Training Corner

Upcoming Courses and Seminars

Advanced Urban Travel Demand Forecasting

18-Sep-2001 through 21-Sep-2001
Sasnta Rosa, CA
Cost: $400
Contact: Charles Chenu, Caltrans
E-mail: Chuck_Chenu@dot.ca.gov

06-Nov-2001 through 09-Nov-2001
Arlington, TX
Cost: $400
Contact: Shannon Dixon
E-mail: sdixon@dfwinfo.com

Introduction to Urban Travel Demand Forecasting

02-Oct-2001 through 05-Oct-2001
San Bernardino, CA
Cost: $300
Contact: Charles Chenu - Caltrans
E-mail: Chuck_Chenu@dot.ca.gov

23-Oct-2001 through 26-Oct-2001
Austin, TX
Cost: $300
Contact: Marilyn Dell - TxDOT
E-mail: mdell@dot.state.tx.us

4-Dec-2001 through 7-Dec-2001
Washington, DC
Cost: $300
Contact: Kyung Kyu Lim - NHI/FHWA
E-mail: kyung.lim@fhwa.dot.gov

Latest information on courses and seminars can be found at:
http://tmip.fhwa.dot.gov

Missing Out?

Sign up for the TMIP Newsletter today:

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Texas Transportation Institute
110 North Davis Dr. Suite 101
Arlington, TX. 76013
Fax (817) 461-1239 or e-mail lday@tamu.edu

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Travel Model Improvement Program
c/o Texas Transportation Institute
110 North Davis Drive, Suite 101
Arlington, Texas
76013

TMIP

Travel Model Improvement Program

Technical Reference on Travel Modeling for Conformity Analysis

The FHWA TMIP staff is preparing a technical reference document to aid FHWA, FTA, and EPA field staffs and state and local transportation planning staffs in applying the travel modeling requirements contained in EPA's 1997 Transportation Conformity Rule Amendments.

The document will provide a single, consistent approach to the travel model requirements in the Transportation Conformity Rule. The document will also include specific criteria to aid federal reviewers in applying travel modeling to the emissions analysis required for a transportation conformity determination.

This reference document will not be an FHWA standard for best practice in travel modeling. Transportation planning agencies should have the flexibility to use a variety of travel demand forecasting methods consistent with their local transportation environment, the range of transportation alternatives under consideration, and the resources and technical capabilities of their planning staffs. However, DOT and EPA agree that network-based travel models used in transportation conformity determination should apply certain basic modeling practices and adequately document key assumptions, report validation and reasonableness checks, and explain unusual or unexpected results.

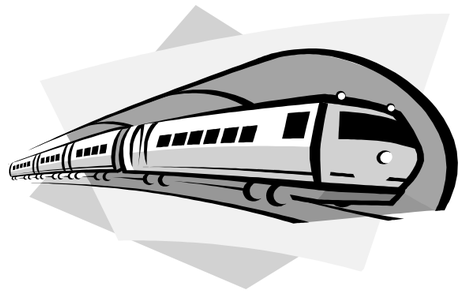
DOT and EPA technical staffs will review the document over the next few months. Assuming consensus is reached among the technical reviewers, DOT and EPA hope to issue the synthesis by the end of 2001.

When issued, the document will be available in printed form as well as in electronic form on the TMIP website. The electronic version will include a section on frequently asked questions. This section will be updated and expanded as appropriate, based on questions posed by MPOs, FHWA, FTA and EPA field offices, and others.

TRANSIMS Commercialization

PricewaterhouseCoopers (PwC) is under contract to Los Alamos National Laboratory to develop TRANSIMS-DOT, the commercial version of TRANSIMS. PwC has defined the TRANSIMS-DOT technology architecture including the type of network, hardware, software configuration, and development environment. The proposed architecture includes a Linux server, client workstations, and a cluster of compute nodes whose number can be adjusted to meet the computing needs of the planning organization.

PwC has also begun design and development of the TRANSIMS-DOT user interface. The GIS-based network editor will be designed and developed specifically to produce the necessary network data files for TRANSIMS. The interface will include procedures to setup and execute each of the TRANSIMS modules. The first release of the commercial version is scheduled for Spring 2002.



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Getting to know your TMIP team

Brian Gardner
Transportation Planner
FHWA

Brian started with the Federal Highway Administration in 1990 after graduating from North Carolina State with Bachelors of Science and Masters in Civil Engineering degrees. While with FHWA, Brian worked extensively on many projects, including the Congestion Management Systems Interactive CD-ROM, and the report, Incorporating Feedback in Travel Forecasting: Methods, Pitfalls, and Common Concerns. Brian moved over to the TMIP team in 1997.

Since joining the team, Brian has focused his work around simulation models and network analysis. An active advisor on TRANSIMS, he has worked closely on the privatization of the software. He feels travel demand forecasting is becoming increasingly disaggregate and, to meet this challenge, modelers will need to evolve their data collection methods and computing environments accordingly.

