New software version release announcement
May 25, 2009

BETA CAE Systems S.A. announces the release of ANSA v13.0.1
with important new features and code corrections.

This is the first stable production release of the v13x branch of ANSA.
It is a successor to the introductory release ANSA v13.0 and replaces the latest commercial version ANSA v12.1.6. The official software release is comprised by the latest ansa_v13.0.1 that resides in the server at the time of this announcement.
These replace any pre-releases and files downloaded prior to this date (i.e. 25-May-2009).

Main new features introduced
Numerous known issues resolved
Compatibility issues
Download

Main new features introduced

New layout and enhanced Graphics User Interface

- fully customizable menus
- shortcut keys
- docking windows
- tool-bar 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

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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

NX CAD data translation

- Part's attributes interpretation and handling

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
- create Volume-Layers meshing scenario
- improved Statistics report

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Surface meshing

- local mesh refinement functions
- flattening/suppressing beads/embosses
- new interface, new functions and options for open holes, project curves, etc onto mesh
- local element length retaining
- 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 control

- 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

Model assembly

- new connection generation options for seam weld modeling in Fatigue applications
- connections creation according to FEMFAT requirements
- folding representation for hemming connections
- new connection points and curves creation options

Wrapping

- new WRAP algorithm: finer mesh around locations of high curvature
- local element length control

Includes Management

- replacement and version tracking capabilities via the ANSA DM
- integrated into Database browser

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SETs management

- enhanced tree-list with detailed contents info
- drag and 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 modelling

- Deck menus dedicated to CFD solvers
- new supported I/O formats: OpenFOAM, CFD++, SC/TETRA, Star-CCM.
- 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
- morphing History storage
- new parameter types
- enhanced capabilities in edge fitting operations
- user defined tangency

Coupling with Optimizers

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

TOSCA Structure pre-processing

- complete support of FE-Design's TOSCA Structure within TASK Manager, integrated into standard ANSA package
- `ansa -gui TOSCA` : launches a special executable with functionality dedicated to TOSCA Structure; (requires feature license)

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

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Supported platforms

- Mac OS X 10.4 is supported
- SGI IRIX is discontinued
- for detailed list of supported platforms and minimum hardware requirements, review this document < pdf > (31KB)

Numerous new supported keywords for all solvers

For more details…

For details about the new software features and enhancements please, refer to the "**ANSA v13.0.1 Release Notes**" pdf document, that can be downloaded separately and that is also accessible through the *Help>ANSA documentation index* menu bar option within ANSA.

Numerous known issues resolved

For details…

For details about the resolved issues, please refer to the "**ANSA v13.0.1 Release Notes**" pdf document, that can be downloaded separately and that is also accessible through the *Help>ANSA documentation index* menu bar option within ANSA.

Compatibility issues

ANSA databases saved by version 13.0.1 cannot be opened by earlier versions.

Download

Our customers may download the new software examples and documentation from their account in our download server. You may access your account through the Login link at our web site http://www.beta-cae.gr Contact us if you miss your account details.
The [Public] link will give you access to the public downloads area.

What to download

For the installation of the software on each platform type the following are needed:
1. the tar file with the respective platform name (e.g. sgi, linux etc.), or the respective zip file for Windows and
2. the "common" .tar or .zip file

Previous software releases can be found in the sub-directory called "old".

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