

# SALOME 4.1.5

## Public release announcement

May 2009

### General information

CEA/DEN, EDF R&D and OPEN CASCADE are pleased to announce [SALOME](#) version [4.1.5](#). It is a public maintenance release that contains the bug fixes against SALOME 4.1.4 version released in December 2008.

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## New features

### Open CASCADE Technology 6.3.0sp5

Open CASCADE Technology 6.3.0 service pack 1 has been replaced by 6.3.0 service pack 5, which includes a correction of some bugs that came from SALOME.

See Change Log file in the source archive of CASCADE 6.3.0sp5 for more details.

**Note:** it is necessary to recompile NETGEN mesher with the new Open CASCADE Technology version.

### Other prerequisites changes

- OmniORB 4.1.0 has been replaced by OmniORB 4.1.3
- omniORBpy 3.0 has been replaced by omniORBpy 3.3
- docutils 0.3.9 has been replaced by docutils 0.4.0
- sphinx 0.5 has been added (for generation of YACS documentation)

## Bug corrections

### GUI module (IAPP)

*Summary:* Store/Restore Visu state with Point view windows

Improvement:

Fixed bug with storing/restoring of VISU state with hidden Point view windows (Post-Pro module): QtxWorkstack class has been improved to store/retrieve information about hidden windows.

*Summary:* Segmentation fault on exit when using xdata with Salome 5.1.1

Change:

The problem of critical error on application exit if `SalomePyQt.SALOME_Selection` class instance is stored in a Python variable has been fixed.

### KERNEL module

*Summary:* Type coherence in \*.i files

Change:

The sources have been adapted for compilation with `gcc/g++ 4.3.2`

*Summary:* Possible conflict with another ORB in `runSalome.py`

Change:

"`import CORBA`" has been replaced by "`from omniORB import CORBA`" in `runSalome.py` to be sure that CORBA is imported from omniORB.

*Summary:* New types needed in `KERNELCatalog.xml`

Change:

The data types required for compatibility with Nuresu Graph have been added to the file `KERNELCatalog.xml`.

### GEOM module

*Summary:* Deleting an object leads to unusable dump

Improvement:

Dump Python functionality of Geometry module has been improved to avoid dumping of objects depending on the objects, which have not been dumped yet, otherwise the final script is not executable.

*Summary:* `MakeFilling` with a compound of wires

Change:

The arguments of the Filling algorithm are now checked and an error is raised if an invalid (containing not only edges) compound is passed.

*Summary:* Partition issue.

Change:

The problem of wrong creation of solids made by OCC during partition has been fixed in OCC bug 20864.

*Summary:* Unwanted crosses after partition

Change:

The Partition algorithm has been fixed to avoid the creation of unwanted sections caused by wrong processing of internal edges.

*Summary:* Ellipse not well defined

Improvement:

A new vector parameter – Major axis – has been added for creation of ellipses. Earlier it was presumed that the major axis is the axis OX of the global coordinate system.

*Summary:* Partition failure with pipes

Change:

The problem of partition with the 2 shapes as objects has been fixed in OCC bug 20891.

*Summary:* Dump study with exploded geometry object is not complete

Change:

Regression of Python dump has been fixed (addToStudyInFather commands disappeared after dumping of a study with an exploded geometry object).

*Summary:* GetInPlace is getting additional orthogonal faces

Change:

The problem with incorrect faces returned by GetInPlace() has been fixed.

*Summary:* addToStudyInFather definition in geompyDC.py

Change:

Wrong reference to the global myStudy variable has been fixed in geompyDC.py – geompyDC::addToStudyInFather() function.

*Summary:* MakePipe : Generation of redundant doubled faces

Improvement:

Automatic gluing of all shapes, resulting from the pipe operation, has been implemented to solve the problem of double faces.

*Summary:* Memory perf of BoundingBox

Improvement:

Improved the way of calling GEOM\_Object\_i::GetEntry() method to avoid memory leaks.

*Summary:* Infinite loop in boolean operation with a sphere with r=0

Changes:

In Geometry: suppressed creation of a sphere and a circle with too small radius ( $R < 1e-07$ ) in TUI, as such shapes are invalid.

