BETA CAE Systems S.A.

announces the v14.2.2 release of the

ANSA & µETA pre- & post-processing suite

Introduction

BETA CAE System S.A. announces the release of v14.2.2 of ANSA & µETA pre- and post- processing suite. This maintenance release focuses on the correction of identified issues and on the enhancement of our tools portfolio.
The most notable enhancements and issues resolved, are listed by category below.

Contents

Understanding the Software Release Schedule

The plan:

We are committed in delivering improved and enhanced software releases, the soonest possible, in order to meet the requirement of our customers for the continuous improvement of their experience and work. Therefore, we are working in releasing new software versions with code corrections, new software features and enhancements, in regular, frequent intervals.

- A major software version is released every year. The major version v14.0.0 was made available at the beginning of the year.
- First point releases, such as v14.1.0, v14.2.0 and so on, with code corrections but also with additional software features and enhancements are released every three months.
- Second point releases, such as v14.2.1, v14.2.2, mainly with code corrections only upon their parent first point release, are scheduled on a monthly basis.

Each software release is accompanied by a detailed description of the introduced corrections and/or additions so that our customers can decide whether it is critical to implement this release in their environment.

This release:

This release of v14.2.2 implements code corrections, and enhancements, to the v14.2.1 release.

Enhancements and Known Issues Resolved in ANSA

Topo:

  - The script function HotPointsIntersect would lead to unexpected termination.

Shell Mesh:

  - Creating a solid representation of a surface mesh by applying the VOLUMIZE function with the option "Merge" active, would lead to unexpected termination.
  - Certain types of surfaces could lead to problematic CFD mesh.

Volume Mesh:

  - Very large Layer heights would cause layers to intersect.

Connections & Assembly:

  - The option "Do not Reconstruct" is now provided for all relevant to Seamwelds FE representations.
  - Unnecessary checks would delay significantly the .xml file import.
  - When HEXA CONTACT was applied with the option "single contact" deactivated, it would generate 2 contacts for each connection instead of 2 contacts for all connections.

Scripting:
  - The SetEntityVisibilityValues function would not work in no-GUI mode.

Solver DECKs:

  - After using "Apply" for the FE representations, a user-attribute is now created in the connection's card that notes whether the Seamline elements are attached on the feature line or shells.
  - The EL. THICK view mode combined with the User Min Max option (Color Bar section) of F11 card would lead to unexpected termination.
  - Switching elements order through Change Order function occasionally would produce improper results or cause unexpected termination

due to linked faces.
- Renumbering elements through RENUMBER function would occupy unusually high amount of memory in 32-bit machines.
- For Entities belonging to different includes, non-existing intersecting ranges would be reported.
- The NASTRAN PBEAM property cards did not store some values when saving the database.

and more...

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

Extensions & Known Issues Resolved in µETA

Fringebar:

- The default title text of the scalar and vector results fringebars is now "Scalar" and "Vector" to help the user to distinguish them.

Section Forces:

- Section forces for solid elements are now calculated from the stress tensor.

User Toolbars:

- When using the CFD-Post toolbar to create Cd/Cl plots the X-Distance axis is now normalized and ranges from 0 to 1.
- The BusRollover toolbar was not read correctly from the .defaults file and was unusable.

Supported Solvers:

- When reading geometry from Abaqus .inp files, the position adjustment of nodes might be incorrect.
- For Abaqus 6.13 .odb files it was not possible to select the outer or inner element results.
- Reading geometry from ANSYS .cdb files could cause unexpected termination.
- Strain/kinetic energy results from Nastran SOL112 analyses would not be read.
- Plotting complex curves from Nastran .op2 files would produce incorrect curves.
- Plotting displacement curves from PERMAS .post.gz file would produce incorrect curves.
- Reading RADIOSS files that included the GRNOD/BOX keyword would cause unexpected termination.

NVH:

- In the Modal Response tool, the acoustic coupling conversion from the Akusmod format to DMIG would not be correct according to Nastran.
- In the Modal Response tool, if the DMIG Nastran acoustic coupling file had coupled nodes with a zero factor, the output coupling would be wrong.

Reporting:

- The .pptx file exported by the Report Composer would contain errors in certain cases.

and more...

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

Compatibility

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.

The .metadb files saved with µETA version 14.2.2 are compatible and can be opened by earlier versions of µETA.

Download

Where to download from

Customers who are served directly by BETA CAE Systems S.A. 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 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

All files required for the installation of this version reside in the folder named **"BETA_CAE_Systems_v14.2.2"** and are dated as of **November 19**th**, 2013.** 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, the following files have to be downloaded:

- the .sh installer file residing in the folder with respective platform name, for Linux amd MacOS, 32bit or 64bit or the respective .msi installer file for Windows, 32bit or 64bit, and
- the tutorial example files that reside at the top level of the folder of this distribution.
- In addition to the above, optionally, the µETA Viewer is available to be downloaded for each supported platform.

The Abaqus libraries required for the post-processing of Abaqus .odb files are included in the installation package and can be optionally unpacked.
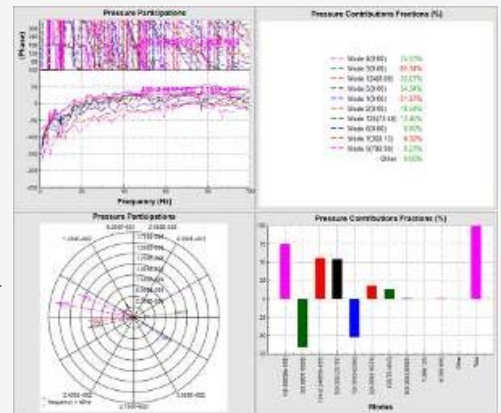
Previous software releases can be found in the sub-directory called "old" or in a folder named after the product and version number.

Documentation

New Documents

- New tutorial for ANSA: Shape sensitivity morphing

Tutorial files availability

A TUTORIALS folder in the public area has been added, including the tutorial documentation and the necessary demo files, to facilitate the tracking of the new and the updated tutorials. This folder includes the complete package of the tutorials and a package with the updated ones only.