BETA CAE Systems S.A. announces the release of ANSA v13.2.1
with new features and known problems resolved

The official software release is comprised by the latest ansa_v13.2.1 files that reside in the server at the time of this announcement. These replace any pre-releases and files downloaded prior to January 2nd, 2012.
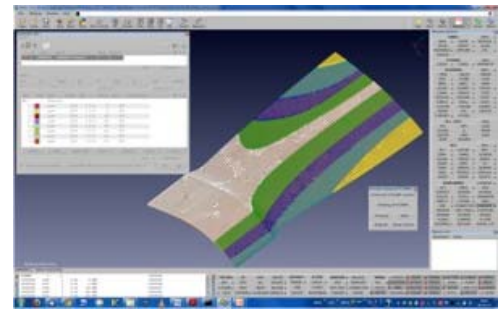
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Supported platforms

ANSA v13.2.x and the respective CAD Data Translators, will be available on MS-Windows, Linux and Mac OS only.
The following UNIX platforms: HP-UX, IBM-AIX and SUN-Solaris will be discontinued.
The support of Windows 2000 SP3 will also be discontinued and Windows XP SP1 will be the earliest MS-Windows version to be supported.

For details, please review the latest document on the supported platforms and minimum system requirements 📄 .

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New features

- CAD data Translators: the CT-based translators are now available with the new Service Pack 2011 SP3 that fixes numerous known problems.
- Hierarchy structure within the parts Manager is saved in the exported IGES files.
- Direct access to all "ANSA.defaults" settings is given within a GUI environment.
- A "Quick filter" section implemented in the Connections Selection Assistant for an easy and direct access to the most common used filtering options.
- Enhancements in the Automatic Connection points definition with "Preview" and "Margins" handling options.
- Tubes detection can be applied during the Automatic Bolt connection definition on Holes.
- New FE-Representations: BOLT ON SOLID & SOLID NUGGET.
- Numerous handy selection tools in Geometry handling functions.
- IMPRINT: New function that creates curves as a projection of existing lines.
- Quality Criteria: PAM-CRASH 2009 Crash Time Step for Shells and MOLDEX3D non orthogonality and growth ratio for Solids.
- Solid Mesh reconstruction via the associated volume skin (shells) reconstruction.
- Batch Meshing: significant improvement on the features treatment of the "Solid Tria Mesh".
- HEXA BLOCK: New function that creates the shell mesh from which, the solid elements will be generated.
- Detection of DUPLICATE SET NAMES based on the letters Case type (lower / upper).
- RESULTS MAPPER: the "Ignore Thickening" option has been added in the reading of SIMULAYT results format.
- Composites:
  - Clustering of the MAP data during output is supported for the Laminate Property.
  - The "Preview Clustering" is provided within the LAMINATE Tool.
  - Numbering rules for the resulting composite properties can be specified within the LAMINATE's property card.
- Abaqus: the *SHELL_SECTION supports the ORIENTATION parameter for CPE, CPS and CAX element types.
- Abaqus: support of PC3D element & Section. They can be also created within the TANK tool (SPH).
- Abaqus: list editing and handling enhancements in the STEP manager.
- LS-DYNA: Support of the _MORTAR option for Contacts.
- LS-DYNA: MAT_S15, MAT159, MAT159C materials are now supported.
- PAM-CRASH: Support of Shell Elements orientation via the keyword ORTHF. The handling of elements orientation is now available.
- PAM-CRASH: LAMINATE Tool is now available for PAM-CRASH composites modeling set-up.
- Fluent 2D: Boundary Conditions (BC) drawing mode.
- MORPH: the new function "DEFORM MAP" morphs according to Morphing Vectors that are based on History States, Deformation Parameters, Design Variables or Text file.
- MORPH: DFM movements can now be saved as Deformation Parameter.
- Optimization: The "Simulate-DOE" option now hosts both Simulate and DOE Study.
- Numerous new built-in script functions.

and more…

For more details about the new software features, enhancements and corrections please, refer to the Release Notes document.

