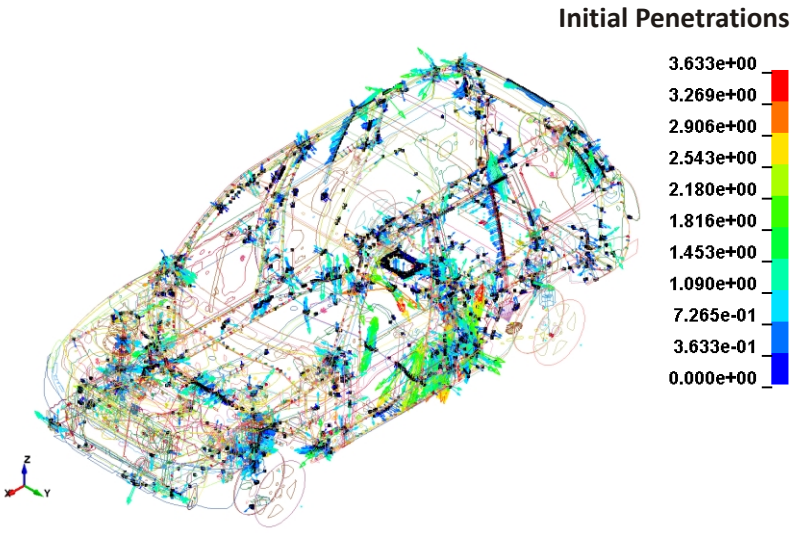
Introductory Course: Developing Compute-efficient, Quality Models with LS-PrePost® 3 on the TRACC Cluster

October 21-22, 2010
West Chicago, Illinois



The US Department of Transportation funded Transportation Research and Analysis Computing Center (TRACC) at Argonne National Laboratory will hold a training course on (1) LS-PrePost – a tool for pre- and post-processing of LS-DYNA simulations – and (2) on how to use the software on the TRACC High Performance Cluster.

LS-PrePost was developed by Livermore Software Technology Corporation (LSTC) and is used with their LS-DYNA and LS-OPT codes. The recently released LS-PrePost 3 allows user to build the geometry, create the mesh, manage the LS-DYNA model and post-process the results within a new, modern interface. The software provides new CAD capabilities including geometry fixing tools, new application tools, and improved and reorganized tools known to users of earlier versions.

The LS-PrePost Introductory Course is intended primarily for finite element analysts who have prior basic knowledge of the LS-DYNA software package. The class will provide the analyst with the introduction to the LS-PrePost; thus, prior software experience is not required.

The course will focus on the early stage of the model development process within LS-PrePost including geometry cleanup and mesh quality control tasks. The primary goal of the course is to introduce the capabilities of the software. The secondary goal is to show how to apply these capabilities to build computationally efficient models. All introduced techniques and tools will be illustrated through simple hands-on examples. Presentation material, including tutorial files, will be available to attendees for prior download to ease the interaction during the course.

The course will also present specifics of running and tracking the LS-DYNA jobs on the TRACC cluster in our newly developed graphical mode.

Instructors

The course will be given entirely by TRACC staff.
The workshops will be led by Dr. Cezary Bojanowski, Computational Structural Mechanics Engineer. Organization and support to the participants will be provided by Dr. Ron Kulak, Senior Computational Structural Mechanics Leader at TRACC.

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 in TRACC's Collaboratory, which is on the third floor of the flight center. The training sessions will also be broadcast over the Internet. The link to the Adobe Connect session will be provided to registered participants.

Registration

Participation in the training course is free. For onsite attendees travel, lodging, 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.

Contact Information

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CSM_TRACC@anl.gov
www.tracc.anl.gov

LS-PrePost® Introductory Course

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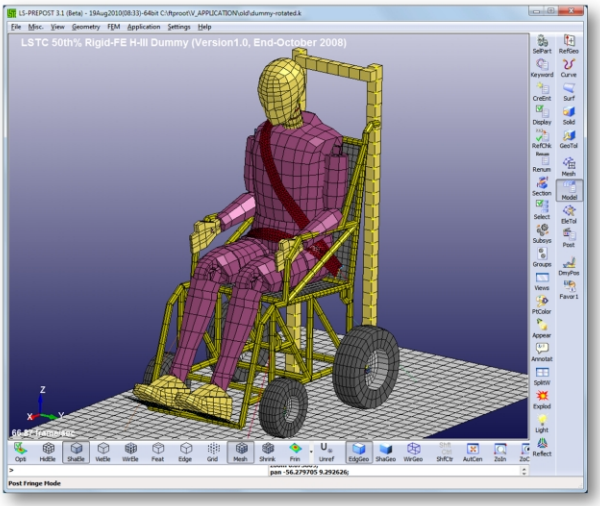

Administrative Introductions

- Training for use of LS-PrePost on the TRACC Cluster will be presented over two days.
- Sessions will start at 9:30 AM (CST) and end at 4:30 PM. Lunch break will be from 12:30 PM till 1:30 PM.
- The course is primarily based on hands-on tutorial problems; thus, *a priori* installation of software is needed. Please go to www.lstc.com/lspp/

Day 1 - October 21, 2010

9:30 AM-4:30 PM (CST)

1. Welcome Remarks by Dr. Hubert Ley, Director of TRACC
2. Computational Structural Mechanics by Dr. Ronald F. Kulak
3. Overview of LS-PrePost 3 New Interface
4. Creating and Editing Geometry, Geometry Cleanup
5. Creating and Editing Meshes, Selected Meshing Rules
6. Introduction to Block Mesher

Day 2 - October 22, 2010

9:30 AM-4:30 PM (CST)

1. Dummy Positioning and Seatbelt Fitting Tools
2. Model Checking:
   - Mesh Quality Checking
   - Model Checking Tools
   - Initial Penetration Checking
3. Tools for Submitting and Tracking LS-DYNA Jobs on TRACC's Cluster

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 Tollway (Coming from the East or West)
To Farnsworth/Kirk Rd: Going North (toll exit)
To 38/Roosevelt Rd/State St: Going East
To Kautz Rd: Turn Left
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

Hotel: Pheasant Run Resort
www.pheasantrun.com
4051 E Main Street, St. Charles, IL 60174
Reservations: 1.800.474.3272
Direct Telephone: 630.524.5042
Fax: 630.584.9831
Email: jfreeman@pheasantrun.com
Rate: $109/night

Hotel: Comfort Inn & Suites
www.comfortinngeneva.com
1555 E Fabyan Parkway, Geneva, IL 60134
Reservations: 1.877.424.6423
Direct Telephone: 630.208.8811
Fax: 630.208.7844
Email: sales@ComfortInnGeneva.com
Rate: $104($89 advance booking)/night

Hotel: Country Inn & Suites
www.countryinns.com/stcharlesil
155 38th Avenue, St. Charles IL 60174
Reservations: 1.800.596.2375
Direct Telephone: 630.587.6564
Fax: 630.587.6568
Email: cx_schl@countryinns.com
Rate: $92($62 advance booking)/night