May 3, 2019

BETA CAE Systems announces the release of the v19.1.2 of its software suite

About this release

BETA CAE Systems announces the new release v19.1.2 of ANSA/EPILYSIS/META suite.

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.

Contents

Enhancements and known issues resolved in ANSA

Enhancements in ANSA

Data Management

A new function "dm.SaveLibraryItem()" is now available, which allows saving rich library items to DM.

Furthremore, it is now possible to control the User Attributes, which will be written in the DM Header, during the output of Model Browser containers. The attributes that need to be included in the DM Header are specified in the respective ANSA.default setting for each Model Browser container (ex. SubsystemAdditionalAttributesInDmHeader).

Connections & Assembly

In the Connection Manager interface, apart from the Highlight of FE Rep. Settings property IDs that is now available, tooltips for fields

indicating property IDs have also been added.

Specifically, when a field in FE Rep. Settings of Connection Manager points to a property ID, then a tooltip is created dynamically with the property name, in case there is a corresponding property with the given ID of field's line edit.

Shell Mesh

Significant performance improvements in the drawing of FE perimeters have been implemented, applying in actions such as:
Deleting a FACE, focusing on a FACE, changing from TOPO to MESH menu and vice-versa, opening a list (e.g. Properties).

Tools

Unit conversion is now supported for Parts fields, such as:

- Transformation matrix (x,y,z)
- Area
- Mass
- COG

This implementation can be verified by performing actions, such as apply Sync representation on the multi-instances.

Known issues resolved in ANSA

GUI

As far as the Drawing Styles are concerned, Fringe Color palette would not be displayed, in case "Use unique color for each range" option was enabled through the "Color Bar Options" and graph other than QGRAPH was selected.

Model Browser

The deletion of the Configurations would not be successful and the PID values would not be updated in the respective column, when their values were modified via script.

Moreover, "DM Status Update" column would not be updated after performing actions like: create mesh, erase mesh, fill hole, etc.

Compare

Upon execution of "Apply similarities/differences" function, FE mesh would not be copied among models.

FE Representations

A SOLID-WELD seamline that formed a closed loop would unexpectedly fail to realize.

Data Management

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

Connections & Assembly

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.

Volume Mesh

Execution of Octree > Hextreme function would lead to unexpected termination on Windows OS.

Batch Meshing

Speaking of Mesh Parameters [Features], "Defeaturing=remove" treatment for logos would not be applied, when CFD mesh algorithm was selected.

Laminates

Elements with no plies assigned would not be created during input of a Simulayt .Layup file.

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

Known issues resolved in EPILYSIS

General

When initial mass matrix was not diagonal, mass matrix with NSM would not be calculated properly.

Output

Phase-Magnitude format of displacements in .op2 file would not get output correctly.

SOL200

Unexpected termination would occur if a dependent DESVAR was created with an empty DELXV field.

Additionally, topology optimization would give erroneous results in case of a DVPREL referring to a Ti on a PCOMP, where Z0 was blank.

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

Crash & Safety

In Occupant Injury Criteria toolbar, it is now possible to save a project file from within the tool, which will contain the information about which curves belong to which run. Loading this project from the Occupant Injury tool, this info is read and Results Handling capabilities of the tool can be used again.

Furthermore, EU-NCAP Rating calculation for THOR-50 according to AOP v9.0.0 is now supported under Occupant Injury Criteria toolbar.

NVH

Upon execution of TPA from Forces and FRFs, it is now possible to use existing curves as FRFs.

Known issues resolved in META

Collaboration Tool

Collaborators remained visible even after disconnecting.

Graphics

Feature lines would not be drawn correctly, when in per Pid drawing mode.

Read Results

Filename path was not updated, when a file was read via drag&drop, which led to wrong results auto-detection.

LS-DYNA

It was not possible to read results from an INTFOR file with adaptive mesh.

On top of that, failed elements of Dyna PSOLID disappeared in their original state too, after loading Displacements, since v19.1.0.

NASTRAN

Unexpected termination could occur when reading displacements from an .hdf Nastran file containing one database for Real and one for Complex values.

PAM-CRASH

Includes with relative paths of two or more lines could not be read properly.

A POINTs / LC POINTs

Unexpected termination would occur when trying to export A/LC Points, as defined.

NVH Calculators

In FRF Assembly tool, fluid results were calculated for structural nodes and structural results were calculated for fluid nodes.

Report

Right-mouse button outside Spreadsheet Editor's cell area would cause an unexpected termination.

Automation

Unexpected termination would occur on Linux operating systems, when running script function "materials.PickMaterials()".

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 19.1.2 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.

New & updated documents

Correlation Analysis Toolbar

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_v19.1.2"** and are dated as of **May 3, 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.