PROCESS AUTOMATION

AWE**SIM**

TS RESULTS APP MANAGES SIMULATION DATA AND SPEEDS RESULTS

With decades of race car engineering and design under their belts, the TotalSim US team understands the necessity for precision and quick execution. Through use of high performance computing (HPC) resources made available through the Ohio Supercomputer Center (OSC), they are able to produce invaluable computational fluid dynamics (CFD) data for their auto racing clients and other industrial companies with which they work.

The resulting vast sets of data, however, are uniquely difficult to present in a well-structured fashion, and the process of cleaning it up is cumbersome and time-consuming.
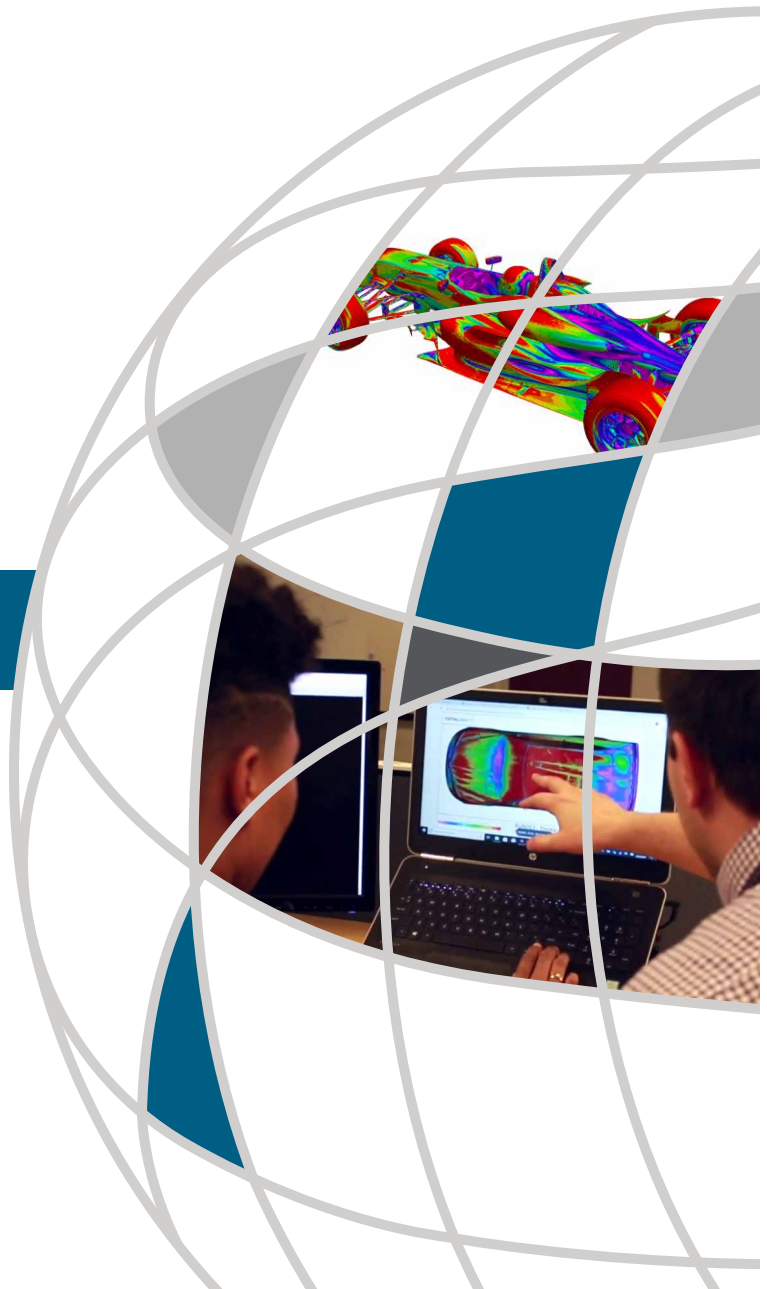
To expedite the post-processing and delivery of data that TotalSim collected, the team began to utilize aspects of OSC's AweSim program. The structure of AweSim allows for an end-to-end workflow and post-processing of CFD data.

"Out of the AweSim program, TS Results really started to take off. Now it's moved into something we use internally on a daily basis, and we keep adding outside customers."

— Ray Leto, president of TotalSim

VIRTUAL DESIGNS. REAL BENEFITS.

TotalSim, a founding partner of AweSim, extended their contribution to post-processing and created the TS Results app. This app efficiently processes and collates CFD data and allows the information to be shared in a standardized format with clients soon after a simulation is complete.

AUTOMOTIVE

THE CHALLENGE

While the CFD data that TotalSim collects for its clients is incredibly useful, the process of getting the information to them in an organized fashion proved to be too cumbersome and time-consuming for the team. Not only did they have to manually gather results, they would also have to create their own charts, graphs and slide presentations.

THE APPROACH

Through OSC's AweSim program, TotalSim was able to create the TS Results app. This simulation data management app efficiently processes and collates the CFD simulation data.

THE SOLUTION

The TS Results app allows TotalSim to share the results of simulations to their clients as soon as the process is done in a clean, standardized format. Leto remarked that through the use of the app, his team spends up to two-thirds less time on post-processing. One of his main clients said it has doubled their efficiency by allowing them more time to do analysis, he noted.