



March 19, 2021

BETA CAE Systems announces the release of the v21.0.3 of its software suite

About this release

BETA CAE Systems announces the third bug-fix release of ANSA/EPILYSIS/META and KOMVOS v21.0.x series, hosting several fixes in detected issues.

Follows a selection of the most important items:

Contents

- [Known issues resolved in ANSA](#)
- [Known issues resolved in EPILYSIS](#)
- [Known issues resolved in META](#)
- [New Documentation in META](#)
- [Compatibility and Supported Platforms](#)
- [Download](#)

Known issues resolved in ANSA

General

Unexpected file size increase was encountered upon execution of File > Save as or File > Save visible, in combination with the changeset functionality. Through this fix, a reparation routine will now return the initial file size, when opening affected ANSA databases.

ANSA_TRANSNL.py: Running a pre- or post-output function with three arguments would erroneously raise an exception and unexpected termination would occur on Windows machines, when the script function session.Quit() was used.

Data Management

Input model definition of a PLMXML, previously exported by ANSA, would lead to erroneous hierarchy, in case of empty groups or in case of multiple top level items.

Connections & Assembly

ANSA would unexpectedly terminate when selecting a Model Container with hundreds thousands of elements as connectivity of a GEB or Connector, while "highlight" was activated.

Unexpected termination would also occur upon connections realization, when Node-to-Node FE Representation type (RBE2, CBAR, etc.) was used on Linked Faces.

Shell Mesh

The Macros functionality has been enhanced, when the option Reconstruct is active. Joining, now, two unmeshed Macro areas updates the segmentation of the perimeters of the new Macro area, whereas joining one unmeshed and one meshed Macro area can now successfully be performed.

Safety

The Dummy Marionette tool for Radioss has been enhanced in various aspects, such as:

Imposed displacements come in the correct direction, whereas a relaxation time parameter has been added. ANSA.defaults values of the tool are saved in [tonne], [mm], [sec] units and, when reading from ANSA.defaults file, values are converted to the tool's active units.

The tool allows from now on the selection of deformable nodes for the application of the loads – functionality available also for LS-DYNA and Pam-Crash, apart from Radioss.

Scripting

Various fatal error cases in TOPO-related functions have been combatted, including:

Unexpected termination could occur, when other entities (instead of CONS) were provided as input arguments to the base.ConsToCurves() function.

Unexpected termination could occur, when a script including the base.CurvesCreateFillet() function was run in -b mode.

The return of the base.PickPointOnSurface() function would lack accuracy and ANSA would unexpectedly terminate when the function was applied to a Face instead of a list of Faces.

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

Known issues resolved in EPILYSIS

ELEMENTS

Differences in Eigenmodes would falsely be produced, due to the CQUAD8 bending curvature evaluation.

Output

Data Recovery results, like Forces and Stresses, would be inconsistent in case of CTRIA6 with deleted edge nodes.

Furthermore, if elements of a fluid solid mesh consist of grids with the same coordinates, a fatal error is issued and the elements are listed in the .f06 file.

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

Known issues resolved in META

Abaqus

Thanks to the implementation of Abaqus_RESULTS_SEARCH_PATH <directory path> that can now be added in the META_post.defaults file, when geometry is loaded from the *.inp file, the automatic file detection will search in the specified directory.

NVH Calculators

In case of NASTRAN FRF Components, which contained Acceleration and Displacement results, with the latter being only Pressure, the calculated responses would be zero.

Decks

Various cases regarding reading of files were spotted and, consequently, fixed:

Failures were reported, when reading results from Abaqus .odb files.

Paraview .vtu files with second order elements could not be loaded properly.

Ansys Phase results could be different when read alone or together with Magnitude.

History Variables of LS-DYNA were not read correctly from .d3plot files compressed with Femzip, in certain cases of big .d3plot files. Additionally, time history result files (binouts) created from *CASE were not read at all, whereas PID thickness was incorrect, when reading geometry from d3plot file.

Displacement results were not read correctly as scalar results through NASTRAN HDF format.

TAItherm Results in EnSight format were not read at all.

Annotations

Unexpected termination could occur when trying to create an Annotation on Window inside a 2D plot window, without any active plots.

Managing Curve Data

Non-Linear results from NASTRAN punch files were not loaded.

Reading time history results using Follow Nodes was not recorded correctly in session.

Project File & METADB

Unexpected termination could occur upon saving a project file, after having deleted some PIDs from the model

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New Documentation in META

Toolbars

Crash and Safety:

- Human Body Models Post
- EU-NCAP Far Side

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Compatibility and Supported Platforms

ANSA files saved by all the first and second point releases of a major version are compatible to each other. New major versions can read files saved by previous ones but not vice versa.

META Project files saved from version 21.0.3 are compatible and can be opened by META version 16.0.0 or later. To be readable by META versions earlier than v16.0.0, they have to be saved selecting the option "Version 16.0.0" or "Version <16.0.0".

Support for Mac OS has been discontinued.

Support for 32-bit platform has been discontinued for all operating systems.

Download

Where to download from

Customers who are served directly by BETA CAE Systems, or its subsidiaries, may download the new software, examples and documentation from their account on our server. They can access their account through the "user login" link at our [web site](#). Contact us if you miss your account details. The Downloads menu items give you access to the public downloads.

Customers who are served by a local business agent should contact the [local support channel](#) for software distribution details.

What to download

All files required for the installation of this version reside in the folders named "**BETA_CAE_Systems_v21.0.3**" and are dated as of

March 19, 2021. These files should replace any pre-releases or other files downloaded prior to that date.

The distribution of this version of our pre- and post-processing suite is packaged in one, single, unified installation file, that invokes the respective installer and guides the procedure for the installation of the required components.

For the installation of the software on each platform type, download from the respective folders, the .sh file for Linux or the .msi file for Windows.

In addition to the above, optionally, the META Viewer is available to be downloaded for each supported platform.

The tutorials and the example files reside in the folder named "TUTORIALS". This folder includes the complete package of the tutorials and example files, and a package with only the updated ones.

The Abaqus libraries required for the post-processing of Abaqus .odb files are included in the installation package and can be optionally unpacked.

Earlier software releases are also available in the sub-directory called "Previous_Versions" or in a folder named after the product and version number.