Argonne
NATIONAL LABORATORY

TRANSIMS
Training Course
April 14-15, 2011
South Carolina State University

The Transportation Research and Analysis Computing Center at Argonne National Laboratory will hold a training course on the regional transportation analysis code TRANSIMS. The course is targeting both analysts new to the TRANSIMS methodology and those who had a previous experience working with TRANSIMS, and covers both the theoretical underpinnings as well as the practical application of the code. Participants will develop a full understanding of the general TRANSIMS principles, implementation details, data requirements, capabilities, and limitations of the software.

TRANSIMS (short for Transportation Analysis and Simulation System) is an integrated set of tools developed to conduct regional multimodal transportation system analyses. With the goal of establishing TRANSIMS as an ongoing public resource available to the transportation community, TRANSIMS is made available by the Federal Highway Administration under a NASA Open Source Agreement and is therefore readily available to the community.

The software is compatible with regular Windows and Linux desktop or server systems, but can also make use of high performance computing systems such as the TRACC cluster, a 1024 core Linux system with 240TB of disk space and extremely fast network connections across the United States. This cluster is generally available to researchers in the US transportation community and is currently being used for TRANSIMS traffic simulation, emergency evacuation modeling, computational fluid dynamics for bridge analysis, and structural mechanics codes to determine crashworthiness and structural integrity of highway components and vehicles.

www.tracc.anl.gov

South Carolina State University

Location

The training course will be held at the Training Room of the James E. Clyburn University Transportation Center (JECUTC) at South Carolina State University. The training sessions will also be broadcast over the Internet (using Adobe Connect) at

http://anl.acrobat.com/transims/

Registration

Participation in the training course is free. Travel, lodgings, and other expenses are the responsibility of the participant. Please contact us at the TRACC number or E-mail address shown below if you would like to attend the training sessions either by Internet or in person.
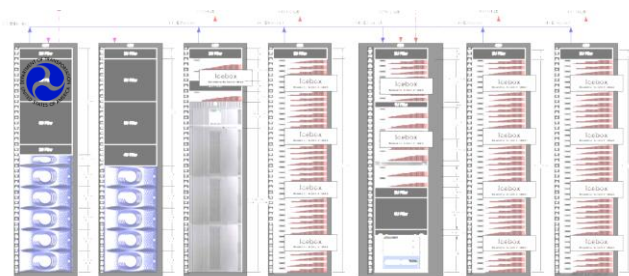
*This is the thirtieth TRANSIMS training course held by TRACC. It has evolved from the need to quickly and efficiently train students and collaborators in the practical application of the code. While addressing the fundamental principles to a degree that allows for a better understanding of the capabilities and limitations of the TRANSIMS approach, the main focus is on the use of the individual components. It also focuses on the issues of network conversion, trip conversion, routing, microsimulation, feedback, and visualization. **This year, participants will also gain experience in the new TRANSIMS Studio application. Therefore use of a laptop while attending the lectures is highly encouraged.***

Instructors:
Michael Hope and Dr. Vadim Sokolov
Argonne National Laboratory, 630 252-5200,
TRANSIMS@anl.gov

Local Organizer:
Dr. Yuanchang Xie
South Carolina State University, 803 536-8321,
yxie@scsu.edu

TRACC
Transportation Research and Analysis
Computing Center
at Argonne National Laboratory

UChicago ►
Argonne LLC

A U.S. Department of Energy laboratory managed by UChicago Argonne, LLC

TRANSIMS
Training Session
Agenda

Training Site

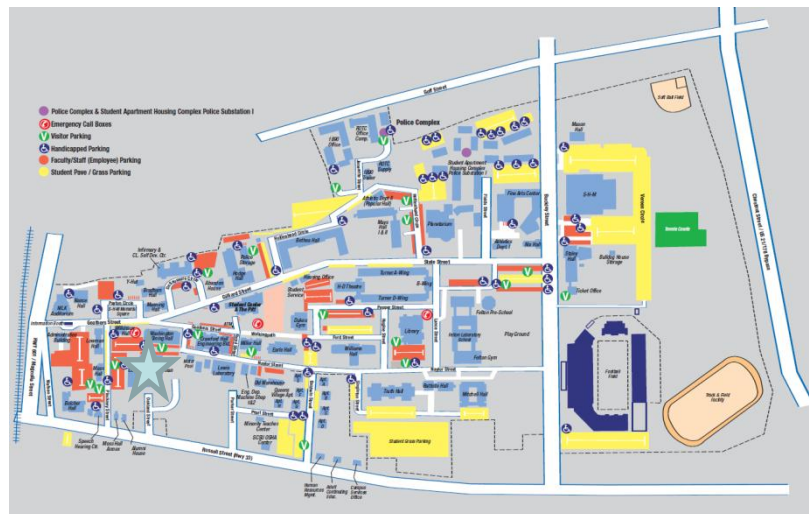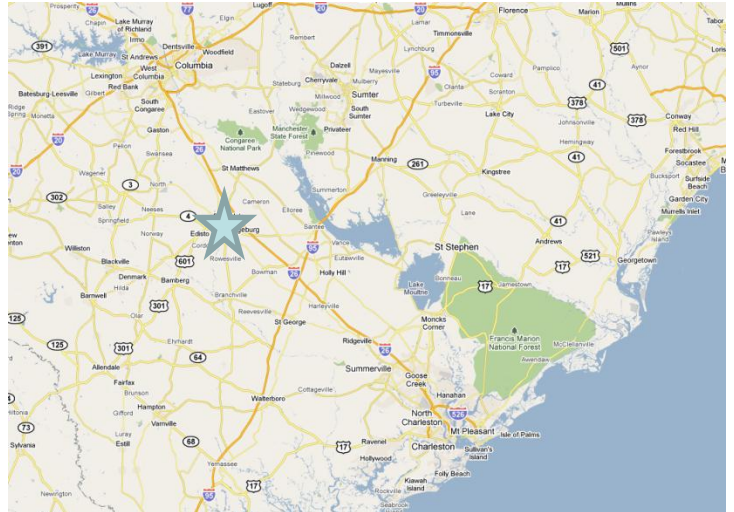**Thursday, April 14**

8:30 am Registration

9:00 am Introduction, Overview, Discussion of Agenda

9:15 am Background of TRANSIMS at TRACC

9:30 am General Overview of TRANSIMS and its Components

10:00 am Coffee Break

10:15 am TRANSIMS Control Files and Syntax, TRANSIMS Studio

11:15 am The TRANSIMS Road Network and Transit Network (TransimsNet, IntControl)

12:30 pm Lunch Break

1:30 pm   The TRANSIMS Road Network continued (TransitNet, Arc Utilities, TransimsEDT)

2:15 pm TRANSIMS Trip Table Conversion

3:30 pm TRANSIMS Community Resources

3:45 pm Coffee Break

4:00 pm TRANSIMS version 5 (Sneak Peak)

4:30 pm Discussions

5:00 pm Adjourn

Friday, April 15

9:00 am   The TRANSIMS Router

10:30 am Coffee Break

10:45 am The TRANSIMS Microsimulator (TransimsVIS)

12:15 pm Lunch Break

1:30 pm   TRANSIMS Feedback and Equilibration

2:30 pm   TRANSIMS on a Parallel Computing Platform

3:30 pm   Coffee Break

3:45 pm   Discussions

Training Site:
Training Room of the James E. Clyburn University
Transportation Center (JECUTC)
Crawford/Zimmerman Building
South Carolina State University
300 College Street NE
Orangeburg, SC 29117