

TBAG

TAMPA BAY APPLICATIONS GROUP

An Open Forum for
Transportation-Related Issues

Back To
Scool!



Volume 26
August 2003

“FROM THE CHAIR”

By: Christopher Hatton, P.E., Kimley-Horn and Associates, Inc.
2003 Chairman for the Tampa Bay Applications Group

The May 29, 2003 TBAG “New Methodologies” Workshop was a huge success with over 60 members in attendance. Thank you to all of our members for supporting our speakers in this always fun “workshop” format.

The workshop included three interesting workstations that addressed the process of validating subarea models for rapidly growing areas. Current projects within the Tampa Bay Area were used to help facilitate interaction at the workstations. The information and study results presented at each workstation were timely and very useful to the TBAG members.

Rob Cursey, URS, manned a workstation on “Socio-economic Data Review for Subarea Analysis.” Rob’s presentation addressed the process used to review and update socio-economic data for the New Tampa area, a subarea analysis project conducted for the Florida Department of Transportation, District 7. He covered local government coordination, field review results, baseline analysis, zonal splits and forecast analysis for the project.



Rob starts off his presentation with a smile.



Zonal analyses? Model refinements? Highway network changes? No problem says Sung-Ryong and Jeff.

The second workstation included a presentation by **Sung-Ryong Han** and **Jeff Stevens**, Gannett Fleming, Inc., on “Model Validation for Subarea Application.” Sung-Ryong and Jeff addressed the process of completing subarea model refinements, including zonal analyses and splits,

highway network changes, intergovernmental coordination and other validation issues. The Tampa Bay Regional Planning Model, in conjunction with the East Pasco Study, was used as an example validation.

Domingo Noriega and **Bob Johnson**, URS, presented on “Development of Design Hour Traffic Using Model Output” at their workstation. Domingo and Bob covered the process of converting model volumes into design hour traffic for use in traffic operations analyses. The Tampa Bay Regional Planning Model, in conjunction with the Bruce B. Downs PD&E Study, was used as an example application using procedures outlined in FDOT’s Design Traffic Handbook.



Domingo and Bob pose for a photo as they finish their presentation.

A very special “thank you” once again to our speakers for their time and outstanding presentations.

ATTENTION!!!

Next TBAG Meeting

**TransCAD
Demonstration**

August 21, 2003

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TransCAD: An Evaluator's Perspective

William E. Roll, Jr, AICP, Senior Associate, Tindale - Oliver & Associates, Inc.

Earlier this year the Florida Model Task Force recommended to FDOT, Central Office, Systems Planning that TransCAD be selected as the new FSUTMS software engine. This selection resulted from an evaluation of several travel demand modeling packages including CUBE, EMME2, VISUM, and TransCAD. I had the opportunity to serve with the group evaluating TransCAD and this article offers a perspective on my experience during this evaluation period.

The selection process began in October 2002, with initial vendor demonstrations using the Broward County Travel Model. This model was chosen because it is a complex, multi-modal model and implementation with the proposed packages would demonstrate a wide-variety of the modeling situations encountered in Florida. By early December 2002, CUBE and TransCAD were selected for further review. The next step in the evaluation process allowed for a more extensive and hands on application of the Broward County Travel Model.

To facilitate my participation in the evaluation process, I received a package containing the TransCAD software and documentation materials. My past experience with FSUTMS consisted of receiving periodic software updates and attending FDOT sponsored training workshops and user group sessions. I found that professional growth in the application of FSUTMS, however, was limited by the schedule of classes offered, documentation, expertise within your own company, and a reliance on fellow practitioners for assistance. From the beginning, the TransCAD experience was different. Upon opening the package I found the following materials:

- ✓ A complete general User's Guide;
- ✓ A manual on Travel Demand Modeling with TransCAD;
- ✓ A manual on Routing and Logistics with TransCAD.

