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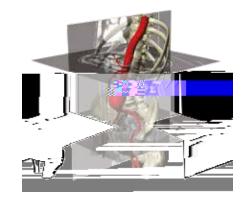
Simpleware software provides solutions for generating high-quality models from 3D image data (MRI, CT, micro-CT, FIB-SEM...) for direct export to Abaqus software for very realistic simulations. This solution is smooth and robust for workflows using complex image data, and opens up a wide range of applications for Abaqus users needing a straightforward route from scan to CAD, FEA and CFD.

Simpleware Key Benefits

- Work with wide range of 3D image data and CAD files
- Fast and time saving workflow
- · Easy-to-use and intuitive interface
- · Customizable, including scripting
- Industry-leading mesh quality
- Dedicated Abaqus exports
- Extensive technical support and consulting services

Simpleware Features

- Automated multi-part meshing for structural FEA and CFD
- Fix models (dirty CAD, orphan/ deformed meshes, Booleans...)
- Rapid image data visualization and animation in 2D and 3D
- Comprehensive image processing & analysis tools
- · CAD integration & NURBS export
- FE-based homogenization modules





Selection of Application Areas for Abaqus Users

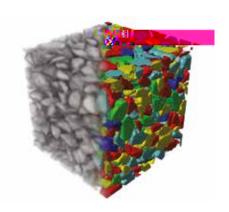
- Life Sciences e.g. medical devices, orthopedics, physiological flows...
- Materials Science

 e.g. alloys, composites, soils,
 concrete, porous media, plastics,
 rubbers...
- Reverse Engineering

 e.g. automotive, aerospace,
 consumer and legacy products...
- Industrial NDT

 e.g. product design, industrial
 filters, fuel cells, batteries, welds...
- Oil & Gas

 e.g. digital rock physics, special core analysis, geophysics field data...
- Synthetics e.g. textiles, ceramics, insulation materials, fibres...



Stress Analysis of Fuel Cell Microstructure

can lead to foot ulcers and other serious conditions. 3D FE R. Clague 1 • P.R. Shearing 1 • P.D. Lee 1 • Z. Zhang 1 • D.J.L. Brett 2 • A.J. Marquisimpleware software was used to reconstruct a complex SOE m icross flucture (Aickel and ythil) - stanilled in Contain the social software was Abaqus for 3D FE tress and lysis across t

Diabetic foot represents a complication of diabetes that

he phases and interfaces of the fuel cells. The analysis found that the yield strength of the nickel in the fuel cell is exceeded at the interface of the two phases, suggesting its importance for stress relief in the electrodes as they are heated or cooled.

3D FE Model of the Diabetic Neuropathic Foot

A. Guiotto • Z. Sawacha • G. Guarneri • A. Avogaro • C. Cobelli University of Padova, Padova, Italy

Simpleware Software Solutions

The Simpleware product group at Synopsys develops software for the conversion of 3D scan data (MRI, CT, micro-CT...) into high quality design,

NDE, and Oil and Gas. Easy-to-learn and use, the software offers a robust bridge between the latest imaging technologies and multiple design and simulation applications.

For more information go to www.simpleware.com