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PYTHON 3



- ▶ **Prerequisites** : Paraview 6 (end of 2017) will drop python 2 support
- ▶ Python 2 countdown is started
- ▶ Main components will be revised in 2017
- ▶ Users will have to **revise their own scripts**
 - Migration guide will be provided to help with this transition



DOCUMENTATION

▶ Today

- ▶ Ageing pages
- ▶ Missing high level information

▶ SALOME tool choices

- ▶ Doxygen for code
- ▶ Sphinx for the rest



▶ A current action revised the structuration of the documentation

- ▶ Users manual
 - ▶ Especially for casual users
- ▶ FAQ & HOW TO
 - ▶ How to build an application
 - ▶ How to develop in the platform
- ▶ References
 - ▶ API documentation
- ▶ Technical
 - ▶ Architectural documentation
- ▶ Quality
 - ▶ Validation process

DATA MODEL FOR APPLICATION BASED ON SALOME

Roadmap

- 2014 : feedback on :
 - XDATA tool from CEA
 - EFICAS tool from EDF
- 2015 : 2 ways to define a data model
 - Declarative way based on “XSD” schema
 - Programming way based on class derivation
- 2016 : Prototyping these 2 solutions
 - EDF : experiment a “XSD” schema
 - CEA : on the last JUS for the programming way

“Design and analysis of numerical experiments with SALOME and URANIE as prerequisite”
- 2017 : Design first applications

The screenshot shows the SALOME V7.7.0 interface with the 'Convection' application selected. The 'Object Browser' displays a tree view of the data model for a 'myOffice' scenario. The tree is expanded to show the 'convector' object, which includes parameters for 'Where', 'Size', and 'Physic'.

Data Model	Value	Parametric
Office	myOffice	
room		
Where		
Size		
door		
Where		
Width		
Height		
window		
Where		
Width		
WX	1.75	
WY	0.0	
WZ	0.0	
Height		
HX	0.0	
HY	0.0	
HZ	0.9	
Physic		
Exchange coef	30.0	law=uniform min=10.0 max=70.0
External temperature	10.0	law=uniform min=-10.0 max=+10.0
convector		
Where		
Size		
DX	0.9	
DY	0.15	
DZ	1.1	
Physic		
Power	500.0	law=uniform min=200.0 max=400.0
Meshing		
Mesh size	0.05	
Sensor		
SONDE_X	0.730268	
SONDE_Y	1.31915	
SONDE_Z	1.0	
General		