Tom Kane
Executive Director
Des Moines Area MPO

Tom is a member of the TMIP Review Panel. His role is to offer guidance and make suggestions to the TMIP team based on his experiences with small to medium size MPO's. Tom has served on the TMIP Review Panel for the past four years.

Tom has been executive director of the Des Moines Area MPO for 10 years. During his tenure he has managed many projects, including maintainance and updates to both the Des Moines metropolitan area's Long-Range Transportation Plan, and the Des Moines Area travel demand forecasting model in support of the Plan. Tom has also managed the integration of GIS into all aspects of the MPO's transportation planning process, establishment of Des Moines as an Add-on to the National Household Travel Survey, development of Early Deployment Plan for ITS, and a Goods Movement Study for the region.

Tom believes the traditional four step travel demand modeling process needs improvement because of the complex issues MPO staffs are being asked to address. He also thinks MPO's should gear their transportation planning programs to anticipate the shift in data requirement and modeling proficiency needs, taking advantage of those forthcoming shifts in travel demand modeling. This would enable MPO's to address the more complex transportation planning issues facing them today.

Tom received his Bachelors of Arts from St. Cloud State College in St. Cloud, Minnesota and received his Master of Arts from the University of Akron in Akron, Ohio. He has also done work toward a Ph, D. at the University of Georgia in Athens.

Hot Topics....

From the Listserve

The Value of Stated-Preference Data

A question posed recently regarded estimating a travel demand-forecasting model exclusively with Stated Preference (SP) data. The consensus from the listserv urged using Revealed Preference (RP) data along with SP data. The reasoning: RP data captures existing conditions based on existing policies while SP data goes beyond, into hypothetical situations.

SP data refers to survey responder's choosing between hypothetical and/or real options. For example: a responder could be asked, " given specific conditions, which mode would you prefer when traveling to a destination or for a specific purpose"? The goal is to aid transportation planners when making decisions about future investments in a community's transportation system.

A major concern with SP data is the responder not actually doing what they say they will do. This is a direct assault on the validity of the data. The surveyor must also be especially careful when designing and testing the survey instrument, to uphold the validity. If both of these are done well, the data becomes a very useful tool.

For more information on this issue go to the TMIP clearinghouse and order the Travel Survey Manual or visit the list serve archive via the TMIP website.

EYE on TRANSIMS

The Portland Case Study

Portland Metro and the Los Alamos National Laboratory completed development and began application of the individual TRANSIMS modules. They completed preparation and validation of the Portland "AllStreets Network," including coding transit routes, locating and creating generic traffic control signals, and generating and locating the Portland metropolitan area population. The team then generated activities and activity locations for the population, accounting for the total number of trips observed in the Portland area. These activities were fed into the route planner, and trip plans into the microsimulator. Iterations between the route planner and the microsimulator were performed. This iterative replanning process spreads trips in both space and time, i.e., when running into congestion a traveler may choose to take a different route or travel at a different time of the day. Using the Portland data, they developed and tested procedures for calibrating mode choice with dependencies on traveler income, mode travel time, trip purpose, parking costs, transit fares, origin and destination urbanization, origin and destination transit walk distance, and calibration parameters.

Important lessons learned in the case study include the importance of ensuring data quality in the early stages of generating the model input and carefully examining the consistency and validity of the output as the study progresses. The data sets and computations also helped refine the hardware requirements necessary for TRANSIMS deployment to large metropolitan areas.

In a data setting of unprecedented fidelity and size, the Portland study demonstrates the application of the first viable regional scale, microscopic, activity-based modeling/study methodology using the TRANSIMS simulation technology. Results from the TRANSIMS Portland study will be presented at the Transportation Research Board Annual Meeting in January 2002.

Comings & Goings

Website

The TMIP website has been redesigned and moved to the Federal Highway server! You can now find the website at:

http://tmip.fhwa.dot.gov

The new website provides TMIP with an improved clearinghouse interface and now meets all the federal accessibility requirements. Any comments regarding the new design or how we can improve upon our current service are welcomed.

New Products

Introduction to Travel Demand Forecasting CD-ROM

This self-instructional CD-ROM program is designed for users new to the field of travel demand modeling or those needing a refresher on the basics of the 4-step process. The course offers two instructional tracks. The executive track is intended for managers, decision makers, and the public, while the certificate track offers a more in-depth look at travel forecasting. This course is also used as a prerequisite for the NHI course "Introduction to Urban Travel Demand Forecasting."

Model Validation and Reasonableness Checking Manual

This manual is a guide to performing validation and reasonableness checks on the outputs of the travel demand forecasting models. While it is impossible to specify exact checks for every possible model, this manual will describe families of checks and provide concrete examples. The manual also provides tips for regions with limited resources for model validation.

Integrated Transportation and Land Use Forecasting: Sensitivity Tests of Alternative Model Systems Configuration

This document examines alternative modeling configurations to allow integrated transportation and land use forecasting currently available. It demonstrates the ability of planning agencies to implement such forecasts. It also demonstrates the effect of alternative model system configurations and provides some guidelines for agency technical staffs. This information will allow them to make informed decisions about modifying their own transportation and land use modeling processes to produce more reliable forecasts and policy evaluations.