FEI Visualization Sciences Group unveils Avizo Inspect

During the past years, FEI has been developing, in collaboration with major industrial partners in the Aerospace, Automotive, and Consumer goods industries, a unique software solution for industrial inspection and materials R&D. Based on the FEI flagship Avizo® application integrating over 10 years of expertise in 3D visualization, image processing, and analysis, as well as industrial expertise in inspection workflows and materials research from our industrial and academic partners, we are showcasing for the first time at Control 2015 our soon-to-be-released Avizo Inspect software application for Industrial Inspection and Materials R&D.

Avizo Inspect will streamline the process of industrial inspection and materials design, off-line, near-line, and in-line, including dimensional metrology with advanced measurements; an extensive set of inspection workflows, so-called "recipes" for quantification of indications, porosity, inclusions, and defects; fiber characterization of parts and materials; ability to do actual/nominal comparison by integrating CAD models; and reverse engineering workflows for additive manufacturing.

Avizo Inspect has been designed as an open framework, where "recipes" can be created, customized, or tuned in order to be able to achieve the most accurate measurements depending on part or material properties and acquisition system. Users will be able to create their own recipes and integrate their own know-how and IP into the Avizo Inspect open framework. FEI also provides dedicated expertise and professional services for collaborative development of advanced customized environments. Processes can be fully automated by reapplying recipes to a set of parts or materials.

Avizo Inspect includes advanced traceability and reporting features for tracking data workflow from acquisition time to actual quantification results, allowing efficient delivery, sharing, and archival of documented results.

Complex inspection scenarios, combining multiple recipes on different sub-regions of the part or material can be created using Avizo Inspect Designer. Scenarios can be a combination of multiple steps of visual inspection and automatic or manual
Inspector services will run scenarios created with Avizo Inspect Designer and will accept or reject a part according to automated or operator acceptance and/or tolerance values associated with automatic and/or manual measures.

Avizo Inspect In-line directly connects Inspector services with the acquisition system, streamlining the inspection process. Avizo Inspect Service, included with In-Line, pre-processes data pushed to a DICOM/DICONDE server, performs pre-processing such as multi-part splitting, part registration to reference model, and acquisition artifact reduction, then dispatches the pre-processed part to a scalable collection of Inspector services. At any time, the results of inspection scenarios can be accessed with Reviewer services, where each step of the scenario can be reviewed and a final decision on part acceptance be made. Avizo In-line also includes user administration, allowing management of different permission levels. Avizo Inspect software will be available before the end of 2015. Avizo Inspect is built on top of and is a natural evolution of the leading FEI Avizo software product for Materials Science. Existing users of Avizo will benefit from special upgrade paths.

Kontaktieren

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