

TechniaTranscat:

Enterprise wide
3D data Exchange

GLOBAL PRODUCT DATA
INTEROPERABILITY
S U M M I T
2017



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Parker Aerospace

NORTHROP GRUMMAN

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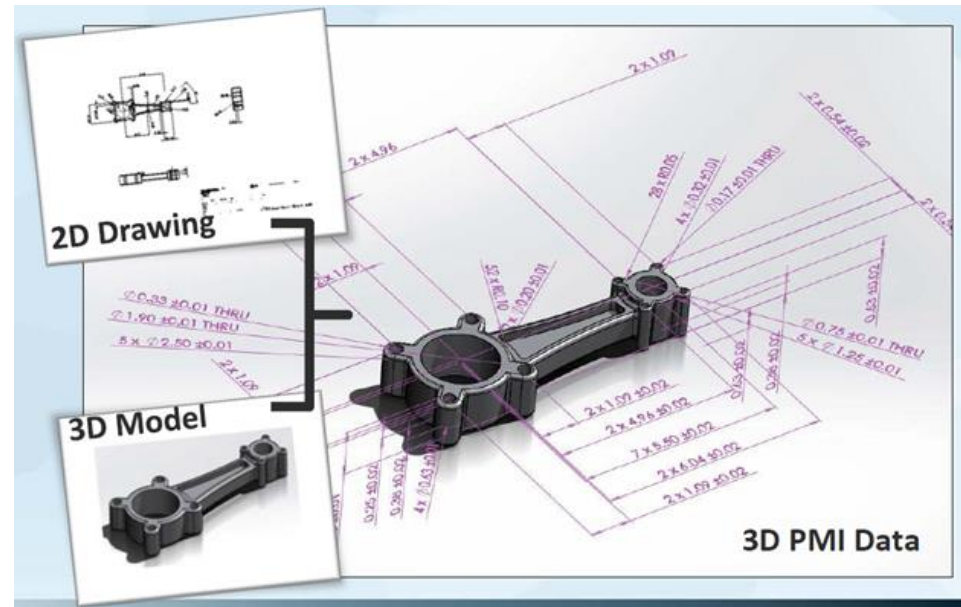
BOEING



Agenda

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- I. TechniaTranscat – Introduction
- II. Model-based definition with neutral formats
- III. TechniaTranscat Software for JT
- IV. Q&A