**MESH module**

*Summary:* Impossible to create a group with a sphere filter

Changes:

The wrong change in the documentation of the "Selection Filter" dialog box (series 4x) has been reverted.

*Summary:* "Max element volume" hypothesis is not used

Improvement:

To implement "Max Element Volume" hypothesis in Netgen, parameter maxh (maximal mesh size) used by Netgen to generate volume elements is now computed by the following formula:

$\text{Netgen\_param.maxh} = \text{pow}(72, 1/6.) * \text{pow}(\_maxElementVolume, 1/3.)$ , where  $\_maxElementVolume$  is the maximum volume of resulting mesh elements.

*Summary:* Quadratic conversion of BLSURF mesh

Improvement

Now Quadratic conversion works correctly on a sphere with NetGen1D2D mesh.

*Summary:* Impossible to create (n)D mesh after creating (n+1)D mesh

Change:

The lists of hypotheses and algorithms available in Mesh Creation dialog are now updated on selection of each new shape.

*Summary:* Incomplete selection with filter 'belong on geom..'

Improvement:

The problem with incomplete selection of elements in a group on geometry has been fixed by implementation of the possibility to customize the precision of the filters "belong to geometry" and "lying on geometry".

*Summary:* Selection behavior in object browser from hypothesis editing windows

Change:

The behavior of Mesh Creation/Edition dialog has been modified to remove all selection filters during creation/edition of the values of a hypothesis.

*Summary:* SIGSEV at study opening with SMESH

Change:

The procedure of loading of some types of submeshes has been fixed.

*Summary:* Mesh element info anomaly

Change:

Mesh Element Info dialog has been fixed to allow selecting nodes belonging to several displayed groups.

*Summary:* Projection 2D does not work

Improvement:

It has become possible to project a 2D mesh from the group of faces where an edge of the outer face belongs to the outer wire.

*Summary:* Anomaly in Merge Nodes

Change:

Fixed a problem in OctreeNode class, which led to incorrect work of FindCoincidentNodes functionality.

*Summary:* 2 identical meshes do not give the same result

Change:

The problem of generation of different meshes on the same geometry with the same hypotheses by NETGEN 3D algorithm has been fixed.

*Summary:* Changing algo of a mesh and switching back to original algo leads to different result than original

This is a duplicate of bug 20199.

*Summary:* Netgen1D2D3D +submesh

Change:

The problem of segmentation violation at creation of a submesh on a mesh with global NETGEN 1D-2D-3D algorithm has been fixed.

*Summary:* Update of a smesh group after modification of the associated geom group

Change:

Update contents of SMESH group based on geometry when it's supporting GEOM group changes.

*Summary:* RadialPrism\_3D\_4 failed on V5\_1 64 bits

Change:

The problem of segmentation violation after node removal has been fixed.

*Summary:* Project\_2D\_4 failed on V5\_1 64 bits

This is a duplicate of bug 20199.

*Summary:* Dump file with mesh and group on geometry is wrong

Change:

Python Dump algorithm has been changed to correctly work with script names containing white spaces or commas.

*Summary:* MakePartition fails

Change:

The problem of wrong partition has been fixed in OCCT service pack 4.

*Summary:* Quadrangle\_2D meshing fails

Improvement:

Quadrangle\_2D meshing algorithm has been improved to detect boundaries of composite sides by boundaries of adjacent faces.

*Summary:* "Edit group" changes the name of the group

Changes:

Fixed bug with automatically renaming of the group when editing.

**VISU module**

*Summary:* Scalarmap on Deformed Shape not Ok in animation (from DEPL clicking)

Improvement:

Unselecting the presentation after its hiding clears the current selection instead of displaying the scalar bar of the original presentation without the slider;

Display/Display only shows only the presentation that has been selected in the slider.

*Summary:* NaN in scalar bar

Improvement:

Checking for Nan values has been implemented in the methods `VISU_ColoredPL::GetSourceRange()` and `DeformedShapeAndScalarMapPL::GetSourceRange()`. If the computed range contains Nan values these methods raise `std::runtime_error` exception.

*Summary:* SIGSEV when editing a presentation and no VTK window

Change:

SIGSEGV error () at the attempt to edit a presentation without active VTK Viewer has been corrected.

