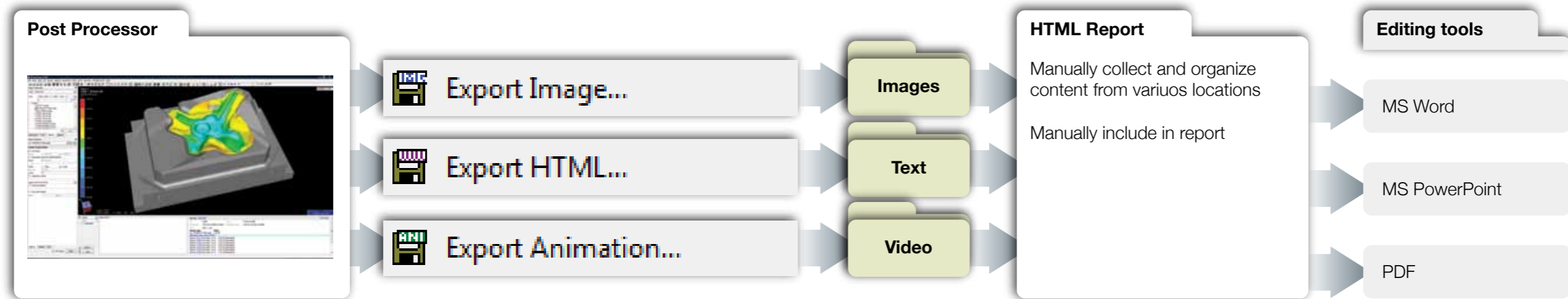


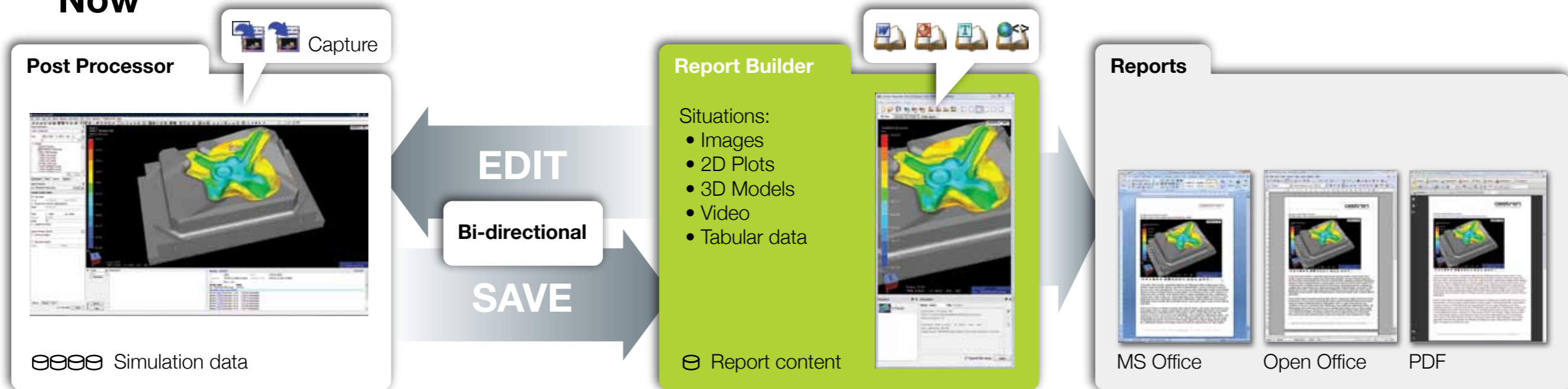
NEW!

**More engineering
Less editing
Better reports**

Before



Now



Save time and money

20-45 % of the time consumption in CAE projects is typically spent on interpretation and reporting of results. The GLview Report Builder facilitates capturing, organizing and presentation of data; reducing a time-consuming necessity to a minimum.

Interactive reporting makes it easy for the engineer to capture data when it is found, directly from his or her favorite post-processor. The GLview Report Builder collects and organizes all data in one place, and creates reports in multiple formats from the same source.

By utilizing the GLview Report Builder, the simulation engineer will not only be able to produce better reports. A conservative estimate shows that he or she will save time equivalent to the cost of one Report Builder license in less than 6 months.

A user-friendly and flexible reporting tool

Most existing CAE tools have limited support for creating reports. Typical issues related to reporting are fragmented output, content exported to multiple folders and files, format variations, HTML output

that is cumbersome to extend and reformat, and static content and layout with limited support for templates.

