



Design Studio for Genesis

A Graphical User Interface
for the *GENESIS*
Structural Analysis and Optimization Software

New Features and Enhancements

Version 12.2

September 2012

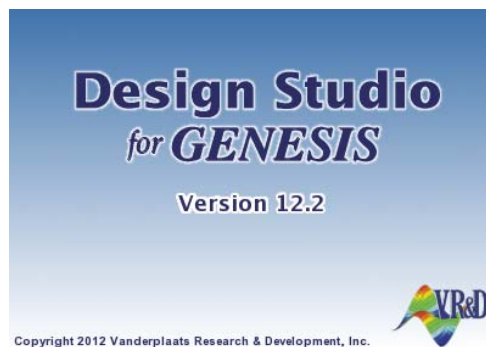
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1 Introduction

This document describes the enhancements and new features available in Design Studio for Genesis 12.2.

Enhancement Summary

- Genesis 12.2 Compatibility
- User Plugins
- New Examples
- Single Window Option
- New Element/Grid Selection Options
- Improved Mouse Wheel Zoom
- Path XY Charts
- Save Frequency Response and Path XY charts in the *.dsg file



2 General Enhancements

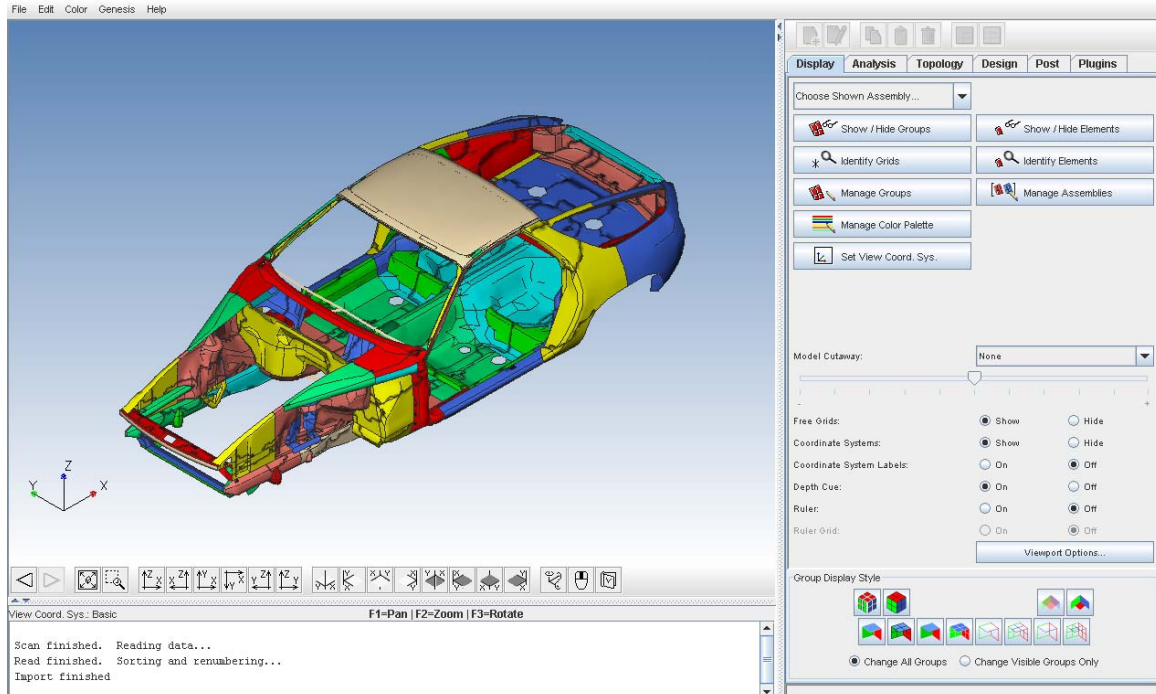
1. Genesis 12.2 Compatibility. Design Studio has been enhanced to handle all of the new capabilities of Genesis 12.2. New features in Genesis 12.2 include: surfaces defined by BSURFE, BSURFM and BSURFP; glue connections defined by CGLUE; skin element property PSKIN; shifted element dynamic stress, strain and force responses; and synthetic responses that use other synthetic responses as input arguments.



