



TRANSIMS

Training Course

January 19-21, 2011
Argonne, IL



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 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.



TRACC has relocated to the Argonne National Laboratory Site

Location

The training course will be held at the **Transportation Research and Analysis Computing Center (TRACC) at Argonne National Laboratory, Building 222** (see maps on reverse side). The training sessions will also be broadcast over the Internet (using Adobe Connect) at

http://anl.acrobat.com/transims_training/

Registration

Participation in the training course is free. Please contact us at TRACC by phone or e-Mail if you would like to attend the training sessions either by Internet or in person.

This is the thirteenth 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. **For this course, participants will also gain experience in the new TRANSIMS Version 5 as well as TRANSIMS Studio applications. Therefore the use of a laptop while attending the lectures is highly encouraged.**

Course Instructors:

Dr. Hubert Ley, Dr. Kuilin Zhang, Michael Hope, Dr. Vadim Sokolov
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David Roden, Senior Consulting Manager
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Illinois Institute of Technology, 3201 South Dearborn Street, AM 102
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TRACC
**Transportation Research and
Analysis Computing Center
at Argonne National Laboratory**

TRANSIMS

Training Session Agenda

Wednesday, January 19 (all times CST)

- 8:30 Registration
- 9:00 Introductions, Project Overview (Hubert Ley)
- 9:15 TRANSIMS Highway and Transit Network Models (Vadim Sokolov)
- 10:15 Coffee Break
- 10:30 TRANSIMS 4 Demand Model. OD Table Conversion (Vadim Sokolov)
- 11:30 TRANSIMS 4 Macroscopic Model, Route Choice (Vadim Sokolov)
- 12:30 Lunch Break
- 1:45 TRANSIMS 4 Microsimulator (Vadim Sokolov)
- 2:45 Traffic Assignment: System Optimal and User Equilibrium (Kuilin Zhang)
- 3:45 Coffee Break
- 4:00 Demand, Supply Integration in TRANSIMS, Stabilization Process (Vadim Sokolov)
- 5:00 Adjourn

Thursday, January 20

- 9:00 Current Status of the Chicago Model (Zongzhi Li)
- 10:00 New Features of TRANSIMS Version 5 (David Roden)
- 12:30 Lunch Break
- 1:45 New Features of TRANSIMS Version 5 (David Roden)
- 5:00 Adjourn

Friday, January 21

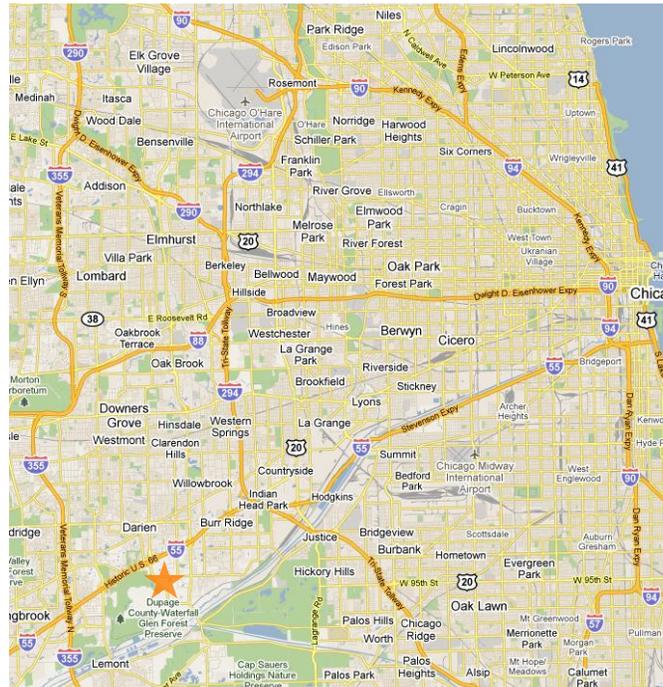
- 9:00 TRACC Cluster Tour, Hands-on Training (Hubert Ley)
- 10:45 Coffee Break
- 11:00 TRANSIMS Studio (Hubert Ley)
- 12:30 Lunch Break
- 1:45 TRANSIMS Version 5, Hands-on (David Roden)
- 2:45 TransimsEDT Network Editor (Michael Hope)
- 3:45 Coffee Break
- 4:00 TransimsVIS Visualizer (Michael Hope)
- 5:00 Adjourn

Training Site:

Transportation Research and Analysis Computing Center

Argonne National Laboratory
9700 South Cass Avenue, Building 222
Argonne, IL 60439
630.252.5200
<http://www.tracc.anl.gov>

Training Location



Directions to Argonne

Argonne National Laboratory occupies 1,500 wooded acres about 25 miles southwest of Chicago. The laboratory hosts thousands of visitors each year. Argonne is easily accessible by car or public transportation from downtown Chicago, as well as from Chicago's two airports. ([Google Maps](#))

To reach Argonne from O'Hare International Airport, take I-294 south to I-55. Exit west on I-55 (toward St. Louis) and continue for about four miles to Cass Avenue. Exit south on Cass and turn right at the Argonne sign on Northgate Road, immediately south of I-55. Follow Northgate Road to the Argonne Information Center.

To reach Argonne from Midway Airport, take Cicero Avenue north to I-55. Enter I-55 south and continue for about 14 miles to Cass Avenue. Exit south on Cass and turn right at the Argonne sign on Northgate Road, immediately south of I-55. Follow Northgate Road to the Argonne Information Center.