

SALOME version 8.5.0

Release Notes

May 2018

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❖ GENERAL INFORMATION

CEA/DEN, EDF R&D and OPEN CASCADE are pleased to announce [SALOME](#) version [8.5.0](#). It is a public minor release that contains the results of planned major and minor improvements and bug fixes against SALOME version 8.4.0 released in December 2017.

❖ PREREQUISITES

The table below lists pre-requisite products will be used with SALOME 8.5.0. The differences of 3rd-party product versions used for SALOME 8.4.0 and 8.5.0 are highlighted in bold.

Product	SALOME 8.4.0	SALOME 8.5.0
Babel	2.0	2.0
Boost	1.52.0	1.52.0
Cgns	3.3.1	3.3.1
Cmake	3.3.0	3.3.0
Cppunit	1.12.1	1.12.1
Cython	0.23.2	0.23.2
Distene MeshGems suite ¹	2.5-7	2.6-4
Distribute	0.7.3	0.7.3
Docutils	0.12	0.12
Doxygen	1.8.3.1	1.8.3.1
Freeimage	3.16.0	3.16.0
Freetype	2.4.11	2.9.0
Gl2ps	1.3.9	1.4.0²
Gmsh	3.0.5	3.0.5
Graphviz	2.38.0	2.38.0
Hdf5	1.8.14	1.8.14
H5py	2.5.0	2.5.0
Homard	11.10	11.10
Intel® Threading Building Blocks	4.2.4	4.2.4
Jinja2	2.7.3	2.7.3
Lapack	3.5.0	3.7.0
Libbatch	2.3.2	2.4.0
Libxml2	2.9.0	2.9.0
Markupsafe	0.23	0.23
Matplotlib	1.4.3	2.0.2
Med	3.3.1	3.3.1
Metis	5.1.0	5.1.0
Mpi4py	1.3.1	1.3.1
Netgen	5.3.1	5.3.1 ³

¹ Commercial product; requires license.

² SHA1 identifier of this version is 403731292ec21b3f74c8350aed86ea4ea6021463.

³ Patched for SALOME.

Product	SALOME 8.4.0	SALOME 8.5.0
Nose	1.3.7	1.3.7
Numpy	1.9.2	1.12.1
Omniorb	4.1.6	4.1.6
Omniorbpy	3.6	3.6
Open CASCADE Technology	7.1.0p1	7.2.0p3⁴
Opencv	2.4.6.1	2.4.13.5
Openmpi	1.8.5	1.8.5
Paco++	0.5.5	0.5.5
Paraview	5.4.0	5.4.1p2⁵
Pkgconfig	1.1.0	1.1.0
Pygments	2.0.2	2.0.2
Pyparsing	2.0.3	2.0.3
Pyqt	5.9.0	5.9.0
Python	2.7.10	2.7.10
Python-dateutil	2.4.2	2.4.2
Pytz	2015.4	2015.4
Qt	5.9.1	5.9.1
Qwt	6.1.2	6.1.2
Scipy	0.15.1	0.18.1
Scotch	5.1.11	6.0.4
Setuptools	0.6c11	38.4.0
Sip	4.19.3	4.19.3
Six	1.9.0	1.9.0
Sphinx	1.2.3	1.2.3
Sphinx-intl	-	0.9.10
Sphinxcontrib-napoleon	-	0.6.1
Swig	2.0.8	2.0.12
Tcl	8.6.0	8.6.0
Tk	8.6.0	8.6.0
Tclx	8.4.1	8.4.1
Vtk ⁶	8.1.0	9.0.0

⁴ SHA1 identifier of this version is a4b60cc6a2986181e45acd069b69600c48daf13b.

⁵ SHA1 identifier of this version is b5c4c893ca879ecb55742e811cc47c289e3c383. Patched for SALOME.

⁶ SALOME uses VTK included into ParaView distribution.

Note: the table above lists only most important pre-requisite products; some optional products are not shown. For additional information about pre-requisite products and SALOME modules dependencies refer to the paragraph "Supported distributions and pre-requisites" below.