Each of the manuals includes examples and tutorials. Many of the tutorials can be performed in just a minute or two. I liked the fact that I could read a few chapters of functions and directions and then spend ten minutes or so doing the tutorials. Once this was completed I felt like I had a much better understanding of the software. TransCAD opens up what many describe as the "black box" by tying the program functions to planning theory and technical details.



In addition to the manuals and documentation, the software includes extensive data sets including census geographic and data files, as well as other transportation related data sets. I found this to be a useful feature that reduces the amount of time that is typically required to extract Census data in order to do an analysis.

Once the software was installed I went through the entire User's Manual to get better acquainted with the new software interface. After this experience it was evident that TransCAD is much more than just a travel demand forecasting tool; TransCAD is a robust GIS software package that focuses on the type of analysis that transportation professionals need to perform. Often this type of analysis within GIS software packages requires extensive user expertise to write scripts or to perform other manual operations with the existing software tools. In TransCAD these menu-driven functions are relatively simple. In addition, the software includes mapping capabilities that allow for the production of very high quality maps, even ones derived from model-based networks.

As mentioned, a core element of the evaluation was implementation of the Broward County Travel

**Next TBAG Meeting
Transportation and
Land Use***
October 30, 2003

**This topic was moved from August to accommodate TransCAD demonstration.*

TransCAD - Continued On Page 3

Demand Model (1998 validation year). The model functions similar to the existing FSUTMS program in that a main menu dialog box is provided that allows a user to define and select different alternative scenarios and to select which model functions (trip generation, trip distribution, etc.) to be performed. When defining or reviewing a project scenario, space is available to include a lengthy description of the scenario. This is a benefit to users allowing them to recall the contents or intent of a scenario several months after the scenario is developed. Compared to the organization of the existing FSUTMS model structure, I found the naming organization and location of input and output files from the Broward model to be somewhat more difficult to follow. Based on the use of other TransCAD project files this seemed to be more due to the speed in which the initial Broward Model was converted and not due to the TransCAD software itself.

Caliper representatives during a workshop session. With the help of a tutorial session on labels, I was able to improve my labeling significantly.

In addition to the mapping abilities of the program, I also evaluated the select zone and select link analysis abilities of the software. I experienced some difficulty in performing both the select zone and the select link analysis functions relying solely on the documentation materials. I was able to perform both select link and select zone traffic assignments after a consultation with a Caliper representative. Of the two, select zone assignment is the easiest to perform since all you have to do is geographically select the zone from the map and then set some options on the traffic assignment menu. At the time of my evaluation, I was limited to performing an analysis on only one zone at a time, which I considered to be a major limitation. However, the current release of

WWW.



.COM

My responsibility on the Evaluation Team was to review some of the evaluation tools that are often used once a model is developed such

Caliper offers TransCAD for the Web and there are several application examples available through this site.

TransCAD, which is being distributed in Florida, does include the option to select more than one zone.

as mapping tools, select zone analysis, and select link analysis. I found that the mapping functions of the program are fairly intuitive with menus or tool bars for commonly used functions. As typical with most Windows compliant programs, holding your cursor over a menu option provides a balloon popup describing the function of the icon. The selection of themes for mapping is accomplished by picking from list of available database fields. If desired, the user can add additional data tables to map other variables. Once I had developed several of the more basic maps such as number of lanes, V/C ratios, facility types and area types, I found mapping to be relatively easy. I initially found labeling to be very cumbersome compared to my experience with other commonly used GIS software packages. I brought this concern to one of the

The select link analysis was initially more flexible but more cumbersome to perform. To perform a select link analysis you have to create a new table (dataview) titled "Critical" and define your links and directionality. I was able to include multiple links and group these links into separate sets. One drawback is that the software does not include the ability to geographically select links to be added to the table. The Caliper Corporation has reported that the next update of TransCAD will include the ability to geographically select links for analysis. In general, I found the process of performing select link and select zone analysis to be easier than the current FSUTMS process but there is still considerable room for improvement.

