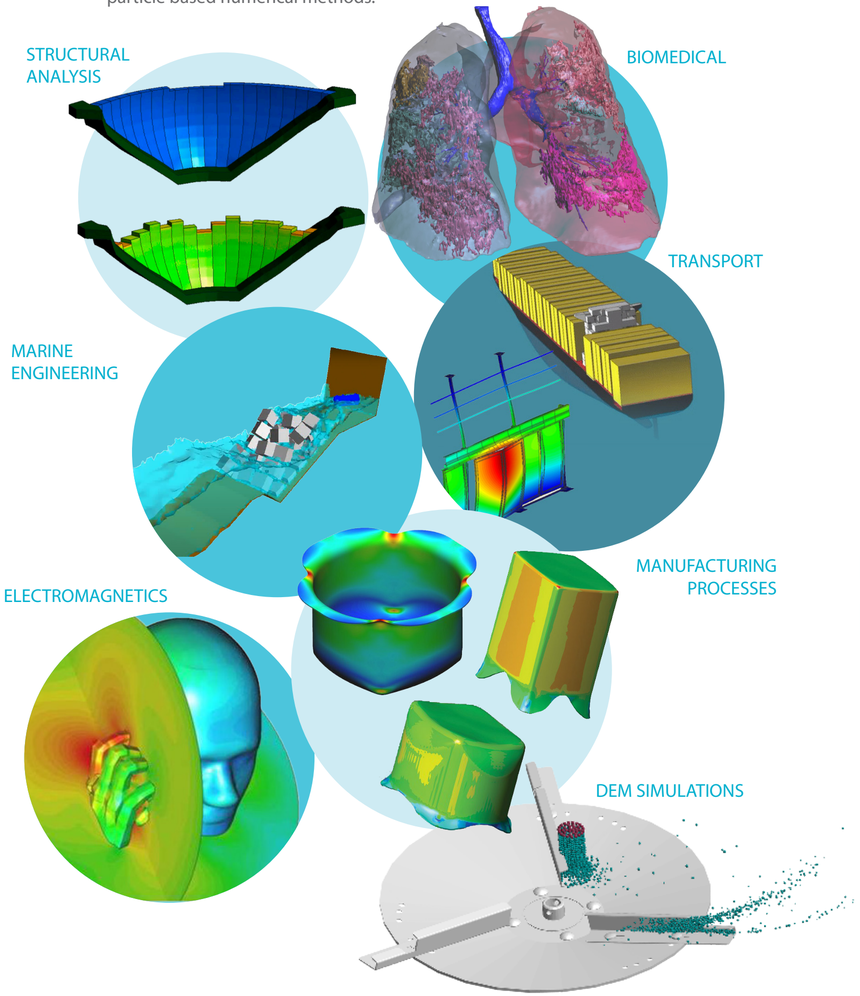
APPLICATION FIELDS

Solid and structural mechanics, fluid dynamics, electromagnetics, heat transfer, geomechanics, industrial forming processes, among others, using finite elements, finite volumes, boundary elements, finite differences, iso-geometric analysis (IGA and IBRA), meshless or particle based numerical methods.



WHAT'S GiD?

PRE & POST PROCESSING

Designed to cover all the common needs in the numerical simulation field from pre to post processing, geometrical modelling, effective definition of data analysis, meshing, as well as the analysis and visualization of numeric results.

FIT YOUR NEEDS

Whether you work in education, research, science or industry within GiD you will find specific solutions for your needs.
GiD is easy to adapt to any numerical simulation code, creating your own simulation solution.

POWERED BY CIMNE – UPC

Leading edge technology in continuous evolution, with more than 20 years of history thanks to our multidisciplinary team in permanent contact with researchers, scientists and industry players.
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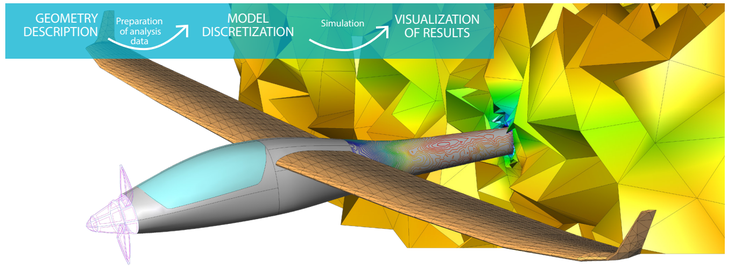

PRICING

SUBSCRIPTION

Be always updated to the latest GiD version just with your username and password. Cancel anytime.