TechniaTranscat Introduction

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Facts and Figures

Addnode PLM Business Area by Numbers

+30 years in PLM

600 employees

23 offices in Africa, Europe, India and US

More than **400** enterprise PLM projects delivered around the world

5400 customers worldwide, including **43** that are listed on Fortune 500

TECHNIA TRANSCAT
ADDNODE GROUP

TechniaTranscat Introduction

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Facts and Figures

Addnode PLM Business Area by Numbers

With **220** ENOVIA experts & **250** CATIA, SIMULIA & DELMIA experts

TechniaTranscat is **making product
creation easier**

TECHNIA TRANSCAT

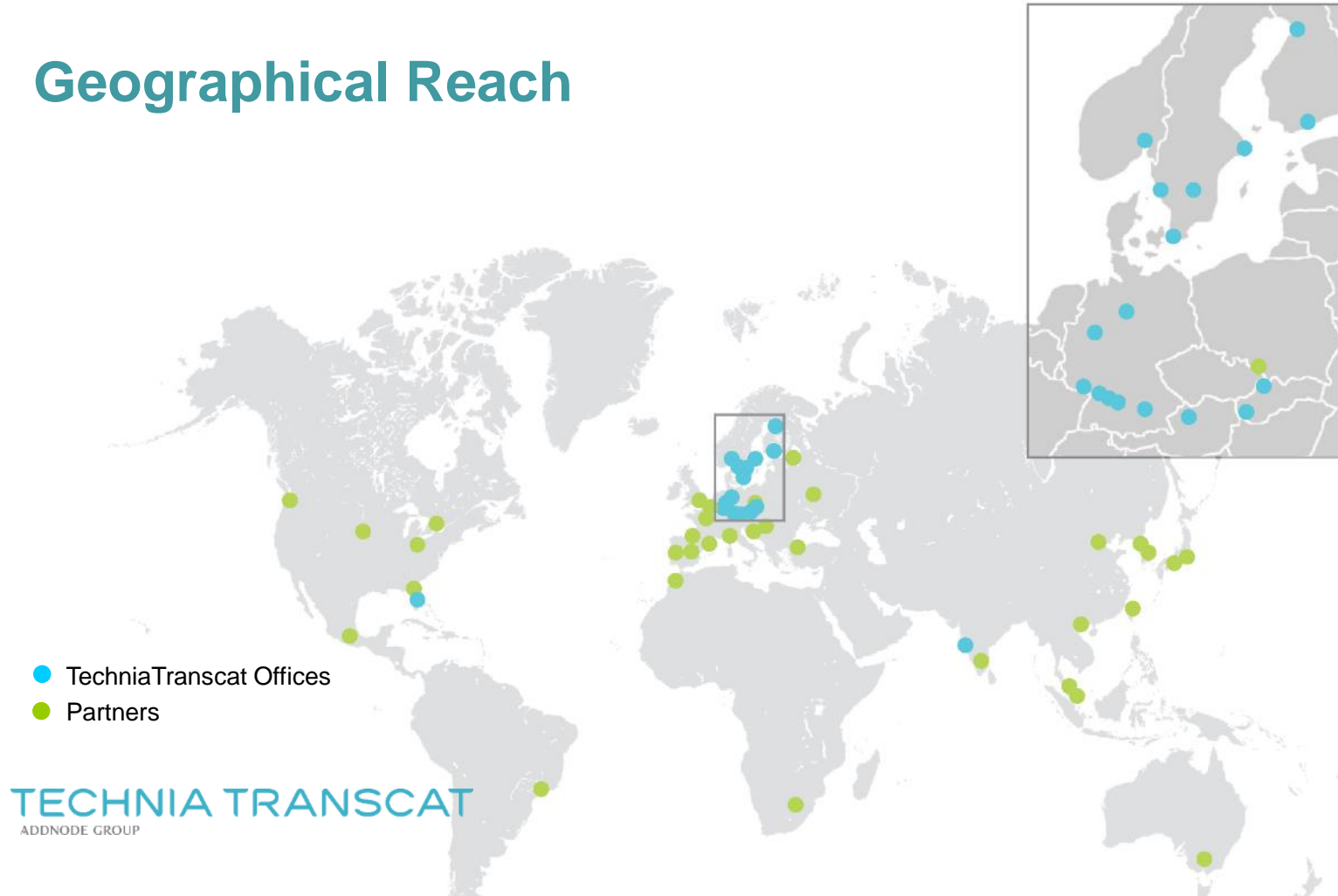
ADDNODE GROUP



We are where you are

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Geographical Reach



TechniaTranscat Software Positioning

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- **Standardized global workplaces**
- **Company and industry standards**
- **Enhanced user experience and upgradability**
- **PLM mobile**
- **Integrations to PLM and ERP**
- **3D Digital Enterprise**

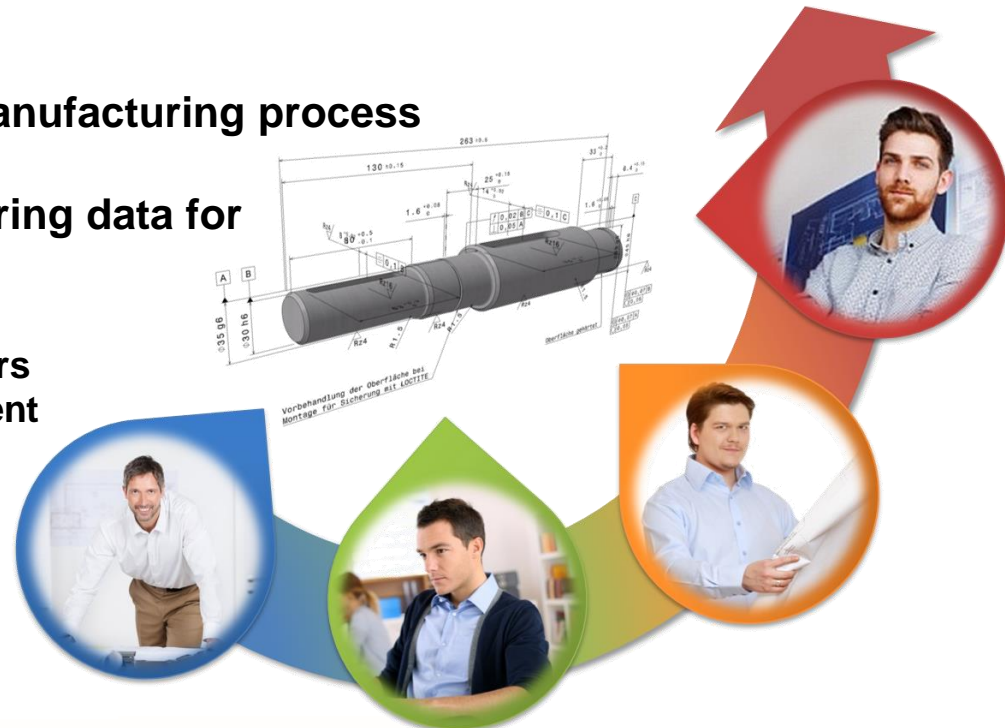


Model-based definition with neutral formats

MBD (Model-based definition)

