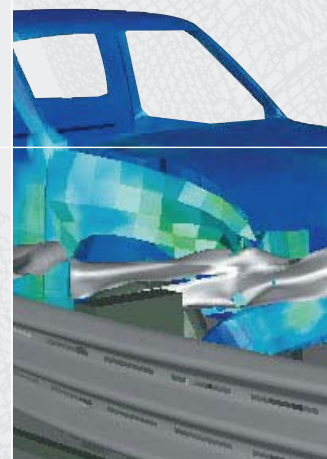


# GLview Pro 6.4 Software Suite



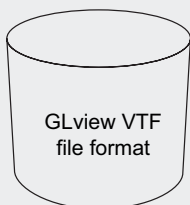
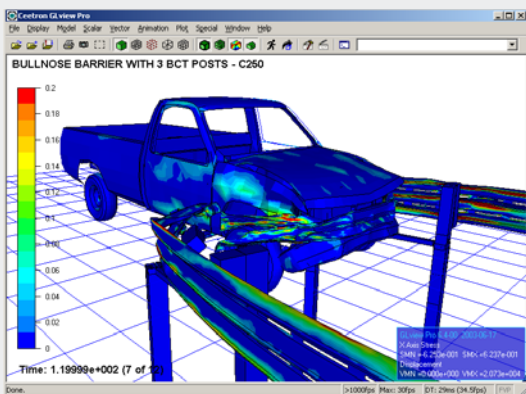
GLview as "Adobe Acrobat" for FEA engineers:

Analysis results  
from CAE systems

ABAQUS, ANSYS, FEMAP, I-DEAS, LS-DYNA  
MSC.Nastran, MSC.Marc, NE/Nastran, RADIOSS



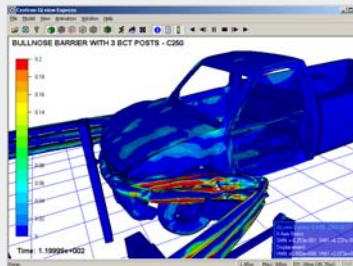
**GLview Pro**



Portable, compressed file containing:

- geometry
- element information
- scalar values
- vector values

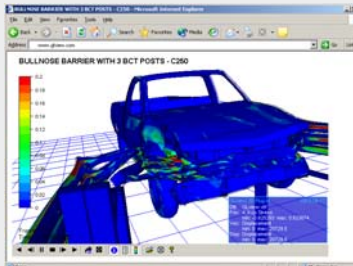
**GLview Express**



**Free stand-alone viewer**  
for Windows, Linux and Unix  
Reads VTF files from GLview Pro

Free distribution

**GLview 3D Plug-in**

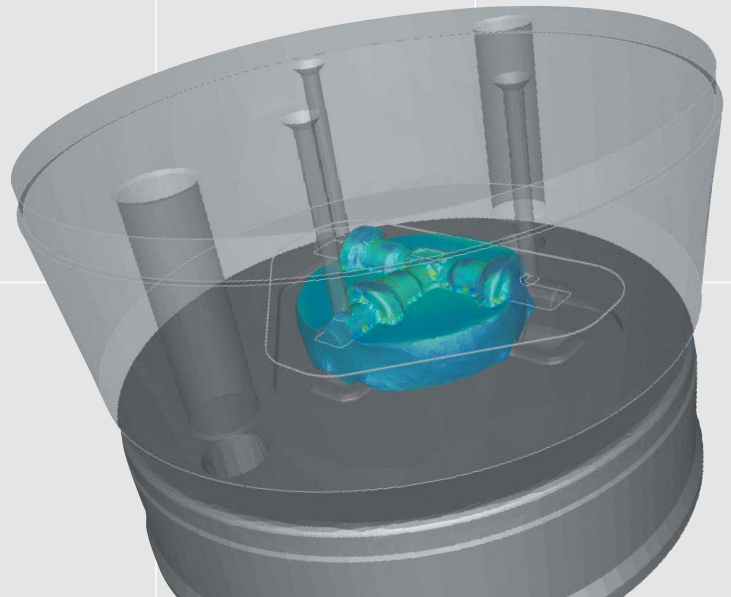


**Free 3D plug-in viewer**  
for Windows  
Reads VTF files from GLview Pro  
Integrates with Internet Explorer and  
PowerPoint.