SUBSCRIPTION		
PERIOD	EDUCATIONAL	CORPORATE
MONTHLY	60 €	150 €
YEARLY (SAVE 2 MONTHS FEE)	600 €	1500 €

Get 3 months for free if you already have some previous GiD licence. Includes 300 Mb of cloud storage for GiD models.

Educational: Universities and other non-profit educational and research organizations.

Corporate: All other organizations.

The named user and the subscription licenses require periodic Internet connectivity.

Prices per unit licence, VAT if applicable.

PERMANENT LICENCES

Pay once, get GiD v15 for life. The licence is linked to a device or to a named user and the duration is unlimited.

PERMANENT LICENCES		
TYPE	EDUCATIONAL	CORPORATE
LOCAL (SINGLE PC)	580 €	1700 €
USB STICK	750 €	2200 €
FLOATING (NETWORKS)	870 €	2500 €
NAMED USER	1000 €	2800 €

- Discounts for ordering multiple licences.
- Special prices for educational centres classrooms.
- Discount up to 60% for upgrades from previous GiD versions.

CLOUD STORAGE FOR GID MODELS

We also offer

- Free full version: 30-day trial period.
- Free evaluation version: Full capabilities of GiD with a limited number of mesh nodes and geometrical entities for research and university projects.
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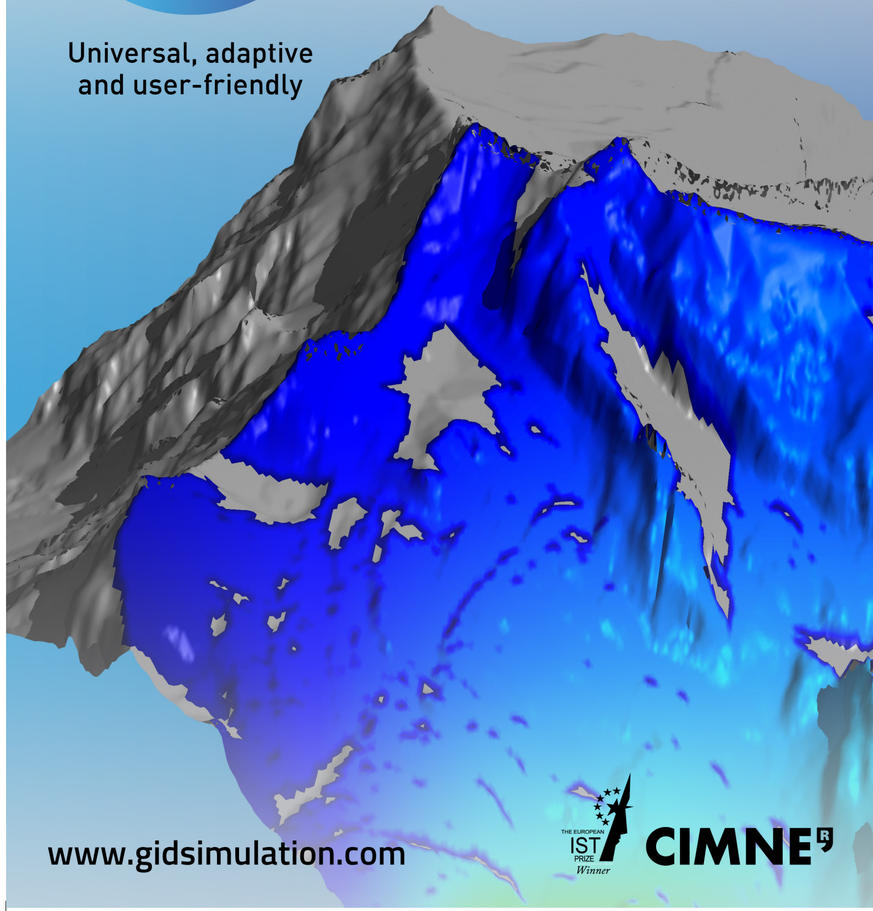
GiD® v16