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- MBD allows manufacturers to create fully annotated 3D models that include all of the product manufacturing information (PMI)
- People needed to improvise to share engineering data downstream for years
- Result: inefficiencies into the manufacturing process
- Purposes for unlocking engineering data for downstream consumption:
 - to make life easier for customers
 - to make processes more efficient
 - getting products out faster
 - lowering costs
 - increasing profit margins



3D for all

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- **Creators vs. Consumers**

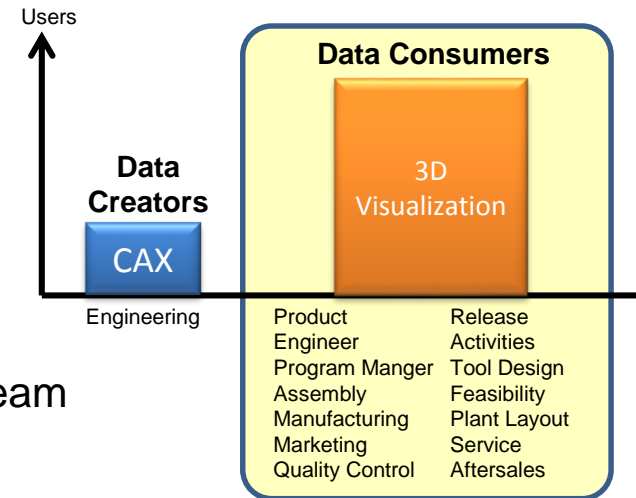
- User Ratio ~ 1:10
- 90% of non-CAD users are using 2D
- Experts vs. rare use

- **Benefits of neutral formats**

- 3D for all processes up to long term archiving
- Engineering design (CAD) separated from downstream
- Multi-CAD in product development
- Reduced license costs

- **Openness and Standards: Working groups and initiatives**

- JT ISO → Standardized neutral format
- LOTAR → Aerospace - Initiative for “Long Term Archiving”
- SASIG / ProSTEP iViP → STEP AP 242 as common basis of Aerospace- and Automotive standards



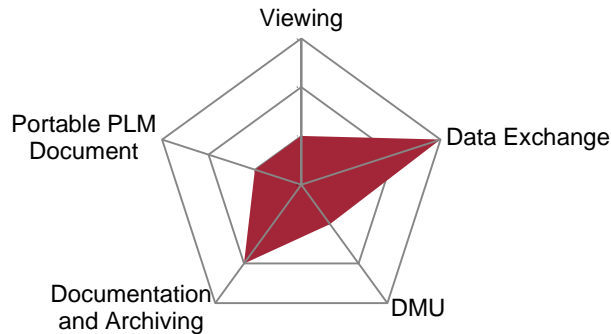
Source: SASIG D21

Overview of different neutral formats

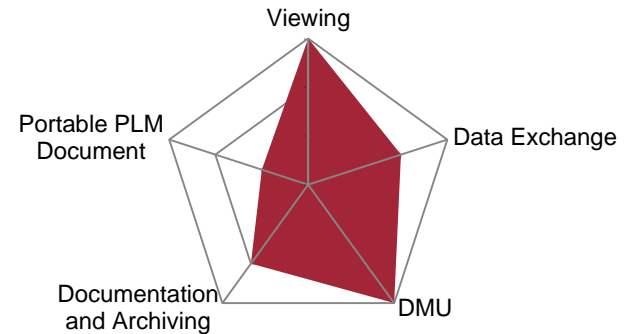
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- Results of ProSTEP iViP Analysis 2013

