GID CHARACTERISTICS

CAD SYSTEM CAPABILITIES

- Geometry definition.
- Import and export CAD data in several formats.
- Options for repairing and cleaning CAD data.
- Effective specification of boundary conditions and material properties.
- Definition of analysis parameters.
- Versatile visualization and quality control tools.

MESH GENERATION

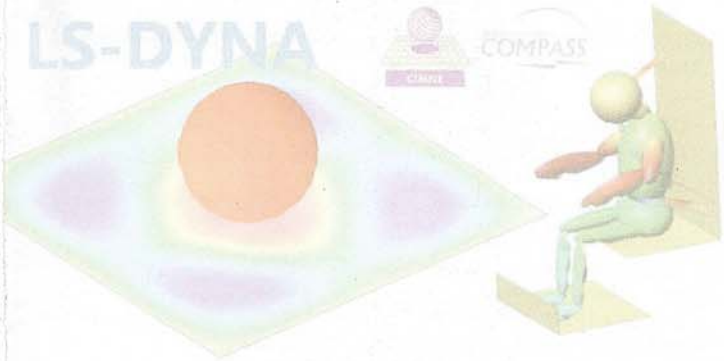
- Structured meshes for linear and quadratic elements including: triangular, quadrilateral, hexahedral, prism and tetrahedral meshes.
- Unstructured meshes automatically generated based on quality and spacing criteria defined by the user (or using a background mesh).This includes:
  - Triangular, quadrilateral circles, spheres, and tetrahedral meshes (either linear or quadratic elements).
  - Mesh generation carried out after all data have been assigned to geometrical entities.
- Semi-structured volume meshes (structured in one direction)of hexahedra, prisms or tetrahedra.
- Three surface meshers available:
  - RFAST: meshing in parametric space (2D).
  - RSURF: meshing in space (3D).
  - RJUMP: meshing a group of surfaces skipping their contact lines (and skipping contact lines between surfaces not to be meshed as predefined by the user).
- Large meshes generated in a fast and efficient manner.
- Mesh edition utilities: mesh refinement, edge collapse, smoothing, etc.

VISUALIZATION

- Contour and vector plots, deformed shapes, isosurfaces, and beam diagrams from static and dynamic analysis.
- Visualizable on original and deformed meshes.
- Visualization of several meshes for adaptivity.
- Animated seqüences.
- Several graphs types: point, line, boundary.
- Coloured stream points lines and ribbons.
- Import of neutral FEMAP and TECPLOT results, NASTRAN and 3dStudio meshes.

MAIN ADVANTAGES

- **Conditions applied on geometry or mesh elements.**
- **Intuitive interface (based on groups philosophy).**
- **Easy problem data edition (all information displayed on the screen).**
- **Automatic reports creation system.**
- **Interactive operation with LS-DYNA.**



Free Full Version for a month can be downloaded from: *www.gidhome.com/gidplus*

Best Quality/ Price Ratio: Interface Price 550 € (+16% IVA if applicable) plus GiD's competitive price makes it affordable for individuals and organizations, check it at: *www.gidhome.com/order*

How to Buy? For details and orders contact (*gid@cimne.upc.edu*) or go to the online shopping center through *www.cimne.com/tiendaCIMNE* Resellers, please contact Compass S.A. (*info@compassis.com*)

More Info avaible at: *www.gidhome.com*

CIMNE
Edificio C-1, UPC
Gran Capitá, s/n
08034 Barcelona, Spain

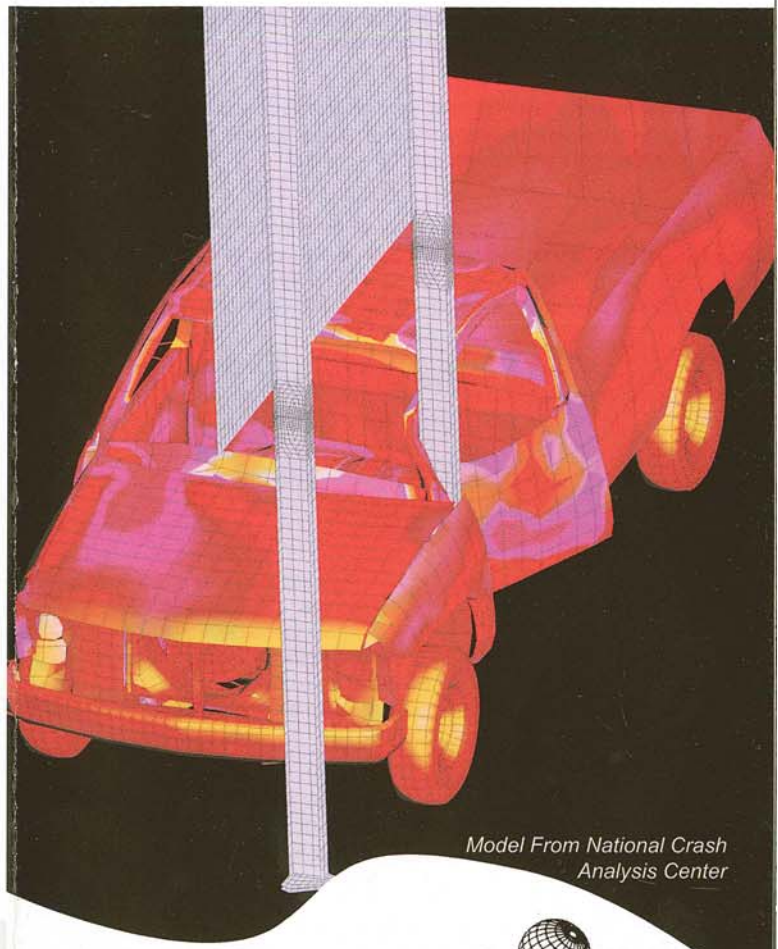
Tel +34 93 205 70 16
Fax +34 93 401 65 17
cimne@cimne.upc.edu
www.cimne.com

