

Digmat for Additive Manufacturing

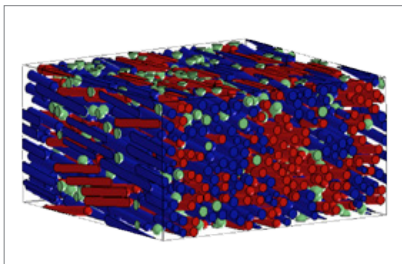
Material, process and structural simulation platform for 3D printing of plastics & composites

Overview

Additive manufacturing of plastics and composites is evolving from rapid prototyping to industrial production. However, still many pains hinder its full development, such as the limited portfolio of advanced materials, lack of fidelity of the manufacturing process as well as uncertain mechanical properties of final part, leading to an overall high manufacturing cost.

To support this transition, Digmat offers a holistic simulation platform for additive manufacturing delivering a unique combination of material engineering, process simulation and structural analysis solutions. With technology built upon e-Xstream's recognized experience with reinforced polymer multiscale modeling, Digmat for Additive Manufacturing enables to print it right the first time and use the full potential of additive manufacturing.

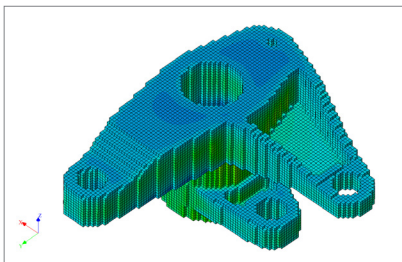
Print right for the first time!



Material

Digmat helps providers of material solutions and end material users to develop, exchange, and use a larger portfolio of plastics and composites materials, specifically for additive manufacturing.

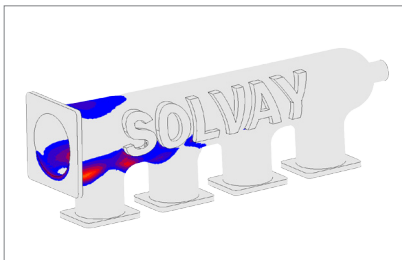
Digmat products: Digmat-MF, FE, and MX



Process

Digmat simulates the printing process and helps printer manufacturers and end users to identify manufacturing issues. It also optimizes printing parameters for productivity and final part performance. For instance by minimizing part warpage and residual stresses as a function of the material and process parameters.

Digmat product: Digmat-AM



Part

Digmat enables the prediction of the as-manufactured part performance. Therefore, allowing precise understanding of final part mechanical properties and helping with optimization of performance for lightweighting.

Digmat products: Digmat-RP, CAE, and MAP

For Who?

Printer Manufacturer

- Support your customers in addition to physical printing
- Provide your customers with a wider portfolio of materials
- Support your customers for application development

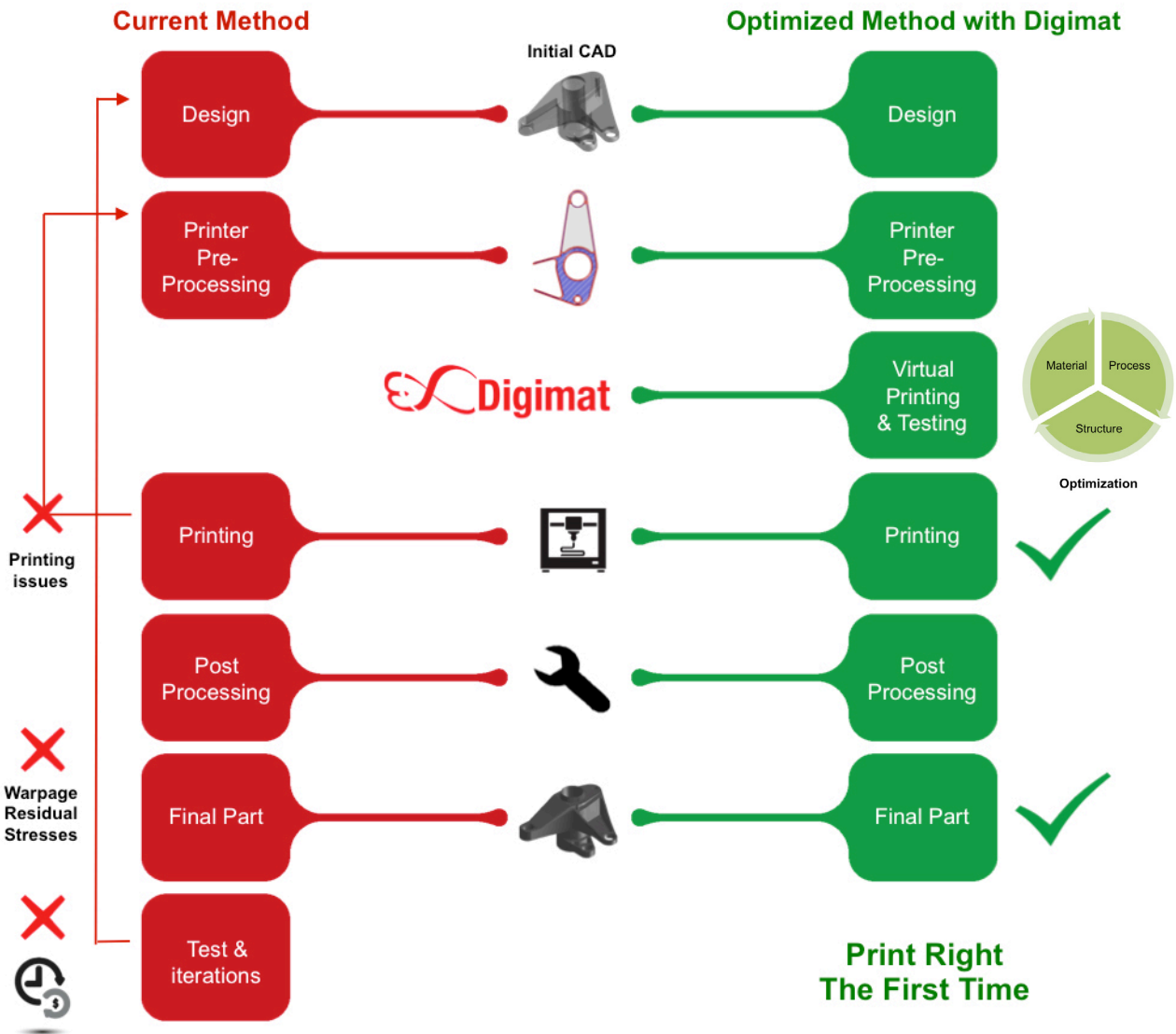
Material Suppliers

- Improve understanding of your materials
- Expand your material portfolio
- Support printer providers and end users to optimally use your material

End-users

- Save time and money by avoiding complex trial and error
- Gain confidence in your manufacturing process and part design
- Optimize your part performance for lightweighting

Trial & Error Methodology vs. Simulation with Digimat



Optimisation is achieved by:

- Improving understanding of your materials
- Reducing costs associated to trials and errors
- Minimising part warpage and residual stresses
- Replacing time consuming testing

Corporate
 MSC Software Corporation
 4675 MacArthur Court
 Suite 900
 Newport Beach, CA 92660
 Telephone 714.540.8900
www.mssoftware.com

Europe, Middle East, Africa
 MSC Software GmbH
 Am Moosfeld 13
 81829 Munich, Germany
 Telephone 49.89.21093224
 Ext. 4950

Japan
 MSC Software LTD.
 Shinjuku First West 8F
 23-7 Nishi Shinjuku
 1-Chome, Shinjuku-Ku
 Tokyo, Japan 160-0023
 Telephone 81.3.6911.1200

Asia-Pacific
 MSC Software (S) Pte. Ltd.
 100 Beach Road
 #16-05 Shaw Towers
 Singapore 189702
 Telephone 65.6272.0082

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