Collaborative Product Visualization

RECOMMENDATION

Collaborative Product Visualization
PSI 2

ProSTEP iViP

Abstract

This recommendation serves to coordinate the exchange of visualization data for communication and information retrieval between collaborating companies. The exchange of visualization data is not restricted to a certain phase of the product life cycle.

Reference use cases are described for this purpose.

This recommendation does not deal with data protection and data security. Guidelines and agreements on data protection and data security should be observed and applied in a reasonable manner.

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Abbreviations, Definitions, References

Abbreviations:

CAD	Computer-aided design
CAM	Computer-aided manufacturing
DIN	Deutsches Institut für Normung, German Institute for Standardization
DMU	Digital mock-up
NURBS	Nicht-uniforme rationale B-Splines Non-uniform rational B-Splines
ODETTE	Organization for Data Exchange Through Teletransmission in Europe
PMI	Production and manufacturing information
SE	Simultaneous engineering
SME	Small and medium-sized enterprise
SOP	Start of production
VDA	Verband der Deutschen Automobilindustrie, German Association of the Automotive Industry
VDMA	Verband deutscher Maschinen- und Anlagenbau, German Engineering Federation

Definitions:

3D CAD dataset	A 3D CAD dataset is the three-dimensional representation of a product's CAD data. It contains geometric information as well as parametric, constraint and/or creation history information.
Contractor	A contractor is an enterprise which provides a certain product and/or service to a customer.
Customer	A customer is an enterprise which purchases a certain product and/or service from a contractor.
Multi-CAD environment	The term describes a situation in which the participants in a development network use different CAD systems.
Product Data Management (PDM) system	A PDM system administrates and manages design data.
Service	A service in terms of this recommendation can comprise the development of a part or assembly or the development of a tool and/or manufacturing of a part or assembly.

References:

This chapter provides an overview of auxiliary guidelines and recommendations. This is not intended to be interpreted as a complete list.

- DIN 66301 Computer-aided design – format for exchanging geometric information; industrial automation
- ISO/FDIS 16792 Technical product documentation-Digital product definition data practices
- ISO PAS 26183: Product Data Quality Guidelines for the Global Automotive Industry
- SASIG D-21 Guideline for Digital Engineering Visualization
- VDA-Recommendation 4900 Data transmission of ODETTE - Messages
- VDA-Recommendation 4914 Odette specifications for File Transfer
- VDA-Recommendation 4950 Agreement on the exchange of CAD/CAM data
- VDA-Recommendation 4951 Data transmission of CAD/ CAM data exchange
- VDA-Recommendation 4952 Exchange of pattern-data
- VDA-Recommendation 4953 Simplified CAD Drawing
- VDA-Recommendation 4956 Product Data Exchange
- VDA-Recommendation 4958 Long-Term Archiving (LTA) of digital Product Data
- VDA-Recommendation 4961 Agreements on Simultaneous Engineering (SE-Checklist)
- VDA-Recommendation 4965 Engineering Change Management (ECM)
- VDMA/VDA-Recommendation 66318 Computer-aided Design: Rules for CAD-data exchange

In addition to recommendation and guidelines, there are also a number of White Papers. Again, the list is not exhaustive.

- ProSTEP iViP Association White Paper – Analysis of Cross-Enterprise Exchange of Visualization and Assembly Data
- ProSTEP iViP Association Project Study to Evaluate the JT Data Format