Compass Ingeniería y Sistemas, SA
c/ Tuset, 8 7-2
08006 Barcelona

Tel: +34 93 218 19 89
Fax: +34 93 396 97 46
info@compassis.com
www.compassis.com

LS-DYNA INTERFACE

Discover how friendly can be to run LS-DYNA with GiD - The personal pre and post processor



Model From National Crash Analysis Center

INGENIERÍA y SISTEMAS COMPASS

www.compassis.com

CIMNE

www.cimne.com

GiD

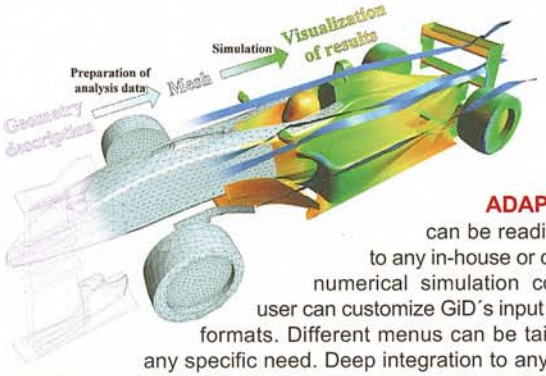
WHAT IS GID?

GiD is a pre and postprocessor developed at CIMNE, International Center for Numerical Methods in Engineering, located in Barcelona (Spain).

GiD has been designed as a universal, adaptive and user-friendly graphical user interface for geometrical modelling, data input and visualisation of results for all types of numerical simulation programs. Typical problems that can be successfully tackled with GiD include most situations in solid and structural mechanics, fluid dynamics, electromagnetics, heat transfer, geomechanics, etc. using finite element, finite volume, boundary element, finite difference or point based (meshless) numerical procedures.

GiD is ideal for use in a multi-user environment such as universities, research centers and enterprises for development and applications of different numerical simulation programs.

UNIVERSAL: GiD can generate all the input data (structured and unstructured meshes, boundary and loading conditions, material types, visualisation of results, etc.) required for the analysis of any problem in science and engineering using numerical methods.



ADAPTIVE: GiD can be readily adapted to any in-house or commercial numerical simulation code. The user can customize GiD´s input and output formats. Different menus can be tailored to fit any specific need. Deep integration to any code with GiD is possible. The analysis process can also be started, monitored and stepped from within GiD.

USER-FRIENDLY: The development of GiD has focused on user's needs and on the simplicity, speed, effectiveness and accuracy required at input data preparation and results visualization levels.

GiD: The universal, adaptative and user friendly pre and post processing system for computer analysis in science and engineering

www.gidhome.com

LS-DYNA SOLVER

- LS-DYNA is a general purpose finite element code used to analyze the large deformation dynamic response of structures (including structures coupled to fluids).
- The main solution methodology is based on explicit time integration.
- Specialized capabilities for airbags, sensors and seatbelts have tailored LS-DYNA for applications in the automotive industry.
- The software accurately predicts a car's behavior in a collision and the effects of the collision upon the car's occupants.

OPTIMAL INTERFACE DATA MANAGEMENT

- Completely graphical environment powered by a Toolkit for problemtypes creation (Compass Ingeniería y Sistemas S.A).
- Problem and groups data are always displayed on the left side of the screen during preprocessing (Right figure), making its management easier for the user.
- Also, some options are displayed in an additional data tree during postprocessing to make faster results analisys (Down figure).

- Groups are defined by their mesh elements or geometry entities.
- They can be created and edited in an easy way with the help of a groups edition window (Right figure, dummi and it's groups).

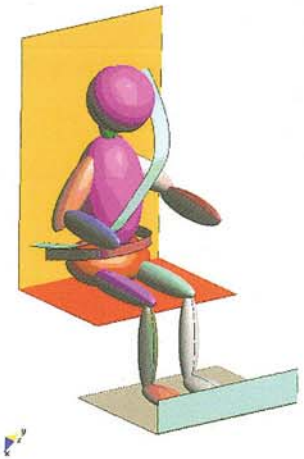
INTERFACE WORKS WITH THE FOLLOWING CARDS

- Airbag
- Boundary
- Contact
- Constrained
- Control
- Database
- Initial
- Load
- Termination

GID LS-DYNA GRAPHICAL INTERFACE

- GiD can be used as pre and postprocessor of LS-DYNA simulations.
- The interface is focused on crash test problems.
- Compatible with GiD 9 and LS-DYNA v. 971.

Effective Stress
Midsurface Analisis Of An Airbag

INTERFACE CAPABILITIES

- Handles discrete, beam, shell and solid elements.
- Several material types available (elastic, rigid, isotropic, anisotropic, fabric, plastic, viscoelastic, springs and dampers, etc).
- Single and master & slave contacts definition.
- Dynamics loads and constraints.
- Several joint types available (spherical, revolute, translational).
- Fully GiD postprocessing functionality.