

New software version release announcement Additional information for the CFD community

August 23, 2010

The new ANSA v13.1.0 has been released with several new powerful features for the CFD community users.

Important note:

Starting ANSA in the recommended CFD mode is now possible either by:

```
<installation_path>/ansa_v13.1.0/ansa64.sh
```

which opens the ANSA Launcher window

OR directly by:

```
<installation_path>/ansa_v13.1.0/ansa64.sh -gui CFD
```

(with CFD in capital letters from now on, not lower case).

Main new features introduced

General

- The ANSA Launcher window opens at the execution of startup scripts `ansa.sh`, `ansa64.sh` or `ansa.bat`, `ansa64.bat`, allowing the user to select from the available pre-defined layouts and settings
- New enhancements in the CFD layout of ANSA
- Additional selection tools
- Addition of Cutting Planes for model visualization (FOCUS>C.PLANES)
- Multiple display windows (main menu bar>VIEWS)
- Enhancements of the database browser (main menu bar>Database) with the addition of filters for the isolation of Link Faces, Frozen Faces, Macros meshed by specific algorithm, Element type etc.
- Enhanced Part Manager interface
- Support of CGNS Input/Output
- Support of OpenFOAM v1.6 with added features like support for porous, cyclic and MRF zones, GGIs, quality criteria and more
- Support of StarCCM Interfaces
- Input/Output of gzipped compressed Fluent and OpenFOAM files
- New model CHECKS
- New leak detection tool under FOCUS>ISOLATE>Short Path [Leak]

MESHING

- Multi core CPU usage for surface meshing and other meshing functions (By default all processors are used, but max number can be restricted using the start up argument `-np`)
- New function MACROS>SIMPLIFY for the automatic joining of Perimeters
- Improved Wrap [Variable length] tool with built in quality improvement and leak detection
- New very fast volume meshing algorithm VOLUMEs>Tetra Rapid
- New fast hexa-polyhedral volume meshing algorithm VOLUMEs>HexaPoly
- Improved algorithm for generation of layers (respecting user specified layer heights), with added collapse option and combined absolute+aspect mode of height calculation
- Support of polyhedral mesh input/output
- Conversion of hybrid meshes to polyhedral meshes (VOLUMEs>CONV2POLY)
- Enhancements in Size Boxes (separate values for max length of shell and solid mesh, new Cylindrical type Size Boxes)
- New Module HEXABLOCK for generation of Hexa mesh based on block box topologies
- New layout of Batch Mesh tool, with improved mesh results for CFD and a new Surface Wrapping scenario
- Automatic quality fix of volume meshes (VOLUMEs>IMPROVE [Fix Qual])

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Documentation

- A presentation with a short description of the new features can be found from Help>What's New>CFD category
- Updated CFD Project Practices document
- Updated CFD Tutorials

Download

Our customers may download the new software examples and documentation from their account in our download server.

You may access your account through the 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 being served by local business agents may get the software through their channel.

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