New software version release announcement

December 21st, 2008

BETA CAE Systems S.A. introduces ANSA v13.0

The official software release is comprised by the latest ansa_v13.0 files that reside in the server at the time of this announcement.

These replace any pre-releases and files downloaded prior to this date (i.e. 21-December-2008).

New layout and enhanced Graphics User Interface

- fully customizable menus
- shortcut keys
- docking windows
- toolbar buttons
- user defined menu
- area selections
- enhanced focus operations
- extend and roll up windows features

Graphics and display

- high performance graphics
- state-of-the-art display features
- auto-hide and detailed drawing

Database browser

- advanced control of the model through a browser that can be kept active during any function's operation
- enhanced filtering and selection options
- quick opening of listed item's card
- direct modification of listed item's properties
- right mouse button menu in all lists

Measurement tool

- rich variation of measurement options
- store and keep visible measurements
- automatic update of stored measurements

STEP CAD data interpretation

- hierarchy and transformation matrix are preserved both in Import and Export
- reading of topology information

Data Management (ANSA DM)

- include files tracking and updating: apart form ansa databases 'deck include files' can be handled by ANSA DM
- DM comparison tool
- improvements in 'Save/Change Representation' selections and 'Save Representation' process
- new options is 'Check DM Updates'
- reporting tool for versions comparison

Task Manager

- Dummy models handling: positioning and restraining actions
- Contacts creation improvements
- Model Cut box
- TOSCA Structure task

Geometry handling
- creation of middle-surface out of solid designed parts
- surface generation based on FE-mesh
- improved Transformation functions
- new options for curves and points creation
- new isolation functions

Batch meshing
- handling of FE-mesh
- selection of properties enabled
- control local mesh size treatment based on box
- create Volume-Layers meshing scenario
- improved Statistics report

Surface meshing
- local mesh refinement functions
- flattening/suppressing beads/emboses
- new interface, new functions and options for open holes, project curves, etc onto mesh.
- local macro area perimeters and elements treatment
- new elements generation options

Volume meshing
- local mesh size control by the new entity SIZEBOX
- Improve volume mesh quality functions
- volume auto-detection improvements
- Delaunay new volume meshing algorithm
- hexahedral volume mesh creation based on guiding curves
- remeshing, freezing/unfreezing enabled for volumes

Mesh quality report
- new criteria definitions
- customizable criteria-violation colors
- enhanced quality report with weight factors and penalty values
- user defined quality classes for custom made quality check
- quality graph drawing mode

Comparison tools
- improvements in detection of differences among Geometry and FE-mesh
- differences detection between FE-meshes
- Drawing mode for differences inspection

Assembly
- new connection generation options for seam weld applications
- connections creation according to FEMFAT requirements
- folding representation for hemming connections

Wrap
- new WRAP algorithm
- finer mesh around locations of high curvature
- optimal feature capturing
- local element length control

Includes management
- replacement and version updating capabilities via the ANSA DM
- integrated into Database browser

SETs management
- enhanced tree-list with detailed contents info
- drag 'n drop contents modification options
- exclusion options enabled
- extended capabilities allow support of special keywords related to sets, in several formats

Crash & Safety modeling tools

- multi-body kinematics tool for complex positioning applications
- state-of-the-art functions for handling dummy models, seats, convertible roofs, suspensions ...
- dummy model members articulation improvements

CFD tools

- deck menus dedicated to CFD solvers
- new supported I/O formats (OpenFOAM, CFD++, SC/TETRA)
- complete boundary conditions assignment
- Size Boxes to affect nodal distribution and mesh size for surface and volume mesh
- integration of volume layers creation in Batch Mesh manager

Morphing

- Geometry Morphing
- stored morphed History
- new parameter types
- enhanced capabilities in edge fitting operations
- user defined tangency

Optimization

- new Simulation tool for the Optimization Task with animate and video recording
- direct coupling with LS-OPT and easy coupling with numerous optimizers

TOSCA Structure

- complete support of TOSCA Structure within Task Manager integrated into standard ANSA package

Scripting

- improvements in ANSA_TRANSL regarding CAD translation applications
- new easier and quicker method for user buttons creation
- C like file management of external files
- major updates and new options in Script Editor

Supported platforms

- Mac OS X 10.4 is supported
- SGI IRIX is discontinued
- For more details, please refer to the respective document about Supported platforms and minimum system requirements of December 21, 2008.

Numerous new supported keywords for all solvers

Numerous known issues resolved

Compatibility issues: ANSA databases saved by version 13.0 cannot be opened by earlier versions.

For details about the new software features and enhancements please refer to the "What's new" html pages accessible by the Help menu bar option within ANSA or the "Whats_new_in_ANSA_v13.0.pdf" document that is available with the software.

Our customers may download the new software from their account in our server.