

## 7 Considerations When Using Traffic Microsimulation for Level of Service Analysis

1. Ensure that the Measures of Effectiveness (MOEs) from the simulation match HCM measures to report the Level of Service (LOS). Read below on how to use TSIS-CORSIM HCM-ready performance measures for two-lane highways.
2. Make sure actuated signals have corresponding detectors set at appropriate link approaches.
3. Simulation can provide additional measures to complement HCS analyses (e.g., unsignalized or yield-controlled movement delay at signalized intersections).
4. Ensure that the simulation period comprises the complete period of a LOS analysis, including sufficient warm-up, vehicle accumulation, and queue dissipation periods.
5. Simulation may be used for fine-tuning geometry configurations modeled in HCM/HCS, such as interchanges and alternative intersections. [Read More](#)
6. Running multiple simulations with different random seeds and average these performance measures. [Read More](#)
7. Consult HCM Chapter 6 on HCM and Alternative Analysis Tools for guidance on how simulation may fill HCM methodology gaps. Examples:
  - Signalized intersections with queue spillback. [Read More](#)
  - STOP-Controlled intersections with turn pockets adjacent to shared lanes. [Read More](#)

## Two-Lane Highways Simulation and Truck Behavior

TSIS-CORSIM can simulate two-lane highways and generate service measures compatible with the HCM6 methodology and the new HCM7 methodology:

**HCM6:** Speed and Percent-Time Spent Following (PTSF)

**HCM7:** Speed Follower Density (FD)

Truck behavior may be configured to better represent typical operations on different two-lane highway segments.

[Read More](#)



The TRB Highway Capacity and Quality of Service Committee (HCQSC) hosted its first in-person mid-year meeting since 2019 at the National Academy of Sciences building in Washington, DC.

The theme of the meeting was **Using Big Data to Answer Basic Questions**. There were insightful workshops and discussions on how HCM7 can leverage new technology and data to keep up with the industry's needs. Behzad Aghdashi chaired the Uninterrupted Flow Subcommittee meeting, while Gustavo de Andrade gave presentations on interchange and alternative intersection methods and future research needs.

Thanks to all the committee members and friends for such a productive meeting.

#### TIPS AND HINTS

### Find Tool

The Find tool (**Ctrl+F**) in TSIS-CORSIM allows the user to quickly:

1. On the map mode, find and navigate to the chosen node number
2. On the report screen, find and quickly jump to the desired label or value

Similar "Find" tools for quickly finding outputs are available in Highway Capacity Software (HCS) modules and the Highway Safety Software (HSS).

[Read More](#)

## McTrans Presence at Professional Conferences

Our team had a productive time at the ITE Great Lakes Annual Meeting, ITE Mountain District Annual Meeting, and the ITE Western District Annual Meeting. We had the opportunity to talk with attendants, including many of our clients, and share our products and solutions for mobility, safety planning, and engineering. Thanks to the local committees and ITE for organizing these events.





## Next Events in 2022

Are you attending any of these events?

Make sure to visit our booth and talk to our experts!

We look forward to meeting you, talking about our latest products and services, and hearing your questions and opinions.

- ITS Florida Transpo (July 17-20, Bonita Springs, FL)
- ITE Annual Meeting (July 31 – Aug 3, New Orleans, LA)
- ITS World Congress (September 18-22, Los Angeles, CA)



## Jonathan Czerenda

Accounting Specialist

In 2022, Jonathan Czerenda is celebrating his 34th work anniversary at the University of Florida. In the last 25 years, he has worked with three directors at the McTrans Center, handling responsibilities that range from managing supplies to supporting the planning of exhibition events and other professional travels for the McTrans staff. In his own words, it was "certainly very interesting to watch as technology evolved, and manuals and guides distributed by McTrans turned into pdf documents, and software sent by floppy disks over the mail is now easily downloaded from our online store. Working at McTrans, I had the opportunity to meet such a diverse group of students and fellow coworkers".

We are most appreciative of Jonathan's contribution throughout these years and hope he continues to work at the McTrans Center for more years to come.



## UPCOMING VIRTUAL TRAINING

### What's New in the 7th Edition of HCM?

Applicable for **1.5 PDHs**

**July 12, 2022** 12-1:30 PM ET

### Highway Safety Analysis

Applicable for **8 PDHs**

**July 19 - 20, 2022** 1-5 PM ET

**Aug 30 - 31, 2022** 1-5 PM ET

### Traffic Engineering Fundamentals

Applicable for **8 PDHs**

**Sep 14, 21, & 28, 2022** 10 AM-2 PM ET

### Highway Capacity Analysis

Applicable for **12 PDHs**

**Aug 16 - 18, 2022** 1-5 PM ET

### Transportation Equity Certificate

Applicable for **8 PDHs**

Transportation Equity Fundamentals I

**Oct 24 & 25, 2022** 1-5:30PM ET

Transportation Equity Fundamentals II

**July 21 & 22, 2022** 1-5:30PM ET

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**Have questions or want to learn more?**

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