

Note of use of the Europlexus module

Summary:

This documentation describes the use of the MODule Europlexus of Salomé-Meca.

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1 Presentation

1.1 Tally general

Salomé is the platform pre-post treatment and of coupling of codes of EDF R & D. It is organized around modules which provide various services (see Figure 1.1-a). As follows:

- 1) the services of generation of geometries are ensured by the module *GEOM* ;
- 2) the services of grid are ensured by the module *SMESH* ;
- 3) the services of postprocessing are ensured by the module *VISU* ;
- 4) the services of coupling of code are ensured by the module *YACS*.

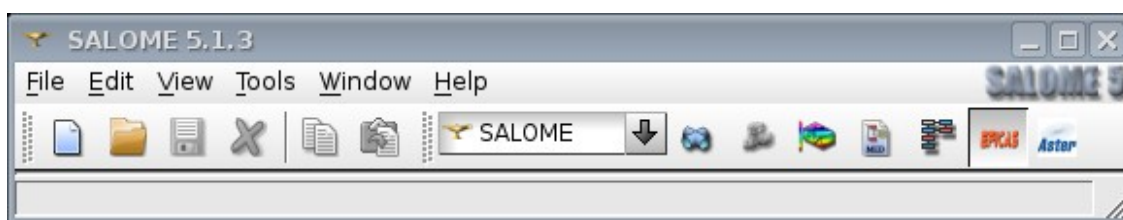


Figure 1.1-a - Modules of Salomé

Same manner, the integration of the code of resolution in mechanics *Europlexus* in Salomé passes by a module: the module *EUROPLEXUS* of Salomé-Meca. The object of this document is the presentation of its features.

1.2 Module *EUROPLEXUS*

When the user clicks on the icon representing the *Europlexus* module of Salomé-Meca, these specific icons appear in the graphic interface (Figure 1.2-a).

- 1) *Manager of studies* : it is about a manager of studies in the case of calculations with as starter that a command file and a file of grid.
- 2) *Definition of the solveurs* it acts of the definition of the waiters and achievable of the code *Europlexus*.

These features are accessible:

- 1) by the menu;
- 2) by the icons which represent them;
- 3) by contextual menu: in the tree of objects of Salomé appear, when they are created, of the objects attached to the *Europlexus* module. By selecting these objects and, by click-right, one reveals a particular menu dedicated to the nature of the selected object.

In the continuation these various features will be detailed.

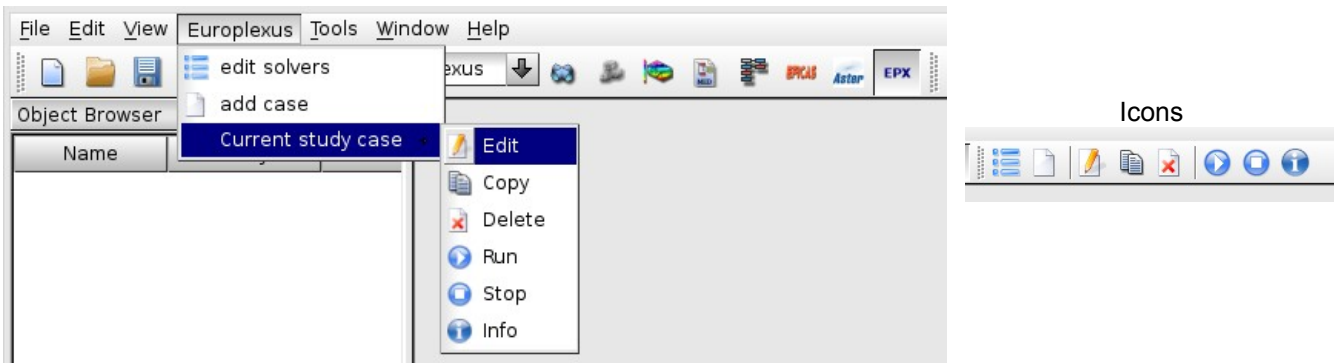



Figure 1.2-a – Finely and icons

2 Interaction with the manager of studies

2.1 Setting in data

It is possible to simply define a study thanks to the manager of studies. He is accessible:

- 1) by the menu Europlexus Puts > New;
- 2) by the icon .

One can thus define a study taking as starter a command file and a grid (Figure 2.1-a). This last can be indicated:

- 1) by selection in the tree of objects of Salomé when one chooses 'from object browser' ;
- 2) by opening of a browser of file when one chooses 'from disk' .

In the case of the selection of the grid in the tree of objects Salomé, a file of grid to the format MED will be created during calculation in the repertoire of work.

