

March 8, 2019

BETA CAE Systems announces the release of the v19.1.1 of its software suite



About this release

BETA CAE Systems announces the release of the new ANSA/EPILYSIS/META suite v19.1.1.

Apart from fixes in the detected issues, this version also hosts numerous noteworthy enhancements and implementations.

The most important enhancements and fixes implemented are listed below.

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Enhancements and known issues resolved in ANSA

Enhancements in ANSA

Model Browser

Model Organization: It is now possible to save in DM "Subsystem folders" that have "INCLUDE" references to other subsystems. This enhancement facilitates the model organization in cases where an assembly, e.g. a vehicle BiW model, needs to be handled as a single include for some disciplines, but needs to be split down to more includes for some others.

Data Management

For DMs that support Library Items through their dm_structure.xml, it is now possible to save such Library Items to DM directly from within the Model Browser's Loadcase and Simulation Model tabs.

Plugins

From Includes to Model Browser: This plugin is a tool that facilitates the migration of a FE model organized with includes to a model organized with Model Browser containers and prepares the infrastructure for modular assembly with the "Smart Assembly" methodology. The tool will guide the user through an includes-labeling process, in order to map each include to the appropriate Model Browser container with the minimum effort. Combined with data management functionality, the tool enables the direct copy of the original include files in the data repository with appropriate metadata, and in this way facilitates the comprehensive management of the migrated model in a modular manner with a data management backbone.

Mapping – SOL200 FE Update: The Plugin now supports optimization results from EPILYSIS, regarding Orientation angle of orthotropic (MAT8 and MAT2) materials on shell elements.

Safety

Interior – FMVSS201U: A new option "Use distance to hard parts" is now available. With this option the tool takes into account the Contact Point - Hard Parts distance. The best Horizontal position of the head is estimated by calculating the distance between the contact point and the hard parts (if any) along the X-axis of the head. Moreover, when the option is enabled, the horizontal position is re-calculated, until the most optimized Node is found.

Known issues resolved in ANSA

General

Lists – Modify: Unexpected termination would occur when "F1" or "?" was typed in a column modification field.

Model Browser

Parts – Replace: When an instance of a multi-instantiated part was replaced, the incoming part would not become an instance of the original part. The removal of the replaced instance from the chain of multi-instances was not a desired behavior. Now, when an instance of a multi-instantiated part is replaced, the incoming part remains an instance of the original part.

Data Management

Input: When a Model Browser container (Subsystem, Simulation Model etc.) is exported from ANSA, its properties are written both in the DM Header section of the solver keyword file and as ANSA Comments. Mismatch between the properties written in the DM Header and ANSA Comments could lead to the creation of duplicate entities in the Model Browser during Input. The properties written in the DM header now prevail over properties written in the ANSA Comments section.

Data Management

Subsystems – Save in DM: Excessive time would be taken when additionally saving JT file ("Light Representation" option).

Connections & Assembly

Modules/Convert: Conversion of FE-entities referenced by different Modules into ANSA connection points would lead to abnormal termination, as well as to ANSA databases prone to get corrupted, once recovered.

NASTRAN

Utilities – Deck Info: The function would totally omit RBE2 elements in the calculation of Total Number of Elements.

Tools

Checks > Duplicate Elements: The function would not detect 2nd order duplicate shell elements.

NASTRAN

Drawing Styles – Fringe: TEMP values on shells and solids would not be displayed.

LS-DYNA

Database Browser: Presence of *PART_MOVE keyword would slow down the performance during editing of cards (e.g. Material, Property, etc).

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

Enhancements and known issues resolved in EPILYSIS

Enhancements in EPILYSIS

SOL200

TOPVAR: Topology optimization for orthotropic and anisotropic materials is now supported through the TOPVAR card.

For shell properties of orthotropic (MAT8) or anisotropic (MAT2) material, the optimization of fiber orientation angle (THETA) is also taken into account through the parameter PARAM, TOPTHETA, YES (default). Topology optimization is also available for solid properties of anisotropic materials (MAT9).

Known issues resolved in EPILYSIS

NVH

Frequency Response Analysis with large input and frequency domain would lead to increased memory consumption.

Laminates

Unexpected termination would occur when the laminate option would be set to "BEND" on a PCOMP bulk data entry with "ECHO=PUNCH" specified.

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

Enhancements and known issues resolved in META

Enhancements in META

Report

Report Composer PPTX: Audio files are now supported.

Automation

Script: The new script function *meta.plot2d.CopyPasteSomeCurves* has been added, that copies curves from a specific page/window/plot and pastes them to another page/window/plot.

Known issues resolved in META

General

GUI: Resize of docked windows would not work properly since v19.1.0.

Decks

FE-Fatigue: Unexpected termination would occur when trying to load multiple scalar results simultaneously.

Decks

LS-DYNA: Optimization results from binout files could not be plotted and unexpected termination would occur.

Identification of Entities and Data

iFunction – Pick Elements: META would cease to respond in case of line elements with properties.

NVH Calculators

Modal Response & FRF Assembly: FRF component in FRF Assembly tool defined as "Nastran FRF" with punch file in SORT2 format was not read correctly, causing erroneous calculation results.

Moreover, in Modal Response tool, Transient Response DOFs could take into account the DOFs options of the Frequency Response from the corresponding GUI menu option, since v19.1.0.

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

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 19.1.1 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".

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](#) channel for software distribution details.

What to download

All files required for the installation of this version reside in the folder named "**BETA_CAE_Systems_v19.1.1**" and are dated as of **March 8, 2019**. 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 "old" or in a folder named after the product and version number.