

ZZZZ331 - Validation of the definition of characteristic of hulls/gridS by functionS space.

Summary:

This test validates the creation of the characteristics of hulls and grids by functions of space. The functions are evaluated in the centre of gravity of the mesh, that can concern:

- for the hulls: the thickness, offsetting.
- for the grids: the section, offsetting.

1 Problem of reference

One reads a grid, one creates 3 functions which define:

- for the hulls
 - the thickness : $epais = 0.001 \times Z$
 - offsetting : $decal = 0.002 \times Z$
- for the grids
 - the section : $section = 0.001 \times Z + 0.001 \times X \times Y$
 - offsetting : $excent = 0.002 \times (Z + X + Y)$

2 Reference solution

2.1 Method of calculating used for the reference solution

The coordinates of the nodes, the functions are known. The reference solution is thus known.

2.2 Results of reference

One evaluates the functions in the centre of gravity of all the meshes

2.3 Uncertainties on the solution

No uncertainty.

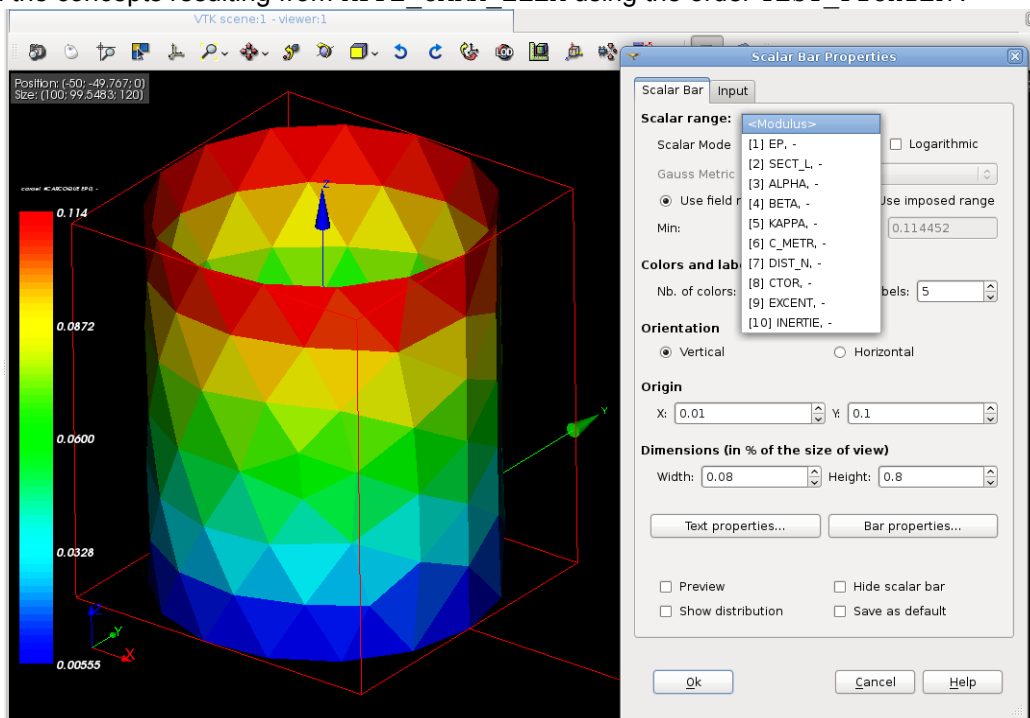
3 Modeling A

3.1 Characteristics of modeling

Grid of a cylinder, basic circular of ray 50m , height 120m .

3.2 Values tested

Test on the concepts resulting from AFFE_CARA_ELEM using the order TEST_FICHER .



The figure above (obtained with Salomé) represents the thickness of the hull. This sight is carried out by post-treating the file MED obtained with the order IMPR_RESU/CONCEPT .