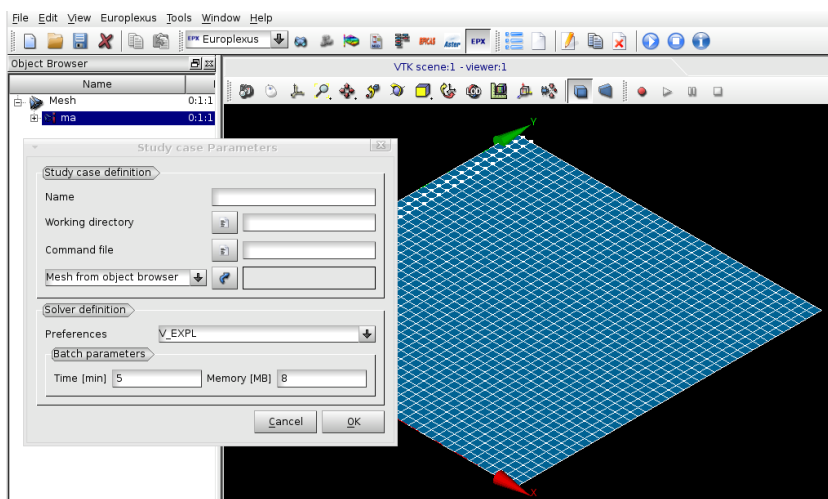


Figure 2.1-a - Use of the manager of studies

One can also modify the parameters of execution of calculation:

- 1) solver;

- 2) memory, time.

The repertoire of work is created with the name of the case by default in the directory of the command file or at the place specified by the user.

Once the user clicks on OK, a calculation case *Europlexus* is created in the tree Salomé (Figure 2.1-b)

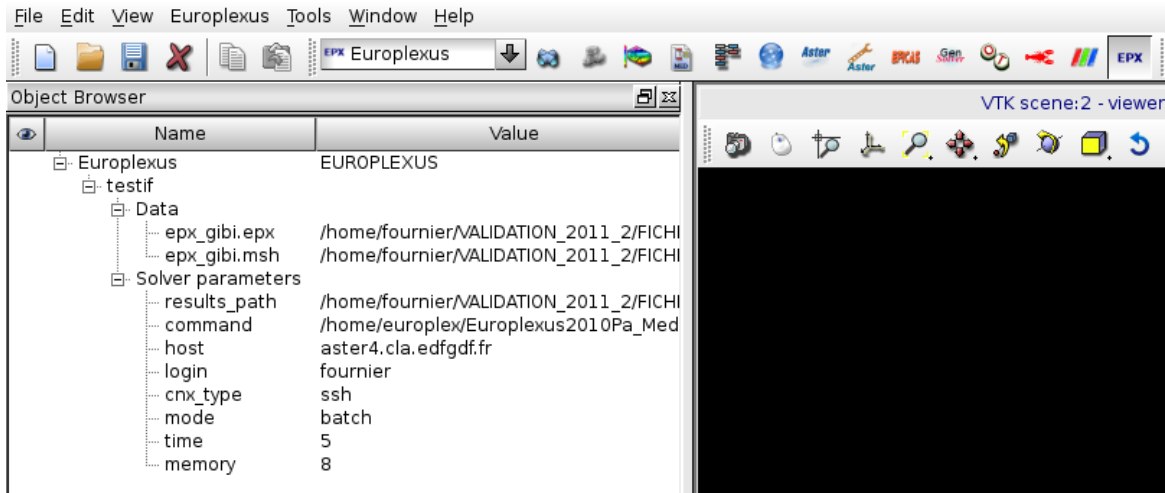




Figure 2.1-b - Calculation case *Europlexus* before resolution

2.2 Resolution

Calculation can be launched:

- 1) by small Europlexus `box > Solve` ;
- 2) by selecting the object in the tree of study and by choosing the operation `Solve`  in the contextual menu (click-right).

This calculation can be stopped:

- 1) by small Europlexus `Box > Stop`
- 2) by selecting the object in the tree of study and by choosing the operation `Stop`  in the contextual menu (click-right).

Once completed calculation, of new entries appear in the Results field of the Europlexus object of the tree Salomé (Figure 2.2-a):

- 1) the file of follow-up of calculation (listing)
- 2) files of follow-up of jobs in the case of a calculation batch (bjob*);
- 3) files of possible results (.alt, .ps);
- 4) the file of postprocessing to the format `MED .rmed` if the study generates one of them. It should be noted that a link towards this file appears in the module `POST-PRO`.

