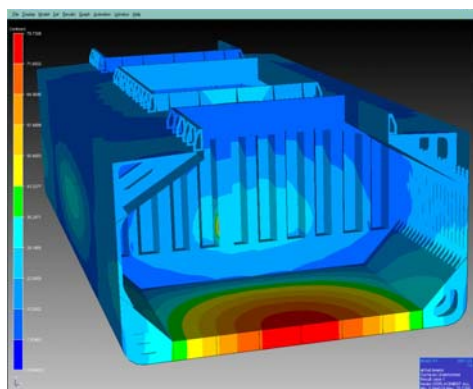


Xtract

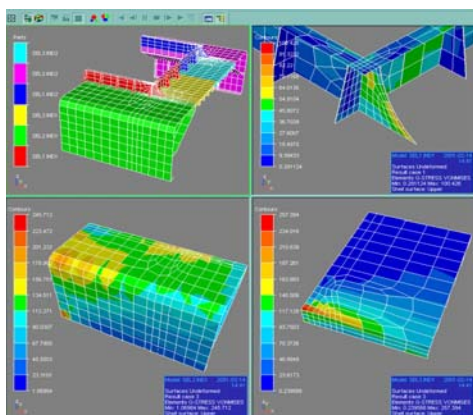
Excellent visualisation and animation tool

Gain a greater understanding of the behaviour of your structure through visual presentation

Xtract is a high-performance general purpose model and results visualisation program. Xtract is the ideal tool for displaying, animating and presenting the results of your hydrodynamic and static/dynamic structural analyses.

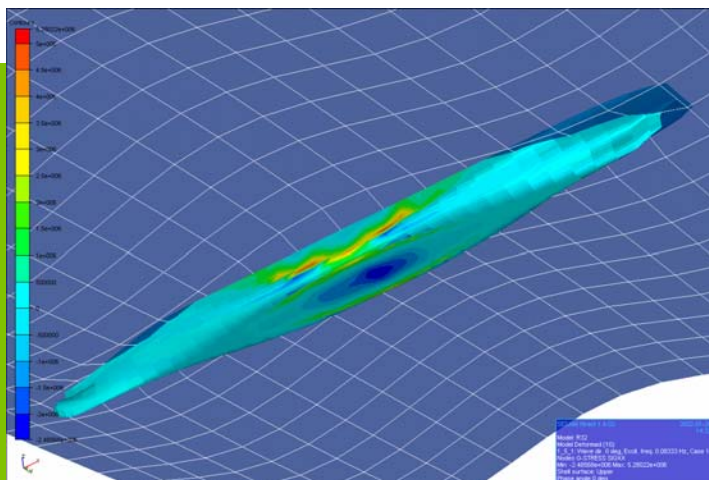


Advanced high-speed graphics makes Xtract the ideal tool for examining your models at any level of detail with or without analysis results. Interactive zooming, rotating, panning and cutting allow you to achieve the best view of your model. Xtract's easy-to-use advanced features will help you produce attractive graphics for your reports. Xtract's database browser enables you to easily navigate your superelement hierarchy, result cases, result attributes with components (displacements, stresses, etc.) and sets. Furthermore, a command and message area allows typing commands as an alternative to the menus and dialog boxes.



Model visualisation:

- Single or multi-level superelement models
- Line, outline and surface display
- Hidden view and shrinking of basic elements
- Perspective and orthographic view
- Display of element local coordinate systems
- Contour (iso-curve) presentation of surface pressures (e.g. computed in Wadam)
- Colour coding of element types (to distinguish shell elements from membrane elements etc.)
- Sets (parts of model) defined in preprocessors may be retrieved and new sets may be defined
- Cutting planes through the model may be defined
- Beam cross section (profile) presentation



Result presentation modes:

- Contours (iso-curves)
- Numerical values on top of model
- Various options for masking results:
 - Maximum and minimum values
 - Values above and below given values
- Vector presentation of principal stresses
- Graphs showing:
 - Variation of results (e.g. a displacement component) along a selected line of nodes
 - Variation of loads (e.g. a time domain variation) in selected nodes
 - Shear force and bending moment diagrams for beam elements
- Deformed shape presentation
- Animation of results:
 - Dynamic behaviour of floating objects showing also the sea surface waves
 - Mode shapes as well as deformations from time and frequency domain analyses
 - The animated model may be superimposed by stresses, forces and pressure distributions
 - 3D representation of the animation scene allows rotating and zooming during the animation

Results manipulations:

- Combining result cases, optionally including a frequency domain (complex) result case evaluated for the phase giving maximum combined stress
- Scanning through loads for high stresses

Types of analysis supported:

- Static analysis results
- Eigenvalue analysis and mode shapes
- Dynamic analysis in frequency domain involving complex results:
 - Real or imaginary part of the response
 - Phase shift of the response
 - Amplitude (magnitude) of linear components
 - Maximum through cycle of non-linear components (von Mises and principal stresses)
 - Response value for a given phase of the wave
- Dynamic time domain results
- Hydrodynamic analysis results:
 - Motion of floating objects
 - Hydrodynamic loading
 - Riser dynamics
 - Jacket launching

Other features:

- Optional splitting into two and four view-ports
- Adding text and pointers to the display
- Saving plots to most common graphic formats
- Listing and printing of results
- Logging of user-program interaction as commands, the log may be edited and read as input to a new session

Xtract is owned, developed and maintained by
Ceetron ASA