License restrictions

Hereby we explicitly declare that PyQt (by Riverbank Computing Ltd) used by SALOME is distributed under the terms of GNU GPL license; for more details please refer to the PyQt site:

<http://www.riverbankcomputing.com/software/pyqt/license>

If you plan using SALOME for commercial purposes please consider obtaining a commercial license for PyQt from Riverbank Computing Ltd.

❖ NEW FEATURES AND IMPROVEMENTS

MEDCoupling module

- New medcoupling python module gathers all others python modules (MEDCoupling, MEDLoader, MEDRenumber, MEDPartitioner, MEDCouplingRemapper continue to live) to avoid multiple python imports. ShowAdvancedExtensions function of medcoupling displays all the options available for the medcoupling module in use.
- MEDCouplingUMesh and MEDCouplingFieldDouble have now "write" const method (only in python) allowing to write MED file
- Bug correction into Geometric2D intersector concerning overlap detection between segments and high radius arc of circle
- Implementation of MEDCouplingUMesh::attractSeg3MidPtsAroundNodesUnderground
- Implementation of SP_BEAM and SP_PIPE MED structure elements implementation
- Implementation of DataArrayInt32::findIdForEach
- Implementation of MEDFileFields::linearToQuadratic
- Implementation of 1D->0D (3D space) P1P1 PointLocator

ParaVis module

- SimpleMode plugin ergonomics improved
- All ParaVis plugins are no more VTK modules (for build reasons)

❖ CHANGE LOG

This chapter does not provide the complete set of changes included into this version of SALOME; only the most important changes are listed.

KERNEL MODULE

23534	<p><i>Summary:</i> [CEA 2132] Removing <code>pidof</code> usage and improving KERNEL code</p> <p>Use <code>fork() + execvp()</code> instead of <code>system() + pidof()</code> to run and get <code>pid</code> of MPI servers in <code>SALOME_ContainerManager</code>.</p>
23540	<p><i>Summary:</i> [CEA 2228] Kernel compilation error on Ubuntu 14</p> <p>Compilation error of KERNEL module on Ubuntu 14 OS has been corrected.</p>

GUI MODULE

23530	<p><i>Summary:</i> [EDF]: Add "set rotation point of SALOME viewers" functionality into <code>SalomePyQt</code> interface</p> <p>New method <code>setViewRotationPoint</code> has been added into <code>SalomePyQt</code> interface.</p>
23551	<p><i>Summary:</i> [EDF] Help menu : option to set links</p> <p>Help menu items management has been improved.</p> <p>The following links can be customized via the configuration XML file:</p> <ul style="list-style-type: none"> • Web site (application's web site); • Forum (application's forum); • YouTube channel (application's channel). <p>Additionally:</p> <ul style="list-style-type: none"> • The items in Help menu were more strictly grouped. • In Geometry module, the position of menu items has been moved to the lower level, (similarly to Mesh module), to be aligned with Geometry plug-ins. • The position of User's Guide and Developer's Guide in sub-menus (like for Geometry, Mesh modules) are forced to appear in upper positions. • For modules with plug-ins (like Geometry and Mesh), if the list of plug-ins is empty, the submenu is not created, to have better look-n-feel.

GEOMETRY MODULE

23433	<p><i>Summary:</i> EDF 14475 - some case of <code>MakePipeWithDifferentSections</code> fails</p> <p>The problem with <code>MakePipeWithDifferentSections</code> method has been fixed.</p>
23541	<p><i>Summary:</i> [CEA 2229] The test <code>GEOM_Nut.py</code> crashes</p> <p>Problem with <code>GEOM_Nut.py</code> script, appeared after migration to new version of <i>Open CASCADE Technology</i>, has been corrected.</p>

23553	<p><i>Summary:</i> Replace ABSOLUTE_APPLI_PATH by KERNEL_ROOT_DIR in GEOM and SMESH cmakefiles</p> <p>Unnecessary ABSOLUTE_APPLI_PATH environment variable has been suppressed from GEOM and SMESH modules.</p>
23558	<p><i>Summary:</i> [CEA 2242] : Bad display of shared edges in wireframe mode</p> <p>Problem with the displaying shared edges in wireframe mode has been eliminated.</p>

