

September 5, 2006
By ETA Dynaform team

DYNAFORM5.5 release note:

DYNAFORM5.5 has a new setup module called Autosetup. Located under setup/Autosetup, this module supports both geometry and contact offset. It also allows for setting up the tool travel curve automatically via time, travel, duration, closure and home.

Note: When auto positioning your tools, if it is a contact offset case, the user needs to select Duration type “closure” and make sure the “fully match” option in the “process” tab, near “duration” is selected.

This version of Autosetup supports simple multistage simulation; the trim and blank tipping operations can currently only be handled manually. By years’ end Autosetup will support full multistage simulations with LSTC “case” and other related control cards.

Preprocessor function:
BSE module:

1. Middle surface generation function has been improved; the user doesn’t need to pick the thickness surfaces before creating the middle surfaces.
2. Blank interference check has been added in blank nesting function.
3. MSTEP can handle multiple blanks with various thicknesses such as welded blanks.
4. Implemented dynamic memory for MSTEP.
5. Added version information for MSTEP.
6. Improved blank nesting module for multiple blank nesting cases.

DFE Module:

1. New re-engineering function.
2. Improved DFE addendum generation yields a smoother PO line.
3. Input values when moving point in the modify/morph function.
4. Increases mesh density on addendum mesh.
5. Supports boundary fill after addendum creation.

Formability Module:

1. New d3plot control function allows user to specify either time or location for d3plot output. User can select distance to home or distance from the initial position.

2. New segmented bead functions allow user to modify drawbead easily, as well as split, trim, and combine drawbead.
3. Support *DATABASE_BNDOUT card
4. User can specify a line (PO line for example) or other lines carrying through the simulation, for location reference.
5. Removed temp file "dynaform.ses" and "dynaform_err".
6. A bug causing the adaptive information to be lost in DYNAIN file has been fixed.
7. A bug causing error in the Addendum functions of the Japanese version has been fixed.
8. To avoid potential database mix up, only one instance of a database file on UNIX systems can be opened.
9. Graphic performance for larger models has been improved.
10. Improve the Blank mesh generation function; it is no longer related to the viewing condition.
11. Avoid setting the new part as the current part when putting failed elements or surfaces into a new part.

12. Fix the bug which causes crash in delete part while user select part is on/off.
13. Improved speed in QuickSetup.
14. The default value of "in Original part" in copy element (offset) function can be set as "0".
15. Fixed bugs in IGES translator.
16. A bug in new part color has been fixed.
17. A bug in duplicated part ID in the new part has been fixed.
18. Update global undo to support the adp and ssn undo in blank lancing and blank trimming.
19. A bug causing crash in select element with spread option has been fixed.
20. A bug in MAT_3-PARAMETER_BARLAT in writing dyna file has been fixed.
21. Remove the function define fld0 in analysis dialog. Fld0 defined in material dialog.
22. Multi-FLD0 are supported.
23. New index file format, index file transfer information from preprocessor to the post-processor.
24. Add setup report output.
25. New job submitter with LS-DYNA and MSTEP.
26. All boundary conditions may be output.
27. Local dynaform default support.
28. Support multiple "undo" (up to five times) operations.
29. Support split element in dynain file with constraint information support.
30. Fix the bug in blank lancing function.
31. Online-help was implemented.
32. International language feature was implemented.
33. Improve operation in part transparency definition.
34. Improve operation in Section Cut function.
35. Increase part colors from 15 to 30.
36. Add RSP file support in graph module.

37. Add new file support for Nastran SOL700.
38. Add "Cut" operation in graph module.
39. Nastran tensor display problem is fixed.
40. Label/Arrow was improved to support different font size.
41. Active-window was improved to allow undo/redo operation.
42. Smooth shade is set as default for eta/Dynaform.
43. A bug in import DYNAIN file with SPC has been fixed.
44. A bug in import solid element in DYNAIN file has been fixed.
45. A bug in select node in Inner fill -> Close curve has been fixed.
46. Update Job Submit: Add an AUTO option to the Memory setting. User may enter the memory value on the Memory box directly. The program can also set the default to 300MB. DYNA will adjust the memory automatically during the DYNA run.

Eta/Post:

1. Remove display list in single-plot, contour plot speed has improved, especially in FLD plot.
2. Distance curve function under tool menu is used to calculate the distance curve between two nodes/node-element/node-plane in whole simulation process.
3. Material inflow options now allow the user to select the shortest distance for the inflow map.
4. The thickness/thinning component has been implemented for thick-shell element.
5. Handle beam element result can now be displayed in the contour function.
6. Per GM's request, when plotting plot element tensor in the vector function, the vector should be plotted according to scale factor.
7. Nastran subcase-combination problem has been fixed.
8. Node Distance Curve issue has been improved. The sub-component x, y, z distance options are added.
9. Post process interface pressure and force function has been implemented.
10. STONING function has been improved based on feedback.
11. The d3plot reader has been updated to support ALE component, new components (PRESSURE, DENISTY, VOLUME FRACTION) are supported in contour component.
12. Improved Nastran op2/punch reader /SOL-101 subcase combination.
13. Improved the importing function to handle the command-line, it will make the integration between UG/BSE with eta/Post more friendly.
14. Part distance function has been improved.
15. Add curve plot for distance between Node and Node/Plane/Part.
16. Implement Face Reflection function.
17. Add space ball support in Windows version.
18. FLD color was added into the etapost.config.
19. FLD curve format was improved to support engineering curve directly.
20. FLD reverse mapping was improved to support other selection mode.
21. Add Save/Load graph screen file in graph module.

22. When importing FLD, user will be prompt for Engineering or true format of FLD data if the data type is not specified in the fld curve file, Please refer to the FLD format definition below.
23. IGES file format can be read into Eta/Post.

| FLD CURVE FILE FORMAT | |
|--|----------------------------------|
| Sample: | (TURE) |
| SFORM LIMIT DIAGRAM, SAFETY MARGIN:0,10 TYPE 0 | |
| -0.30 | 0.8540 |
| -0.20 | 0.5800 |
| -0.10 | 0.3910 |
| -0.00 | 0.3040 |
| 0.05 | 0.3316 |
| 0.10 | 0.3656 |
| 0.15 | 0.3910 |
| 0.20 | 0.4100 |
| 0.30 | 0.4328 |
| 0.45 | 0.4530 |
| SFORM LIMIT DIAGRAM | --- File Identifier (must exist) |
| SAFETY MARGIN | --- Safety margin |
| TYPE | --- 0 - True |
| | 1 -- Engineering |
| | 2 -- Engineering Percent |