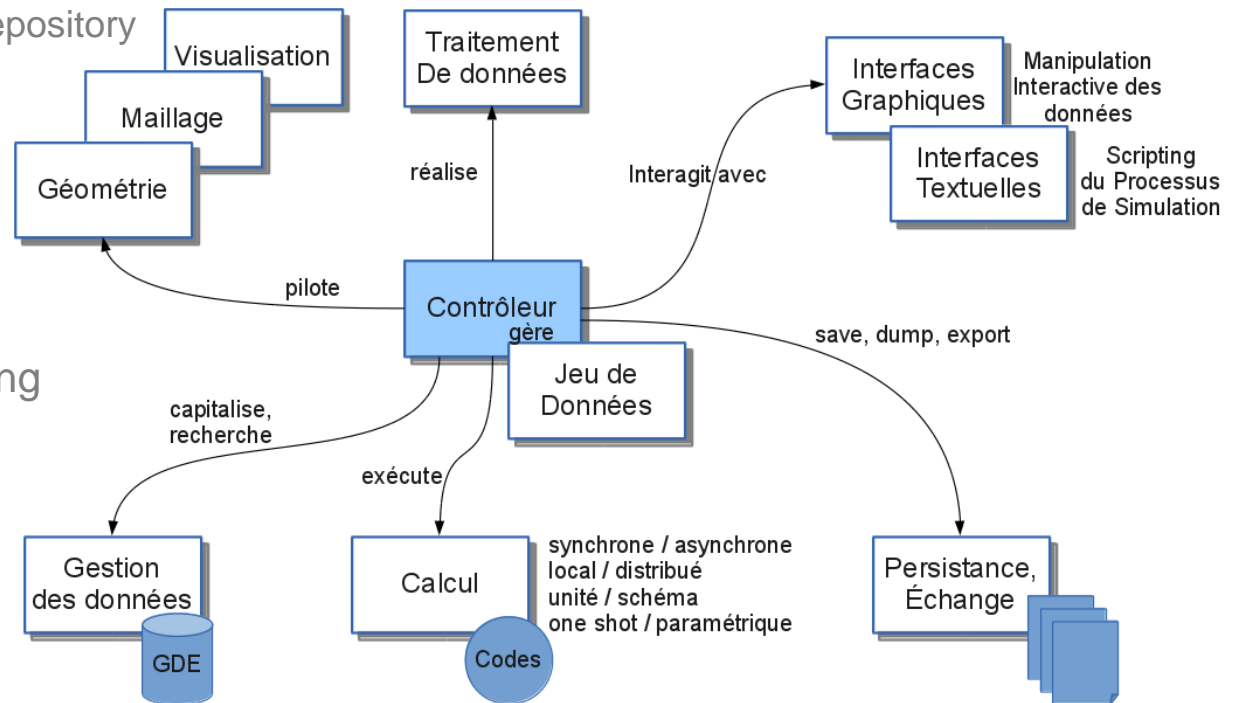
MODULARITY

Goals

- ▶ SALOME as a set of libraries (API definition)
- ▶ SALOME as a set of standalone applications (standard file exchange)
- ▶ SALOME as a platform for integrating applications (tools to help integration)

Roadmap

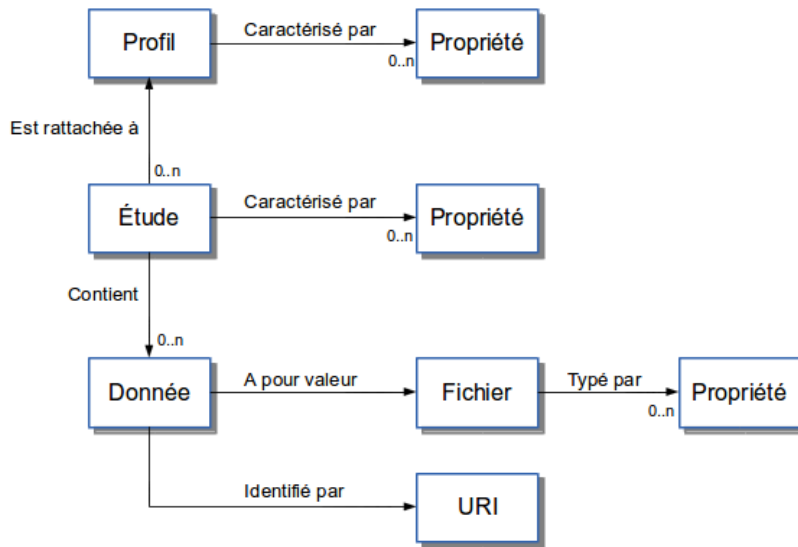
- 2016 : first set of tools
 - MEDCoupling : its own repository
 - Curve plot
 - Python Console
- 2017 : second set of tools
 - 2D views
 - 3D views
 - Distribution as a service
- 201x : Incrementally working



DATA STUDY MANAGER (GDE)

Roadmap

- 2016 : technical basis development
- 2017 : proof of concept by 2 use cases to build
- 2018 : first release



Class diagram

GDE Study User: admin

Liste des études

Id	Name
10312	Etude de la température d'un ressort 1
10355	Etude de la température d'un ressort 2
10398	Etude de la température d'un ressort 3
10484	Etude de la température d'un ressort 4
10527	Etude de la température d'un ressort 5
10617	Etude de la température d'un ressort 6
10938	Nouvelle étude de la température d'un ressort
11738	Etude d'un ressort
11913	Encore une nouvelle étude
12319	New Study 2
12409	Another study
12533	encore une nouvelle étude

Nom de l'étude
Etude de la température d'un ressort 4

Liste des attributs

Name	Value
temperat...	234.9
objet	mesure de temperature
Code utilise	CASTEM
contexte	ASTRID

Add Attribute Edit Attribute Delete Attribute

Liste des fichiers

Name	Value
▼ CahierDesCharges_Ressort.pdf	
extension	pdf
directory	/export/home/bernar...
type	cahier des charges
▼ Specifications_Ressort.docx	
extension	docx
type	specifications
directory	/export/home/bernar...
▼ piece.brep	
extension	brep
type	geometrie
directory	/export/home/bernar...
▼ piece.med	
type	maillage
directory	/export/home/bernar...
extension	med
▼ castem.dgibi	
extension	dgibi
type	jeu de donnees
directory	/export/home/bernar...
▶ castem.med	
▶ castem.sauv	