MESH MODULE

23418	<p><i>Summary:</i> [CEA] Mesh: Minimization of memory usage of SMESH</p> <p>SMESH mesh data structure (SMDS) has been redesigned to reduce occupied memory. Mesh objects now occupy ~40% less memory than before.</p>
23491	<p><i>Summary:</i> EDF 15591 - Duplicate Elements / Notes</p> <p><code>AffectedElemGroupsInRegion</code> operation now can be launched by pressing <i>[Generate]</i> button in <i>Duplicate Nodes or/and Elements</i> dialog.</p>
23525	<p><i>Summary:</i> EDF16278 - Performance of concatenation of meshes</p> <p>Compound mesh construction has been optimized. Performance improved by a factor of two.</p>
23529	<p><i>Summary:</i> [EDF]: Add Gravity Center measurement</p> <p>An algorithm to compute a gravity center of a selected mesh group (as a gravity center of all nodes included into the group) has been implemented as a service of Mesh module's <i>Measurements</i> interface.</p>
23537	<p><i>Summary:</i> Non regression test distene/GMSH failed</p> <p>Distene/GMSH non regression test has been corrected.</p>
23544	<p><i>Summary:</i> SMESH's performance issues</p> <p>A regression of performance of standalone group creation and a regression of group memory compacting have been fixed.</p>
23549	<p><i>Summary:</i> [EDF] PIGUI: Script with dumped study uses undefined filters in <code>GroupOnFilter</code></p> <p>Invalid Python dump of filters creation has been fixed.</p>
23555	<p><i>Summary:</i> EDF 16979 - black edge in VTK viewer</p> <p>Problem with customized vtk OpenGL mapper has been fixed.</p>

MED MODULE

23532	<p><i>Summary:</i> [CEA] Crash on switching to MED from any module without Objects Browser</p> <p>Crash of an application after a switching between modules without <i>Object Browser</i> and MED module has been fixed.</p>
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HEXABLOCK MODULE

23531	<p><i>Summary:</i> [CEA] Crash on switching to HEXABLOCK from any module without Objects Browser</p> <p>Crash of an application after a switching between modules without <i>Object Browser</i> and HEXABLOCK module has been fixed.</p>
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BLSURF PLUGIN MODULE

23528	<p><i>Summary:</i> [CEA 10503] Suppressing BLSURFPLUGIN dependency to SAMPLES</p> <p>BLSURFPLUGIN became independent of SAMPLES files.</p>
23556	<p><i>Summary:</i> EDF 16991 - local size not taken in account</p> <p>Unclear points in the BLSURFPLUGIN documentation have been corrected.</p>

NETGEN PLUGIN MODULE

23536	<p><i>Summary:</i> EDF 16508 - Crash when changing NETGEN1D2D setting</p> <p>SALOME crash after edition of Local Sizes of NETGEN Parameters hypothesis has been fixed.</p>
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OTHER ISSUES

23538	<p><i>Summary:</i> EDF 16777 - ASTERSTUDY - Suppression of meshes when ASTERSTUDY is activated</p> <p>A bug with implementation of <i>Delete</i> operation in Mesh module has been fixed.</p>
23548	<p><i>Summary:</i> [CEA] Generation of documentation is broken if <i>sphinxcontrib.napoleon</i> extension is not available</p> <ol style="list-style-type: none"> 1. Sphinx detection procedure has been improved: it is now possible to specify a list of required extensions. 2. In GUI and Mesh modules, unnecessary <i>sphinxcontrib.napoleon</i> extension has been disabled. Additionally, the documentation generation does not fail if extension is not found.

❖ OCCT 7.2.0 BUG CORRECTIONS

This chapter lists bug corrections and improvements made for SALOME project in Open CASCADE Technology. These bug corrections and improvements are included into the patched version of OCCT 7.2.0 used by SALOME 8.5.0.