THE PRE AND POST PROCESSING SYSTEM

for computer analysis in science and engineering

Universal, adaptive and user-friendly



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THE EUROPEAN IST PRIZE Winner

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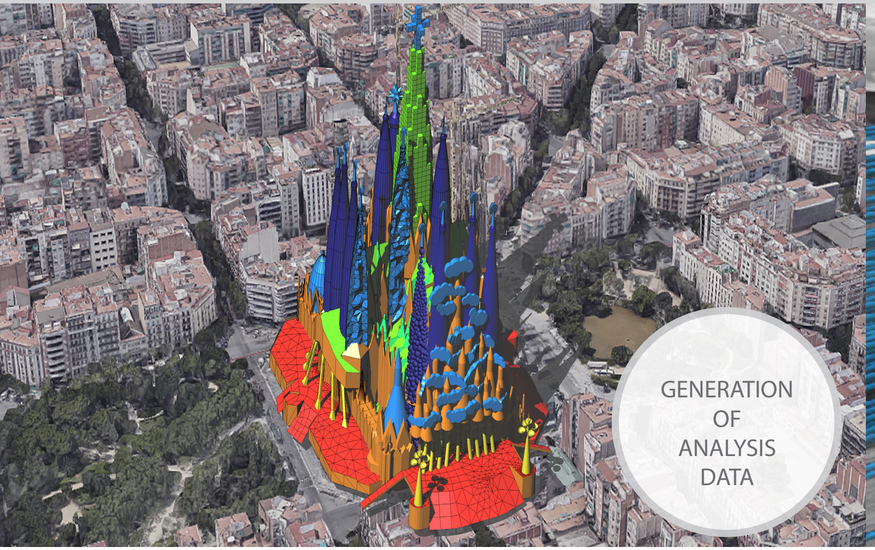
PREPROCESSING



CAD system

GiD is a CAD system that features the widely used NURBS surfaces (trimmed or not) for geometry definition. A complete set of tools is provided for quick geometry definition and edition including typical geometrical features such as transformations, intersections or Boolean operations.

Meshing

GiD allows the generation of large meshes in a fast and efficient manner for surfaces and volumes. Unstructured, semi-structured, structured, embedded or Cartesian meshes can be generated, as well as 2D and 3D anisotropic meshes (boundary layer).

Several element types are supported (triangles, quadrilaterals, circles, hexahedra, prisms, tetrahedra or spheres) considering also different degree of elements: linear and quadratic. Several mesh editing tools allow users to have full control of any type of mesh. A plug-in system allows incorporating external volume meshers inside GiD.

CAD cleaning & repairing

Several automatic CAD cleaning operations are performed automatically when importing a geometrical CAD model. There are also a handful of graphical tools to detect errors and repair geometries allowing the generation of a proper mesh for the simulation.

Some of the meshers integrated in GiD reduces to the minimum the need of repairing operations and they are able to generate a mesh directly from the imported geometry, even with non-watertight volumes.

Geometry reconstruction

GiD includes tools to convert any surface mesh into a NURBS surfaces representation. This has many advantages when dealing with discrete data as input for the numerical simulation (for example medical images, 3D scanners, etc.), as smooth representation of CAD data, memory savings and access to CAD edition tools.

Assign data to geometry or mesh

Easy assignment of all kind of data to geometry or mesh (boundary conditions, material properties, loads, etc.). Geometrical and mesh entities can be organized in Layers and Groups, where analysis data can be assigned to. This information along with other simulation properties can easily be sent to the solver thanks to GiD's customization features.

