Through Technology” is both the corporate motto and operating principle. In developing suspension components, modules and subsystems – along with offering instrument panel structures; hinge systems; and full-service engineering, analysis and prototyping – Multimatic is known for providing the latest in technological advancements and engineering services. In its position on the leading edge of automotive innovation, Multimatic has relied on Altair’s HyperWorks suite of computer-aided engineering (CAE) tools for over 15 years and now has integrated HyperWorks partner tools into its processes.

The Challenge: Making the Best Investments to Expand Engineering Capabilities

As challenges to the auto industry became more complex, Multimatic found that it needed to adopt new software tools that would enable it to offer customers a broader range of component and system analyses. Today’s engineering and production environments highly favor the most creative and flexible suppliers, and Multimatic has been determined to expand its capabilities in ways that promote ingenuity while offering exceptional value for its financial investments. Multimatic understood the crucial contributions to its processes and success that it derived from Altair’s HyperMesh pre-processing software, and then the complete HyperWorks suite,

Multimatic Success Story



“The Altair Partner Alliance has given us more flexibility and access to additional software at a time when everyone is trying to cut expenses. We were easily able to justify investing in more HyperWorks licensing units because of the value we receive from the Partner Alliance and licensing approach.”

Eric Gillund,
P. Eng. Analysis Manager
Multimatic Technical Centre

which it has used for pre- and post-processing every day. The company also used the HyperWorks OptiStruct and RADIOSS solvers for crash analysis and noise-vibration-harshness analysis. So the company was particularly eager to take advantage of the Altair Partner Alliance when it was launched.

The Solution: Affordable and Flexible Access to New Tools

The Altair Partner Alliance gave Multimatic the flexibility to replace their existing fatigue analysis tool with nCode DesignLife, an application that can be accessed as needed simply by using the HyperWorks

licensing units that it already owned.

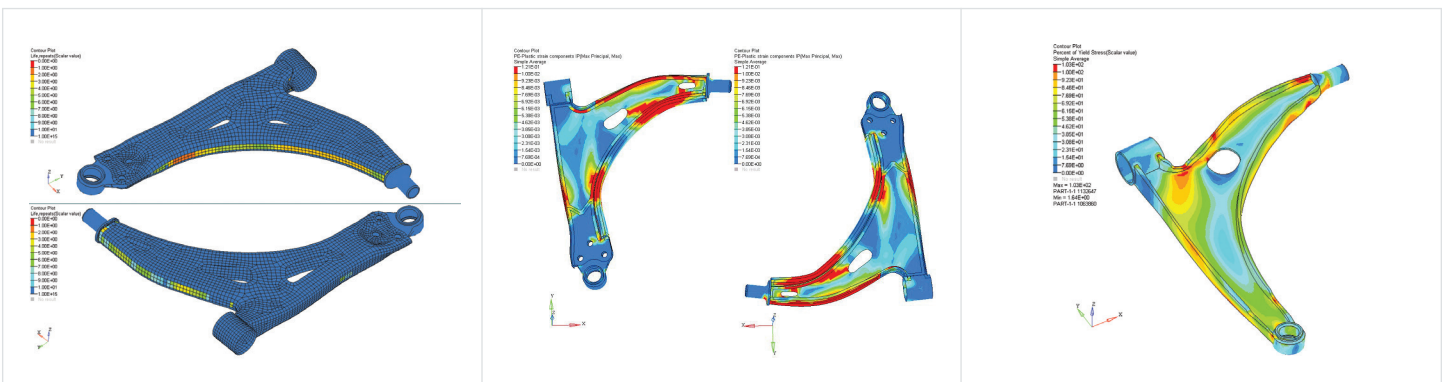
“It was really appealing for us to take advantage of that partnership,” said Multimatic Analysis Manager Eric Gillund. “The program provided us with access to software that we otherwise would have had to lease or purchase separately and to tools that would have been difficult to justify financially for occasional use. With the Partner Alliance, however, we gained the option to explore some areas of simulation that we previously might not have considered and to do so using our current license units.”

Multimatic began accessing nCode DesignLife through the Partner Alliance program to evaluate the impact of load