27182	<i>Summary:</i> [OCCT:Modeling Algorithms] Wrong result of <i>General Fuse</i> operation for two spheres. Related SALOME issue: #23230.
27981	<i>Summary:</i> [OCCT:Modeling Algorithms] <code>BRepExtrema_DistShapeShape</code> returns not null distance on interfered shapes. Related SALOME issue: #23231.
27998	<i>Summary:</i> [OCCT:Modeling Algorithms] Self-intersection is not detected. Related SALOME issue: #22184.
28017	<i>Summary:</i> [OCCT:Modeling Algorithms] Unexpected result of <i>General Fuse</i> operation. Related SALOME issue: #23330.
28221	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>General Fuse</i> operation error. Related SALOME issue: #23384.
28361	<i>Summary:</i> [OCCT:Visualization] Visualization, TKV3d - buggy behavior of <i>Transformation Persistence</i> compiled on several <i>Linux</i> platforms in optimized mode.
28468	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>Sweep</i> with different sections raises <code>Standard_NoSuchObject: BRep_Tool:: no parameter on edge</code> . Related SALOME issue: #23410.
28486	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>Fuse</i> of several solids fails due to presence of common zones between faces.
28496	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>BOP Cut</i> failed on two attached faces with error " <code>ErrorStatus : 191</code> ". Related SALOME issue: #23330.
28535	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>BOP Fuse</i> reports " <code>ErrorStatus : 11</code> " on two attached faces. Related SALOME issue: #23380.
28591	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>BOP Cut</i> creates wrong result. Related SALOME issue: #23424.
28661	<i>Summary:</i> [OCCT:Modeling Algorithms] <code>BRepOffsetAPI_MakePipeShell</code> throws an exception <code>Standard_NoSuchObject: NCollection_DataMap::Find</code> .

	Related SALOME issue: #23314.
28692	<i>Summary:</i> [OCCT:Modeling Algorithms] <i>Projection</i> failed (<code>projponf</code>). Related SALOME issue: #23494.
28715	<i>Summary:</i> [OCCT:Data Exchange] Invalid shape produced by reading of attached <i>STEP</i> file. Regression from OCCT-6.9.1 to OCCT-7.0.0. Related SALOME issue: #23425.
28811	<i>Summary:</i> [OCCT:Visualization] Visualization - merge texturing support into <code>AIS_Shape</code> class and get rid of <code>AIS_TexturedShape</code> . Related SALOME issues: #23450, #54211.
28813	<i>Summary:</i> [OCCT:Visualization] Visualization, <code>AIS_ColorScale</code> - color scale title invalid placement. Related SALOME issue: #54211.
28842	<i>Summary:</i> [OCCT:Application Framework] Attribute <code>TNaming_NamedShape</code> is not restored from <code>.sgd</code> document. Related SALOME issue: #23449.
29073	<i>Summary:</i> [OCCT:Modeling Algorithms] Regression: <i>General Cut</i> produces invalid shape. Related SALOME issue: #23470.
29099	<i>Summary:</i> [OCCT:Modeling Algorithms] Extra shapes in result of <i>General Cut</i> (box by ellipsoid). Related SALOME issue: #23480.
29103	<i>Summary:</i> [OCCT:Modeling Algorithms] No intersection curve between faces if starting points are given. Related SALOME issue: #23470.
29179	<i>Summary:</i> [OCCT:Modeling Algorithms] Result of Boolean common depends on an order of arguments Related SALOME issue: #54327.
29234	<i>Summary:</i> [OCCT:Modeling Algorithms] <code>BRepOffsetAPI_NormalProjection</code> produces INTERNAL edges and vertices Related SALOME issue: #23230.
29580	<i>Summary:</i> [OCCT:Modeling Algorithms] Regression: invalid result of BOP Fuse Related SALOME issue: #23331.
29595	<i>Summary:</i> [OCCT:Visualization] Visualization - Wrong validation of Anchor point for Radius Dimension

	Related to SHAPER module.
29363	<i>Summary:</i> [OCCT:Modeling Algorithms] No history for shapes which were produced as a result of intersection Related to SHAPER module.