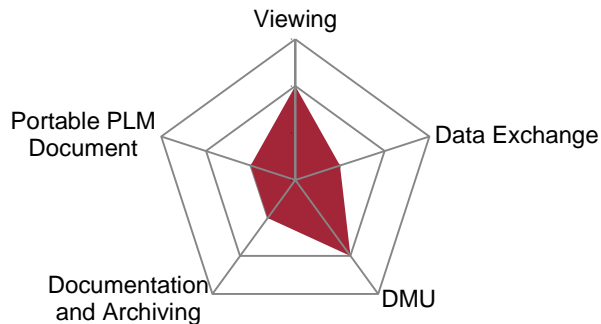
STEP



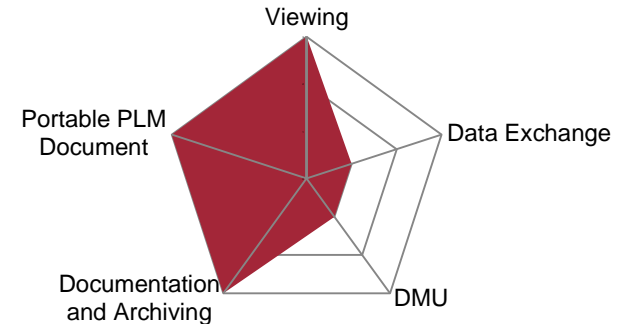
JT



3D XML

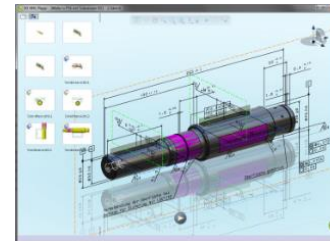
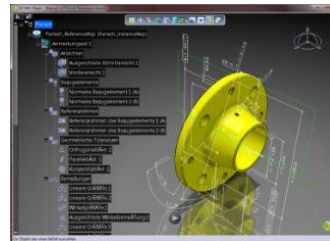
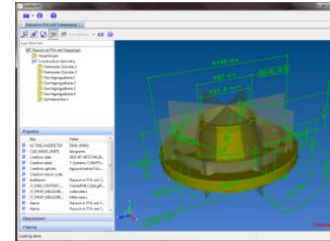
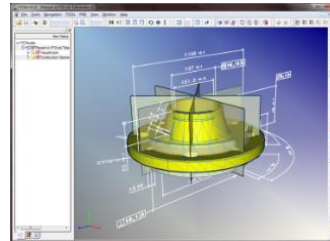
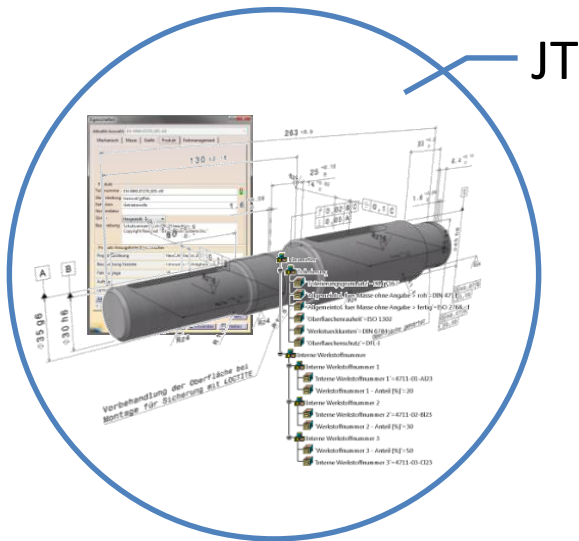