The GLview Report Builder is created in compliance with industry standards, and enables the utilization of company document templates for layout and formatting of reports, such as existing MS Word or MS PowerPoint templates. It exports output to the native file format of the software tool used to write and finalize reports, e.g. *.docx, *.pptx, *.odf, *.html, *.txt. Converting to PDF is simple.

Include interactive 3D content in reports

With GLview Report Builder, 3D content can easily be included in MS Office documents. The engineer can explore the model and the results in full 3D, providing increased understanding and more data readily available. Including 3D content in the report reduces the need for multiple images and videos, adding flexibility and the ability to answer ad-hoc questions.

Automated reporting

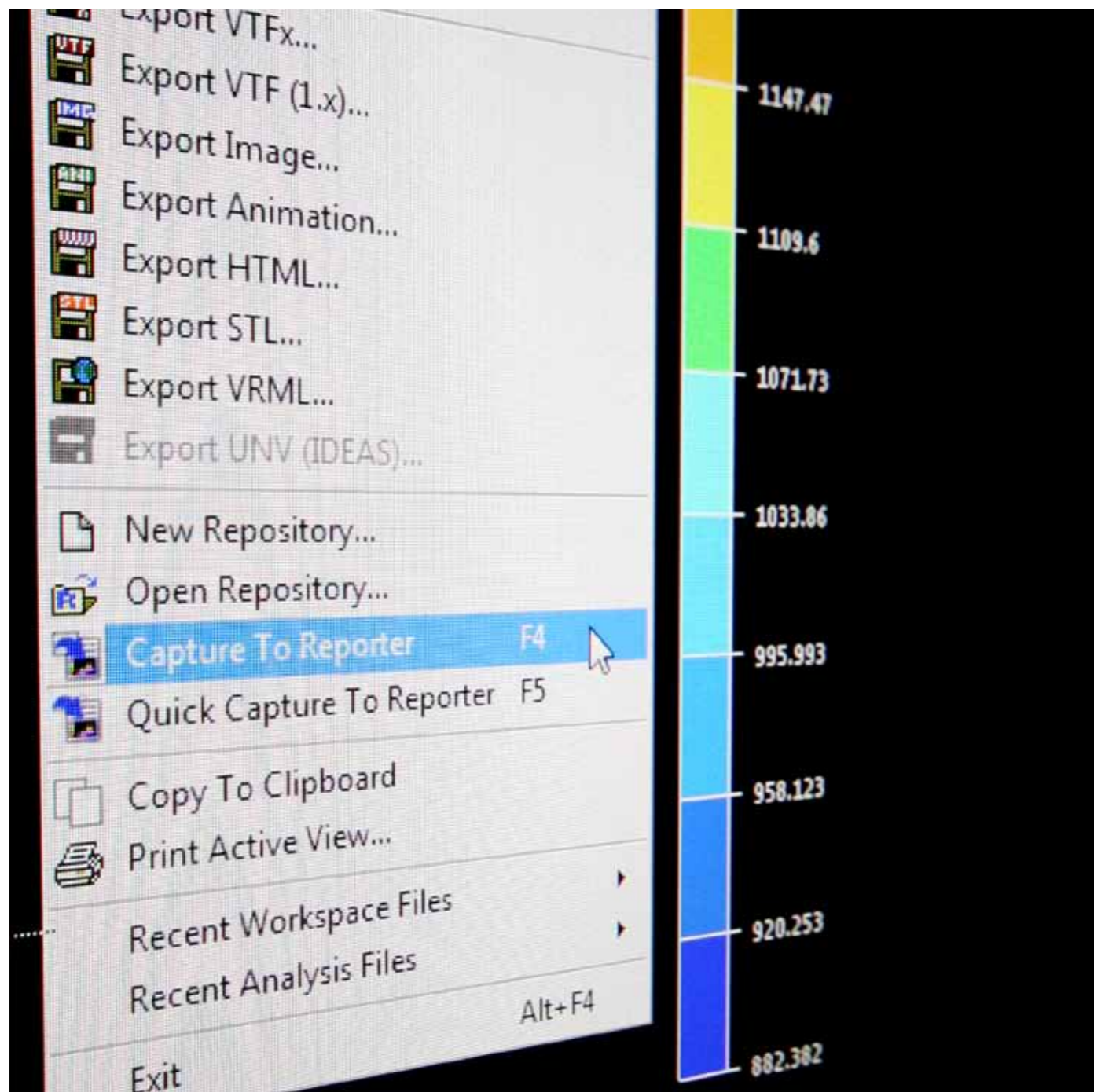
Some reports are one-of-a-kind, but many are repetitive. With automated reporting, all steps to create report content or a complete report can be automated. This is made possible by utilizing repository templates or scripting language. The engineer simply replaces the model file to create a new report from a new or changed analysis. By automating repetitive reporting one will reduce time consumption and increase precision, quality, and consistency in output.