❖ SUPPORTED DISTRIBUTIONS AND PRE-REQUISITES

SALOME is a cross-platform solution that supports Linux and Windows. It is distributed as open-source software under the terms of the GNU LGPL license.

SALOME comes with the same versions of pre-requisites on all supported platforms (with some minor exceptions). The table below lists the versions of the pre-requisite products used by SALOME platform. Other versions of the products can also work but it is not guaranteed.

Product	Version	KERNEL	GUI	GEOM	SMESH	MED	YACS	PARAVIS	HOMARD	HEXABLOCK	JOBMANAGER	NETGENPLUGIN	GHS3DPLUGIN	GHS3DPRPLUGIN	BLSURFPPLUGIN	HexoticPLUGIN	HEXABLOCKPLUGIN	HYBRIDPLUGIN	GMSHPLUGIN
Gcc*	4.4***	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GNU make*	3.81***	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CMake	3.3.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Python	2.7.10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Qt	5.9.1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sip	4.19.3		X																
PyQt	5.9.0	X	X		X	X		X											
Boost	1.52.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Swig	2.0.12	X	X	X	X	X	X		X	X									
OCCT	7.2.0p3		X	X	X				X	X		X	X	X	X	X	X	X	X
Qwt	6.1.2		X		X														
OmniORB	4.1.6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OmniORBpy	3.6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hdf5	1.8.14	X	X		X														
Med	3.3.1				X	X		X	X										
Vtk	9.0.0		X	X	X	X		X		X		X	X	X	X	X	X	X	X
Numpy	1.12.1		X		X	X		X	X										
Graphviz	2.38.0	X	X	X	X	X	X					X	X	X	X	X		X	X
Doxygen	1.8.3.1	X	X	X	X	X	X					X	X	X	X	X	X	X	X
Netgen	5.3.1											X							
Metis	5.1.0					X													
Scotch	6.0.4					X													
Libxml2	2.9.0	X	X			X	X												
Distene MeshGems	2.6-4												X	X	X	X		X	
Sphinx	1.2.3	X			X	X	X	X	X	X	X								
Libbatch	2.4.0	X																	
Cgns	3.3.1				X														
Paraview	5.4.1p2		X			X		X											
Homard	11.10								X										
Gmsh	3.0.5																		X

*) Linux only
 **) Windows only
 ***) Minimal required version

The following products are not mandatory for SALOME directly; these products are either optional for SALOME or only required to build other pre-requisite products.

Product	Version	Required by	Comment
Babel	2.0	Sphinx	Not used directly by SALOME
Cppunit	1.12.1	KERNEL, MED, GEOM, YACS, HEXABLOCK	Optional
Cython	0.23.2	H5py, Mpi4py, Scipy	Not used directly by SALOME
Distribute	0.7.3	Matplotlib	Not used directly by SALOME
Docutils	0.12	Sphinx	Not used directly by SALOME
Freeimage	3.16.0	Open CASCADE Technology	Optional; not used directly by SALOME
FreeType	2.9.0	Open CASCADE Technology, ParaView	Optional; not used directly by SALOME
Gl2ps	1.4.0	Open CASCADE Technology, VTK, ParaView	Optional; not used directly by SALOME
H5py	2.5.0		Not used directly by SALOME
Intel TBB	4.2.4	Open CASCADE Technology, SMESH	Optional
Jinja2	2.7.3	Sphinx	Not used directly by SALOME
Lapack	3.7.0	Numpy	Not used directly by SALOME
Markupsafe	0.23	Shinx	Not used directly by SALOME
Matplotlib	2.0.2	ParaView	Optional; not used directly by SALOME
Mpi4py	1.3.1		Not used directly by SALOME
Nose	1.3.7	H5py	Not used directly by SALOME
Opencv	2.4.13.5	GEOM	Optional
Openmpi	1.8.5	ParaView, Hdf5, Med, KERNEL, MED	Optional
Paco++	0.5.5	KERNEL	Optional
Pkgconfig	1.1.0	H5py	Not used directly by SALOME
Pygments	2.0.2	Sphinx	Not used directly by SALOME
Pyparsing	2.0.3	Matplotlib	Not used directly by SALOME
Python-dateutil	2.4.2	Matplotlib	Not used directly by SALOME
Pytz	2015.4	Matplotlib	Not used directly by SALOME
Scipy	0.18.1	Matplotlib	Not used directly by SALOME
Setuptools	38.4.0	Sphinx, Matplotlib, Numpy, Scipy, ...	Not used directly by SALOME
Sphinx-inlt	0.9.10	GUI, GEOM, SMESH, MEDCOUPLING	Optional
Sphinxcontrib-napoleon	0.6.1	GUI, GEOM, SMESH, MEDCOUPLING	Optional
Six	1.9.0	Matplotlib	Not used directly by SALOME
Tcl	8.6.0	Open CASCADE Technology, Python	Optional; not used directly by SALOME
Tk	8.6.0	Open CASCADE Technology, Python	Optional; not used directly by SALOME
Tclx	8.4.1	Open CASCADE Technology, Python	Optional; not used directly by SALOME

