

Digmat 2017 delivers extended modeling, advanced materials and improved workflow

The material modeling platform allowing the simulation of any type of composites

NEWPORT BEACH, CA -- (Jan 19, 2017) – [e-Xstream engineering](#), an [MSC Software Company](#), developer of [Digmat](#), the leading nonlinear multi-scale material and structure modeling platform, announced the latest release of Digmat.

Digmat 2017.0 extends its modeling possibilities to both new capabilities and new advanced materials while continuously improving its workflow efficiency.

New Capabilities

Users can now perform Progressive Failure Analysis (PFA) of short fiber reinforced plastic (SFRP) parts with implicit FEA solvers. The insights gained from performing PFA allows users to fully predict the ultimate part strength without the need of additional engineering testing.

Discontinuous Fiber Composites (DFC) inter-chip delamination can now be modeled. Digmat-FE provides a full characterization of the DFC failure for any type of loading and microstructure.

The virtual tests on unidirectional (UD) and woven materials in Digmat-VA now include the bearing family, therefore allowing to complement and reduce the costly physical bearing tests by simulation.

New advanced materials

New woven 3D geometries are available in both Digmat-MF and Digmat-FE tools. A simple user interface allows to define most common weave patterns for orthogonal and interlock woven 3D materials.

Digmat-MX public database has been extended to include new ready-to-run models from DSM and Dupont Performance Materials.

Improved efficiency

Digmat-RP now supports the interface to Radioss/shell, Optistruct, and Permas FEA codes. This gives structural engineers more accurate results in their analysis of plastic parts, which will ultimately provide a more robust design workflow.

Digmat-MX, the material database tool of Digmat supports automatic reverse engineering of UD and woven PFA models. The complex process of multiscale material model creation and calibration has been simplified down to a single click.

The generation of SFRP type of microstructures in Digmat-FE has been accelerated, allowing to reach faster a higher volume fraction of inclusions for the SFRP microstructure geometry.

This latest release of the material modeling platform brings a series of exciting new features and improvements for both material and structural engineers dealing with an ever wider range of advanced materials.

About e-Xstream

e-Xstream engineering, an MSC Software Company is a software and engineering services company 100% focused on the multi-scale modelling of composite materials and structures. The company helps customers, material suppliers, and material users across many industries reduce the cost and time needed to engineer innovative materials and products using Digmat, the nonlinear multi-scale material and structure modelling platform. Since September 2012, e-Xstream

engineering is a subsidiary of MSC Software Corporation. For additional information about MSC Software's products and services, please visit: www.e-xstream.com

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