2. User Plugins. Previously, plugins were only loaded from the installation directory, and thus it usually required administrative privileges to add a plugin. Now Design Studio will also load plugins from a special subdirectory of the user's home directory, allowing any user to add plugins for his/her own use. The **Help->About Design Studio** dialog includes a line that identifies the full path to the user plugin directory. Note that a user will need to create this directory to add the first plugin. Also note that plugins are version specific, and a plugin written for a different Design Studio version will not load.
3. New Examples. There are 7 new step-by-step example problems in the Design Studio Examples manual that illustrate new capabilities of Genesis.

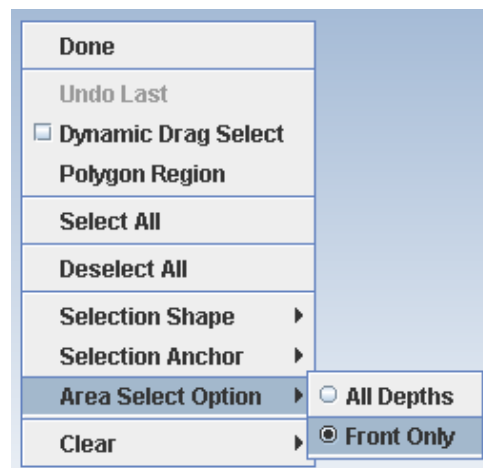
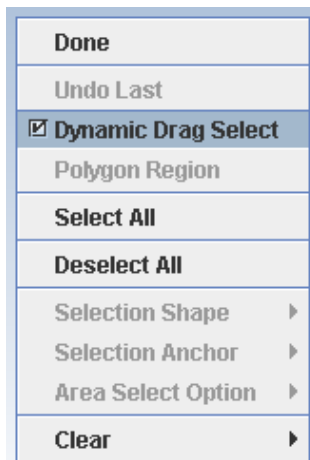
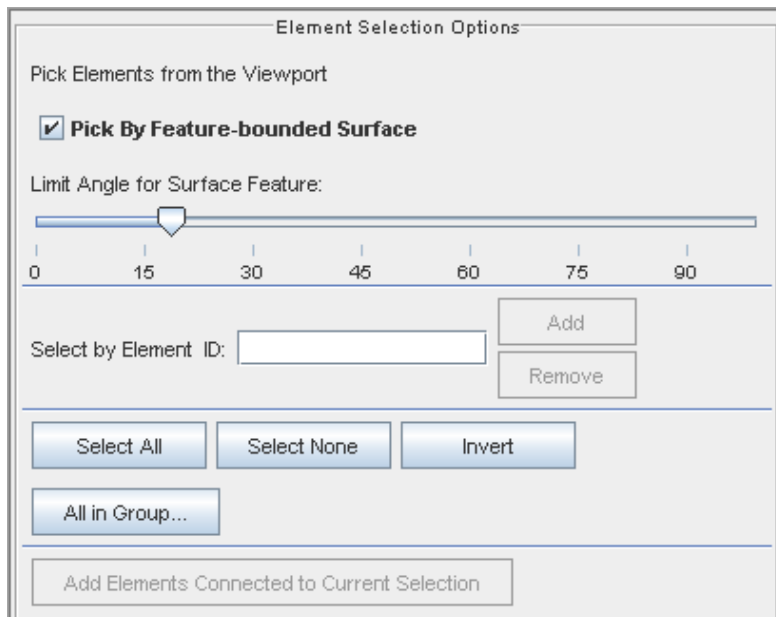
3 Interface Enhancements

1. Single Window Option. The new default configuration merges the main area, viewport area and messages area into one single window. There is a user preference to return to the three separate windows configuration.