*Summary:* Rename a gauss point presentation

Change:

It has become possible to rename Gauss Points presentations.

*Summary:* Line Width for Vector not taken into account

Change:

The changes of the Line Width in Vector presentation made by the user are now taken into account and restored in the dialog when the presentation is edited.

*Summary:* Visu points Gauss on a group displays only one Gauss point by cell.

Improvement:

The algorithms processing Groups on Gauss Points presentations have been improved to display the correct number of points.

*Summary:* ScalarMaponDeformedShape, problems with title

Change:

The changes of the scalar bar title made by the user are now taken into account and restored in the dialog when the presentation is edited.

*Summary:* In some cases, Scalar Bar and Deformed Shape does not store the component used as scalar

Change:

The changes of the Scalar Mode made by the user are now taken into account and restored in the dialog when the presentation is edited.

*Summary:* Bad values are displayed for ELNO fields

Improvement:

The GUI of the Selection Panel has been improved to display scalar and vector values of the selected points for each cell to which they belong in case of ELNO fields. Four different cases have been

considered:

- Cell selection for an ELNO field. The table of selection contains a list of selected cells and sub-lists of their points with coordinates, scalar and vector values at each point.
- Point selection for an ELNO field. The table contains the same information but in reverse order: each list corresponds to a separate point and contains sub-lists of cells to which this point belongs with scalar and vector values at the point depending on the cell to which it belongs.
- Cell selection for a standard (not ELNO) field. Selection information is split into two tabs: "Cell Info" tab contains a list of the selected cells with their scalar and vector values, "Point Info" tab contains a direct list of all points of the selected cells (without indication of the cells to which they belong) with scalar and vector values at these points.
- Point selection for a standard field: Similarly to the second tab in the previous case, the table contains a list of selected points with their attributes and scalar and vector values.

Additionally, double-click on any cell in table now allows to perform selection of a mesh cell or point corresponding to that cell.

*Summary:* Impossible to create a new clipping plane on field presentation

Improvement:

It has become possible to use clipping planes with presentations created on all time stamps of the field.

*Summary:* Gauss View + Deformed Shape + Picking + Display parent mesh element

Change:

VISU\_GaussPtsAct::Highlight() method has been modified to correctly display deformed elements. The behaviour of "Display Parent Mesh Element" checkbox has been fixed to avoid crashes.

*Summary:* Deformed shape on scalar map, Performance & Clipping plane

Change:

The bug with SIGSEGV error after clipping on a deformed shape has been fixed.

*Summary:* Pyramids are not displayed for ELGA field

Improvement:

Quadratic pyramids are now correctly displayed in Post-Pro module.

*Summary:* Bug with Clipping plane on Deformed Shape

Improvement:

It has become possible to use clipping planes with presentations of a quadratic structured mesh.

*Summary:* Impossible to set the title of a Deformed Shape

Change:

It has become possible to define the title of the Deformed Shape presentation

*Summary:* Trihedron Issues

Improvement:

Arrows of the trihedron have become scalable in the VTK viewer, just like in the OCC viewer.

*Summary:* [TUI] AddMeshOnGroup is not fully taken into account

Improvement:

AddMeshOnGroup Python command, which defines a mesh group on which a presentation is displayed, now works properly and the presentation is displayed only on the group, instead of the whole mesh.



*Summary:* Load hdf study with 2 MED files (same name, same size, different locations)

Improvement:

The regression causing problems with save/restore of MED files having the same names has been fixed. Now all MED file names receive unique hexadecimal numbers to avoid such problems.

## **MED module**

*Summary:* Med could not detect if file version is higher than library version in use

Change:

The crash at the attempt to load the file generated with a more recent MED version, than the version used by the application, is now avoided.

*Summary:* Crash of V4\_1\_4rc2

Improvement:

The bug with memory corruption at writing descending connectivity of MEDMEM::MESH in med-2.1 version has been fixed.

*Summary:* MEDMEMCppTest non regression Test of MEDMEM has 21/36 errors

Improvement:

MEDCppTests have been corrected for all platforms to provide correct testing.

