Release Highlights

What's New in Digimat 6.0.1?

This latest release of the material modeling platform brings a series of exciting new features and improvements targeting various composite materials, from Short Fiber Reinforced Plastics (SFRP) to Discontinuous Fiber Composites (DFC) and Continuous Fiber Reinforced Composites (CFRP). The new capabilities will benefit both material (Digimat-FE for DFC, post-pro improvement, Digimat-VA, curing, …) and structural engineers (hybrid improvements, progressive failure speed up for crash, …)

Digimat Virtual Allowables

Allowables...at your fingertip

The key highlight of Digimat 6.0.1 certainly consists of the arrival of Digimat-VA, a unique software solution dedicated to accurate and efficient virtual characterization of CFRP while dramatically cutting cost and time associated with material characterization and qualification. Generating a B-basis value without extensive experimental work is now just a few clicks away. True coupon strength distribution is finally accessible.

Full layup design space can be explored at the fraction of the usual cost. Root cause analysis of early failure can now be understood thanks to the variability modeling integrated in Digimat-VA. New material systems can be explored virtually.

Any engineer, whether in the aerospace or the automotive industry, concerned about characterizing a new composite material, exploring the design space or understanding better the widespread of mechanical properties will find in Digimat-VA a productive, efficient and accurate solution to save time and money.
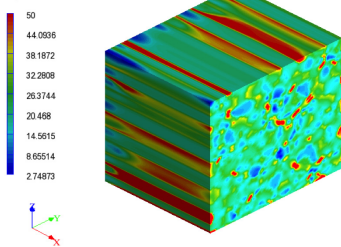
Continuous Fiber Reinforced Plastics

Furthermore, Digimat 6.0.1 also offers to engineers working on CFRP new curing models (curing state and shrinkage) as well as new progressive failure models for UD and significant speed–up during coupled analysis of UD and woven materials.

Short Fiber Reinforced Plastics

The reinforced plastic (SFRP) world also benefits from the latest Digimat improvements and features.

Maintaining its will to make analysis of reinforced parts made easy, e-Xstream now provides new interfaces to FEA codes in Digimat-RP, namely Pam-Crash and MSC Nastran SOL101 and SOL103. Automatic mapping procedures have been made more robust thanks to an improved mesh superposition algorithm. Calibration of tension/compression failure indicators such as Tsai-Wu 3D Transversely Isotropic is now available in Digimat-MX, helping the material engineers to build a Digimat failure model. Finally, the range of applicability of hybrid solution has been extended to thermo-dependent failure indicators, unbalanced woven and thermo-viscoelastic models.

e-Xstream engineering
ZAE Robert Steichen - 5 rue Bommel
Hautcharage, L-4940 Luxembourg
www.e-Xstream.com