**BRING YOUR
BROWN BAG
LUNCH TO
TBAG!**

TBAG MEETING

August 21, 2003

*FDOT District Seven Office from 12:00 p.m. to 2:00 p.m.
(Auditorium Opens at 11:30 a.m.)*

Paul Ricotta, Caliper Corporation

TransCAD 4.5 Software Demonstration

Paul's presentation will include a demonstration of several of the unique and interesting features of the TransCAD 4.5 software. Hardware requirements for running TransCAD 4.5 and recommendations about upgrading existing equipment to use the software more efficiently will also be discussed.

Bob McCullough, FDOT, Central Office, Systems Planning

Danny Lamb, FDOT, District 7, Planning

Migration of FSUTMS from TRANPLAN to TransCAD

Bob and Danny will discuss the role of FDOT in assisting with the transition to TransCAD, including negotiated prices and other agreements, training, technical support and other issues.



TransCAD 4.5 Software Licenses

For **PUBLIC AGENCIES**: FDOT will provide **one free copy of TransCAD** to each MPO and most other public agencies that are active users of FSUTMS. **Additional copies** may be obtained through the Caliper Corporation by paying a negotiated **\$500 annual maintenance fee** for each copy. This offer to public agencies will be **good for approximately one year**. FDOT will notify public agencies when a cut-off date for this special offer is negotiated.

For **CONSULTANT PARTNERS**: Copies of TransCAD can be obtained from the Caliper Corporation for **\$1000 annual maintenance fee per copy**. Please note that this offer is good **ONLY through August 31, 2003. After that**

date, Consultants must pay the full retail price of **\$10,000 per copy**. This offer is extended only to Consultants that hold a current TRANPLAN license. Consultants without a current TRANPLAN license will be charged the full retail price of the software.

Please note that **TransCAD licenses are "seat" licenses**. That is, you will need a separate license and hardware key for each computer on which you plan to run FSUTMS. Requests for the FSUTMS (TransCAD) software upgrade should be made directly to the **Caliper Corporation at (617) 527-4700 or via the internet at www.caliper.com**.

Fiscal Year 2003/2004 Modeling Training Workshops

The Florida Model Task Force (MTF) adopted TransCAD as the new engine for the Florida Standard Model, FSUTMS. The FDOT, Systems Planning Office is offering an aggressive training program for the 2003/2004 Fiscal Year.

The first few FSUTMS/TransCAD Workshops are designed to introduce Florida transportation professionals to the capabilities of TransCAD, a transportation modeling package with full Geographic Information System (GIS) capabilities, under the Florida Standard Model framework. Voting members of the MTF will have first preference in attending these workshops, followed by other governmental partners. If classes are filling up, each FDOT District will be allocated four seats.

For registration information, go to www.dot.state.fl.us/planning, click "training" under the "General Info" tab, and then go to "Modeling Workshops." Terry Corkery is also available for questions at (850) 414-4903 or e-mail at terrence.corkery@dot.state.fl.us.

FSUTMS/TransCAD Workshop #1 (Confirmed)

Hotel: Homewood Suites
Dates: August 25-29, 2003
Rate: \$89.00 Single/Double
Address: 290 Southhall Lane,
Maitland, Florida 32751
Phone: 407.875.8777 (Reservations)
Starting Time: Monday 1:00 PM
Ending Time: Friday, Noon
Hotel and Registration Deadline: August 11, 2003

FSUTMS/TransCAD Workshop #2 (Confirmed)

Hotel: Hilton Fort Lauderdale/Sunrise
Dates: September 8-12, 2003
Rate: \$79.00 Single/
Double
Address: 3003
North University
Drive, Sunrise, Florida
33322
Phone:
954.748.7000
(Reservations)
Starting Time: Monday
1:00 PM
Ending Time: Friday,
Noon
**Hotel and Registration
Deadline:** August 24,
2003



FSUTMS/TransCAD Workshop #3 (Confirmed)

