

What's New in TransModeler 5.0

Caliper Corporation is pleased to announce the release and immediate availability of TransModeler 5.0, the most accurate and detailed traffic simulation software ever created. The new version adds key enhancements for the simulation of advanced traffic management strategies, such as managed lanes and hard shoulder running, and all-new features for the simulation of connected and autonomous vehicles (CAV).

TransModeler is the definitive analysis tool for managed/express lanes being planned and implemented all over the U.S. It has been utilized in the planning and design phases as well as in toll and revenue studies. TransModeler has built-in support for a wide variety of dynamic pricing strategies and sensitivity to traveler choice behavior.

Support for the simulation of CAV scenarios includes the different levels of automation defined in the industry and corresponding options and adjustments for vehicle behavior. Varying levels of market penetration of CAV are easily simulated.

Already the most robust simulator of driver behaviors and vehicle dynamics, TransModeler 5.0 breaks new ground in driver behavior realism and accuracy in modeling acceleration and braking as well as gap acceptance at signalized and unsignalized intersections. Numerous default parameters are updated based on empirical data from field studies. Driver behavior in roundabouts, specifically, is significantly upgraded for more accurate simulation of multilane roundabouts.

TransModeler 5.0 sets a new standard for ease of use with more intuitive road and intersection control editing tools, including vastly improved editing of roundabout geometry with splitter islands. Visual cues and helpful tool tips lower the learning curve for model creation and reduce the costs of model development.

This latest version introduces new features to integrate traffic simulation with travel demand models and forecasts. For activity-based model demand inputs, TransModeler can model tours and trip chains and preserve their temporal integrity. TransModeler can directly perform dynamic traffic assignments for travel demand models and produce time period-sensitive estimates of best route travel times and travel distances for use as demand model inputs.

For smaller traffic studies, TransModeler 5.0 offers better support for entering and managing turning volumes at roundabouts and weaving volumes on freeways, providing more control over the paths vehicles take in the analysis performed in Traffic Impact Studies.

Among the most exciting added features is an all-new 3D modeling environment, elevating 3D realism and performance to new heights. Output management tools and reports have also been completely overhauled for better-looking, more customizable reports.



TransModeler 5 Highlights:

- *Enhanced simulation of advanced traffic management systems*
- *Simulation for connected and autonomous vehicles*
- *Improved driver behavior models for increased realism and accuracy at intersections and multilane roundabouts*
- *Easier road and intersection control editing*
- *Better integration with travel demand models*
- *Smarter, faster performance for reduced model run times*
- *New 3D modeling environment with greater performance and realism*