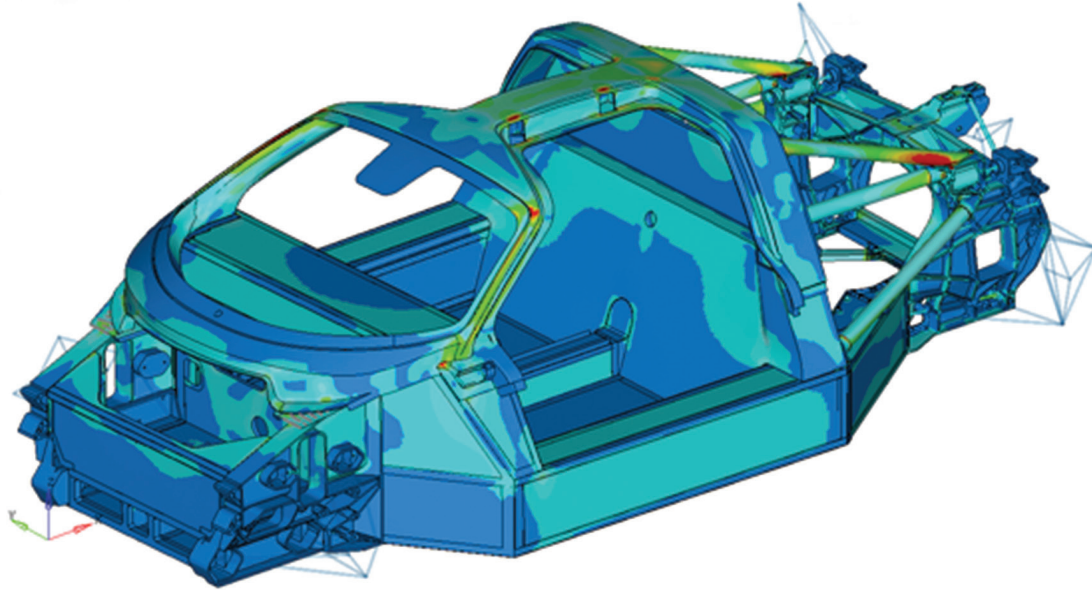
histories on the durability of suspension systems and hinges. nCode DesignLife allows the users to set up solutions in an easily repeatable way, while RADIOSS enabled them to optimize fatigue factors in designs.

“With RADIOSS and access to nCode through the Altair Partner Alliance, we arrive at the best design faster,” Gillund observed. “We’re using both tools to improve our designs for more optimal solutions.”

Subsequently, Multimatic accessed another HyperWorks partner application, MADYMO by TASS. Multimatic was able to integrate MADYMO occupant models into its analyses to predict injury values. Within the APA,



Multimatic uses OptiStruct to optimize and develop the shape of parts and performs linear static simulations in RADIOSS/Linear. The fatigue results are calculated using nCode DesignLife.



Multimatic uses the HyperMesh pre-processing tool and RADIOSS/Linear in torsional stiffness and stress simulations of vehicle chassis

TASS offers its complete suite of MADYMO occupant, human and impactor models; its coupling solver for usage with FE structural codes; and its pre- and post-processor.

“We were working on an electric vehicle’s structure and, as the program moved along, the customer realized they needed to assess occupant performance as well,” Gillund recalled. “Because we had access to MADYMO through the Altair Partner Alliance, we were able to conduct that work for the customer providing a fully integrated solution, thus reducing overall program cost and timing.”

Since then, Multimatic has begun evaluating two CFD applications offered through the APA to expand the company’s capabilities: Software Cradle’s SC/Tetra, a thermo-fluid analysis system, and ACUSIM’s AcuSolve, a computational fluid dynamics flow solver.

“As we work more in this area, I can definitely envision using one of these tools for specific problems that would take advantage of its features or to validate results from other codes,” Gillund said.

Multimatic also is considering other APA applications, including Moldex3D from CoreTech for injection molding processes and DIGIMAT from e-Xstream to predict the behavior of materials.

Gillund has found the increased flexibility furnished by the Partner Alliance to be exceptionally useful, “We can control our license usage, running one seat or multiple copies of some programs, and we have the chance to try out software that’s not part of our core business. Moldex3D is something we’ve always been interested in but couldn’t justify the cost. The Partner Alliance opens the door to a more comprehensive approach to solving problems in ways we wouldn’t have otherwise, given our access.”

The Results: A Heightened Competitive Advantage

“The Altair Partner Alliance has allowed us to attract more new business because of the increased capabilities we can offer,” Gillund said. “In addition, we can perform the work we currently have faster and in a more complete fashion. As a result our competitive advantage has increased.”

The Partner Alliance solutions in combination with core HyperWorks applications enable Multimatic to help its customers mitigate the risk in their system designs because more questions can be answered in less time.

“At the end of the day,” Gillund noted, “that’s what it’s all about—mitigating risk. We can do more design iterations more rapidly to optimize our customer’s final design. Now we’re seeing an increase in the amount of engineering work we are assigned because of the competitive way we can supply those services, thanks to HyperWorks and its Partner Alliance program.”

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About Altair

Altair's vision is to radically change the way organizations design products and make decisions. We take a collaborative approach to solving diverse and challenging problems through the strategic application of technology and engineering expertise. Developing and applying simulation technology to synthesize and optimize product development processes for improved business performance is our specialty.

From computer-aided engineering to high performance computing, from industrial design to cloud analytics, for the past 29+ years Altair has been leading the charge to advance the frontiers of knowledge, delivering innovation to more than 5,000 corporate clients representing the automotive, aerospace, government and defense industries and a growing client presence in the electronics, architecture engineering and construction, and energy markets.

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About Altair Partner Alliance

One Platform. One License. One Source. **All Access.**

Altair's HyperWorks® platform applies a revolutionary subscription-based licensing model in which customers use floating licenses to access a broad suite of Altair-developed, as well as third-party software applications on demand. The Altair Partner Alliance effectively extends the HyperWorks platform from more than 20 internally developed solutions to upwards of 60 applications with the addition of new partner applications. Customers can invoke these third-party applications at no incremental cost using their existing HyperWorks licenses. Customers benefit from unmatched flexibility and access, resulting in maximum software utilization, productivity and ROI. For more information about the Altair Partner Alliance, visit:

www.altairalliance.com



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