SALOME depends on 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

Product	Compilation and Development		Execution		Remarks
	Mandatory	Optional	Mandatory	Optional	
Gcc	X		X		
GNU make	X				
Microsoft Visual C++	X		X		For execution, runtime libraries are only required
Boost	X		X		
Cgns		X		X	For SMESH only Required only if used at compilation step
CMake	X				
Cppunit		X			Used for unitary testing
Distene MeshGems suite	X	X	X		Compilation: mandatory for BLSURFPLUGIN only, optional for HEXOTICPLUGIN Runtime: mandatory for BLSURFPLUGIN, GHS3DPLUGIN, GHS3DPRLPLUGIN, HexoticPLUGIN, HYBRIDPLUGIN
Doxygen		X			Needed only for documentation generation
Freetype	X		X		
Freeimage		X		X	Required only if used when building OCCT
Gl2ps		X		X	Required only if used when building OCCT and/or Paraview
Gmsh	X		X		For GMSHPLUGIN only
Graphviz	X		X		In run-time required for YACS only
Hdf5	X		X		
Homard			X		For HOMARD module only
Intel TBB		X		X	Required if used when building OCCT and/or if used to build SMESH
Libbatch		X		X	Required only if used at compilation step for KERNEL
Libxml2	X		X		
Matplotib				X	Required only if used when building ParaView
Med	X		X		
Metis		X		X	Required only if used at compilation step for MED
Netgen	X		X		For NETGENPLUGIN only
Numpy (+ Lapack)		X		X	Required by MED
Omniorb	X		X		
Omniorbpy	X				
OCCT	X		X		
Opencv		X		X	Required only if used at compilation step for GEOM
Openmpi		X		X	Required only if used when building SALOME and/or pre-requisites
Paco++		X		X	Required only if used at compilation step for KERNEL
ParaView	X		X		Mandatory for PARAVIS module; optional for GUI module
Pyqt	X		X		
Python	X		X		
Qt	X		X		
Qwt	X		X		
Scotch		X		X	Required only if used at compilation step for MED
Sip	X				
Sphinx		X			Needed only for documentation generation
Swig	X				
Vtk	X		X		

❖ SYSTEM REQUIREMENTS

Minimal Configuration:

- Processor: Pentium IV
- RAM: 512 MB
- Hard Drive Space: 3 GB
- Video card: 64 MB

Optimal Configuration:

- Processor: Dual or Quad Core
- RAM: 4 GB
- Hard Drive Space: 5 GB
- Video card: 512 MB

❖ HOW TO GET THE VERSION AND PRE-REQUISITES

Sources of SALOME 8.5.0 can be retrieved from the Git repositories using V8_5_0 tag; the complete list of repositories can be found at <https://git.salome-platform.org/gitweb/>.

All pre-requisites can be obtained either from the Linux distribution (please be sure to use a compatible version) in form of native package or from the distributors of these pre-requisites.