Free distribution

**TOP STORY:**

"Raufoss ASA was awarded an 11 million USD contract constructing fuel tanks for Scania, utilizing 3D visualization technology to effectively promote their capability within structural analysis. Having conducted "drop test" simulations of truck fuel tanks, Raufoss ASA was able to document and present generated results convincingly using 3D visualization and interactive animation, thereby improving confidence in their data." Dr. Knut E. Moen, Raufoss ASA ([www.raufoss.com](http://www.raufoss.com))



**GLview**  
Pro

3D presentation  
and interpretation

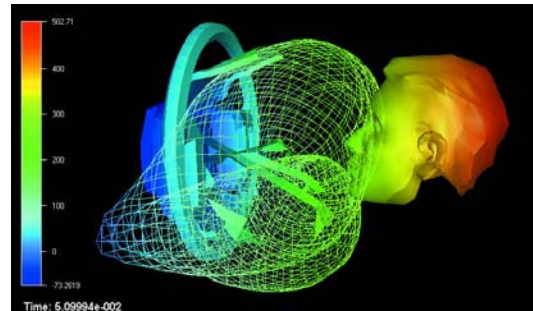
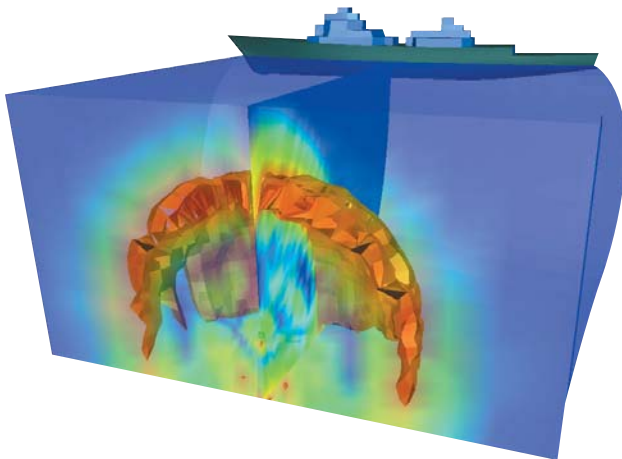
**PRESENT AND COMMUNICATE ANALYSIS DATA EFFICIENTLY WITH GLVIEW PRO**

**GLview Pro 6.4 is an advanced 3D presentation program, allowing you to present and share analysis data more efficiently by means of powerful 3D visualization and interactive animations.**

Increase productivity, and save valuable time in CAE projects by improving the way you present and communicate analysis data with the use of GLview Pro.

**Key features**

- Powerful presentation features with full integration to PowerPoint, Internet Explorer, and AVI/MPEG movies
- Extensive post-processing functionality
- Supported FEA Applications: ANSYS, ABAQUS, MSC.Nastran, MSC.Marc, I-DEAS, LS-DYNA, RADIOSS, NE/NASTRAN, and FEMAP
- Supported CFD Applications: FLUENT and PHOENICS
- Easy integration with in-house codes
- Multi-platform software
- Includes two free add-on modules: GLview 3D Plug-in and GLview Express



**How customers use GLview Pro**

- Communication tool for sharing analysis models and results internally and externally; simplifying the product development and communication process
- Marketing tool to win new contracts
- Improved level of understanding and customer satisfaction, through the inclusion of interactive 3D models in presentations and reports
- Multi-code post-processor to visualize analysis data from commercial simulation codes and in-house codes

**Selected customer references**

- Aerospace; EADS, Rockwell Science Center, Rolls Royce Aerospace
- Automotive; Fiat Research Center, Volvo, Jaguar, Hydro Automotive Structures
- Energy; Statoil, Conoco, Mitsui Babcock, Saipem UK
- Marine Engineering; DNV, Rolls-Royce Marine, MARINTEK, Nigel Gee & Associates
- Manufacturing; Rolex, Bayer, Aventis Pharma, SAPA Autoplastics

#### TOP STORY:

SSAB HardTech finds GLview Pro to be a very valuable tool when distributing and sharing results with other departments within the company, and also toward customers using the free viewer, GLview Express. The company uses GLview Pro for presentation purposes, and is very happy with the performance of the software. ([www.ssab.com](http://www.ssab.com))



**GLview**  
Express

Free add-on module  
to GLview Pro

## IMPROVE THE COMMUNICATION IN CAE PROJECTS BY USING GLVIEW EXPRESS

**GLview Express 6.4 is a free 3D viewer, enabling GLview Pro users to share and distribute analysis data to clients and colleagues. GLview Express is the CAE world's equivalent to Adobe Acrobat Reader.**