The result can then be post-treaty in the module `POST-PRO` of Salomé.

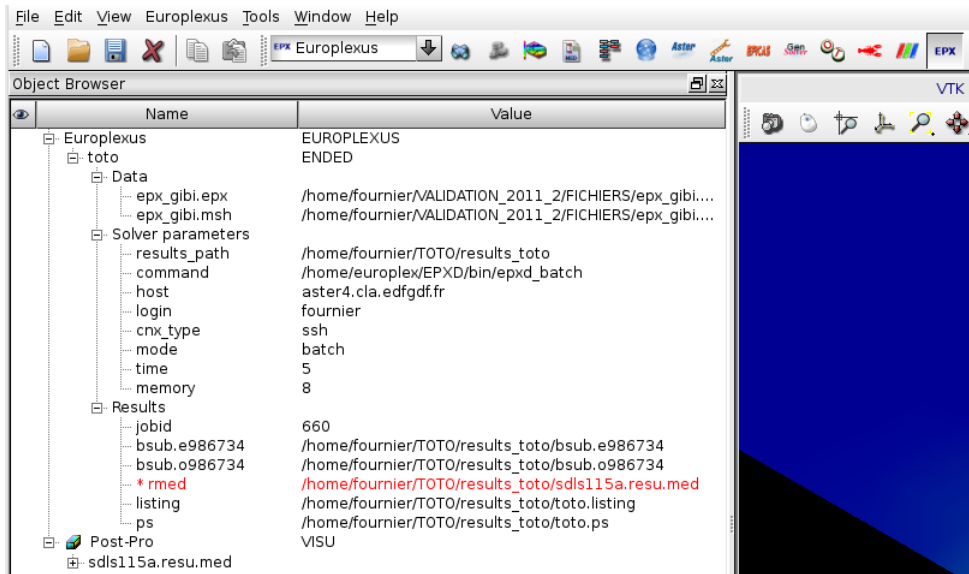



Figure 2.2-a - Calculation case Europlexus after resolution

3 Definition of the solvers

3.1 Presentation

The list of the solvers is accessible since the Europlexus module from Salomé:

- 1) by the menu **U** Europlexus > Edict solvers ;
- 2) by the icon  .

This list of solvers (Figure 3.1-a) presents the name, the way of achievable, the waiter, the login and the type of connection for each solvers.

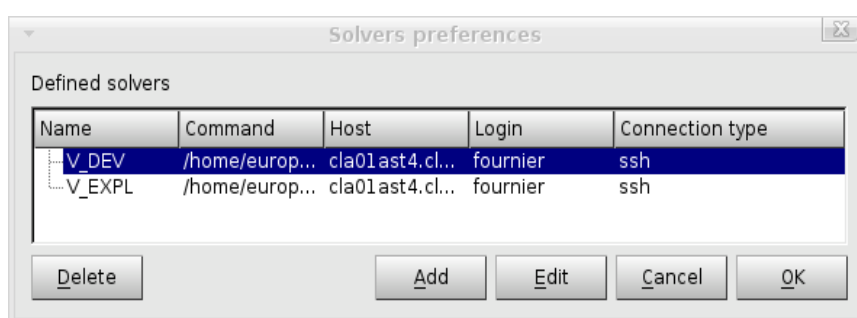


Figure 3.1-a - List of the solvers

The user can remove a solver. If the list does not introduce any solver, it is reset with the values by default.

The user can add or modify a solver (Figure 3.1-b). It indicates in addition to the parameters which appear in the list if the waiter is local or not and if the achievable one is with being launched in batch mode or not. Once the user clicks on OK, a checking is made to test if the solver exists and is accessible.

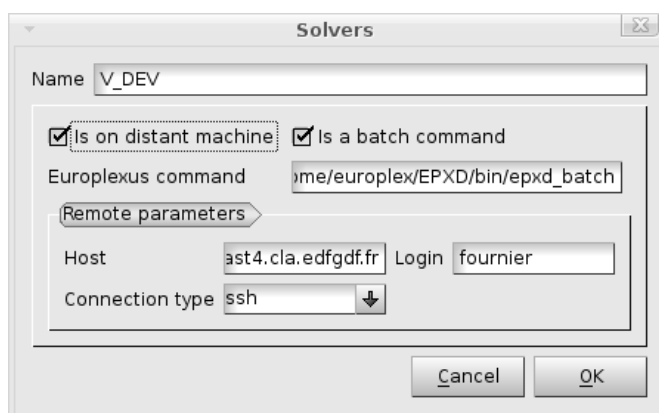


Figure 3.1-b - Modification of a solver