Repository templates

When creating the first report of a specific type, the engineer saves the repository as a template for re-use. All captured data will then be generated automatically when applied to a new simulation.

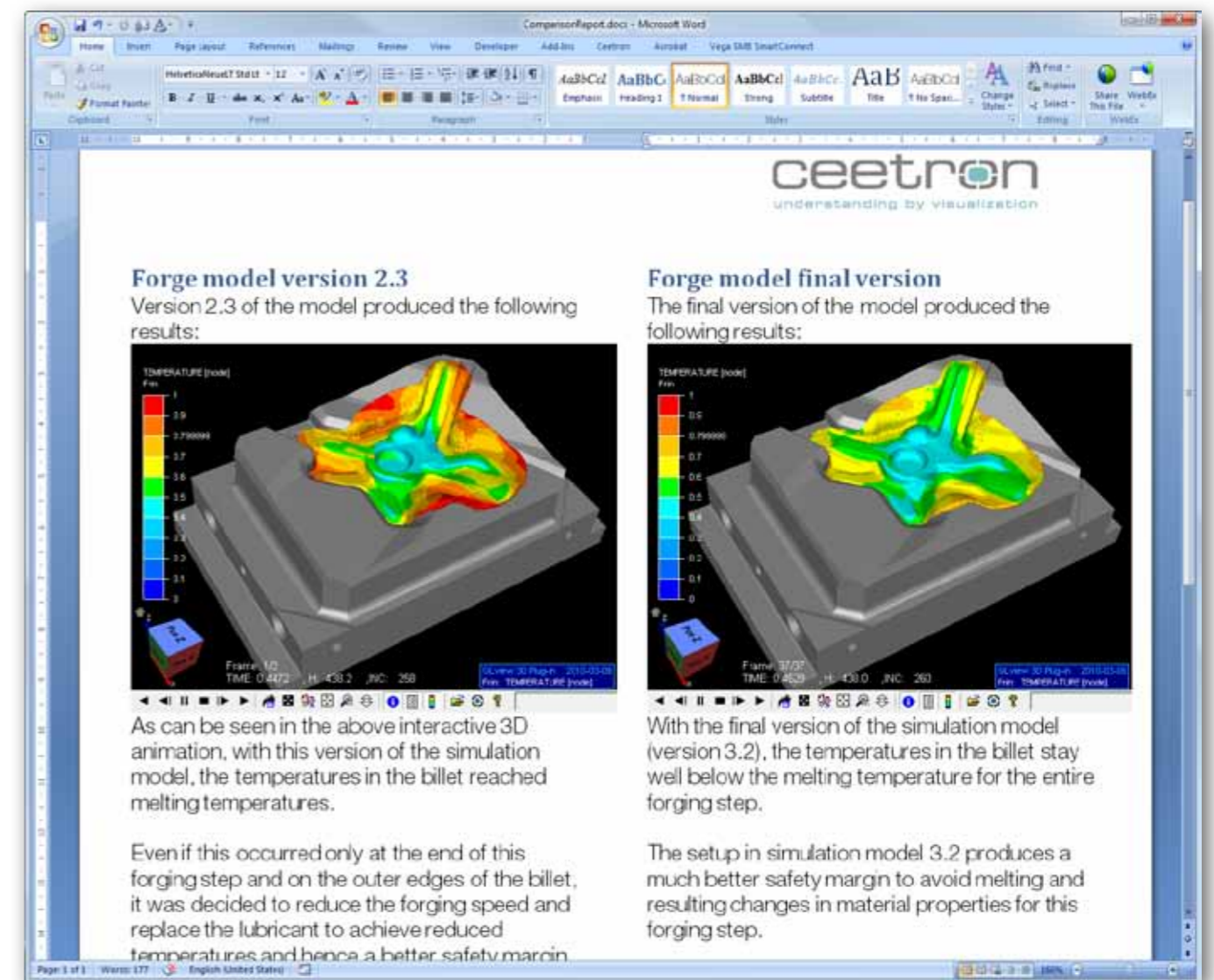
Scripting language

The engineer can record all post-processing and reporting tasks in one single script file. The script file can be re-used on new simulation files to create the new corresponding report.