3D PDF



JT = Process format

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After Sales

PDM

ERP

Supplier

CAE

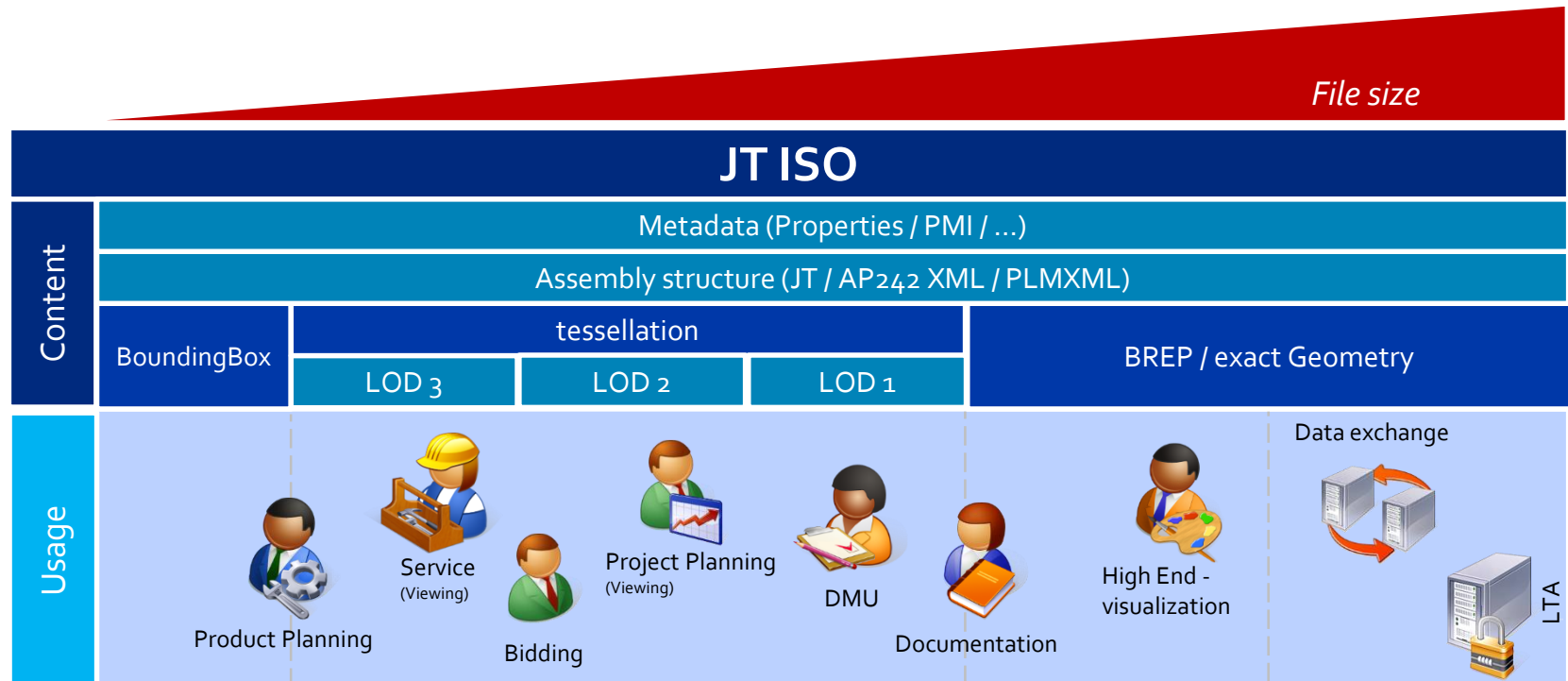
Service

NC/CNC

Bidding

Content and Downstream Usage

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Not included in JT:

- Design intent from CAD
- Feature creation history from CAD
- Detailed intellectual property definition from CAD

JT Use Cases

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- **ProSTEP iViP Workflow Forum has elaborated 30 JT use cases so far**



Collaboration

- Drawingless manufacturing
- ECAD/MCAD Collaboration
- Hybrid Design in Context
- Supplier Collaboration (OEM to Supplier)
- Supplier Collaboration (Supplier to OEM)



Digital Factory

- Building Planning
- Factory DMU
- Manufacturing Planning
- Material Handling
- Plant Development
- Pressline Simulation



MCAD

- Archiving
- High-end Visualization
- Installation Feasibility
- Material Specification
- Non-Hybrid Design in Context
- Prototyping Processes



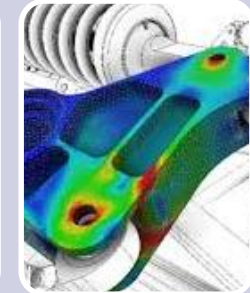
Mobile Usage

- 3D Measurement and-Analysis
- Identification of Location based viewing
- Identification of Part/Assembly
- Multimedia Annotations
- Viewing on Mobile Devices in the Pre-Series



