



BROSE BOOSTS WINDOWS CLUSTER

LEADING AUTOMOTIVE SUPPLIER SPEEDS UP SIMULATION USING ALTAIR SOLUTIONS

About the Customer

Max Brose started selling automobile accessories and components in Berlin in the early 20th century. Today Brose is the world's fourth-largest family-owned automotive supplier, with around 25,000 employees at 65 locations in 24 countries. It ranks among the top 40 automotive suppliers in the industry worldwide, and it's on the front lines helping to shape the future of the automobile. The company's products provide vehicle comfort, safety, and efficiency — which Brose ensures by investing nine percent of its revenue in research and development. Brose India Automotive Systems Pvt Ltd has been an Altair customer for more than 4 years.



Altair enabled us to optimize the compute resources in our Windows environment, which wasn't something anyone else was able to deliver. Utilization efficiency is up and we have more insight into how and when our resources are used. Users don't have to initiate remote desktop sessions to run simulations, which is a major time saver.

— Dattatraya Mandke,
Associate Vice President, IT
— Sachin Sabnis, Assistant
Manager, Engineering IT



Their Challenge

The team at Brose India, located in Pune, needed to **optimize its high-end Windows workstation and improve efficiency** by fine-tuning scheduling and streamlining utilization of its hardware and software infrastructure. Brose uses batch applications that will only run in a Windows environment, with emphasis on crash and durability applications. Windows clustering and data staging are requirements. Brose needed a partner that could provide an end-to-end solution and serve as a single expert contact for consultancy, architecture, and support. They were using an RDP server to run simulations using remote desktop sessions, with no tracking for license or hardware utilization efficiency. They wanted to boost utilization to run jobs faster.

Our Solution

We set the team at Brose up with the industry-leading Altair® PBS Professional® workload manager and Compute Manager job submission portal for their Windows OS environment. **Altair was the only vendor with a Windows-based solution that met their requirements.** The relationship started with Altair as a solution consultant, conducting in-depth interviews with the Brose team to determine their requirements and pain points. We proposed and implemented a solution that split users' workflows so pre- and post-processing were done at their own individual workstations, but solver computation ran on the shared high-end cluster. We trained personnel and customized the job portal to make it easy and user-friendly, and to accommodate Brose's specific needs. To make the solution robust, we used enterprise-grade connectivity and storage and worked with the Brose global Windows security team to optimize their policies. Users no longer needed to use a remote desktop session on their own workstations to run simulations, removing the RDP bottleneck and allowing simulations to run more quickly on Brose's cluster. The solution eliminated the need for batch scripting and reduced monitoring and debugging time.

Results

With Altair's expertise and implementation of an end-to-end solution, Brose is now optimizing the use of its compute resources. The solution enables the team to track who has used resources, when, and for how long, transparently. **License and server usage efficiency is up and so is team productivity.** An efficient workload means reduced runtime, improved collaboration, and higher customer confidence. With PBS Professional the Brose team is orchestrating their workloads for maximum efficiency, and Compute Manager allows them to identify who is using what hardware and how many jobs are running at any given time. They're spending less time asking for IT help and simulating faster with increased throughput.

Brose partnered with Altair to optimize its high-end Windows workstation for more efficient automotive component design