TRANSIMS
Training Course
December 16-18, 2009
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 180 TB 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 (see map on reverse side) where Argonne’s TRACC offices are located. The training sessions will be held on the third floor of the flight center at the TRACC Training Center. 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 below if you would like to attend the training sessions either by Internet or in person.

This is the ninth 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.

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TRANSIMS
Training Course
Agenda

Wednesday, Dec 16, 2009
9:00 am Introductions, Project Overview,
Discussion of Agenda
9:15 am Background of TRANSIMS at
TRACC and Introduction to the Chicago Metropolitan Area Model - Section 0
10:15 am Coffee Break
10:30 am General Overview of TRANSIMS
and its Components - Section 1
12:00 pm Lunch Break
12:45 pm Coffee Break
1:15 pm The TRANSIMS Road and
Transit Networks - Section 2
2:45 pm Coffee Break
3:00 pm The TRANSIMS Router - Section 5
4:30 pm Discussions
5:00 pm Adjourn

Thursday, Dec 17, 2009
9:00 am The TRANSIMS Microsimulator -
Section 6
10:30 am Coffee Break
10:45 am TRANSIMS Trip Table Conversion -
Section 10
12:00 pm Lunch Break
1:15 pm TRANSIMS Control Files
and Syntax - Section 9
2:00 pm TRANSIMS Configuration and
Framework - Section 8
3:00 pm Coffee Break
3:15 pm The TRANSIMS Open Source
Project – Available Resources -
Section 13
3:45 pm Visualization Tools and Techniques -
Section 17
4:30 pm Discussions
5:00 pm Adjourn

Friday, Dec 18, 2009
9:00 am TRANSIMS Feedback and
Equilibration - Section 7
10:30 am Coffee Break
10:45 am TRANSIMS GIS Tools - Section 11
11:15 am TRANSIMS Subarea Simulation -
Section 12
12:00 pm Lunch Break
1:15 pm Introduction to the TRANSIMS
SVN Source Code Archive
and Code Structure - Section 15
2:15 pm Partitioning and Parallel Processing -
Section 14
3:00 pm Coffee Break
3:15 pm TRANSIMS on the TRACC Cluster -
Section 16
4:30 pm Discussions
5:00 pm Adjourn

TRACC Location

Internet Broadcast
http://anl.acrobat.com/transims/
Detailed instructions can be found on the TRANSIMS forum site in the "Front Desk" section.

Parking
Please use the long term parking lots at the DuPage airport flight center (free parking). The small parking lots closer to the terminal building are mostly reserved for FAA vehicles.