Compare simulations or designs

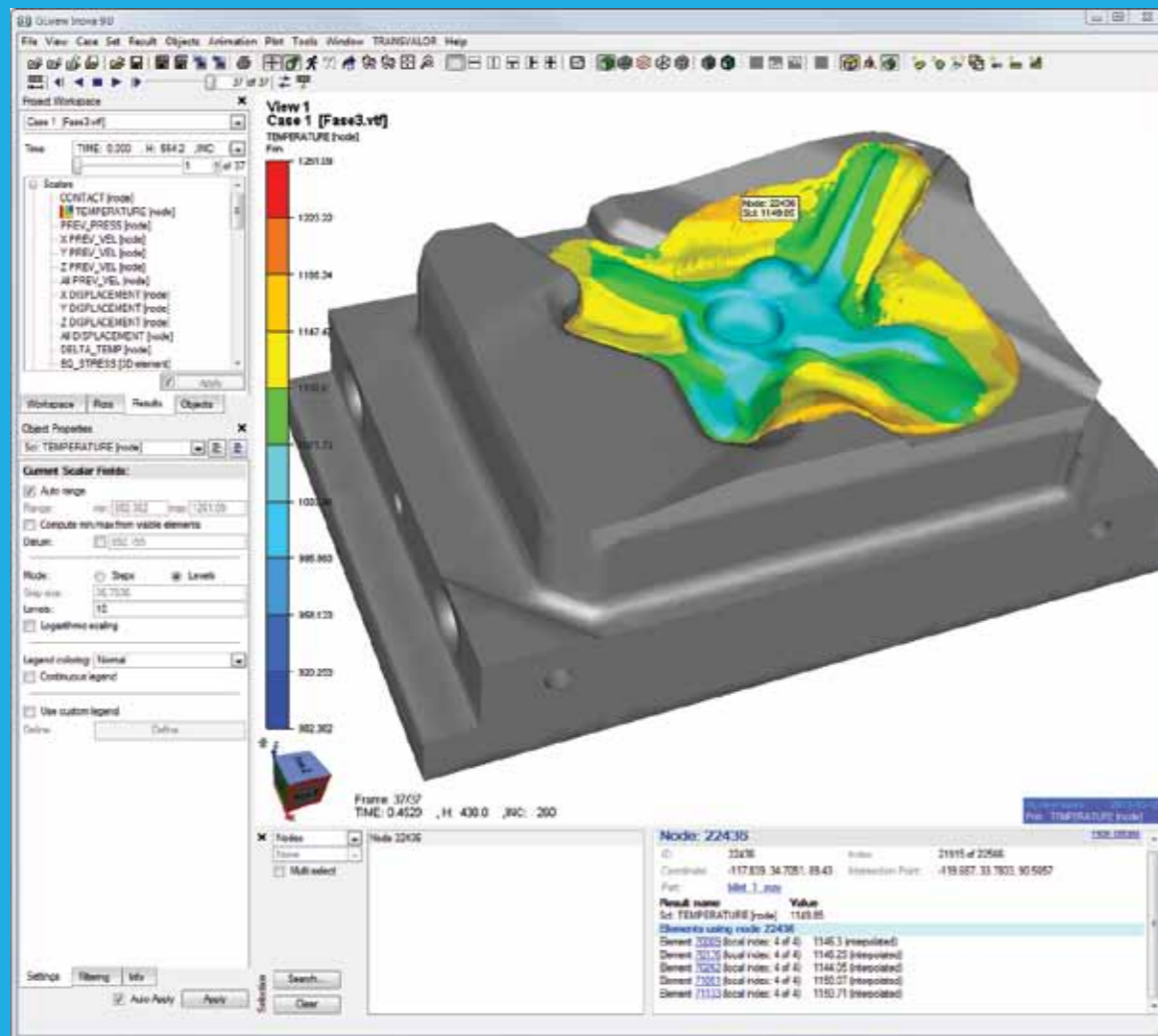
Utilizing an existing report repository, the engineer is able to compare a new simulation or design to a previous one directly in a report. This feature makes the GLview Report Builder ideal for parameter studies and quality assurance. Using the built in Reference Repository feature, an existing repository can be used to build a report comparing a new simulation with the reference simulation. A Word Document or a PowerPoint presentation including the new simulation and the reference simulation will automatically be produced by GLview Report Builder.