New Features

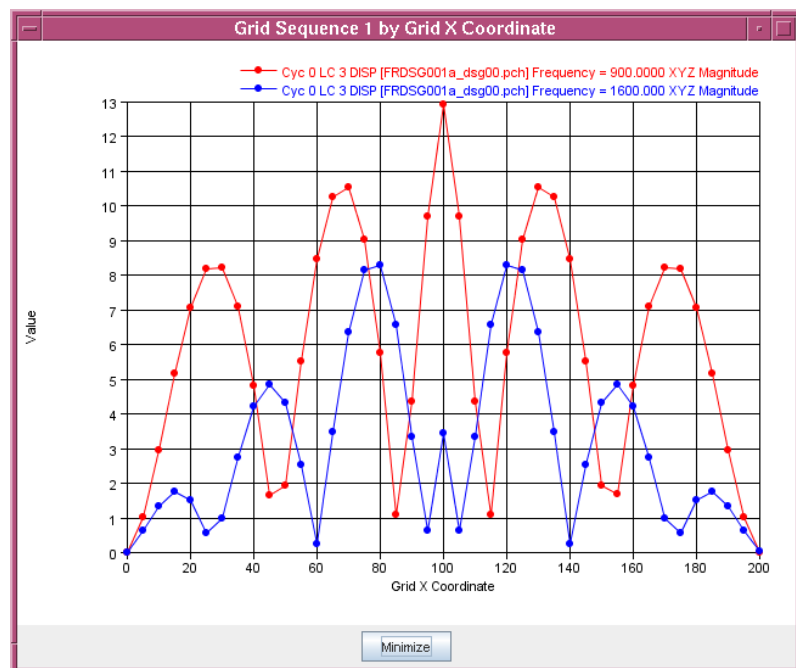
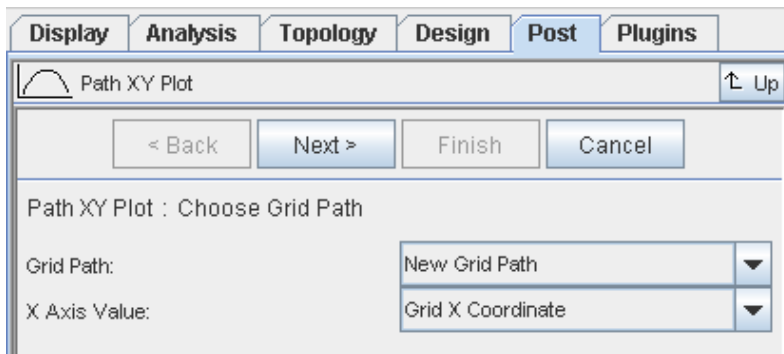
2. New Element/Grid Selection Options. There are three new options for selecting elements and grids. The first lets you pick all elements or grids on a model surface bounded by feature lines. The limit angle between adjacent elements that defines feature lines can be dynamically adjusted. The second option changes the area selection (i.e., drag a rectangle) to only select the front (exposed) elements. That is, elements hidden behind other elements will not be selected. The third option is a dynamic drag selection. With this option the left mouse button is pressed and the mouse is dragged. Whatever elements/grids are hit by the mouse are added to the selection.



3. **Improved Mouse Wheel Zoom.** Now when zooming with the mouse wheel, the point under the mouse cursor remains fixed in place. This allows a sequence of wheel zoom-out, move the mouse, wheel zoom-in to effectively pan the view.

4 New Postprocessing Capabilities

1. Path XY Charts. Now, XY charts can be created for any result field defined along a sequence of grids. The chart x axis value can come from the grid x, y, or z coordinate values or the accumulated distance between grids along the path or can simply be labeled with the grid ID numbers.



2. Save Frequency Response and Path XY charts in the *.dsg file. Previously, Frequency Response charts were lost when a Design Studio session ended. Now Frequency Response charts and the new Path XY charts are saved along with all the model data in the Design Studio database file (*.dsg), and will be restored when the database file is opened.

5 Compatibility with Design Studio for Genesis Version 12.1

Design Studio database files (*.dsg) written with version 12.1 or earlier are compatible with version 12.2. However, database files written with version 12.2 are not compatible with previous versions.