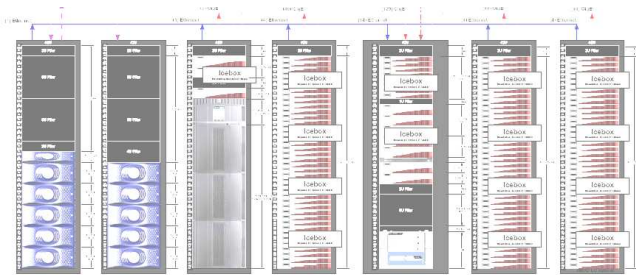# Argonne
NATIONAL LABORATORY

TRANSIMS
Training Course
April 21 -23, 2008
West Chicago, Illinois

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 primarily analysts new to the TRANSIMS methodology, 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 512 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

Location

The training course will be held at the DuPage Airport Flight Center in West Chicago where Argonne's TRACC offices are located. The training sessions will be held on the third floor of the flight center at the University of Illinois TRECC facility.

The training sessions may also be broadcast over the Internet (using Adobe Connect) if there is sufficient interest in the community.

Registration

Participation in the training course is free. Travel, lodgings, and other expenses are the responsibility of the participant. Please contact us at the number or E-mail address shown on the right if you would like to attend the training sessions either by Internet or in person.

This is the third TRANSIMS training course held at 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.

Contact Information:
Dr.-Ing. Hubert Ley
Argonne TRACC
Suite 201
2700 International Drive
West Chicago, IL 60185

630 578 4250
TRANSIMS@anl.gov
www.tracc.anl.gov

TRACC
Transportation Research and Analysis Computing Center
at Argonne National Laboratory

UChicago ▶
Argonne LLC

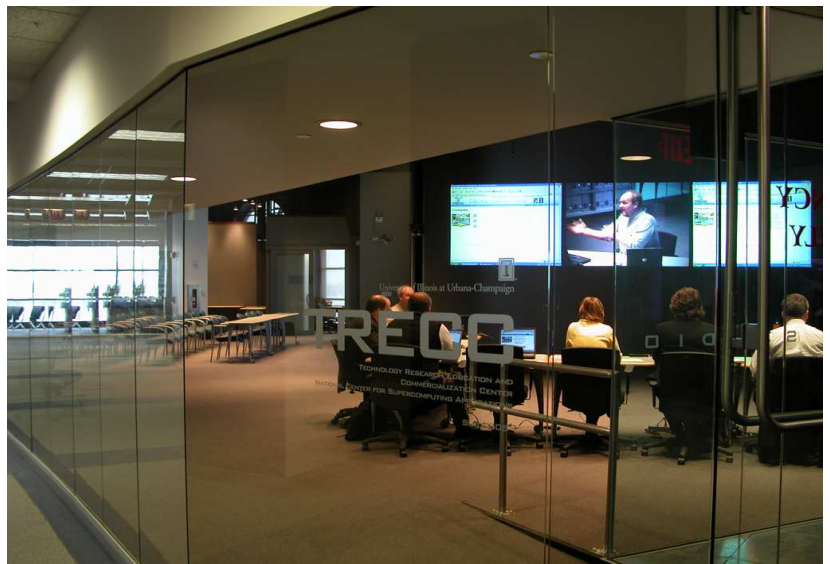A U.S. Department of Energy laboratory managed by UChicago Argonne, LLC

Preliminary Agenda

Monday, Apr 21, 2008

10:00 am	Introductions, Project Overview, Discussion of Agenda
10:15 am	Background of TRANSIMS at TRACC
10:30 am	General Overview of TRANSIMS and its Components
12:00 pm	**Lunch Break**
1:00 pm	The TRANSIMS Road Network
1:45 pm	The TRANSIMS Router
2:45 pm	**Coffee Break**
3:00 pm	The TRANSIMS Microsimulator
4:00 pm	Discussions
5:00 pm	**Adjourn**

Tuesday, Apr 22, 2008

9:00 am	The TRANSIMS Open Source Project – Available Resources
9:30 am	The TRANSIMS Population Synthesizer
10:30 am	**Coffee Break**
10:45 am	The TRANSIMS Activity Generator
12:00 pm	**Lunch Break**
1:00 pm	TRANSIMS Configuration and Framework
1:30 am	TRANSIMS Control Files and Syntax
2:00 pm	TRANSIMS Trip Table conversion
3:00 pm	**Coffee Break**
3:15 pm	TRANSIMS Feedback and Equilibration
4:15 pm	Discussions
5:00 pm	**Adjourn**

*The training sessions may also be **broadcast over the Internet** (using Adobe Connect) if there is sufficient interest in the community. Please contact TRACC if you are interested in participating remotely, and we will set up the necessary equipment and provide a call-in number and Adobe Connect to you at a later time.*

Wednesday, Apr 23, 2008

9:00 am	TRANSIMS GIS Tools
9:45 am	TRANSIMS Subarea Simulation
10:30 am	**Coffee Break**
10:45 am	Introduction to the TRANSIMS SVN Source Code Archive and Code Structure
12:00 pm	**Lunch Break**
1:00 pm	Partitioning and Parallel Processing
2:00 pm	**Coffee Break**
2:15 pm	TRANSIMS Visualization Workshop
4:30 pm	**Adjourn**

Location
- *42 miles from downtown Chicago*
- *8 miles from Interstate 88 (East/West)*
- *13 miles from Interstate 90 (East/West)*
- *14 miles from Interstate 355 (North/South)*

Directions
- From I-88 (Coming from the East or West)
  - To Route 59: Going North
  - To 38/ Roosevelt Rd: Going West
  - To Kautz Rd: Turn Right
  - To International Drive: Turn Right

- From I-90/ Northwest Tollway (Coming from either direction)
  - To Route 59: Going South
  - To 64/ North Ave: Going West
  - To Kautz Rd: Turn Left
  - To International Drive: Turn Left

- From I-355/ North-South Tollway (Coming from the South)
  - To 38/ Roosevelt Rd: Going West
  - To Kautz Rd: Turn Right
  - To International Drive: Turn Right

- From I-355/ North-South Tollway (Coming from the North)
  - To 64/ North Ave: Going West
  - To Kautz Rd: Turn Left
  - To International Drive: Turn Left