Purchasing

- Bidding / Inquiry
- Viewing

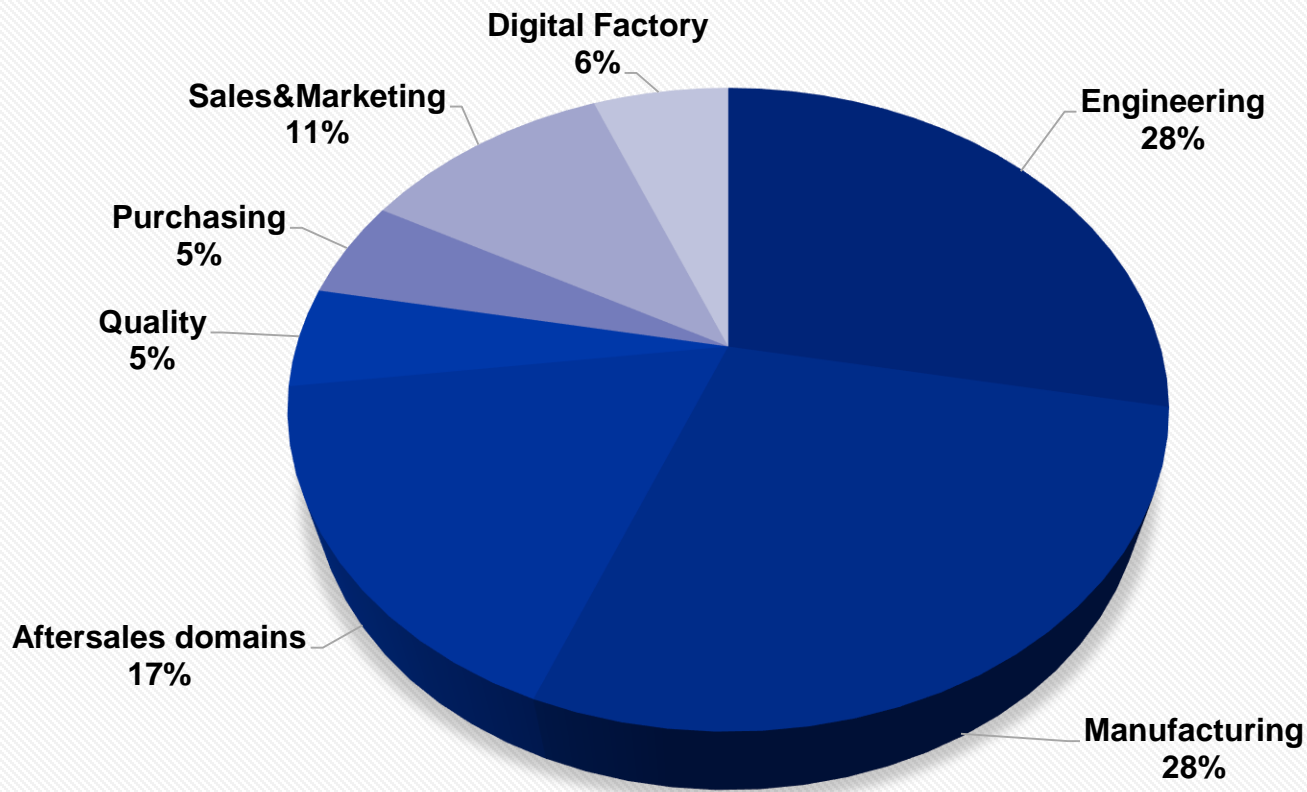


Simulation

- CAE Data Visualization
- Finite Element Analysis
- Multibody Simulation
- Packaging
- Systems Engineering
- Tolerance Studies

JT is everywhere

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Source: ProSTEP iViP Workflow Forum Survey 2016

TechniaTranscat software for JT

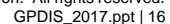
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Lite3D

With Lite3D we help customers to establish 3D as an affordable common collaboration language beyond engineering throughout the extended enterprise

