



# TransModeler

## What's New in TransModeler 4.0

TransModeler 4.0 incorporates the latest traffic modeling and signal systems research into new and innovative features, such as microsimulation-based traffic signal optimization, and organizes traditional traffic analysis methods into a convenient and easy-to-use traffic impact analysis (TIA) toolbox. Dozens of other features have been improved, such as higher-performance dynamic traffic assignment (DTA) and full-featured managed lanes simulation methods. Version 4.0 further cements TransModeler as the most modern and comprehensive traffic microsimulation software for modeling wide-area networks and advanced traffic management strategies.

### New Features

- Microsimulation-based traffic signal optimization
- A complete Traffic Impact Analysis toolbox
- Dynamic skim matrices for ABM integration
- AutoCAD DWG and DXF file support
- The Run Manager: specific functionality to enable you to automate simulating multiple runs, DTA, and reporting.

### Significant Enhancements

- Managed lanes simulation methods, including reversible managed lanes
- HCM 2010 Level of Service reporting
- Signal warrant evaluation
- Dynamic lane access control
- Vehicle emissions modeling
- Importing and georeferencing Synchro networks
- Simulation of heavy-vehicle acceleration and deceleration on steep grades

### Groundbreaking Signal Optimization Techniques

With signal optimization and TIA tools now integrated with the most robust microscopic traffic simulation platform, TransModeler also makes the most basic traffic studies – for a single intersection, roundabout, interchange, or corridor – simpler and more cost-effective.

### Wider Areas, Faster Run Times

Version 4.0 is faster than ever before, using new parallel computing methods in addition to multi-threading to reduce simulation running times. Route choice calculations are also given a performance boost, enabling faster dynamic traffic assignments for larger and larger networks.

### Enhanced Methods for Managed Lane Microsimulation

Managed lanes simulation techniques have been enhanced to add support for a wider variety of zone- and trip-based dynamic pricing strategies. Reversible managed lanes can also be built with the road editing and managed lane editing tools off the shelf. TransModeler is being used successfully in designing and operating managed lanes and in investment grade revenue studies.



*The first ever large MPO-wide microsimulation-based DTA model was built in TransModeler 4.0 for the six-county North Florida TPO. This 4,000 square mile DTA model is being integrated with the MPO's activity-based model (ABM).*

*TransModeler 4.0 is the modeling platform for the reversible I-95 Express Lanes in Northern Virginia, which opened in December 2014.*

