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.

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 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 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.

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TRANSIMS
Training Session
Agenda

Monday, Apr 21, 2008

10:00 am  Introductions, Project Overview,
           Discussion of Agenda
10:15 am  Background of TRANSIMS at
           TRACC
10:45 am  General Overview of TRANSIMS
           and its Components
12:00 pm  Lunch Break
1:00 pm   The TRANSIMS Road Network
1:15 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

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

The training sessions will also be broadcast over the Internet (using Adobe Connect) at
http://anl.acrobat.com/transims/
Detailed instructions can be found on the TRANSIMS forum site in the “Front Desk” section.