Import & export

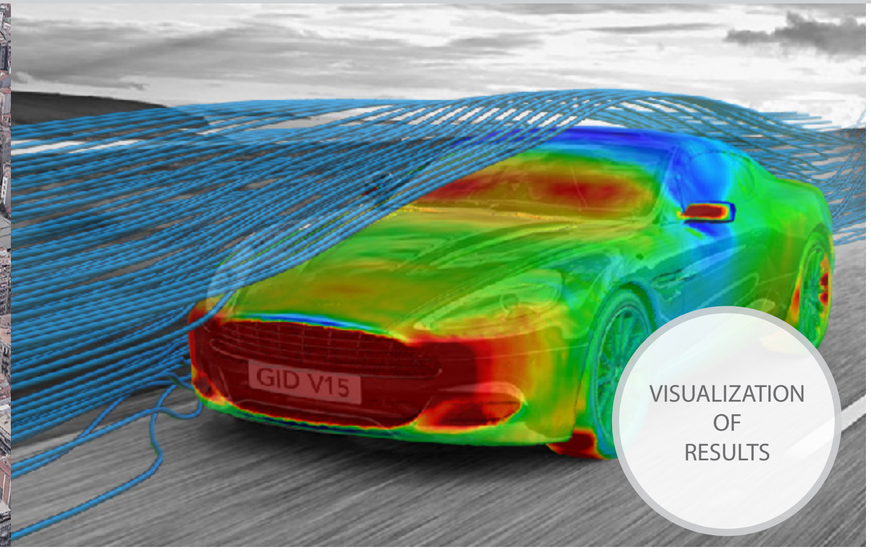
CAD geometrical data can be read in IGES, STEP, Parasolid, ACIS, VDA, DXF, KML (Google Earth), Shapefile, Rhinoceros and Collada file formats. Also several cartographical and topographical formats are supported.

The geometry export formats are IGES, ACIS, STEP, DXF or Rhino.

Mesh data can be read in NASTRAN, STL, VRML, 3DStudio, CGNS, VTK, ABAQUS and other formats.

Following a customized template, all information (mesh and simulation data) is exportable in any format.

POSTPROCESSING



Several visualization options

Most of the widely used analysis and visualization options for simulations' results are included in GiD, supporting real and complex numbers. Some examples are contour fill, contour lines, vector plots, isosurfaces, beam diagrams, streamline, ribbons, node tracking, surface extrusions, model deformations, etc.

Each visualization option can be applied either to the original mesh, to an isosurface or to a cut of the mesh. Several visualization options can be applied together at the same time.

GiD also offers the possibility of visualizing and animating the results on several meshes, combining different visualization styles and results.

Animations & snapshots

GiD rendered images can be exported in several formats, as well as animations of models or results (also in stereoscopic mode), controlling their resolution and quality. Users can take advantage of advanced external editing tools to create spectacular videos.

Cuts and isosurfaces

Additional surface meshes are generated by GiD for cuts and isosurfaces visualization, and any visualization option of a result can be applied to them. Planar or spherical cuts can be done to visualize the inner parts of the model, and they can follow the deformation of the model.

Import & export

GiD can read simulation result files written in several common formats, such as VTK, TECPLOT or FEMAP. Furthermore, the solver can directly write the results in GiD format using the GiDPost library (provided at no additional cost) to help developers in the adaptation task. GiD native formats are GiD-ASCII, GiD-binary or HDF5-binary. A plug-in mechanism allows other formats to be incorporated into GiD by users or third parties. Meshes and results can be exported in VTK, VRML, KML and other formats.

Graphs

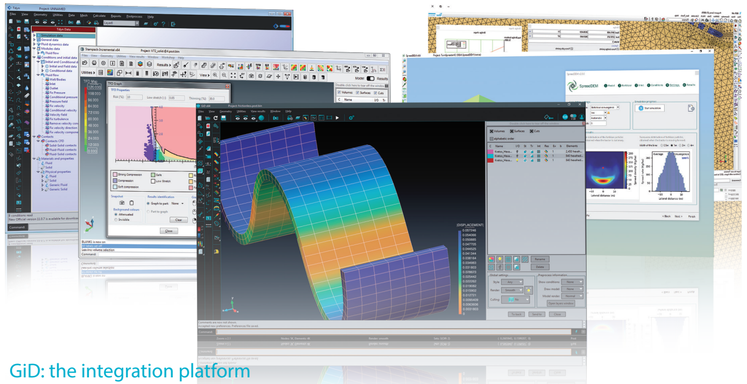
2D graphs can be plotted with GiD based on the 3D results, allowing the management of different graphs thanks to a user-friendly window.

