Addition of NIAR Grades to Digimat Database Enable Aerospace Engineers to Save Time for Testing & Material Model Calibration

Hautcharage, LUXEMBOURG – M a y 18, 2016 – e-Xstream engineering, an MSC Software company, today announced that a new version of Digimat, the leading nonlinear multi-scale material and structural modeling platform, now integrates NCAMP and AGATE data as ready-to-run progressive failure models for unidirectional and woven composite, for various conditions in the Digimat-MX database.

"Nine AGATE and seven NCAMP materials are already available in Digimat, including both unidirectional and woven fiber forms, and more will continue to be added in the future," said Rachael Andrulonis from Wichita State University's National Institute for Aviation Research (NIAR).

Digimat users can directly perform predictive structural analysis with the reference NIAR grades for stiffness, as well as for progressive failure.

Currently, all AGATE and NCAMP materials in Digimat contain an epoxy matrix. These materials contain either carbon or glass fiber and multiple weave types, such as 8-harness satin, 5-harness satin and plain weave. The resin systems include the following epoxy matrices: 2510, 7740, E765, 8552, MR60H, 5320-1 and MTM45-1. The fiber types include the following: glass fiber - 7781 and 6781 S2; carbon fiber - T650, T700, NCT321, T300, AS4, NCT4708, IM7-G, and HTS40.

"Over the last 2 years, we've been partnering with NIAR to develop, verify and validate the Digimat Virtual Allowable platform. Today, we are pleased to release Digimat material models of the composites available in the NCAMP & AGATE. I'm sure that these models will be of great use for our composites customers across the aerospace industry," said Dr. Roger Assaker, CEO of e-Xstream engineering and Chief Material Strategist of MSC Software.

To learn more about Digimat or to connect the experts, please join one of our upcoming events or webinars: http://goo.gl/f3UoYn. Furthermore, please join to listen to the live presentation of Dr. Waruna Seneviratne, NIAR Research Scientist at the Global Digimat Users' Conference in Portugal on Oct 4-6 (http://goo.gl/W8VxDd).

About e-Xstream engineering
Founded in 2003, e-Xstream engineering, an MSC Software Company is a software and engineering services company 100% focused on the multi-scale modeling 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 Digimat, the nonlinear multi-scale material and structure modeling platform. Since September 2012, e-Xstream engineering is a subsidiary of MSC Software Corporation.

About NIAR

The National Institute for Aviation Research (NIAR) at Wichita State University is a premier R&D facility focused on providing research, testing, certification and training for airframe technologies. NIAR has a $45 million annual budget, staff of 400, and 320,000 square feet of laboratory and office space in Wichita, KS, the Air Capital of the World. NIAR laboratories include Advanced Coatings, Advanced manufacturing, Aging Aircraft, CAD/CAM, Composites & Advanced Materials, Computational Mechanics, Crash Dynamics, Environmental Test, Electromagnetic Test, Full-scale Structural Test, Human Factors/Aviation Psychology, Nondestructive Test, Reverse Engineering, Robotics/Automation, Virtual Reality and the Walter H. Beech Wind Tunnel. www.niar.wichita.edu.

About NCAMP

NCAMP, the National Center for Advanced Materials Performance, works with the FAA and industry partners to qualify material systems and populate a shared materials database that can be viewed publicly. NCAMP started as a FAA-funded program within the National Institute for Aviation Research at Wichita State University and stemmed from NASA's 1995 Advanced General Aviation Transport Experiment (AGATE). www.niar.wichita.edu/ncamp

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