DYNAFORM 5.9.4

Release 11/21/2017

Significant Enhancements

- 1. Added 2D Simulation feature in Sheet Forming.
- 2. Added the new forming type "Spinning Forming".
- 3. Added the new process stage "Flanging" to do flanging simulation in Sheet Forming.
- 4. Added Washer in Blank Mesh of the Blank Generator in Sheet Forming.
- 5. Supported the action of the tool rotation in Sheet Forming.
- 6. Added the ability to trim the TWB blank in UtilityBatch solver.
- 7. Added Taper Solid Meshing by outline in the Blank Generator.
- 8. Added multiple local compensation regions in springback compensation.
- 9. Added the ability to use LS-DYNA user-defined material in Sheet Forming.
- 10. Added a user-defined integration rule for composite material models.
- 11. Added the mesh parameter "Mesh Size along the Circumference" in Tube Bending.
- 12. Added the ability to generate the center line by the imported curve in Tube Bending.
- 13. Added the ability to define the mandrel manually in Tube Bending.
- 14. Added the ability to read the LS-DYNA binary dynain data.

New Capabilities, Features and Functions in the BSE Module

- 1. Added Carrier, a new nesting type.
- 2. Adjusted the menu order in BSE.
- 3. Added "Batch Nesting for Multiple Outlines" that automatically calculates the highest utilization of each two outlines for several outlines.
- 4. Added the ability to lay the small outline onto the holes of the outline.
- 5. Added the ability to create and edit materials in the material library.
- 6. Added the ability to create surfaces in carrier nesting result.

Newly Enhanced Capabilities, Features and Functions in Sheet Forming

- 1. Added 2D Simulation in Sheet Forming.
- 2. Added the new process stage "Flanging" to do flanging simulation in Sheet Forming.
- 3. Added the action of tool rotation in Sheet Forming.
- 4. Added Boundary Smooth in Tool Preparation.
- 5. Added the ability to export Lock Force of the line bead into the index file, which is used by eta/Post to calculate the percentage.
- 6. Added multiple local compensation regions in springback compensation.

- 7. Added functions "Run more iteration" or "Restart iteration" in AutoSCP.
- 8. Added the ability to use LS-DYNA user defined material in Sheet Forming.
- 9. Added a user defined integration rule for composite material models in Sheet Forming.
- 10. Improved round bead on the inclined binder in Geometry Bead.
- 11. Fixed a bug in AutoSetup that caused the load curve to fail to pass through the origin when defining the coil spring.

Newly Added Capabilities, Features and Functions in Spinning Forming

1. Add the new forming type "Spinning Forming".

Newly Enhanced Capabilities, Features and Functions in Tube Rotary Bending and Tube Forming

- 1. Added the mesh parameter "Mesh Size along the Circumference".
- 2. Added the ability to generate the center line by the imported curve.
- 3. Added the ability to define the mandrel manually.

Enhanced Functions for Blank Generator

- 1. Added Washer in Blank Mesh of the Blank Generator.
- 2. Added a feature to Taper Solid Mesh by outline in Blank Generator.
- 3. Added a feature to fit curve as the line and arc in Blank Generator.

Enhanced Functions for Die Simulation

1. Added frame definition ability for the Formability report.

Enhanced and Improved for Job Submitter

- 1. Added the ability to inquire the detailed LS-DYNA calculation error message.
- 2. Added the ability to remain the job with two statuses of "Aborted" and "Finished" in the list after the user closes and reopens the Job Submitter.
- 3. Added the ability that the program automatically records the size and location of the dialog box after turning off the Job Submitter.

Enhanced and Improved Pre-Processing Capabilities

- 1. Added the ability to read the LS-DYNA binary dynain data.
- 2. Improved the speed of Best Fitting.
- 3. Added the function to renumber the part ID automatically.
- 4. Added the ability to keep input data values in Find Element.
- 5. Added a feature to list the ID of the failed elements.

- 6. Added an "All in Region" option in Select Surface Windows.
- 7. Added the ability to specify the negative value in Undercut Check.
- 8. Added the new "Gap Repair" function.

Enhanced Functions for Utility Batch

1. Added the ability to trim the TWB blank.

Enhanced Functions for CAD Translator and NX Translator

1. Updated the CAD Translator to the latest version R28.

Newly Implemented Capabilities, Features and Function of Post-processing (eta/Post)

- 1. Added the ability to view the result of 2D Simulation.
- 2. Added the ability to load binary file in Tonnage Prediction function.
- 3. Added the ability to read drawbead lock force curve from *.dyn file and refresh the current drawbead factor in the Drawbead Force Factor function.
- 4. Added the ability to inherit contour setting parameters of eta/Post to 3D player.
- 5. Added the ability to Show Stone hidden from current view in Stoning function.
- 6. Added the ability to set the font size in eta/Post configuration.
- 7. Added a new toggle for "Hide Trimming Line" in the multiple stage control dialog.
- 8. Added a new toggle for "Show Balloon Label" in the list value option dialog.
- 9. Added a new toggle for "Flow Scale" and value input in the edge movement dialog.
- 10. Added a new toggle for "Exponent" in the Graph curve axis dialog.
- 11. Added the functionality to support updates of the INCSolver formability report.
- 12. Added the "Keep View Scale" configuration for viewing in eta/Post configuration.
- 13. Added the "User Defined GUI Font Size" configuration for window setting in eta/Post configuration.
- 14. Fixed a bug that caused the program to crash when reading the d3plot file which has more than 9 integrations.
- 15. Fixed a bug that caused the program to fail when exporting the dynain file on the second frame of a trimming stage.