Key benefits

- Produce reports quicker – save time and reach decisions earlier!
- Create reports in MS Word and MS PowerPoint native formats directly – use existing MS Office documents as templates.
- Include interactive 3D content directly in reports.
- Store report content for re-use and quality assurance.
- Automate repetitive reporting using scripting language.

Result interpretation

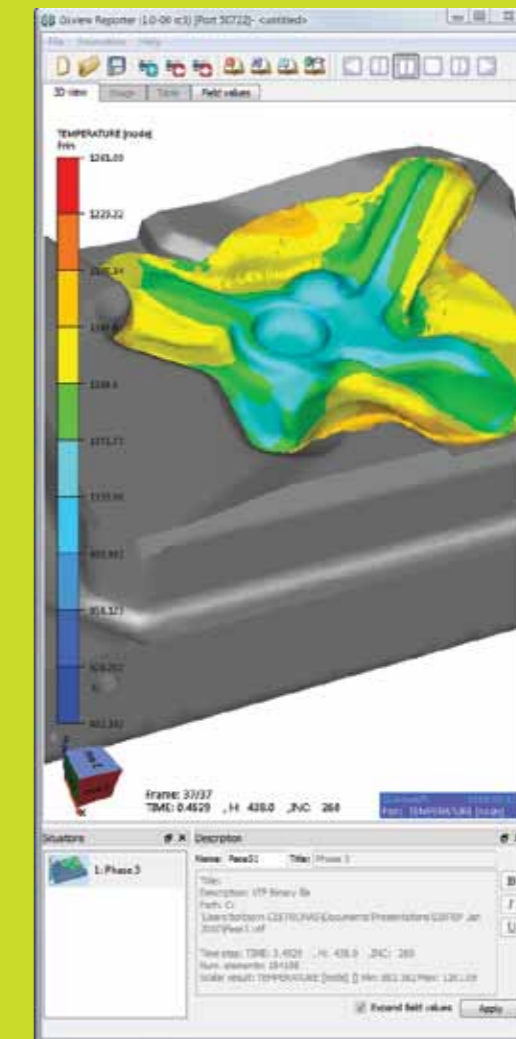


GLview Inova Post-processor

Supported CAE systems:

ANSYS, ABAQUS, FEMAP, I-DEAS, MSC. Nastran, MSC.Marc, PAMCRASH, LS-DYNA, RADIOSS, FLUENT and CGNS

Reporting



GLview Report Builder

Supported document formats:

MS Word, MS PowerPoint, HTML and PDF

EDIT

Bi-directional

SAVE

Building Simulation Reports using GLview Inova

Using the powerful combination of GLview Inova and GLview Report Builder, simulation reports can easily be created – directly in MS Office formats. GLview Inova is used to interpret the simulation results and to produce content for the report. Report content is transferred to a report repository at the touch of a button. GLview Report Builder utilizes MS Office documents as templates to build complete reports, using the content available in the report repository. Comprehensive MS Word documents and MS PowerPoint presentations are produced in no time.

A complete GLview Report Builder installation comes with the following components:

- GLview Inova
- GLview Report Builder
- GLview Express
- GLview 3D Plugin

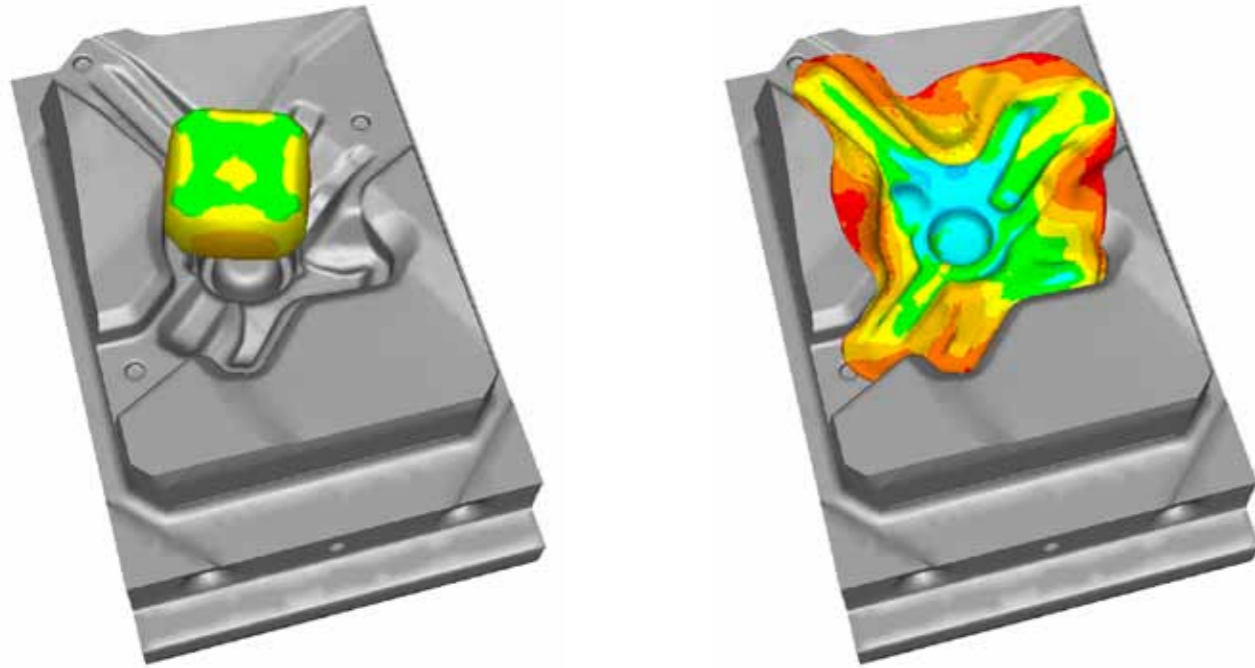
Maybach steel knuckle. Images courtesy of Transvalor (France) and CDP Bharat Forge (Germany)

Increase the understanding of analysis data with GLview Inova

GLview Inova is a modern, fully featured post-processor with direct file interfaces to all the major CAE systems on the market. This combined with an extensive set of features for both structural mechanics and fluid dynamics post-processing and makes it a great all-purpose tool for engineers in the CAE community.

GLview Inova has fantastic graphics performance for both single state inspection and animations, making it a great tool to post-process very large analysis files.

The GLview Inova suite includes support for the best tools for presentation, sharing and communication of analysis results; GLview Express and GLview 3D Plugin. These free tools enable interactive viewing in MS Office and HTML documents.



Key functionality

- Post-processing features for both structural mechanics and fluid dynamics
- Support for very large models
- Support for the free viewers GLview Express and GLview 3D Plugin
- Very fast graphics, utilizing state-of-the-art graphics hardware
- Support for multiple databases, and multiple views
- Excellent model and results overview
- Interactive animations
- Advanced feature extractions (Cut planes, Iso-surfaces, particle traces)

- Model queries (find/picking)
- Annotations
- Powerful 2D plotting
- Extensive set handling, including user defined sets
- Scripting functionality
- Direct file interfaces to all major CAE systems

Additional options

- Support for stereo projection
- Remote visualization server application ("Client server")
- Customization to meet special needs

Present your analysis data with GLview Express and GLview 3D Plugin

GLview Express and GLview 3D Plugin are free 3D viewer components enabling presentation of real analysis data in full 3D preserving all relevant engineering information. GLview Express is a stand-alone 3D viewer available on Windows and Linux platforms. GLview 3D Plugin is a 3D viewing component for integration in MS Word and MS PowerPoint.



Maybach steel knuckle. Images courtesy of Transvalor (France) and CDP-Bharat Forge (Germany)

Key functionality of the viewers

- Fully interactive 3D visualization and animation
- Reads and displays VTF and VTFx files generated by GLview Inova (or CAE software with export to VTFx), containing model(s), results, animations and settings, view settings, feature extractions and annotations.
- Support for multiple cases in one file, providing case names and descriptions
- Security – no access to change data
- Free distribution

How do customers use GLview Express or GLview 3D Plugin?