*Summary:* Unused function in MEDMEM::FIELD

Change:

Unused functions `getArea()`, `getLength()`, `getVolume()`, `getNormal()` and `getBarycenter()` have been removed from the class MEDMEM::FIELD

*Summary:* Missing file cause unit test TestMEDSPLITTER failing.

Changes:

The med file `trio_2D` has been added to the resources directory of MED module. During the installation it is placed to `{MED_ROOT_DIR}/share/salome/ressources/med` folder.

*Summary:* TestMEDMEM fail

Change:

The problem of SIGSEGV while executing TestMEDMEM due to unset TMP environment variable has been solved.

*Summary:* Native dependencies in Med Splitter

Change:

The order of libraries used in the file `Makefile.am` from MEDSPLITTER package has been changed: the libraries `metis` and `scotch` have been placed at the beginning. This is done to avoid linkage with native `metis`.

*Summary:* valgrind errors in MEDMEMCppTests

Change:

MEDMEMCppTests have been tested with Valgrind and the detected errors have been fixed.

*Summary:* Crash salome and mdump through sauv2med (when reload created med file)

Change:

Fix problem of SALOME crash when reading a 2D mesh in 3D space from med file using SMESH and VISU modules.

*Summary:* Family on all faces

Changes:

It has been made that families on all MED\_FACEs not to have `_isOnAllElts` attribute == true.

*Summary:* MED exception in `convertToPoly`

Changes:

Exception in `convertToPoly` has been fixed.

## **NETGENPLUGIN module**

*Summary:* Netgen 3D on sub-mesh crash

Changes:

A missing modified source change has been integrated.

*Summary:* Mesh of parallepiped with Netgen1D2D3D crashes Salome

Change:

The problem of Salome crash at the usage of Netgen1D2D3D algorithm has been fixed.

*Summary:* Netgen 1D2D crashes Salome

Change:

The problem of Salome crash at the usage of Netgen 1D2D algorithm has been fixed.

## **Environment bugs**

*Summary:* OmniORB prerequisite 4.1.0 to 4.1.3

Improvement:

Salome has been upgraded to the new omniORB version:

- omniORB 4.1.0 has been replaced by version 4.1.3;
- omniORBpy 3.0 has been replaced by version 3.3

## **Installation bugs**

*Summary:* Installation wizard should make the difference between optional and mandatory "missing libraries"

Improvement:

The warning message about missing libraries, which is shown during the installation procedure, now contains separate lists for mandatory and optional libraries absent in the system. It is possible to customize the list of libraries defining some of them as optional in the XML configuration file for the platform in the `config` section for `optionallibs` attribute. By default, this attribute is equal to `libcppunit,liblsurf`.

*Summary:* Compiling Salome from the Install Wizard throws a warning

Change:

The problems with NETGENPLUGIN compilation are now avoided in the installation procedure.

### **Documentation bugs**

*Summary:* Missing doc for TUI/GUI interface

Improvement:

Additional help page describing the usage of Python module `salome.py` and access to the main SALOME functionalities from the Python code has been introduced into the documentation of GUI module.

*Summary:* Differences between using Netgen1D2D3D or Netgen3D + Netgen2D + Regular1D

Change:

The behavior of NETGEN algorithm has been described in more details in the documentation.

## Supported Linux distributions and pre-requisites

**SALOME 4.1.5** supports Debian 3.1 Sarge, Mandriva 2006 32bit and 64bit, Mandriva 2008 32bit and 64bit, Debian 4.0 Etch 32bit and 64bit.

**SALOME 4.1.5** version has been mainly tested with the below listed pre-requisite products on Mandriva 2008 32bit and Debian 4.0 Etch 64bit platforms..

**SALOME 4.1.5** comes with the same prerequisites versions on all supported platforms. The table below lists the versions of the products used by SALOME platform. Other versions of the products ba also work but it is not guaranteed.

**NOTE:** For some platforms Salome uses prerequisites with patches like in RPM and defines specific keys. So if you compile products without Install Wizard we strongly recommend you to check compilation keys using shell files located in config\_files folder of the Installation Procedure.