Note: SALOME version 8.5.0 patches some third-party pre-requisite products, such as ParaView, Netgen, Open CASCADE Technology and other. These patches solve different problems and introduce some specific features needed for SALOME project.

❖ LICENSE

SALOME platform is distributed under terms of the GNU Lesser General Public License (LGPL) license version 2.1. All used pre-requisites use similar or compatible licenses (with minor exceptions). Detail information about licenses used by SALOME and its pre-requisites can be found on the following page: <http://www.salome-platform.org/downloads/license/>.

See also “*License restrictions*” paragraph above.

❖ KNOWN PROBLEMS AND LIMITATIONS

- On KDE 5 Plasma desktop a contextual menu (e.g. in Object Browser or 3D viewer) occasionally does not appear. The workaround consists in disabling "Compositor" effects in KDE settings: for that uncheck "System settings" → "Display and monitor" → "Compositor" → "Enable compositor on startup" checkbox.
- The following modules are obsolete and not included into this SALOME release: FILTER, SUPERV, MULTIPR, VISU (Post-Pro). These modules are considered obsolete and not supported anymore.
- Application crash might occur on the data publication in the study if both data server and CPP container are running in the standalone mode.
- On some platforms the default font settings used in SALOME might cause bad application look-n-feel. This problem can be solved by changing the font settings with `qtconfig` utility included into the distribution of Qt.
- 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.
- SALOME in general supports reading of documents from earlier versions but the documents created in the new version may not open in earlier ones. However, some studies may work incorrectly in SALOME 8x; mainly it concerns studies with Post-Pro data in which med v2.1 files have been imported. Due to removal of med v2.1 support and deprecation of Post-Pro module in SALOME series 8x, there can be problems with opening of such studies in SALOME.
- 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.
- Compilation of OCCT by Makefiles on a station with NVIDIA video card can cause 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 using the following commands (note: you need root permission to do this):


```
ln -s /usr/lib/libGL.so /usr/X11R6/lib/libGL.so
ln -s /usr/lib/libGL.la /usr/X11R6/lib/libGL.la
```
- Stream lines presentation cannot be built on some MED fields due to limitations in VTK.
- 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.
- When generating a 2D mesh with "Maximum Area" hypothesis used, MEFISTO algorithm can produce cells with maximum area larger than specified by the hypothesis.
- For the current moment, because of the ParaView application architecture limitations, PARAVIS module has the following known limitations:
 - PARAVIS module works unstably using a remote connection; when SALOME is running on a remote computer, activation of PARAVIS module can sometimes lead to the application hang-up.
 - Different visual artifacts may take place in ParaView or VTK viewer when using a remote connection; this is a limitation of indirect rendering: ParaView uses OpenGL 2.0 backend which some features are not supported by indirect rendering.
 - PARAVIS module compilation can fail on 64-bit platforms when building ParaMEDCorba plugin (due to crash of `kwProcessXML` tool during generation of the plugin documentation).

In such case it is necessary to unset `VTK_AUTOLOAD_PATH` environment variable and restart the compilation, for example:

```
[bash%] unset VTK_AUTOLOAD_PATH
```

- Loading big files in ParaVis might render SALOME instable. This problem is expected to be fixed in one of the next releases; it can be temporarily avoided in the current version by applying one of the two solutions below:
 - In ParaVis settings (ParaVis tab), disable the use of the external `pvserver`. This approach has the limitation that it is not possible to execute ParaVis' Python scripts outside the SALOME graphical interface (for instance, from an external terminal).
 - In ParaVis settings (ParaView tab → RenderView tab), increase the amount of memory under "Remote/Parallel rendering options" to something bigger than the default 20 MB (for example 200 MB).
- ParaVis module executes ParaView-related code in the standalone `pvserver` process that is launched with `--offscreen-rendering` option; this can cause problems with displaying data in ParaVis module if graphic card driver does not support off-screen rendering feature.
- Med library (`medfichier`) can read only MED files of version 2.2 and newer.