- As a marketing tool to present analysis files interactively
- As an electronic reporting tool to include analysis files that can be inspected interactively
- As a powerful visualization component for Simulation Data Management Systems

Distribution of files

GLview Inova allows you to significantly reduce the size of your original files through compression and by leaving out unnecessary information. This makes it very easy to distribute your analysis models and results and to present them in MS Word, MS PowerPoint and MS Internet Explorer.

Try it out!

www.ceetron.com

Technical data of GLview Inova

File import

- Support for multiple result databases
- Support for geometry and results in different files
- GLview VTF format (open ASCII, open binary, encrypted binary)
- GLview VTFx format (XML, zip and ASCII or binary)
- In-house formats (customized import filter required)

Direct file readers

- ABAQUS: Binary post file (.fil, .odb), input files (.inp)
- ANSYS: Binary results files (.rst, .rth and .rfl), input files (.cdb)
- FEMAP: ASCII neutral file (.neu)
- I-DEAS: ASCII universal file (.unv)
- LS-DYNA: State database (d3plot)
- MSC.Marc ASCII (.t19) and binary (.t16)
- MSC.Nastran: Binary output 2 files (.op2), input bulk data
- NE/Nastran: Binary output 2 files (.op2), input bulk data
- NX Nastran: Binary output 2 files (.op2), input bulk data
- PAMCRASH: Binary results database (.dsy)
- RADIOSS: Binary ModAnim file
- CGNS: Binary output (.cgn)
- FLUENT: Binary output (.cas, .dat)

File export

- Still images: BMP, JPEG, PNG, TIFF, GIF, EPS and more
- Export of all visible views to one image
- Video: animated GIF, AVI and MPEG
- Model and result information: HTML Export
- Plot: Separated text files, VTF plot files
- Export to VTF and VTFx file format for viewing with GLview Express and the GLview 3D Plugin

Results presentation

Scalar results

- Support for multiple scalar fields
- Displayed as fringes (filled contours), contour lines and iso-surfaces
- Mapped onto cut planes, iso-surfaces, particle traces or vectors
- Result filtering
- Predefined and user defined legends
- Display result values as text labels and show min/max using labels

Vector Fields

- Single or multiple vector fields in addition to displacements
- Displayed as vector arrows
- Mapped onto iso-surfaces, cut planes and particle traces
- Scaling, coloring and draw style can be manipulated
- Filtering on components or absolute values
- Clamping

Model queries

- Show scalar/vector results in labels when picking
- Continuous picking
- Powerful search functionality for identification of critical model information (e.g. local min/max points, model and result discontinuities, etc.)
- Advanced picking for enhanced interactive selection and querying
- Detailed information on selected items

Display and viewing

- Very fast single state inspection
- Multiple graphical viewports
- Superimpose multiple models and results in one view
- Powerful overview and selection of load cases and results
- Context menu in the 3D window
- Intelligent model navigation
- Zoom, rubber band zoom and walk navigation
- Full screen view
- Support for stereo projection
- Remote visualization (client server)
- Support for SpaceBall from 3DConnexion

Animation

- Easy animation setup
- Scaled real time animation
- Interstate interpolation
- Mode shape animation
- Particle trace animation
- Flipbook animation

2D plotting

- Multiple 2D plots
- Plotting of variables directly from result database
- Time history plots of any variable at a node
- Plotting of one variable against another

- Plotting of variables along lines and curves on the geometry
- Export of plot data

Element sets

- Load set specifications available in the result file
- User defined sets
- Combine sets by set operations (union, intersection, subtraction)
- Show sets by color-coding
- Enable/disable display of all the elements in a set

Feature extraction

- Advanced particle tracing
- Multiple iso-surfaces
- Multiple cut planes
- Mapping of scalar and vector results onto iso-surfaces and cut planes
- Regular grid vectors on cut planes
- Model clipping

Annotations

- Textual annotation (results, coordinates or text)
- Interactive distance measuring and labeling on the 3D scene
- Interactive angle measuring and labeling in the 3D scene

Presentation and collaboration

- Support for free 3D viewers
- Export of model, results, feature extractions, annotations to portable file format
- File size reduction (selected results, only visible sets/parts, polygons only ++)
- Security through password protection, encryption
- Secrecy through relative result values
- Support for multiple cases

User automation

- Fully implemented script language
- "Record" functionality for creation of reusable script files (command logging)
- Save and load current workspace