Add File Edit File Delete File

Cancel Save

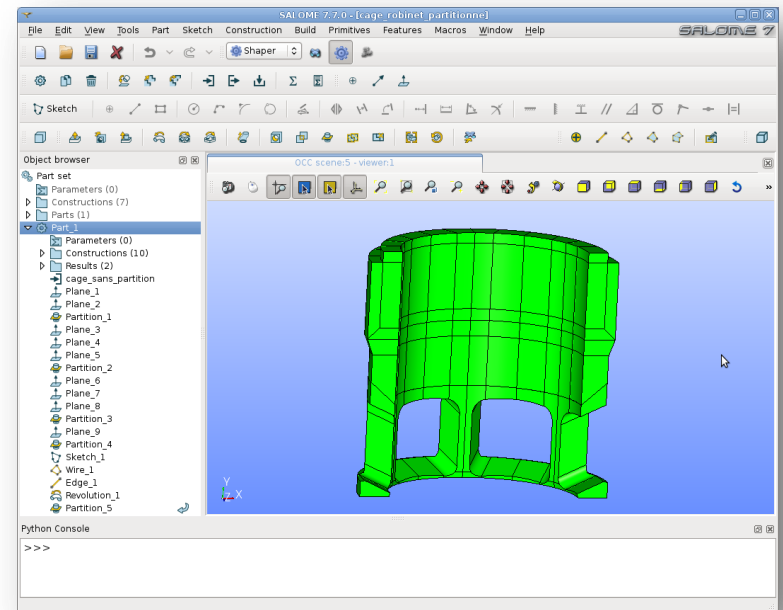
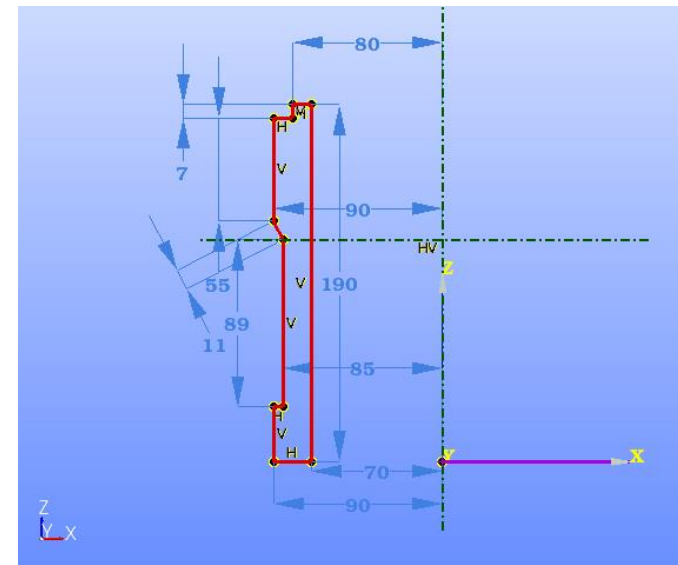
SHAPER

▶ SHAPER 2.6.0

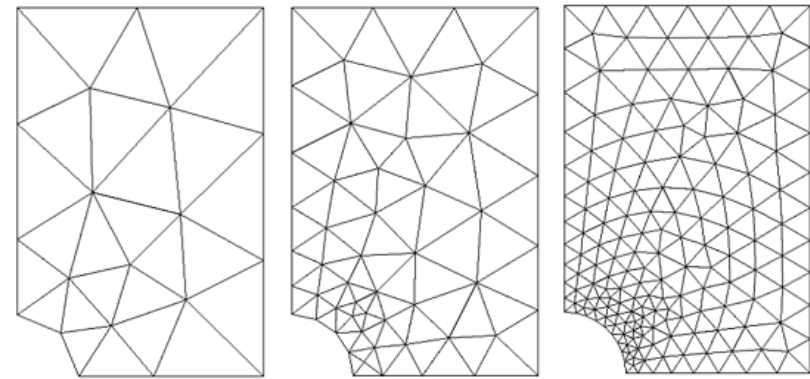
- This version can produce industrial shapes
- 3D constraints solver: FreeCGS from FreeCAD
- Scripting available
- Easing the transition
 - GEOM functionalities are covered
 - Shaper will be compatible with today's scripts

▶ Perspectives

- First release, schedule in 2018
- 2017 will be dedicated to bring the latest features and tests to the module



SMESH



► Roadmap

- 2016 : a performance specification is ready. **A factor 2 already earned.**
- 2017 : first improvement stage and performance evaluation
- 2018 : second improvement stage will allow large mesh handling : **50 000 000 cells** on local workstation

► And future work

- Deeper relationship between SHAPER and SMESH
- **SMESH flexible** like SHAPER (parametrization)
- Improvements on hexaedral meshes generation

Thank you for your attention