	Version	GUI (IAPP)	KERNEL	GEOM	SMESH	VISU	MED	SUPERVISION	HexoticPLUGIN	FILTER	GHS3DPRLPLUGIN	RANDOMIZER	SIERPINSKY	BLSURFPLUGIN	GHS3DPLUGIN	PYCALCULATOR	COMPONENT	NETGENPLUGIN	LIGHT	MULTIPR	CALCULATOR	HELLO	PYHELLO	YACS	xdata	HXX2SALOME
gcc*	3.3.5**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
automake*	1.9**	X	X	X	X	X	X					X	X		X	X	X	X	X		X	X	X	X	X	X
autoconf*	2.59**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
libtool*	1.5.6**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GNU make*	3.80**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Python	2.4.4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Qt&msg2qm	3.3.8	X		X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X
Sip	4.7.3	X															X									
PyQt	3.17.4	X															X								X	
Boost	1.34.1	X	X	X	X	X	X	X	X	X	X		X	X	X			X		X	X	X				
Swig	1.3.31	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X			X				X	
OpenCASCAD E Technology	6.3sp5	X		X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X		X		
Qwt	4.2.0	X															X									
OmniORB OmniORBpy omniNotify	4.1.3 3.3 2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Hdf5	1.6.4	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X					
Med	2.3.5				X	X	X			X	X		X			X	X	X		X	X					
Vtk	5.0	X		X	X	X	X	X	X	X	X		X	X	X		X	X	X						X	
Numeric	24.2		X																							
Graphviz	2.16.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X		
Doxygen	1.5.6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X		
NETGEN	4.5																	X								
docutils	0.4.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X		
metis	4.0						X																			
scotch	4.0						X																			
libxml2	2.6.27	X	X				X																	X		
elementtree	1.2.6																							X		
cElementTree	1.0.5																							X		
blsurf	2.7.12													X												
TetMesh- GHS3D	4.0										X				X											
TclTk	8.4.14																									
Sphinx	0.5																							X		

\*) Not included into SALOME Installation procedure

\*\*) Minimal required version

SALOME 4.1.5 depends of a number of products for run time execution, others are necessary only for compilation or generation of development documentation (like doxygen for example). Below there is a list of mandatory and optional products.

### Software Requirements

	Compilation and Development		Execution		Remarks
	Mandatory	Optional	Mandatory	Optional	
gcc	X		X		
Automake	X				
Autoconf	X				
libtool	X				
GNU make	X				
Tcltk					for OCCT compilation from source files only
Python	X		X		
Qt	X		X		
msg2qm	X				
PyQt	X		X		
Boost	X		X		
Swig	X				
OpenCASCADE Technology	X		X		
Qwt	X		X		
OmniORB	X		X		
Hdf	X		X		
Med	X		X		
Vtk	X		X		
Numeric		X			
Graphviz		X			
Doxygen		X			
NETGEN	X				for NETGENPLUGIN mesh plug-in only
docutils		X			
cppunit		X			
mpi		X		X	required only if used at compilation step
openpbs		X		X	required only if used at compilation step
Lsf		X		X	required only if used at compilation step
metis	X		X		
scotch	X		X		
libxml2	X				
elementtree	X				
cElementTree	X				
blsurf	X		X		for BLSURFPLUGIN mesh plug-in only
TetMesh-GHS3D			X		for GHS3DPLUGIN mesh plug-in only
Sphinx		X			for generation of YACS documentation only

### How to install and build SALOME

- Please follow README file from Installation Wizard for processing correctly installation of SALOME and all prerequisites.
- If you would like to compile SALOME from scratch, please use build.csh or build.sh script delivered with the Installation Wizard. Call "build.csh -h" to see available options of this script.

## SALOME System Requirements

### Minimal Configuration:

- Processor: Pentium IV.
- 512 Mb RAM.
- Hard Drive Space: 1.5 Gb.
- Video card 64mb.
- CD/DVD

### Optimal Configuration:

- Processor: Dual Core.
- 2 Gb RAM.
- Hard Drive Space: 5Gb.
- 2Gb Swap.
- Video card 128mb.
- CD/DVD

## How to get the version and pre-requisites

The [SALOME 4.1.5](http://www.salome-platform.org) pre-compiled binaries for Linux Debian 3.1 Sarge, Mandriva 2006 (32bit and 64bit), Mandriva 2008 (32bit and 64bit), Debian 4.0 Etch (32bit and 64bit) can be retrieved from the <http://www.salome-platform.org> site.