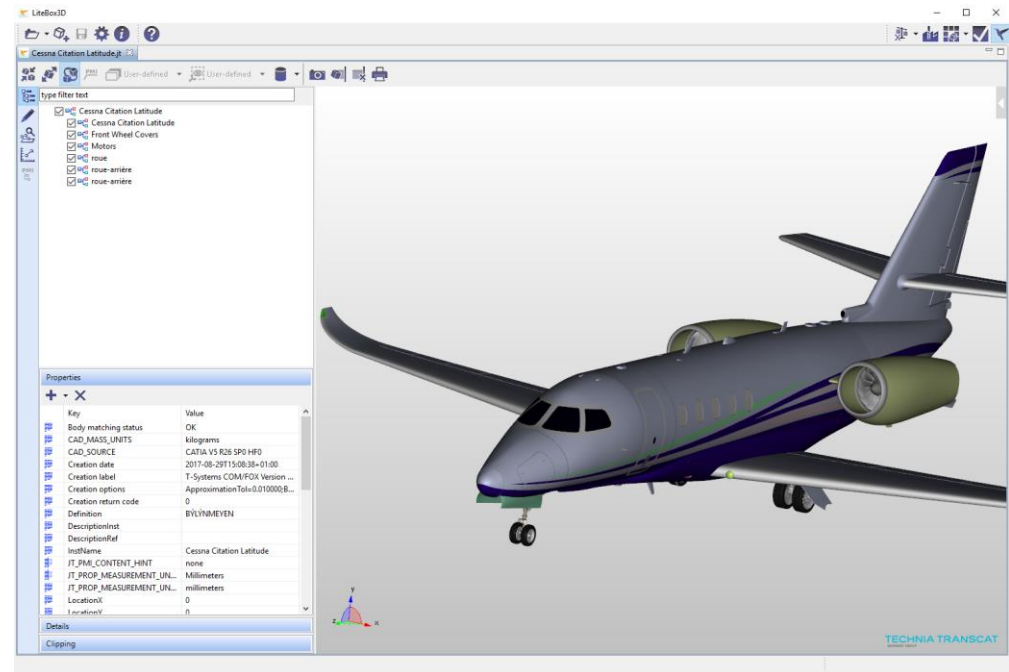


Lite3D Platform



Viewer for Desktop

- **Free**
 - Most User friendly JT viewer on the market
- **Pro Version**
 - Enhanced functionality
 - Edit Properties
 - Create and manage Redlining
 - Silhouette creation
 - Adjustment of lighting settings
 - Geometry / Topology analysis
 - Image Capture Batch Tool
 - BOM and 3D HTML Export
 - PMI Tree



Click →

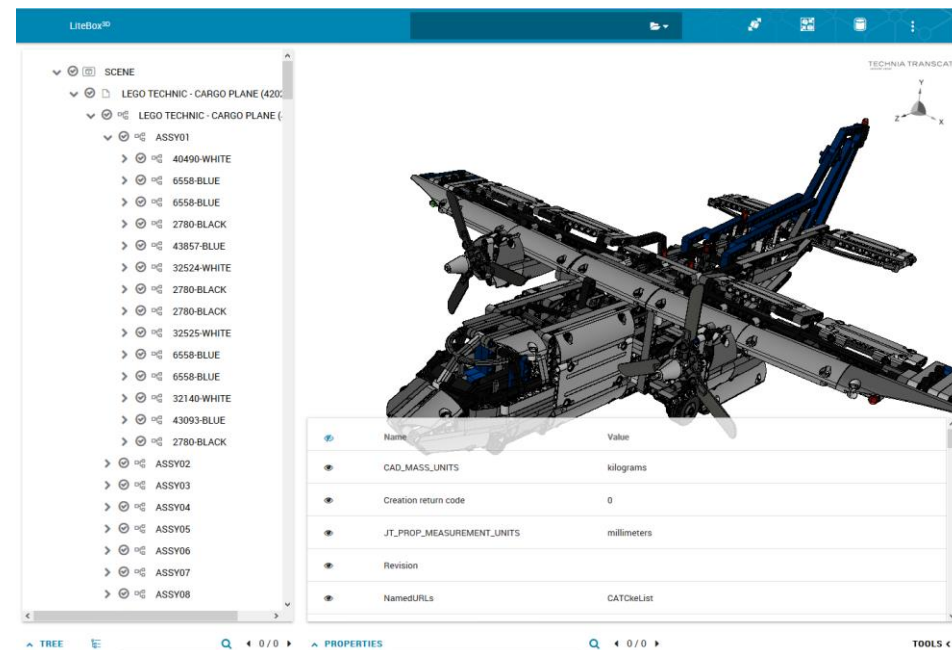
Download

Click →

Free vs Pro

Web Viewer

- **Viewing of JT data on the web**
 - Based on HTML5, WebGL and modern browsers
 - No Plugin required on client side
 - Client-side rendering
 - API to integrate the viewer and add-ons into own web-based application
- **Other Lite3D applications will follow in future to be provided by web**