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Known issues resolved

- The MERGE command, applied through Session file, caused abnormal termination of the program.
- Existing "Include files" defined in an ansa file were lost after the "Merging" a CAD file.
- Flat faces read-in from IGES or STEP files, had inaccurate CONS description.
- Attributes of Parts were not read when translated through the CATProduct.
- Existing Mesh were erased when the PID of a macro area was changed, whilst in MESH menu.
- Exporting connection file in XML format did not keep the original order of parts/properties.
- The Realization of Spotweld Lines did not consider the diameter specified in the "Thickness to Diameter Map" table (Windows>Settings).
- Critical errors occurred, in several cases, when converting NASTRAN CWELDs into Connection points.
- MID. SURF>CASTING: the resulted FE mesh had nodes at fillet areas which might have been out of the actual geometry.
- Batch Meshing: when the Units were changed, wrong values might be stored in the .ansa_mpar file.
- Batch Meshing: Tubes Treatment on 2nd order elements occasionally resulted to weird mesh.
- Incomplete elements could be created after changing the nodal numbering of a Perimeter on Macro Areas meshed with MAP algorithm.
- Auto STL Spacing led to abnormal termination on MS-Windows platforms, when no FACE was visible when applied.
- The EDG2PER function occasionally led to abnormal termination when the Macro Area was associated to a volume definition.

- The CFD mesh generation algorithm occasionally halted the session when minimum length was not specified.
- The TETRA RAPID volume mesh generation function occasionally generated mesh with penetrating elements and Zero-thickness walls were not taken into account.
- LAYERS:
  - The Layers connection combined with Collapse non-progressive, resulted to weird last layer creation.
  - The Auto-Connect with Progressive inactive, could end up with intersections, while the Auto-Connect affected also shell elements already connected to solids.
- VOLUMIZE:
  - The function was not accepting values less than 1 in the "Paste Red Edges" field.
  - The "Paste Red Edges" option affected the original nodes too.
- The "Change Order" function was not preserving the nodal thickness.
- Safety: Erroneous reading of parameters written in ANSA.defaults of v13.1.5 or older.
- NASTRAN: The imported NSML1 were not applied on all referenced properties.
- Abaqus: The "blank" prefix name in ANSA.defaults was not respected.
- LS-DYNA: an empty line was added in the exported MAT_ADD_ERROSION material data.
- LS-DYNA: the XC and YC fields of INERTIA option were hidden in the SECTION_SOLID window.
- LS-DYNA: ELEMENT_DISCRETE that had empty the N2 field led to abnormal termination.
- PERMAS: imported WLSCON that were defined on SETs in ANSA, lost their DOFs.
- OPEN FOAM: SETs of polyhedral elements were written as SETs of nodes.
- STAR: Baffles and Internal Walls were wrongly changing their type during output.
- V.TRAPS: Running script for calculations might be leading to weird graphics and occasionally to unexpected code exit.
- TANK: The Filling diagram produced by the function [V=f(h)] was not taking under consideration the local coordinate system .
- MORPH: accuracy was low on Box creation and modification, when "Meter" Units were being used.
- MORPH: Hidden Nested elements, although they were loaded, were not been taken into account in morphing operations.
- SCRIPT: CheckList functions led to unexpected termination (on Windows machines only) when exiting the checks list window.

and more…

For more details about the new software features, enhancements and corrections please, refer to the Release Notes document.

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Compatibility

ANSA files saved by version 13.2.1 can be opened by v13.2.0 but not by older versions.

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Documentation

Release Notes

For more details about the new software features, enhancements and corrections please, refer to the "ansa_v13.2.1_release_notes" pdf document, that can be downloaded separately. This can be also reached by the "Help>Ansa documentation index" accessed by top menu bar within ANSA.

Updated documentation

- Updated ANSA v13.2.1 User's Guide
- Batch Meshing for Solid Structural tutorial
- Mesh Quality Improvement: Recommended practices to handle MID.SURF>CASTING results
- Setting up an Ls-Dyna Model in ANSA

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Where to download from

Customers who are served directly by BETA CAE Systems SA. may download the new software, examples and documentation from their account in our server. They can access their account through the user 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.
Customers who are served by a local business agent should contact the local support channel for software distribution details.

What to download

For the installation of the software on each platform type the following are needed:

the .tar file with the respective platform name (e.g. Linux etc.), or the respective .zip file for Windows and
the "common" .tar or .zip file
the "tutorials and examples" .tar or .zip file

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

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