



WEB-BASED CFD AUTOMOTIVE  
**SIMULATION APPLICATION**



TS Auto is a web-based application that allows you to perform highly-accurate computational fluid dynamic (CFD) simulations from concept cars, to OEM, to race cars of all types.

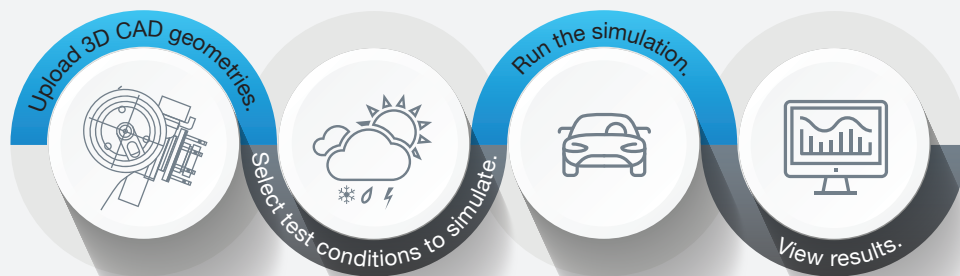
TS Auto makes it easy to accelerate testing and development by simplifying typical CFD simulation methods. In just a few simple steps, our powerful app analyzes forces and flow on your vehicle and provides a suite of post-processing results that can then be compared across designs and conditions for insight on trends and performance.

Cost-effective and already customized to the needs of automotive design, our TS Auto application puts the expertise of our team at your fingertips. Simply upload your geometry, select the conditions to test for and submit your simulation – our app does the rest.

TS Auto is highly intuitive, requiring little to no user training. Plus, with access to our remote computational resources, your designers and engineers are never held back by computing limitations.

With automated modeling and simulation coupled with high processing speeds, TS Auto improves efficiency and results accuracy to help you take your designs from initial concept to high-performance reality.

**HOW IT WORKS**



# TS AUTO

## WEB-BASED CFD AUTOMOTIVE SIMULATION APPLICATION



### KEY BENEFITS

- **ACCURATE**  
Get more accurate results with automated modeling and simulation tailored specifically to automotive designs.
- **FAST, POWERFUL PROCESSING**  
Living in the cloud, TS Auto allows you to take advantage of our supercomputing power to run, store and scale simulations.
- **FLEXIBLE GEOMETRIES**  
Intelligent simulation creation detects geometric features, giving accurate results whether designing race cars or concept cars.
- **SECURE**  
Our stringent data storage practices keep your intellectual property safe.
- **AUTOMATED PROCESSES**  
TS Auto simplifies complex simulations by automatically meshing your geometry, configuring solver settings and organizing the results and images for view or download.
- **REPEATABLE**  
Our vetted simulation process ensures repeatable, comparable results across your organization.
- **CUSTOMIZABLE**  
TS Auto can be customized to emulate your physical test processes and deliver the highly accurate performance predictions you need.
- **USER-FRIENDLY**  
Highly intuitive and easy to use, TS Auto gives even a novice user the ability to perform production-grade simulations.
- **COST-EFFECTIVE**  
Because TS Auto is web based, you receive CFD expert-level results without the cost of dedicated staff, software or hardware.

### INPUT CAPABILITIES

- Arbitrary geometry upload
- Vehicle speed
- Vehicle ride height
- Vehicle yaw
- Ambient conditions
- Porous media

### OUTPUT CAPABILITIES

- Force and balance data
- Dimensional and non-dimensional results
- Flow visualization
- Force convergence history
- Custom pressure coefficients isosurfaces
- Drag and downforce accumulation plots
- Fluid slice images and animations
- Surface pressure maps

### VALUE-ADDED SERVICES

- Vehicle scanning
- Geometry preparation
- Assisted simulation analysis
- Early, mid and late-stage design simulation consulting

### WHO WE ARE

TotalSim is a full-service CFD consulting and solutions provider that supplies expert knowledge and insight to global clients in the automotive, motorsports, aerospace, marine, energy, chemical, and consumer product sectors. With decades of experience in aerodynamics and design, we take ideas from initial concept to high performance reality by combining our real-world engineering expertise with advanced CFD technology. From expert advice to customized software, we strive to simplify complex CFD processes to help our clients outperform the competition.

READY TO ACCELERATE YOUR AUTOMOTIVE DESIGN AND DEVELOPMENT?  
CONTACT US AT 614.255.7426 OR [INFO@TOTALSIM.COM](mailto:INFO@TOTALSIM.COM) TO GET STARTED.

