

AS-BUILT DIGITAL TWIN

MANUFACTURING INTELLIGENCE

DEEP LEARNING SUPPORT FOR CONTINUOUS PROCESS IMPROVEMENT

PRODUCT DESCRIPTION

Production and inspection data generated by our BUILDGUIDE, LASERGUIDE, LASERVISION-AI, and other systems — both images and data — automatically populate the as-built Digital Twin, a virtual representation of each individual component's specific attributes. This Digital Twin complements the Digital Twins of Design and Process in a Closed-Loop Manufacturing (CLM) ecosystem — the Digital Factory on the near horizon for many manufacturers.

FEATURES AND BENEFITS

Component-specific data, aggregated and contextualized

- Provides traceable as-built data, including in-tolerance variances as well as non-conformances and corrective actions.
- Enhances product value with comprehensive, detailed documentation

Combined calibrated images, creating a single image of each complete ply surface

- Enables visual tracing of as-built variances, non-conformance and corrections
- Eases maintenance and repair operations throughout component life

Manufacturing intelligence gathered from each as-built component of a particular design

- Enables direct comparison of as-designed and as-built Digital Twins
- Feeds Deep Learning systems that generate closed-loop manufacturing improvements
- Quantifies uncertainty, enabling tighter allowables and less overdesign

Integration-ready for Manufacturing Operations Management (MOM) systems

- Provides company-wide visibility of manufacturing operations and outcomes
- Helps to accelerate design-build processes including planning and scheduling, manufacturing execution, and quality management

Deep Learning through Closed-Loop Process Management