Both cartesian and polar coordinate systems are supported. A logarithmic scale can be set for the axes too. Graphs can also be imported or exported in ASCII format or edited directly in a table.

Handling of large sets of results

Advanced visualization tools, together with the efficient management of data, provide GiD with the capability of visualizing large models with large results files in a fast and user-friendly way. A memory-cache based system allows handling very large postprocessing files, independently on the physical memory available. Advanced mesh simplification algorithms are used for visualizing huge meshes with results, providing a real-time interaction by the user when managing the model.

CUSTOMIZATION OF GiD



GiD: the integration platform

Thanks to the traditional multidisciplinary philosophy of GiD, its connection with any in-house or commercial simulation code is extremely easy. A deep integration involving not only connection with solver codes, but also with CAD ones, external meshers or visualization tools is also possible.

The input and output formats can be customized and the calculation program can be launched, monitored and completed from within GiD. The different menus can be tailored to fit any specific needs, even the whole graphical user interface (GUI) can be redesigned. The use of different themes can change the global appearance of the GUI.

Once the integration is finished, the end user can benefit from the GiD environment for pre and postprocessing for any numerical simulation.

Solver integration

Integration with any solver inside GiD can be carried out in an easy way. The data required by the solver is specified to GiD in an xml file, and GiD automatically creates the corresponding windows and the graphical tree containing all the information useful for the user of the simulation code.

The entities are naturally structured in groups, where the boundary conditions, materials and other properties are assigned on. All the data for the simulation is written down in the solver format in a very efficient way. During the calculation, the solver can send information to GiD in order to update its status, and at the end the results are passed to GiD in order to be postprocessed and visualized.

GiDPost library is provided in order to facilitate the output of results in GiD format from the solver.

Compass IS (www.compassis.com) is co-developer of CustomLib, which is a library for connecting any solver inside GiD. This company offers specialized development services to create professional interfaces and adapt GiD to the specific needs of any application or commercial product.

Extensions

Advanced integration with full control of the user interface of GiD, as well as the model (geometry, mesh and results) is made possible by using events and the Tcl/Tk scripting language. A debugging tool for the Tcl language is included.

These advanced customization features, added to the possibility to control GiD using a batch file, makes GiD one of the most flexible tools in its field on the market today.

Spin-off GiD products

GiD is a platform for the integration of several software codes in a single simulation environment.

Once a program is connected to GiD, the software can be understood as a single product, which can be packaged and commercialized together.

The implementation cost is considerably reduced compared to a full in-house software development with an equivalent quality in terms of customization.

Modules available

GiD has already been linked to many numerical simulation codes. Some of these codes are listed below. Interfaces for third-party software can be found in our website. More information at: www.gidhome.com/gid-plus

COMMERCIAL INTEGRATED SOFTWARE

ATENA	Structural analysis
ATILA	Electromagnetics
BEASY GiD	Corrosion and cathodic protection
Click2Cast	Casting process
DaGGer	Dam Geometric Generator
Hobbies	Electromagnetics
RamSeries	Structural analysis and design
SciFEA	Super-operator system
SeaFEM	Seakeeping
SpreadDEM Agricultural	machinery
Stampack	Sheet stamping
Tdyn CFD+HF	Computational Fluid Dynamics

RESEARCH INTEGRATED SOFTWARE

Carat++	Structural analysis
CFLOW	Crowd dynamics simulation tool
CODE-BRIGHT	Geomechanics
DEMpack	Discrete Element Method
ERMES	Electromagnetics
GiD+OpenSees	Earthquake engineering
Iber	Hydraulics
iGP	Thermo-hidro-chemical (THQ) modelling
KRATOS	Multi-physics
MAT-FEM	Educational FEM
SAFIR	Thermal and mechanical analysis
SEMBA	Electromagnetics
X-FINAS	Structural analysis