#### Key features

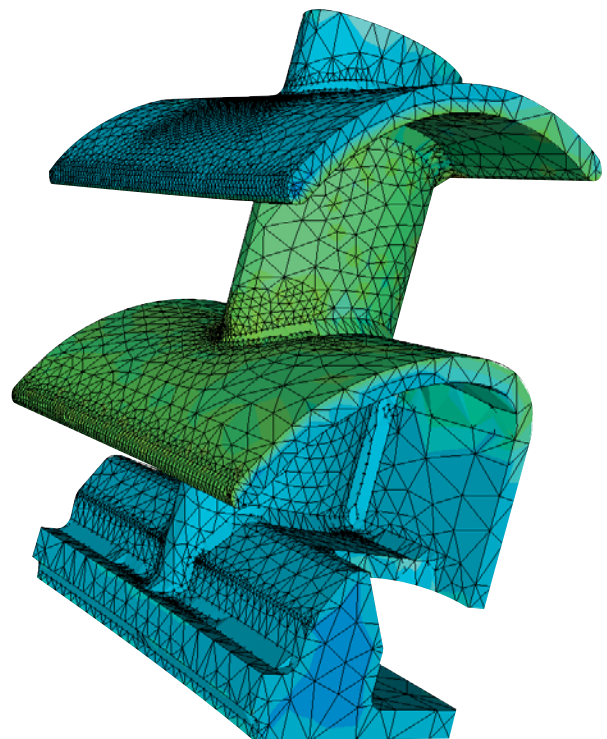
- 3D visualization and interactive animation
- Reads and displays VTF files generated by GLview Pro
- VTF files contain current model, results, and settings from GLview Pro
- No access to change display settings
- Stand alone application
- Free distribution!

#### How customers use GLview Express

- Presentation tool to share VTF files with colleagues and partners
- Marketing tool for presentation, documentation, and distribution of VTF files towards existing and potential customers
- Include GLview Express for free in technical reports to experience full 3D interactivity
- Distribute VTF files by means of GLview Express, which can be downloaded from our website

#### Distribution of files

The VTF files generated by GLview Pro are compact, and often suitable for distribution across the Internet. In case of large datasets, the files can easily be distributed along with GLview Express on a CD-ROM.



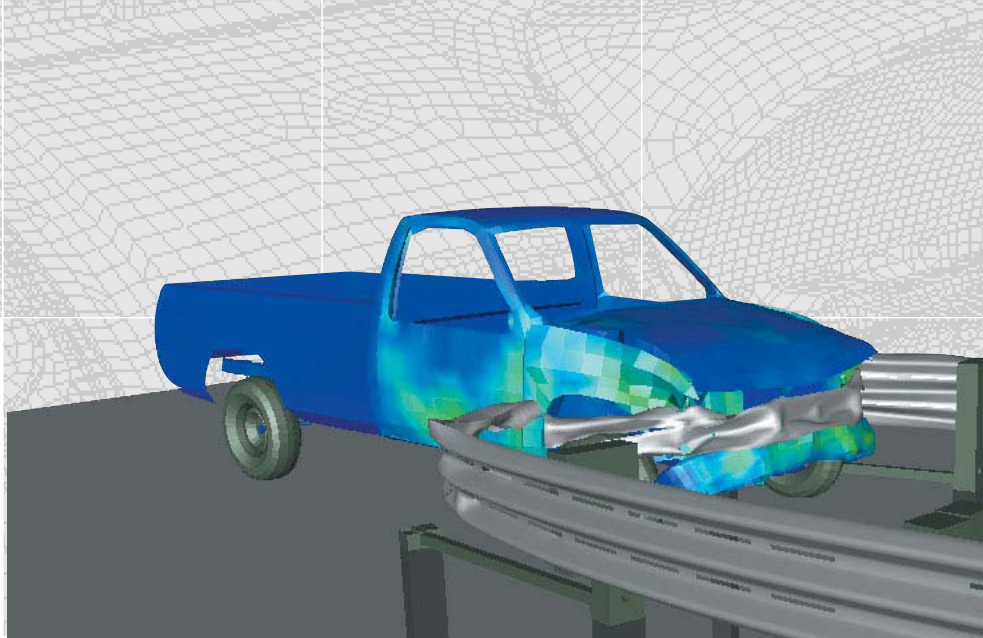
**TOP STORY:**

"General Electric Polymer Design Associates (GEPDA) uses 3D visualization software to prepare and present analysis results both internally and towards clients. 3D visualization is very useful and crucial for sharing and inspecting animated analysis results. GEPDA really appreciates the high graphical performance of GLview Pro, especially when handling large models, i.e. in a workshop at the customer's side using a laptop computer." Wolfgang Krisch, GEPDA. ([www.gepda.com](http://www.gepda.com))



