Open-source distribution of Salome-Meca

Code_Aster, Salome-Meca course material
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Open-source distribution of Salome-Meca

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The release policy and supported Operating Systems
Release of code_aster

Four different versions are available:

- **stable**: this is the production version used by EDF for its industrial studies. It is released every six months.
- **stable-updates**: these are transient states between two stable releases. They include only bug fixes.
- **testing**: this is a snapshot of the development version. It is released every six months.
- **unstable**: this is the version that integrates improvements. It is updated daily.

Current state for September 2017

Version 13.4
Version 13.4.x
Version 14.0
Version 14.0.x
Release of Salome-Meca

- One version each year (summer) containing:
  - The stable version of SALOME at the date of release
  - The stable version of code_aster at the date of release

- Salome-Meca is the privileged way for the dissemination of code_aster
  - But code_aster may also be installed as a stand-alone application

- The current version is Salome-Meca 2017
  - code_aster 12.8 and 13.4
  - SALOME 8.3.0
Supported Operating Systems

- **Binary distribution of Salome-Meca**
  - As a “monolithic" universal archive
  - Works on most of 64-bit Linux distributions (recent enough)
  - Straightforward installation

- **No binaries for Windows**

- **Source version of code_aster**
  - The compilation and installation procedures for the prerequisites and the solver are provided
  - Easy with most Linux distributions (32 or 64 bits)

- **Other possibilities (not supported by EDF)**
  - Stand-alone SALOME ported to Windows ([www.salome-platform.org](http://www.salome-platform.org))
  - code_aster ported to Windows ([https://code-aster-windows.com](https://code-aster-windows.com)), Mac OS X (see the Forum)
Where to find information?
The web portal www.code-aster.org

Access to all documentations of Code_Aster

- U documents: Usage
  - Using the commands
  - Methodological documents
  - Documents for getting started:
    - [U1.00.00] Getting started with Code_Aster
    - [U1.02.00] Introduction to Code_Aster
    - [U1.03.00] The main principles of operation of Code_Aster
    - [U1.05.00] A simple example of use

- V documents: Verification
  - One test-case = one V document
  - Description of the problem and the reference solution

- R documents: Theory
  - Theory related to methods and algorithms of the code

Communication

- News, newsletters, tweets

Follow us on Twitter @CodeAster
Learning to use code_aster

Educational resources

- Course materials available on www.code-aster.org
- Tutorials available through the tests FORMA*** and their documentation
- In general, all test cases
- [U1] documents for getting started with the software

Training and other supports

- See service offering from various companies of the code_aster Professional Network: http://www.code-aster.org/spip.php?article276

Mutual support from the community in the forum
Tools for the community
The forum

The forum is

- A place of exchange and mutual assistance for code_aster users
- Exchange of best practices, tips, sharing of experience

The forum is not

- A technical assistance that commits itself on the response time. Everyone is free to participate, respond or not.
- A support service as the one provided by a vendor. For professional support services, there are providers that offer this kind of service.

Recommendations

- Please do not directly contact the code developers.
- The documentation is very rich, take time to look for information before asking in the forum.
- Be specific in your questions, do not multiply the issues in the same post and attach all files to the post in order to rerun the case.
- Add [SOLVED] at the top of your subject to indicate that the forum has answered your question.
- Thank you for contributing to the forum and helping others!
The professional network code_aster ProNet

**Aims**
- Create multilateral exchange between institutions (companies, academics), of higher quality than the public and anonymous forum
- Increase the visibility of members on their work and their uses
- Group and structure the service providers offering
- Increase the possibilities of cooperative developments

**Various profiles:** industrials, academics and service providers

**More information on the website, in the ProNet section**
The Salome-Meca Users Day

- Every year around mid-March
- Presentation of studies done at EDF with Salome-Meca
- Event open to all!
  - Opportunity to discover advanced uses of the code in the simulations carried out at EDF and other companies
  - Opportunity to meet the development team
- Presentations from previous years are available on the website (mostly in French)
  - Tab Presentation / Examples of studies
EDF intents for the open-source distribution
EDF intents for the open-source distribution

Improving the codes

- By demultiplying the number of users
  - 300 EDF in-house users
  - 2000 downloads of each biannual release + uncontrolled redistribution

- By collecting feedback from them (when they agree to). For instance:
  - Benchmarks
  - Validation (Limits of the validity of models for instance)
  - Bug reporting (or errors / inaccuracies in the documentation)
EDF intents for the open-source distribution

Improving reputation through increased use

- Peer recognition
  - Disseminating the code as open source is the software equivalent to publication with peer-review for research
  - Important way of communication and reputation improvement for EDF R&D

- Facilitating the dissemination and acceptability of methods and models developed by EDF
EDF intents for the open-source distribution

Dissemination of skills

Through education and research

- For training students: addressing realistic cases with professional tools
- For Ph.D projects: providing industrial non-commercial tools with FEM basic and advanced features already available and the capability to capitalize research works. Facilitate upstream transfer from research to industry
- Having a pool of students and graduates already trained with EDF tools

By creating an eco-system of skills among our service providers and partners

- **Interest for providers**: offer them the opportunity to sell their skills on a broader basis than just the EDF contracts
- **Interest for EDF**: ensure that our studies suppliers are even more effective and relevant
End of presentation

Is something missing or unclear in this document? Or feeling happy to have read such a clear tutorial?

Please, we welcome any feedbacks about Code_Aster training materials. Do not hesitate to share with us your comments on the Code_Aster forum dedicated thread.