



ACTION ENGINEERING, LLC
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CAPABILITY STATEMENT

COLORADO
 1111 Washington Ave #20
 Golden, Colorado 80401

ABOUT ACTION ENGINEERING

Action Engineering is a world-renowned consulting firm for 3D data transformations in manufacturing organizations. With decades of experience and influential status on standards committees, Action Engineering defines how Model-Based Enterprise (MBE) is done. We provide a full strategic initiative plan to enable MBE throughout the product lifecycle. We uniquely combine unbiased technical expertise and industry-specific change management approaches. We provide the only MBD-based cross-platform GD&T training in the industry. Our software program, OSCAR, provides a curated toolkit of 3D-standards-compliant data, tutorials, and videos.

CORE COMPETENCIES

Action Engineering guides customers to meet their 3D transformation goals through process improvements for 3D data, interoperability tools and technology, MBD modeling guidelines consistent with industry standards, and most importantly - uplifting the people who implement.

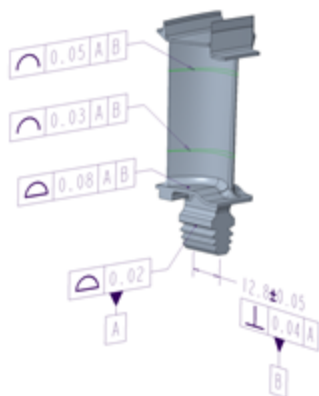
- 3D Transformation Program
- 3D Data Knowledgebase (OSCAR)
- MBD & GD&T Training
- Tool Selection
- MBD Guidelines
- Organizational Change & Neuroscience

NAICS Primary:
 541330 Engineering Services

Additional:
 513210, 541511, 541512, 541519, 541611, 541614, 541618, 541690, 541990, 611420, 611430

UEI QFFTX25NBPN1

CAGE 3TKH2



SBA WOSB
 Woman Owned Small Business



Jennifer Herron
 Founder & CEO

CREDENTIALS

Active leadership and participation within industry standards groups:



- Active participation and voting membership in ASME Committees and Working Groups:
- Y14.35 Drawing Revisions
 - Y14.41 Digital Product Definition Data Practices
 - Y14.46 Product Definition for Additive Manufacturing
 - Y14.47 Model Data Organization Schema
 - Y14.5 Dimensioning and Tolerancing
 - MBE & Y14 Joint Working Group
 - MBE SME Support Group
 - Aerospace and Advanced Engineering Drawings (AED)



- Active participation in ISO/TC 184/SC 4 Working Groups:
- ISO 10303-238: Model-based integrated manufacturing (STEP-NC AP 238)
 - ISO 10303-242: Managed model-based 3D engineering (STEP AP 242)



- DMSC Board of Directors
- QIF 4.0 Working Group
- QIF Training & Certification Working Group
- Model-Based Characteristics Working Group



3D Model Technical Data Package (TDP) Exchange Work Group



DoD Engineering Drawing and Modeling Working Group (DEDMWG) for MIL-STD-31000, Technical Data Packages



MxD Solution Provider



PAST PERFORMANCE

Action Engineering has guided 3D data transformations for commercial and military organizations since 2008.

- MBD proofs of concept and pilot programs
- Full-scale MBE implementations
- Organizational change management for MBD adoption
- MBE strategy roadmaps and Concepts of Operations (CONOPS)
- MBD and GD&T training courses
- MBD & PLM tool architecture and technology selection
- MBD guidelines consistent with industry standards
- Technical Data Packages (TDP)
- Supplier readiness assessments
- Using Agile Scrum techniques within complex MBE and MBD initiatives

FEATURED CLIENTS



DEFENSE



Newport News Shipbuilding
A Division of Huntington Ingalls Industries



PRATT & WHITNEY

2016-2023



- MBE strategy, road mapping, planning
- MBD/MBE implementation guidance
- Communication plans for MBE adoption
- Training MBD and GD&T at scale (200 students trained)
- MBD proof of concept modeling in Siemens NX
- Model-based standards and guidelines
- MBD pilot coaching
- MBE tool architecture and selection
- MBE training strategy
- Agile Scrum implementation for MBD pilots
- Online MBE training through Action Engineering's online MBE knowledgebase, OSCAR

NATIONAL SHIPBUILDING RESEARCH PROGRAM (NSRP)

2020-2022



- Analyzed minimum standards needed to deliver 3D data to the U.S. Navy's Model-Based Product Support (MBPS) environment
- Delivery of an NX assembly that includes all minimum data needed for a shipboard sailor
- Native NX CAD assembly of a ship door with model-only data represented
- Derivatives (3D PDF, JT, STEP, QIF) of the native ship door assembly
- Use-case analysis, user analysis, and persona generation
- Mapping of 3D data model-based artifacts with the use cases and personas
- Model-based standards analysis

KANSAS CITY NATIONAL SECURITY CAMPUS

2016-2023



- Customized PTC Creo software plug-ins for machine-readable Model-Based Product Characteristics (MBPC) symbology and inspection processes
- Identify safety-critical items
- Export Quality Information Framework (QIF) data
- Redact sensitive data