

CODE C3D

C3D is a finite element code for the numerical simulation of the eddy current inspection of steam generator tubes. The model is fully 3D and is capable to model the straight and expanded section of SG tubes, as well as their environment, such as anti-vibration bars or support plates. The code is also able to model deposits on tubes, and to simulate any kind of defect geometry. As opposed to general purpose codes, C3D comes with a comprehensive probe library, including bobbin probes, differential probes, and multiple bobbin probes. A dedicated graphical user interface facilitates the creation of configurations and hides part most of the complexity usually involved in finite element codes. The code is available as a web service.

Information à insérer dans le bouton READ MORE :

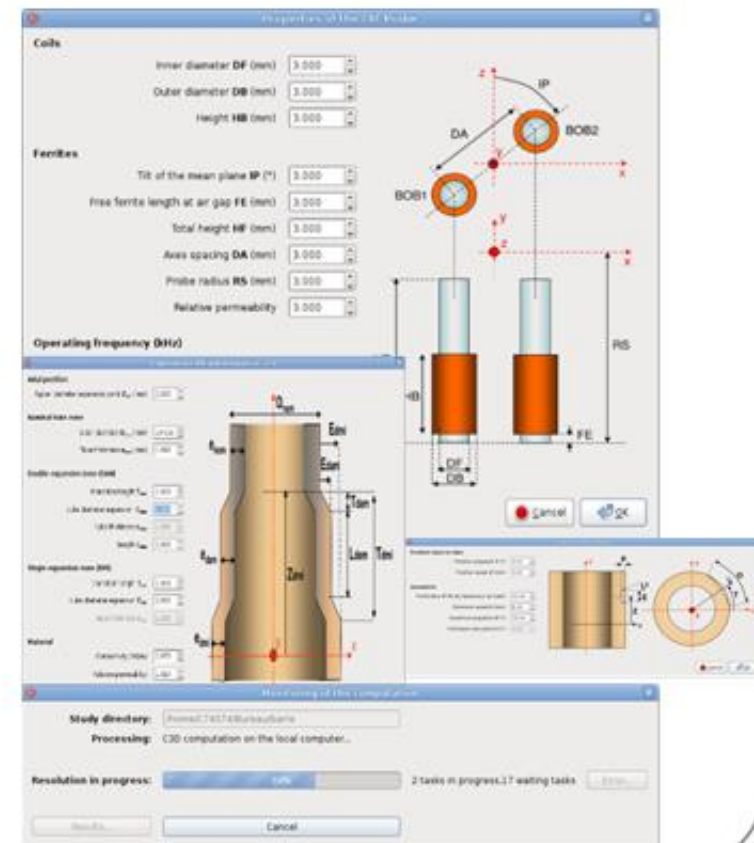
Modeling

Eddy Current modelling: C3D

- Finite Elements code developed by EDF
- Axial and rotating probes, multi-bobbin probes
- Straight nad expanded sections of SG tubes, including environment (support plates)
- Available as a web service
- Equiped with a NDT dedicated interface

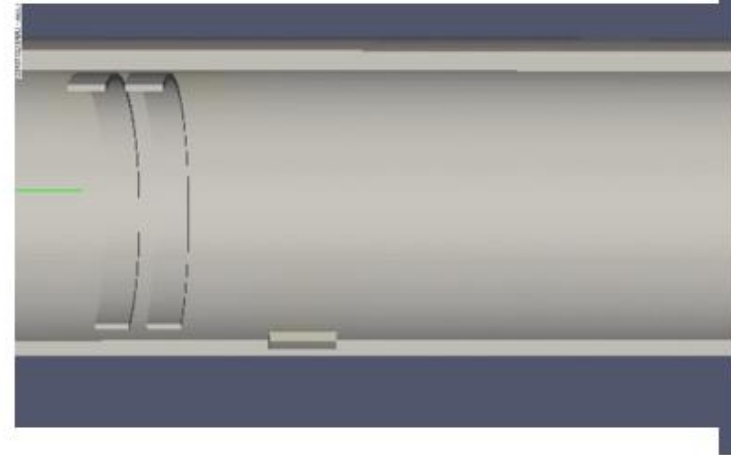
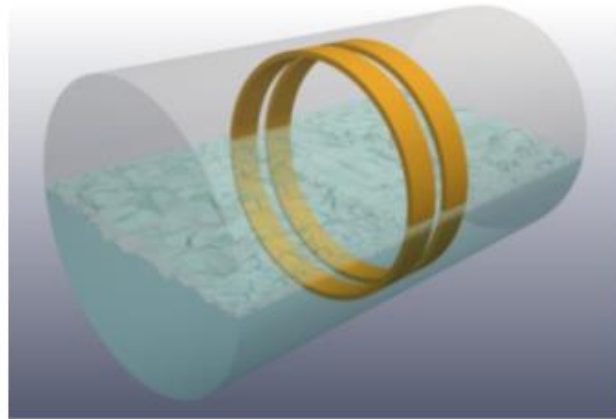
■ Release 3 « C3D-CND » (2016)

- CND oriented GUI in QtPy
- Hidden SALOME calls
- Hidden cluster calls



Examples of axial probes

- **SAX** : quick detection of all types of defects



- **SMX** : localization of all types of defect

