Electromagnetic Simulation Tool Features Hysteresis Solver Option

Cobham Technical Services is releasing a new version of its Vector Fields Software tool for designing rotating electrical machinery. The electromagnetic simulation software combines the accuracy of virtual prototyping using finite-element analysis with a rapid front-end design tool that allows users to create models of motors and generators in minutes. Several new modeling elements are being added to accelerate the design process. The company is also showing an optional new hysteresis solver for soft magnetic materials that provides an accurate means of accounting for losses and predicting performance changes due to hysteresis effects in the specialty electrical steels that are increasingly being used to enhance machine efficiency. The software is an application-specific toolbox for the Opera Vector Fields Software package, and provides a front-end to the electromagnetic simulator that speeds the creation of design models by means of 'fill in the blanks' dialog boxes. Users select the form of motor or generator they want to design from a list of all common types. By simply entering a list of parameters to define mechanical geometry, material properties and electrical data, a model is automatically created and post-processing performed. The package comes with templates for a broad range of common rotating machinery including motor types such as AC induction, brushless, permanent magnet and switched reluctance, plus synchronous motors or generators. Within these basic equipment types, users can choose from a wide selection of component geometries and other options to create their design.

Cobham Technical Services
(630) 851-1734, www.cobham.com/technicalservices [1]

Source URL (retrieved on *09/02/2014 - 7:03am*):
http://www.ecnmag.com/product-releases/2009/05/electromagnetic-simulation-tool-features-hysteresis-solver-option?qt-recent_content=0

Links:
[1] http://www.cobham.com/technicalservices