Case: test 3

Initial stage: make a working directory, for example /tmp/test_3 Note: when no precision is given, let the default values.

1 Creation of the case

HOMARD menu, tab « New case »

In this new window:

- Directory: select the working directory created above
- Mesh: select the file test 3.00.med
- Check the option « Discrete Boundary »

The list « Discrete Boundary » is empty. Click New.

In this new window:

- Name: modify the default value by giving courbes
- Mesh: select the file test 3.fr.med

Validate the creation of the boundary by the button « OK ». Back in the window for the creation of a case, the boundary courbes is added to the list of the discrete boundaries.

• Check the option « Analytic Boundary »

Here is a table with a single column that contains the list of the groups of th einitial mesh: END_1 , END_1 _A, END_1 _B, ... Click New.

In this new window:

- Name: give cyl ext
- X centre: modify the default value by giving 50.
- Y centre: modify the default value by giving 25.
- Z centre: modify the default value by giving -25.
- X axis: modify the default value by giving 1.0
- Y axis: modify the default value by giving 0.0
- Z mini: modify the default value by giving 0.0
- Radius: modify the default value by giving 100.

Validate the creation of the analytical boundary by the button « OK ». The column cyl_ext is added to the table; check the cell of the group EXT.

Add a new boundary, clicking $\ensuremath{\mathtt{New}}.$

In this new window:

- Name: give cyl int
- X centre: 50.
- Y centre: 25.
- Z centre: -25.
- X axis: 1.0
- Y axis: 0.0
- **Z mini**: 0.0
- Radius: 50.

Validate the creation of the analytical boundary by the button « OK ». The column cyl_int is added to the table; check the cell of the group INT.

Add a new boundary, clicking New.

In this new window:

- Check the icon of the sphere
- Name: give sphere_1

X centre: 50.
Y centre: 25.
Z centre: -25.
Radius: 50.

Validate the creation of the analytical boundary by the button « OK ». The column <code>sphere_1</code> is added to the table; check the cell of the group <code>END 1</code>.

Add a new boundary, clicking New.

In this new window:

Check the icon of the sphere

• Name: give sphere 2

X centre: 450.
Y centre: 25.
Z centre: -25.
Radius: 50.

Validate the creation of the analytical boundary by the button « OK ». The column <code>sphere_2</code> is added to the table; check the cell of the group <code>END 2</code>.

Validate the creation of the case by the button « OK ».

The case $Case_1$ and the initial iteration MOYEU are included in the object browser. In the SMESH module, the meshes MOYEU and Courbes are included with an icon « Imported mesh ». A new tab Boundaries is added to the object browser with all the created boundaries.

2 The first iteration

Creation of a new iteration

Select with the mouse (left) the initial iteration MOYEU, then (right) select the tab « Next iteration »

In this new window:

- Mesh n+1: modify the default value by giving MOYEU 1
- Click « Hypothesis / New »

Creation of the first hypothesis

In this new window:

Give the name Hypo

Validate the creation of the hypothesis by the button « OK ». The window of the creation of a new iteration is back. The hypothesis Hypo is included in the list of hypotheses

Validation of the iteration

Validate the creation of the iteration by the button « OK ». Under the case $Case_1$, the iteration $Iter_1$ is added to the object browser with an icon meaning that the iteration is not computed. The hypothesis Hypo is added under the tab Hypotheses in the object browser.

Compute the iteration

With the mouse, select the iteration Iter 1, then select the tab « Compute ».

The icon of the iteration ${\tt Iter_1}$ means that the iteration is computed. Under the iteration, the object browser grew rich of three files: both first ones are files text, being able to be displayed by the choice « ${\tt Show}$ file »; the third is the file med, containing the produced mesh, for information.

In the module SMESH, the mesh MOYEU 1 appears with the icon of a produced mesh.

3 The second iteration

Select with the mouse the iteration Iter 1, then select the tab « Next iteration »

In this new window:

• Mesh n+1: modify the default value by giving MOYEU_2

Validate the creation of the iteration by the button « OK ». Under the case $Case_1$, the iteration $Iter_2$ is added to the object browser.

With the mouse, select the iteration $Iter_2$, then select the tab « Compute ». The same comments as for Iter1.

4 Controls

Set apart date, the file that is produced in the working directory 102/apad.02.bilan must be identical to the file test 3.apad.02.bilan which is in the reference directory of the cases-tests.

If a dump python is made, the produced file must be similar to the file $test_3.py$ which is in the reference directory of the cases-tests.

State of the window Salome at the end:

