STEP AP242 in the French Automotive Industry

STEP AP242 support within DASSAULT SYSTEMES Solution

STEP AP242 Day
GALIA : Alexandre LOIRE
DASSAULT SYSTEMES : Luc FEUVRIER
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VALdriv PLM program

“VALue Driven Product Lifecycle Management program”
What is GALIA?

Non-profit Association created in 1984 to improve data exchanges within the automotive industry.

204 members (January 1st, 2018)

> **industry companies** (car-manufacturers, car parts/components suppliers and other suppliers, logistics carriers and service providers…)
> **service providers** (software editors, consultants, …)
> **professional organisations**

Our mission

> Develop recommendations and standards
> **Promote** and **train** to disseminate the recommendations
> **Represent** and defend the interests of our members within standardization bodies
1. PLM Industrialization
2. PLM functionalities
3. Digital Continuity in extended enterprise
4. Data exchange standards implementation
STEP AP242 in the French Automotive Industry

List of works to disseminate and deploy STEP AP 242 in the French Automotive Industry:

> Publication of guidelines for technical data exchanges (formats definition: native, neutral (STEP and ISO JT) and light weighted, advantages and drawbacks, formats vs use cases and formats vs business cases)

> Participation to PLM Task Force with AFNet and ProSTEP iVip (STEPAP 242 benchmarks, recommended practices publication and common metadata dictionary development;

> PROMETHEA project: development of a standard data model based on STEP AP 242 xml to report measurement data to the design office to analyse the feasibility product/process, analyse the convergence in the ramp up period and follow up manufacturing quality.

> SASIG Collaborative BOM Data eXchange: development of 4 deliverables to manage BOM data exchange based on STEP AP 242 xml.
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DASSAULT SYSTEMES | Our Legacy

1981
3D Design

1989
3D DMU
Digital Mock-up

1999
3D PLM
Product Lifecycle Management

2012
3DEXPERIENCE®
platform
Business Experience

DXF / IGES

STEP
STEP AP214; AP203 ed1 & ed2; AP242 ed1 - STEP: 3D Geometry, topology & product structure

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3DEXPERIENCE – Collaborative Business Platform within Extended enterprise

Partners

3DEXPERIENCE

CATIA V5

3rd party CAD

3rd party CAD/PDM

Standards: STEP, ...

Partners Connected

CATIA V5

3DEXPERIENCE Apps

3rd party CAD

OEM

3DEXPERIENCE Platform

Online Collaboration

Exchange

Exchange

Long Term Archiving

Standards

STEP, ...

CATIA V5

CATIA 3DEXPERIENCE

SolidWorks

XCAD

STEP

3DEXPERIENCE Platform

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DASSAULT SYSTEMES | STEP Commitment

**STEP ISO Supported By**
- CATIA V5
- SOLIDWORKS
- 3DEXPERIENCE

**STEP application Protocols supported**
- AP 242 (ISO 10303-242)
- AP203
- AP214

**Cooperation**
- AFNOR/IDMI
- AFNeT
- PDES, Inc
- ProSTEP
- GALIA
- LOTAR
- CAX-IF Test rounds since TR2J (1999)
- PDM-IF Test rounds since 2016
STEP AP242 | 3DEXPERIENCE supported functionalities

- **Exact Geometry, Product Structure**
- **Graphic PMI, Validation Properties**
- **Composite, Tessellation, Tessellated PMI**
- **Semantic PMI, PDM**

**Supported Functionalities**

- 3DEXPERIENCE R2013x
- 3DEXPERIENCE R2019x

**Version Details**

- V5R07
- V5R20
- V5-6R2013
- V5-6R2019
STEP AP242 | 3DEXPERIENCE future steps

Improve Existing Solution
▷ Advanced PDM
▷ Compliance with latest
  Recommended Practices (CAx-IF,
  PDM-IF)
▷ Benchmark participation

Adopt STEP AP242 Ed2
▷ Advanced PMI
▷ Advanced Composite
▷ Kinematics
▷ Electrical Harness
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Support STEP ISO Standard AP242 within 3DEXPERIENCE Platform

Integrate future STEP improvements

STEP groups Membership

Data Exchange
Long Term Archiving

STEP AP242

3D MODELING Applications

SOCIAL & COLLABORATIVE Applications

INFORMATION INTELLIGENCE Applications

SIMULATION & MANUFACTURING Applications

CONCLUSION

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