EOSPRINT 2.0: INTUITIVE, OPEN AND PRODUCTIVE CAM TOOL FOR INDUSTRIAL 3D PRINTING

With the new version of EOS' job and process management software, engineers can easily optimize CAD data for EOS systems

Krailling, May 12, 2017 – EOS, the world's leading technology provider for industrial 3D printing of metals and polymers, presents EOSPRINT 2.0, the newest version of its comprehensive AM (Additive Manufacturing) CAM environment. Together with data preparation software like Siemens NX™, or Magics, the new EOS software provides an intuitive user interface, offers customers greater freedom for application-specific parameter optimization and allows easier part optimization – leading to increased productivity and part quality. EOSPRINT 2.0 is now available for metal systems EOS M 290 and EOS M 400. Future iterations will include support for all current EOS metal systems and future polymer systems.

"We advanced EOSPRINT in accordance with market needs, particularly in the fields of ease of use, higher part quality and increased productivity" said Gerd Denninger, Software Product Manager at EOS. "EOSPRINT 2.0 makes the initial steps of the actual AM build process easier and the comprehensive AM CAM environment enables engineers to reach higher quality and lower cost than ever before."

Workflow-based design for ease of use

EOSPRINT 2.0 introduces a workflow-based approach for the graphical user interface reflecting the AM CAM process. This means that the software architecture is built around the workflow of data preparation for industrial 3D printing. Through seamless, click-based functions, users naturally progress through all necessary steps to prepare their file for printing. EOSPRINT 2.0 is intuitive and quick to learn since tools and features behave according to the context of each step of the workflow, simplifying the initial steps of the Additive Manufacturing process.

Increased productivity by new plane segmentation

New plane segmentation capabilities enable different layer thicknesses in one part, optimizing it more easily for production. The segmentation functionality enables the splitting of a part along a plane so that it can be shifted in z-level to define part segments with different exposure requirements regarding quality and productivity. As a result, engineers can define segments where a very high quality is needed and can assign machine parameters optimized for highest quality. Segments where speed is more important can be processed with parameters optimized for highest productivity. As a result, companies receive the optimal mixture of part quality and build time, leading to considerable saving of production time. This is key for serial production of parts with Additive Manufacturing.

Open ParameterEditor module: Even more freedom for expert users

Experienced material and process developers benefit from the open EOS ParameterEditor module as part of EOSPRINT 2.0. The ParameterEditor now offers an improved large and open tool set that contain unique exposure patterns and parameters, offering customers greater freedom for application-specific parameter optimization. Furthermore, the module provides users even more freedom to optimize and develop their own parameter sets. In addition to change all relevant standard parameters like laser power or scan speed, customers can edit additional expert parameters. For example, they can customize order and number of exposure types and vary the start and rotating angle for stripe patterns.

Based on extensively tested EOS process parameters, developers can create unique parameter sets on their own. The EOS ParameterEditor allows customers to develop their own materials and parameter sets to differentiate from competitors – by increasing the productivity of the system, saving costs or by improving the quality of the parts. This is largely supported by additional exposure patterns as described below.

New exposure patterns for excellent part quality

Exposure patterns determine the laser paths during the AM building process. In addition to the current exposure patterns, three new patterns were developed. One exposure pattern allows to produce previously unbuildable parts by avoiding support structures in areas where they cannot be removed. Two new exposure patterns can cut down up to 20 percent of build time compared to EOSPRINT 1. The vast range of selectable exposure patterns gives users choices so that they may optimize the quality of their parts.

Integration into present and future software environments

EOSPRINT is prepared for full integration into automated workflows for the digital future (Industry 4.0). Its functionality is structurally modular so it will be easy to integrate into CAD/CAM as well as ERP/MES environments. First partner to provide the integrated solution is Siemens NX™, others will follow.

For more information please visit https://www.eos.info/systems_solutions/software/eosprint

About EOS

EOS is the world's leading technology supplier in the field of industrial 3D printing of metals and polymers. Formed in 1989, the independent company is pioneer and innovator for comprehensive solutions in additive manufacturing. Its product portfolio of EOS systems, materials, and process parameters gives customers crucial competitive advantages in terms of product quality and the long-term economic sustainability of their manufacturing processes. www.eos.info

Contact:

EOS GmbH Electro Optical Systems
Martin Grebner
Press Officer
Phone.: +49 (0)89 893 36-2264
E-mail: martin.grebner@eos.info