**GLview**  
3D Plug-in

Free add-on module  
to GLview Pro



**INCREASE THE UNDERSTANDING OF ANALYSIS DATA WITH GLVIEW 3D PLUG-IN**

**GLview 3D Plug-in is a free component enabling users of GLview Pro to present real analysis data in PowerPoint presentations or over the Internet using Internet Explorer.**

**Key features**

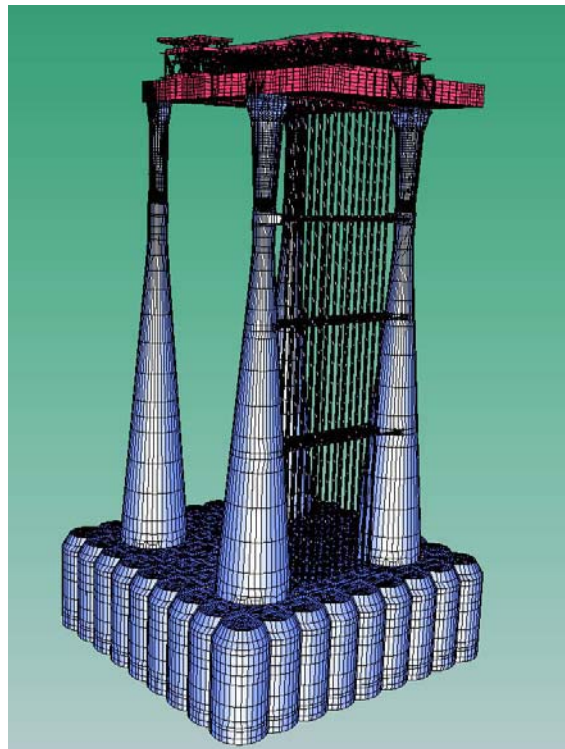
- 3D visualization and interactive animation
- Reads and displays VTF files generated by GLview Pro
- VTF files contain current model, results, and settings from GLview Pro
- No access to change display settings
- Supports PowerPoint and Internet Explorer
- Free distribution!

**How do customers use GLview 3D Plug-in**

- Marketing tool to present VTF files interactively in PowerPoint
- Electronic reporting tool to display VTF files interactively in Internet Explorer
- Include GLview 3D Plug-in for free in presentations or electronic reports

**Distribution of files**

The VTF files generated by GLview Pro allow you to compress your original files. This makes it easier to present and distribute your analysis models in PowerPoint and Internet Explorer.



**FOR MORE INFORMATION, PLEASE CONTACT:**

**Postal address:**

Ceetron ASA, P.O. Box 1247, Pirsenteret  
N-7462 Trondheim, Norway

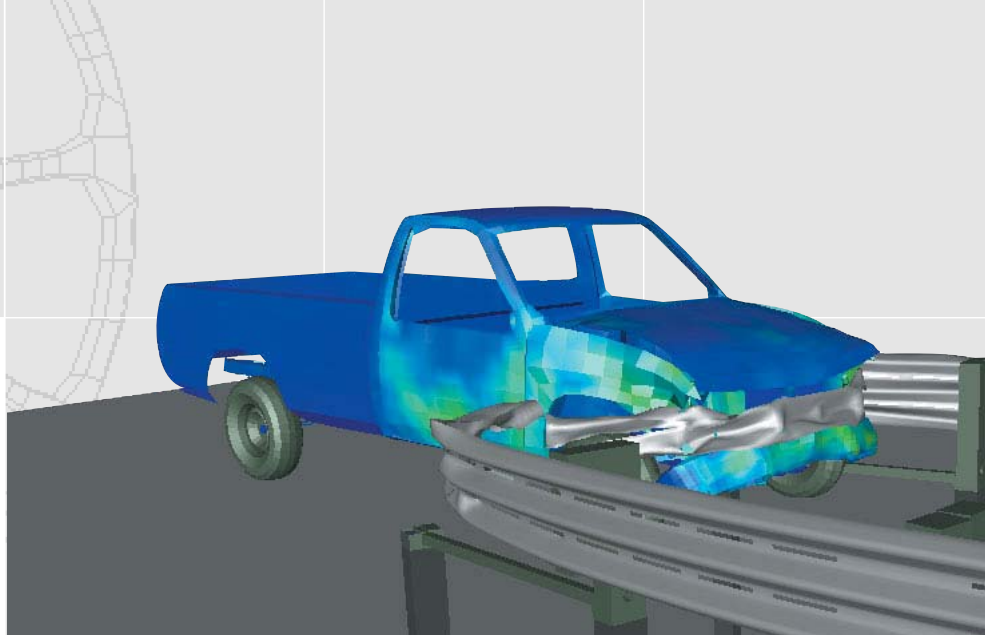
**Phone:** +47 73 54 61 50 **Fax:** +47 73 54 61 44