Hotel: Hilton Airport
Dates: September 29- October 3, 2003
Rate: \$93.00 Single/Double
Address: 2225 North Lois Avenue,
Tampa, Florida 33607
Phone: 813.877.6688 (Reservations)
Starting Time: Monday 1:00 PM
Ending Time: Friday, Noon
Hotel and Registration Deadline: September 8, 2003

FSUTMS Model Calibration Workshop (Confirmed)

Hotel: Adams Mark
Dates: November 3-6, 2003
Rate: \$69.00 Single/Double
Address: 100 N. Atlantic Avenue,
Daytona Beach, Florida 32118
Phone: 386.254.8200 (Reservations)
Starting Time: Monday, 1:00 PM
Ending Time: Thursday, Noon
Hotel and Registration Deadline: October 20, 2003

FSUTMS/TransCAD Workshop #4 (Confirmed)

Hotel: Sea Turtle Inn
Dates: December 8-12, 2003
Rate: \$88.00 Single/Double (Note: \$88 room
rate is inclusive of \$7.00 nightly service fee)
Address: One Ocean Boulevard,
Atlantic Beach, Florida 32233
Phone: 904.249.7402 (Reservations)
Starting Time: Monday 1:00 PM
Ending Time: Friday, Noon
Hotel and Registration Deadline: November 17, 2003

FSUTMS/TransCAD Workshop #5 (Tentative)

January 26-30, 2004
Orlando, Florida

FSUTMS/TransCAD Workshop #6 (Tentative)

February 23-27, 2004
Daytona Beach, Florida

TransCAD Traffic Impact Analysis Workshop (Tentative)

March 8-9, 2004
Daytona Beach, Florida

IDAS TransCAD Interface Workshop (Tentative)

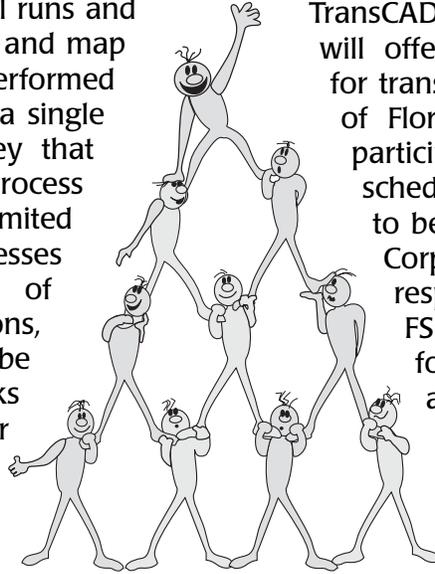
April 5-8, 2004
Orlando, Florida

FSUTMS/TransCAD Workshop #7 (Tentative)

May 3-7, 2004
Ft. Lauderdale, Florida

TransCAD continued from Page 3

One weakness of the software is the limitation on the number of model runs and other processes (editing, reporting and map preparation, etc.) that can be performed concurrently. TransCAD is sold as a single seat license with a hardware key that allows users to perform only one process or model run at a time. There is a limited ability to perform some processes concurrently through the use of scripts. However, in most situations, additional hardware keys must be purchased to perform multiple tasks or model runs simultaneously. For instance, to edit a network while running two alternatives in the background on a single computer would require three licenses and three hardware keys.



It is evident that the implementation of TransCAD as the core component of FSUTMS will offer additional tools and capabilities for transportation professionals in the state of Florida. I would strongly recommend participation at one of the training sessions scheduled in the near future if you intend to be using TransCAD. While the Caliper Corporation will be the primary party responsible for converting over the FSUTMS programming and scripting for all of the models used in the state, all of us will face the challenge of using a new software package. I hope that the challenges are few and the rewards are great as we move forward together with the implementation of TransCAD.

The Tampa Bay Applications Group Newsletter is published under contract to the FDOT District Seven Planning Office in Tampa. FSUTMS users and TBAG members contribute all information and material contained in the newsletter. Please contact the editors to submit articles for future issues or to get on the mailing list.

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