



Defense-Wide Manufacturing Science & Technology (DMS&T) Program

Technical Data Packages (TDP) for the Digital Enterprise

PROBLEM / OBJECTIVE

DoD is not obtaining technical data in usable formats to support weapon system life cycle sustainment. The lack of standards-based data delivery and processes for accessing and validating technical data increases weapon systems cost.

The objective of this project is to increase the DoD's ability to acquire high quality 3D TDPs. This shall be achieved by developing data quality requirements, quality measurement tools and demonstrating data validation methodologies within a standards-based architecture.

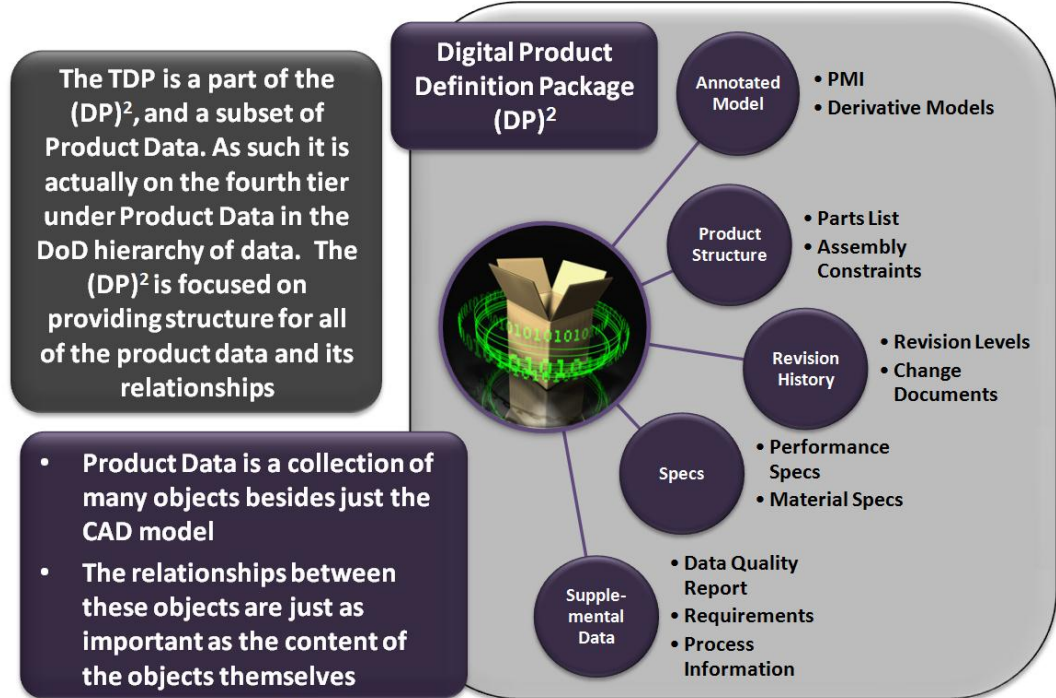
This includes both the geometric data and Product Manufacturing Information (PMI) such as Tolerances, Material, Finishes, etc...

It also includes the method for receiving and validating Product Lifecycle Management (PLM) data such as Revision, Parent Child Relationships, Product Structure, etc...

APPROACH / BENEFITS

- Develop and demonstrate the ability to perform Verification & Validation (V&V) on Product Manufacturing Information (PMI)
- Perform V&V on derivative models not currently covered under the Model Validation Guidebook of MIL-STD-31000 Appendix C
- Develop best practices for V&V of the conversion of 2D data to 3D data
- Develop and demonstrate the ability to perform V&V on Product Lifecycle Management (PLM) system data
- Gather requirements from both DoD and Industry
- Develop a plan based on open source standards to meet the requirements

The (DP)² Concept



Impact:

Reduction in time to mission, whether services are organic or contracted, that reduces overall cost and/or avoidance using validated TDPs that decrease:

Native Geometric TDP Error rate by 40%

Derivative Model Error rate by 45%

PMI related TDP Error rate by 40%

PLM data reuse increased by 50% by avoiding manual re-creation of Product Structure

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88ABW-2013-4576

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