



15th LS-DYNA International Conference & Users Meeting

Post-Conference Training (2 day)
Wed & Thurs, June 12th & 13th, 2018, 9am-5pm
Edward Hotel & Convention Center, Dearborn, MI

Introduction to Metal Forming & eZ-Setup

Instructor(s): Xinhai Zhu, Quanqing Yan, Li Zhang, Yuzhong Xiao

Prerequisite: Students should already be familiar with:

- 1) LS-DYNA basic forming related keywords/ features, and
- 2) LS-PrePost general operation menu

Objective - PowerPoint presentation combined with hands-on tutorials to cover Metal Forming and .LS-PrePost® Metal Forming eZ-Setup

COURSE CONTENT

- Introduction
- Advanced material models
- Nonlinear failure prediction (Formability Index)
- Moving adaptive box for fission and fusion
- Tool mesh autocheck, fixing
- Improvement in springback compensation
- Enhanced scrap trimming and fall simulation
- May also include following if time allows:
 - Define material hardening behavior in LS-DYNA with *DEFINE_CURVE_STRESS
 - Convert from FLD to stress triaxiality, and vice versa
 - Allow part set in *BOUNDARY_SPC_SYMMETRIC_PLANE (SET)
 - *CONTROL_FORMING_BESTFIT for best fit of springback result with scans
 - Improvement to one-step simulation *CONTROL_FORMING_ONESTEP
 - Automatic change from shell to thick shell elements *CONTROL_FORMING_SHELL_TO_TSHELL
 - Uniform mesh refinement inside of a curve loop with *CONTROL_ADAPTIVE_CURVE
 - Extension of *Control_Forming_Toleranc to *MAT_125, *MAT_226 (already available to *MAT_036 and *MAT_037)
 - *MAT_260A and *MAT_260B

Part II: LS-PrePost® Metal Forming eZ-Setup

1. Overview of LS-PrePost4.3 on the new eZ-Setup GUI (lspp_parameter, batch submit queue, etc.);
2. Basic and multiple stamping processes set up, covering tailor welded blanks; Typical multi-stage process including, gravity, forming(3, 4-piece die set), trimming, flanging, springback
3. Multi-tool forming
4. Post-processing forming and springback results.
5. Scrap fall trim and fall.
6. Bestfit GUI
7. One-step forming simulation GUI

For further information regarding pre- and post-conference training, please consult the conference website www.ls-dynaconferences.com or send email to ConfTraining@lstc.com.