Fast and efficient visualization, including animation of transient data; fidelity to computed data; built-in support of many data formats: our products are designed for the demanding scientific community.

Tailor-made Visualization

inVisu offers a tailor-made scientific visualization for the specific needs of every user. Analyzing 3D or 2D data, visualizing molecules: we have a range of products which meets these needs.

Fast Data Access

Our products use powerful algorithms and sophisticated memory management techniques, which reduces the reading time of data files and accelerates the creation of images. Options can be used to manage the data and reduce even more the loading time by selecting the fields to be read.

Fidelity with the Data

Data is visualized using the interpolating functions as defined in the mathematical modeling of the simulated phenomenon. 37 functions are presently available: continuous or discontinuous across element boundaries, linear, bilinear, trilinear, quadratic, cubic, etc., for 0D, 1D, 2D and 3D elements. Extracted values are precise: no mesh or solution approximation is done, nor any element decomposition. Data is analyzed and visualized as it was actually calculated.

Advanced Visualization

We quickly integrate into our software the most innovative developments in scientific visualization and image generation. We were the first, in the area of commercial scientific visualization, to implement the following technologies: use of OpenGL graphics library (1995), client/server system (1995), support of Linux (1996), stereo display mode (1997), use in virtual reality immersion environments (1998), voice commands (2002), use of programmable graphics cards - GPU (2008). To improve the rendering of images, before using GPUs, we had implemented the export of image in VRML and POV-Ray formats.

Data Formats and Application Fields

Our products support the most commonly used data formats , in particular for finite elements. They find applications in many fields, such as:

- Fluid Mechanics
- Computational Chemistry
- Structure Analysis
- Manufacturing
- Injection Molding
- Combustion
- Civil Engineering
- Applied Mathematics

Platforms

Our products are optimized for the Linux and Mac OS X platforms in order to use the most powerful graphics cards available on personal computers, and thus quickly generate high-quality images.