

# **DEVELOPMENT OF A PROTOTYPE COMPUTER-BASED TRAINING COURSE FOR FSUTMS**

## **PROBLEM STATEMENT**

FSUTMS training is a major activity of the Systems Planning Office. It aims to establish and maintain quality assurance for consistent statewide modeling standards and to provide up-to-date information on recent model enhancements. Training workshops are conducted on-site in a laboratory classroom setting at selected locations, mostly in Central Florida, for convenience of travel for participants from around the state. In addition, training sessions are available to Districts; these sessions utilize District equipment and work with actual projects that are under way. The costs of conducting and attending these workshops are considerable, which creates a limiting effect on workshop availability and participation.

An obvious alternative to conducting these workshops in the traditional format is to develop computer-based training (CBT) counterparts that take advantage of the powerful multimedia capability of today's microcomputers. With this type of training, instruction is provided through the use of a computer and software, which guide a trainee through the program. A CBT program can employ text and graphics, audio, video, and animation. It can utilize a wide variety of features: e.g., instructions offered in both textual and audio formats; hyperlinks to related sections or additional information or details; well-guided, hands-on examples presented in a self-paced, step-by-step and repeatable manner; and interactive quizzes with immediate, confidential feedback.

In short, CBT could provide easy, flexible, and ready access to FSUTMS training. CBT is flexible because it involves no fixed training schedule and can be used anytime and anywhere. It saves on travel time and does not take trainees away from their regular work schedules. It can serve as a viable alternative to those who are not able to attend on-site workshops for any reason. CBT can also serve as a supplement to workshop attendees who would like to review the training materials in a self-paced manner. Even more important, CBT would be cost-effective because it involves no travel, no site and equipment rentals, and no printed course material.

However, before FDOT commits itself to developing a CBT for each of its FSUTMS workshops, it is important that a prototype CBT be developed and distributed to select users for feedback. The experience gained in developing a prototype CBT, in addition to test user feedback, would help guide CBT development for selected FSUTMS workshops.

## **OBJECTIVE**

The objective of this project is to research and develop a prototype CBT for the FSUTMS/TRANPLAN Basic workshop for distribution to the Florida transportation modeling community.

## **RESULTS**

A multimedia CBT for the FSUTMS/TRANPLAN Basic Workshop was developed. The CBT includes the following 12 sessions:

- Session 1: Introduction
- Session 2: Modeling Process
- Session 3: FSUTMS
- Session 4: VIPER
- Session 5: External Models
- Session 6: Trip Generation
- Session 7: Highway Network
- Session 8: Highway Path
- Session 9: Trip Distribution
- Session 10: Mode Split
- Session 11: Trip Assignment
- Session 12: Evaluation

The CBT was developed entirely on Macromedia Flash, complete with detailed text descriptions of FSUTMS modeling procedures and steps; hyperlinks for websites, emails, and definitions; video clips for demonstration of program steps; voice narration for text description; and quizzes and exercises with instant answer checking. The CBT fits onto one CD and is available online, royalty-free, to Florida's transportation modeling community.

## **BENEFITS**

As the Department moves towards offering only the TransCAD version of the FSUTMS Basic Workshop, this CBT will serve as the only training opportunity for those needing instruction in the Tranplan version of FSUTMS during the Tranplan - TransCAD transitioning period. Furthermore, this CBT can be used to develop future CBT programs for other workshops; i.e., it can act as a template for the development of different and future FSUTMS CBT courses, whereby different course material can be plugged into the prototype. This ability to develop other CBT courses allows the Department to better serve Florida's transportation planning professionals by providing them with a viable alternative to attending live FSUTMS workshops.

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