Supported platforms

- Windows and Linux platforms
- 32-bit and 64-bit versions
- Localized versions available on request

GLview Report Builder features

- Interactive capture of information from pre- or post-processor
- Automatic creation of report content and complete reports
- Create reports in native format
 - » MS Word & MS PowerPoint
 - » HTML
 - » Unformatted text (*.txt)
 - » Open Office and PDF with 3D content (Version 2.0)
- Utilize company document templates
- Template validation
- Drag & drop to MS Office documents
- Store report content for re-use or future reference (e.g. in Simulation Data Management systems)
- Re-use existing reports as template
- Template wizard for easy template setup

Supported report content

- Interactive 3D Content
- Images
- 2D Plots
- Videos
- Simulation variables (e.g. Min, Max, etc.)
- Tabular data

MS Office Add-ins

- Interactive 3D visualization component for MS Word and MS PowerPoint
- Menu/Ribbon extension for MS Word and MS PowerPoint

Platform availability and system requirements:

- Microsoft Windows XP/Vista/7 (32bit and 64 bit)
- MS Office 2003, MS Office 2007 & MS Office 2010



Select users of GLview 3D technology

Aerospace

Astrium SAS
EADS AIRBUS, FRA
GE Aircraft Engines, IND
Goodrich Aerostructures, USA
Institute for Defense Analyses, USA
Lockheed Martin, USA
QINETIQ Defense, UK
Rockwell Science Center, USA
Rolls Royce Aerospace, UK
TRW Automotive Koblenz

Automotive

Alcan International, USA/UK
Arvin Meritor, UK
Benteler Aluminium Systems Norway As
Beratung der Automobilindustrie, GER
BMW Group, GER
Centro Ricerche Fiat, ITA
Delphi Diesel Systems Ltd., UK
Electrowatt Ltd., UK
Federal-Mogul Tech., GER
GE Polymer Design Associates, GER
Harley Davidson, USA
Hydro Aluminium Deutschland GmbH
Hydro Automotive Structures, NOR/USA
Jaguar Cars, UK
MANN+HUMMEL GmbH, GER
Matra Automobile, FRA
PART-Plastics and Rubber Technology, GER
Plastal, NOR
Renault Sport, FRA
Sogeti High Technology
Thyssen Krupp Steel, GER
Volvo Car Components, SWE
Volvo Personvagnar, SWE

Volvo Truck Corporation, SWE
Vöest-Alpine, Austria
ZF Friedrichshafen AG, GER

Consulting

Cape Engineering, UK
FEMCOS GmbH
Frazer-Nash Consultancy Ltd., UK
KOLT Engineering, GER
Vectayn, UK
WS Atkins, UK

Energy

British Gas
Conoco, NOR/USA
Det Norske
Elkem Solar
Framatome, GER
Japan Atomic Energy Research Institute
Mitsui Babcock, UK
Nexans Norway AS
Saipem UK Ltd.
Statoil, NOR
Statoil Petroleum AS
Suzlon, GER
Wind2Energy, GER
Worley Ltd, UK

Manufacturing

Arcelor Mittal
Aventis Pharma, UK
Bayer AG, GER
Corus Technology BV
General Electric Polymer Design
Hydro Aluminium, NOR
Hydro Production, NOR

Nokia Corporation, FIN
Panasonic, JAP
Pilkington, UK
ROLEX INDUSTRIE SA, CHE
Sintef Raufoss Manufacturing
Siemens
SSAB HardTech, SWE/USA
Toyo Styrene Company, JAP

Marine Engineering

Advanced Production and Loading, NOR
Aker Yards Project AS
Aker Solutions
Cummins Turbo Technology UK
CorrOcean Safetec Nordic, NOR
Det Norske Veritas, NOR
Force Technology
Forsvarets Logistikk Organisasjon
Global Maritime AS
Hyundai Heavy Industries, KOR
MARINTEK, NOR
Naval Surface Warfare Center, USA
Nexans Norway
NNC Ltd., UK
Rolls Royce Marine Ship Technology
Seaflex AS Windsim AS, NOR

Research and Academia

Fraunhofer SCAI
Forschungszentrum Jülich GmbH, GER
Fraunhofer IZM, GER
IFE, NOR
Institut for Verkstedteknikk, SWE
NTNU Norwegian University
of Science and Technology
SINTEF Group, NOR

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understanding by visualization

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