DYNAFORM 5.2 Release Notes

November 15, 2004

Following the successful release of DYNAFORM 5.1 in May 2004, many new features and functions have been developed in DYNAFORM 5.2.

Brief description of the new features and functions in DF 5.2:

- 1. Die Face Engineering Significantly enhanced features and functions to support die face geometry build:
 - 1) Inner Binder function enables user to create multi-binders.
 - 2) Enhanced edit function of the binder and the binder trim function. For symmetry condition, binder surfaces on each side of the symmetry plane will follow the symmetric conditions.
 - 3) Grid plane is provided allow user select points when defining section line for Free Form Binder.
 - 4) Enhanced addendum functions such as Copy, Move and Symmetry profile, Split and Show addendum, profile Elongation.
 - 5) This version also allow user create profile lines which can exported together with the addendum surfaces.
- 2. MSTEP An iterative One-Step code to support blank size estimation and quick formability analysis, providing user with a formability result and the blank outline in a few minutes.
- 3. Blank Nesting Accounts for the carrier, supports progressive tooling applications. One-up nesting, Two-pair nesting, Two-up nesting, Two different blank nesting methods are developed according to the production requirement. The utilization of the blank and other nesting results can be output automatically to the Nesting report.
- 4. Preprocessor/surface/generate mid surface allow user create mid layer surface from a solid part surfaces.
- 5. Quicksetup enhance the lower binder travel control option.
- 6. Quicksetup supports import dynain file for multi-stage simulation.
- 7. Added circular region option for node, element and surface selection.
- 8. Added create node on line function in pre-processor.
- 9. Enhanced the edit function for Load Curve.
- 10. Updated DYNA input file to support LS-DYNA 970.
- 11. Post-processor has improved the speed for importing d3plot files.
- 12. Post-processor allows the user to dynamically cut sections.
- 13. Post-processor allows the user to add x-y plots for the section cut plane.
- 14. Post-processor provides blank inflow information.
- 15. Post-processor allows the user to control the colors for the above and under limit contour colors.
- 16. Post-processor supports import dynain file.
- 17. Post-processor support open d3drlf files.
- 18. Post-processor provides surface defect detection function.

- 19. Post-processor support idx file which allow user carry the same part name from preprocessor to post-processor.
- 20. Post-processor significantly improves the lighting effect. User can get a good metallic look for the panel.
- 21. Reorganized Post-Processor with additional icons and short-cut functions.
- 22. Added Graph function in the post processor to process all the time history data from the LS-DYNA analysis. It includes a set of comprehensive curve manipulation/calculation functions for engineering analysis.
- 23. Supports all history files outputted from LS-DYNA 970 for graph post-processing.
- 24. Enhanced 3D Player developed an e3D Player plug-in for PowerPoint. It allows the user to display the model and animate result in full 3D mode within a PowerPoint document.

Also included are DFE tutorials, laid out in a step-by-step format, demonstrating the process of blank generation from a part/component design.

While the DFE development is on going, an aggressive development plan is in place for the next release:

- 1. Surface Mapping NC Quality
- 2. Enhanced Quick Setup to support all stamping simulations
- 3. Hydroforming Quick Setup Module
- 4. Springback Compensation

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Please feel free to contact eta(or your local distributor) for training and support. We can offer you training at your location via the Internet, saving you time and travel expenses.

Our technical support team is on the job to help you with your questions and requirements. Please contact them at support@eta.com.

For licensing and user service inquiries, contact <u>key@eta.com</u> and we will take care of your licensing needs.

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