# ISO  STEP  AP242
# "Managed  Model  Based  3D  Engineering"

# Roadmap  for  T-Systems  STEP  applications

Paris,  the  26th  of  March  2014

## ·**T**· · ·**Systems**·

# AP242 Roadmap

## Applications

T-Systems applications supporting STEP AP242

- PDM WebConnector V3.8 SOA-based middleware for PDM system integration
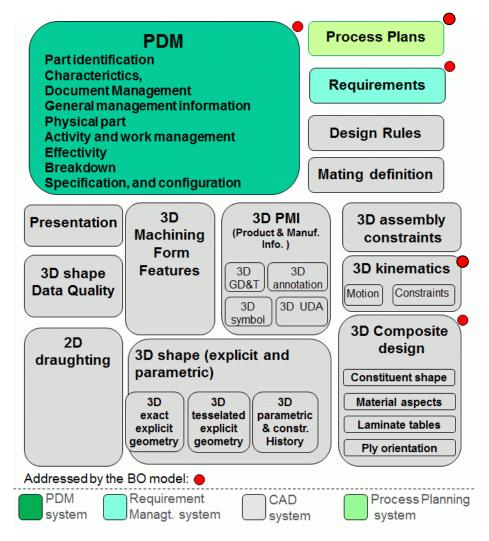
- COM/PDM V1.1 STEP based PDM data exchange for supplier integration

- COM/FOX V5.5.2 CAx data conversion platform

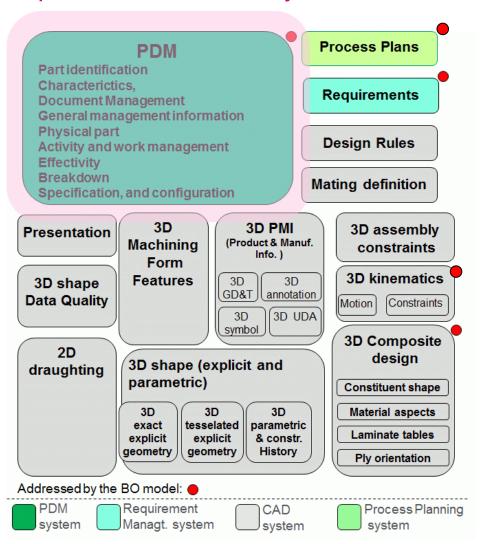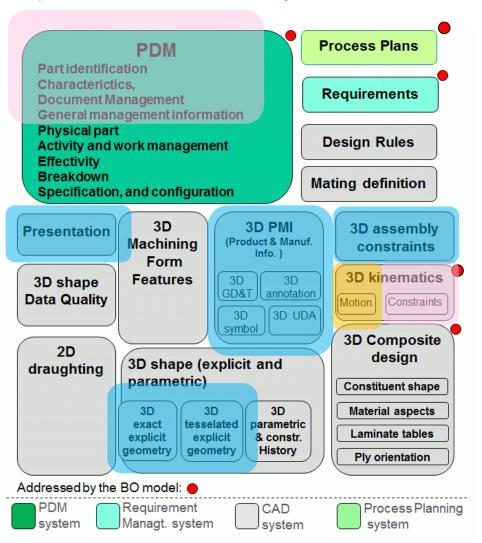Supported AP242 Release

- AP242 BO Model XML (IS Review)

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# AP242 Roadmap

## Capabilities Overview



**PDM**
Part identification
Characterictics,
Document Management
General management information
Physical part
Activity and work management
Effectivity
Breakdown
Specification, and configuration

**Process Plans**

**Requirements**

**Design Rules**

**Mating definition**

**Presentation**

**3D Machining Form Features**

**3D PMI** (Product & Manuf. Info. )
3D GD&T
3D annotation
3D symbol
3D UDA

**3D assembly constraints**

**3D shape Data Quality**

**3D kinematics**
Motion | Constraints

**2D draughting**

**3D shape (explicit and parametric)**
3D exact explicit geometry
3D tesselated explicit geometry
3D parametric & constr. History

**3D Composite design**
Constituent shape
Material aspects
Laminate tables
Ply orientation

Addressed by the BO model: ●

PDM system | Requirement Managt. system | CAD system | Process Planning system

# AP242 Roadmap

## Capabilities covered by PDM WebConnector and COM/PDM



**PDM**
Part identification
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Addressed by the BO model: ●

PDM system | Requirement Managt. system | CAD system | Process Planning system

- PDM data

- Assembly structure

- Configuration management

- Change management

Using AP242 BO Model XML
as data exchange format

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# AP242 Roadmap
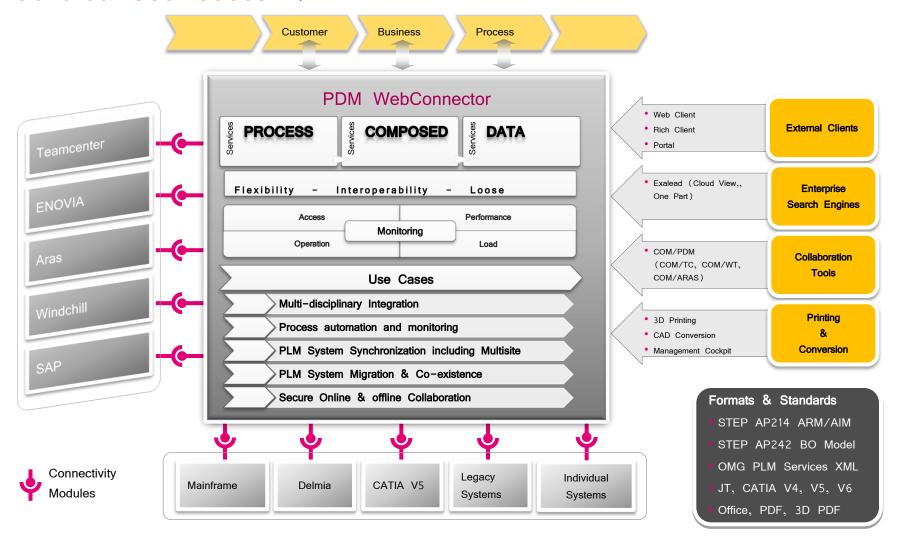
## Capabilities covered by COM/FOX



- Focus on CAD mechanical data + assembly structure + visualization

- Using AP242 BO Model XML as data exchange format for assembly structure + kinematics

- Using JT for geometry and PMI

- Using PLM XML for motion data

- from/to CATIA V5

# AP242 Roadmap

## Availability

| Product | Version | AP242 BO Model Rel. | Capabilities | Availability |
|---|---|---|---|---|
| COM/FOX | V5.5.2 | IS Review | Assembly structure<br>Nested Assembly<br>Kinematics （Prototype） | March 7, 2014 |
| | V5.5.x | IS | Assembly structure<br>Nested Assembly<br>Kinematics （Product） | Summer 2014 |
| COM/PDM for:<br>• Aras Innovator<br>• Teamcenter UA<br>• Windchill<br>• Enovia | V1.1<br>V9.4, V10<br>V9.x, V10.1x<br>V8.x, V9.x, V10.x<br>VPM V4, V6 | IS | General Mgnt Info.<br>Assembly structure<br>Document Mgnt.<br>*Configuration Mgnt.* | Fall 2014 |
| PDM WebConnector | V3.8 | IS | General Mgnt Info.<br>Assembly structure<br>Document Mgnt.<br>*Change Mgnt.*<br>*Configuration Mgnt.* | End of 2014 |

# AP242 Roadmap

## Covered Use Cases 1/2

# AP242 Roadmap
# Covered Use Cases 2/2

## COM/PDM

- Asynchronous STEP data exchange for Supplier integration

- from/to Teamcenter UA, Windchill, Enovia VPM and Aras Innovator



## COM/FOX

- CAx data migration
  （system A ⇔ system B）

- CAx data conversion for visualization and Virtual Reality （VR）

- Internally between departments/applications or externally with suppliers/partners

# THANK YOU!

Your contacts:

COM/FOX:                        Winfried.Weber@T-Systems.com

COM/PDM:                        Guillaume.Hirel@T-Systems.com

PDM WebConnector:              Svilen.Georgiev@T-Systems.com

AP242 Steering Committee Member

+ PLM product Delivery Mgmt: Juergen.Mohrmann@T-Systems.com
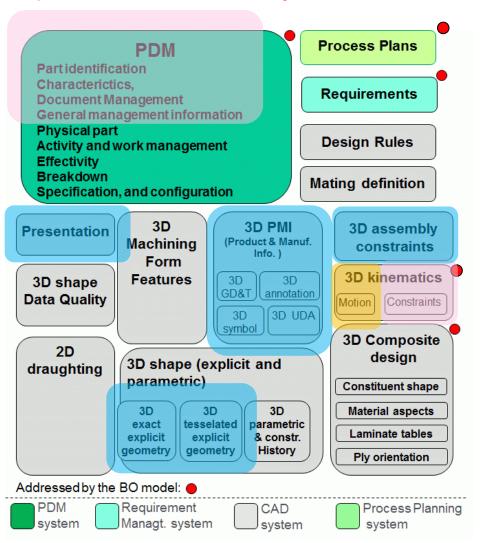
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# ISO STEP AP242

# "Managed Model Based 3D Engineering"
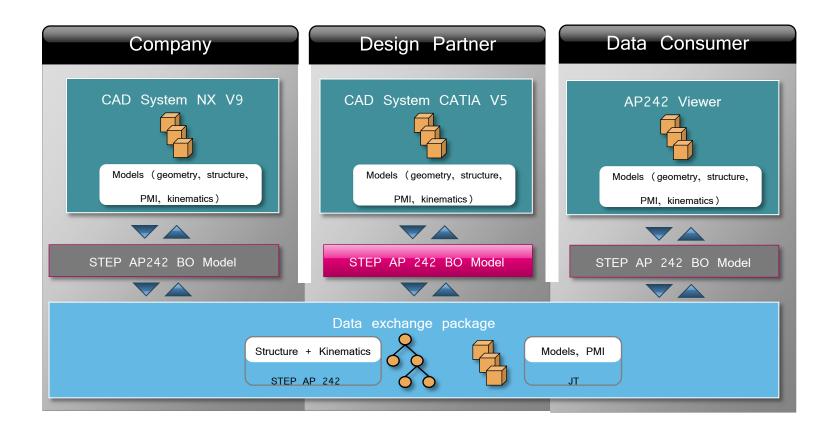
# Demonstration

Paris, the 26th of March 2014

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# AP242 Roadmap
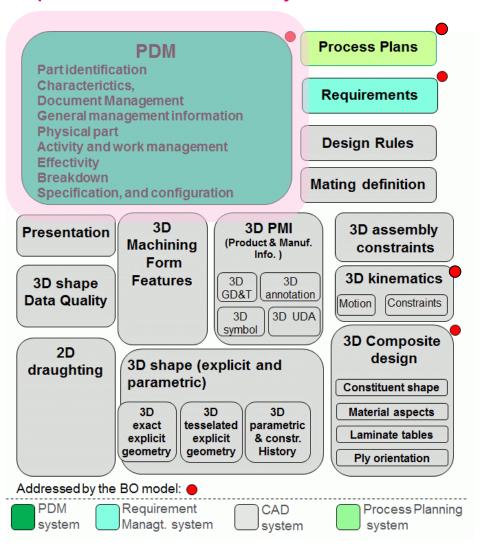
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- Using JT for geometry and PMI

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- from/to CATIA V5

# AP242  Roadmap
# Demonstration  COM/FOX （'Primary  JT'  at  Daimler）

# AP242 Roadmap

## Capabilities covered by PDM WebConnector and COM/PDM



- PDM data

- Assembly structure

- Configuration management

- Change management

Using AP242 BO Model XML as data exchange format

# AP242 Roadmap

# Demonstration COM/PDM（Sample OEM-Supplier Scenario）

## Imaginary Demonstration Scenario Overview

- Company Henry Mayer works together with suppliers Company FormLine and Company TrustDesign to design a new engine

- Company Henry Mayer uses **Teamcenter**（UA）

- Company FormLine has chosen Aras Innovator as its PLM system

- Company TrustDesign does not have a PDM system and therefore sends the data in CATIA native format

- After finishing the design, company Henry Mayer sends the engine assembly to FormLine in order for them to have the latest version.

- FormLine receives the assembly package, inspects it and imports the data into Aras.

- Meanwhile Henry Mayer has received a modification from TrustDesign, which TrustDesign would like to be considered in the assembly.

- The designer at Henry Mayer opens this package and checks its contents incl. the geometry files to decide, if the modification should be imported or not.