Besides it is possible to install Debian 3.1 Sarge SALOME universal binaries on the platforms that are not supported officially.

The SALOME Installation procedure includes SALOME modules sources, and the user can build sources from scratch using "build.sh" or build.sch script coming with installation procedure.

There are two patches on [NETGEN](#) which are placed inside NETGENPLUGIN modules sources. The first patch file is used for all 32 bit platforms; the second patch file is an addition to the first one and should be applied only for 64bit platforms.

During the compilation on NETGEN from sources by SALOME Installation Wizard, the patches are applied automatically to the standard NETGEN distribution. You can download NETGEN 4.5 from its official site using the following link: <http://www.hpfem.jku.at/netgen/>.

All other pre-requisites can be obtained either from your Linux distribution (*please be sure to use a compatible version*) or from the distributors of these pre-requisites (*www.trolltech.com for QT for example*).

## Known problems and limitations

- The following limitations refer to BLSURF plugin:
  - Mesh contains inverted elements, if it is based on a shape, consisting of more than one face (box, cone, torus...) and if the option "Allow Quadrangles (Test)" has been checked before computation.
  - SIGFPE exception is raised after trying to compute a mesh based on a box with "Patch independent" option checked.
  - It has been found out that BLSURF algorithm can't be used as a local algorithm (on sub-meshes) and as a provider of low-level mesh for some 3D algorithms because BLSURF mesher (and, consequently, the plugin) does not provide information on node parameters on edges (U) and faces (U, V). For example, the following combinations are impossible:
    - global MEFISTO or Quadrangle(mapping) + local BLSURF;
    - BLSURF + Projection 2D from faces meshed by BLSURF;
    - local BLSURF + Extrusion 3D;
- Sometimes regression test bases give unstable results; in this case the testing should be restarted.
- A native VTK can be used only after manual recompilation with the GL2PS component.
- NETGEN 1D-2D and 1D-2D-3D algorithm do not require definition of 2D and 1D algorithms and hypotheses for both mesh and sub-mesh. 2D and 1D algorithms and hypotheses defined with NETGEN 1D-2D or 1D-2D-3D algorithm will be ignored during calculation.

- SALOME supports reading of documents from earlier versions but the documents created in the new version may not open in earlier ones.
- If SALOME modules are not installed in a single folder, SALOME may not work in the CSH shell since the environment variables are too long by default. In this case, it is suggested to use SH or to install all modules in the same folder
- During the compilation of OCT 6.x by makefiles on a station with NVIDIA video card you can experience problems because the installation procedure of NVIDIA video driver removes library libGL.so included in package libMesaGL from directory /usr/X11R6/lib and places this library libGL.so in directory /usr/lib. However, libtool expects to find the library in directory /usr/X11R6/lib, which causes compilation failure (See /usr/X11R6/lib/libGLU.la). We suggest making symbolic links in that case: "ln -s /usr/lib/libGL.so /usr/X11R6/lib/libGL.so ln -s /usr/lib/libGL.la /usr/X11R6/lib/libGL.la"
- VISU module does not support timestamps defined on the same field but on different meshes
- Stream lines presentation can not be built on some MED fields due to limitations in VTK
- In the current implementation of "Save VISU State" operation the parameters of Gauss view Partition mode are not stored. If a window has been partitioned and saved, it will be restored as non-partitioned.
- Step-by-step execution fails on some graphs in SUPERVISOR. This functionality is only a prototype and has not been finished completely
- MEFISTO algorithm sometimes produces different results on different platforms
- In some cases the number of triangles generated by MEFISTO may be different at each attempt of building the mesh
- Results of some TUI non-regression testing are different on slow and fast computers. This is caused by using the functionality of GEOM from Supervisor in parallel nodes in some test cases. Open CASCADE Technology (OCCT) is not thread safe in some geometry operations, so on some hardware configurations the conflict with parallel access to some data may occur and such supervisor graphs may fail. This problem will be fixed in the future. Currently the workaround uses the GEOM nodes subsequently.