**E-mail:** [info@ceetron.com](mailto:info@ceetron.com)



**GLview**  
Pro

3D Presentation  
Program



## TECHNICAL SPECIFICATIONS

### FEA APPLICATION SUPPORT

Direct file readers:

- ANSYS: Binary results files (.rst, .rth and .rfl)
- LS-DYNA: State Database (d3plot), Time History File (d3thdt), ASCII plot files
- ABAQUS: Binary post file (.fil, .odb). (.odb only on Windows)
- I-DEAS: ASCII universal file (.unv)
- MSC.Nastran: Binary Output 2 files (.op2)
- MSC.Marc ASCII (.t19) & binary (.t16)
- RADIOSS: Binary ModAnim file
- NE/NASTRAN: Binary Output 2 files (.op2) and bulk data
- FEMAP: ASCII neutral file (.neu)

Support for separated geometry and results files

### CFD APPLICATION SUPPORT

Converter (available on request):

- FLUENT: Binary and ASCII files
- PHOENICS: Binary and ASCII files

### USER INTERFACE

- Intuitive, easy-to-use graphical user interface
- Flexible command and scripting language
- On-line documentation
- Drag & drop files with auto-detect functionality
- Advanced picking and elaborate feedback of information on the model, results, part/material, and element properties

### INTERFACES, IMPORT/EXPORT

- Generic file format import/export: VTF and MOVIE.BYU
- Output of images to BMP, TIF, IRIS RGB, PostScript (bitmap), PPM, and output to VRML 1 and 2
- Generation of MPEG, AVI, and animated GIF
- Generation of VTF files for GLview Express and 3D Plug-in
- Export of 2D plot data to file
- Import of custom plot data
- Printing of 2D plot or 3D scene
- Direct HTML-export to Internet Explorer

### INTERACTIVE ANIMATION

- Time domain and frequency domain (mode shape) animation of scalars, vectors, and displacements
- Particle trace and cutting plane animation
- Viewpoint animation
- Real-time manipulation of models during animation
- Interpolation between time steps during animation

### FEATURES

- Display of scalar and vector results
- 2D plotting of nodal/element results
- 2D plotting of scalar results along user defined lines
- Trace lines of vector results (node tracing)

- Extraction of element results through picking
- Rigid body transformations
- Advanced mirroring options with multiple planes
- Contour and legend control
- Logging of commands
- Scaling of model

### ELEMENTS AND DATA SUPPORT

- Beams, triangles, quads, tetrahedrons, hexahedrons, pentahedrons, pyramids
- Eroded elements
- Adaptive meshes
- Unstructured grids
- Nodal and element results

### RESULTS DISPLAY OPTIONS

- Polygon viewing by surfaces, lines, and points
- Outline, hidden line, outline mesh, overlaid mesh
- Filled contours (textured, plain, or shaded)
- Contour lines
- Vector arrows (with fringe colors) and damping of vectors
- Multiple particle traces of volumetric data results
- Multiple cutting planes
- Iso surface

### RENDERING

- High performance graphics suited for animation of large models
- Software and hardware rendering support using OpenGL
- Set optional point of rotation
- Perspective/orthographic projection
- Shading, flat and smooth shading (Gouraud shading)
- Lighting, arbitrary colors, multiple light sources and directions
- Texture and environment mapping
- Anti-aliased lines
- Set transparent surfaces independently for each part

### HARDWARE PLATFORMS

- Windows XP/2000/NT/95/98 (Intel)
- SGI (Irix 6.x), Sun (Solaris 2.7 and above), IBM (AIX 4.3) Digital/Compaq Tru64 (OSF/1 4.0), HP (HP-UX 10.20 and above),
- Linux: Kernel 2.4.18-3 and XFree86 4.1.0 (for OpenGL)

### FOR MORE INFORMATION, PLEASE CONTACT:

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N-7462 Trondheim, Norway

Phone: +47 73 54 61 50 Fax: +47 73 54 61 44

E-mail: [info@ceetron.com](mailto:info@ceetron.com)