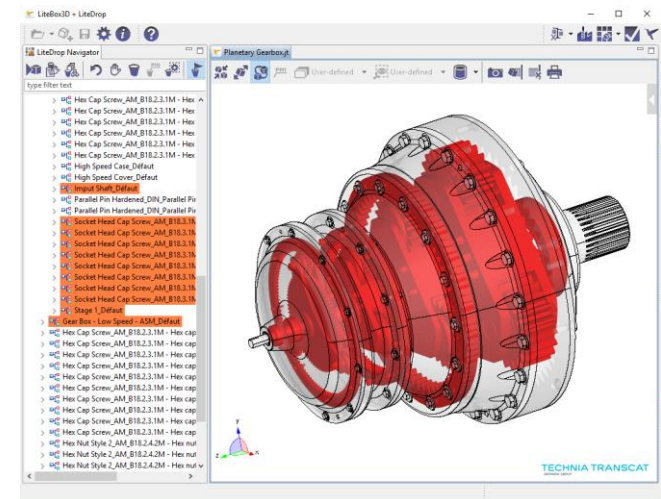
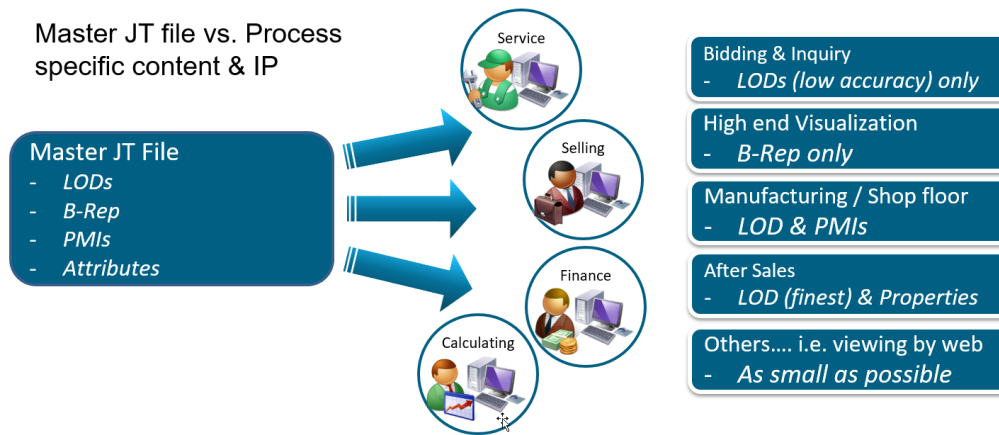


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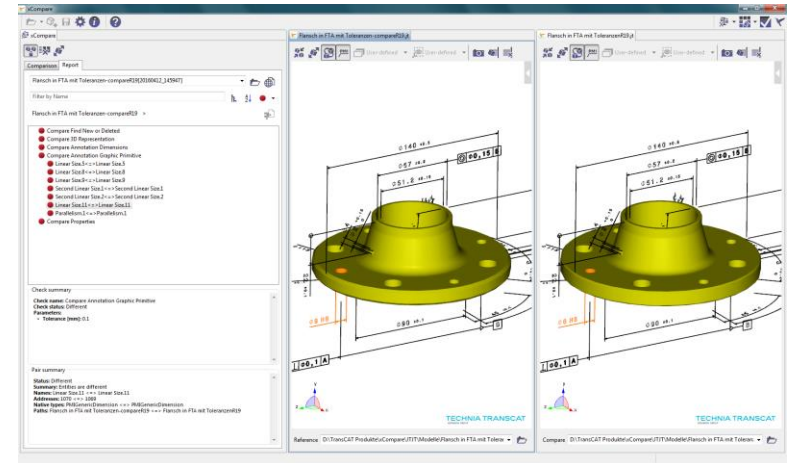
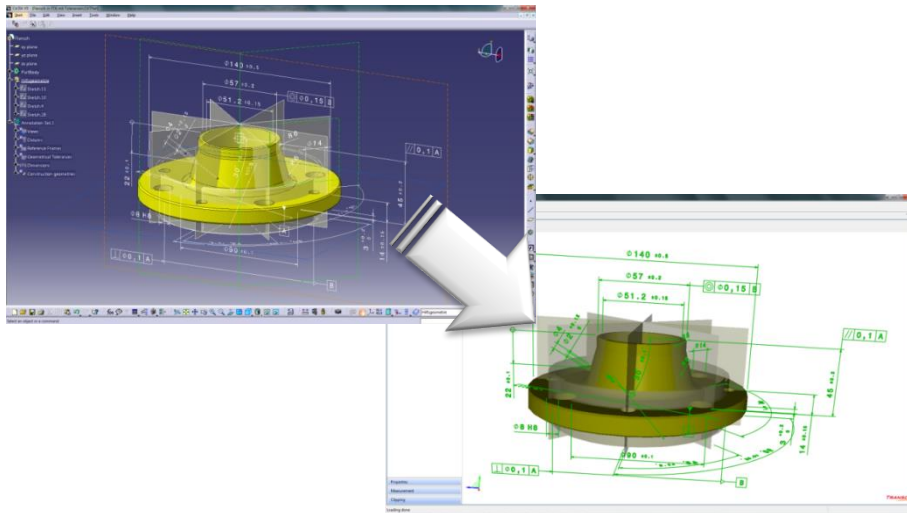
Try Online

- Data Clearing – IP Protection and Simplification
- Extract process specific content & IP from a Master JT file
- High performance JT's with just what's needed and you want to share
- Removal of invisible parts

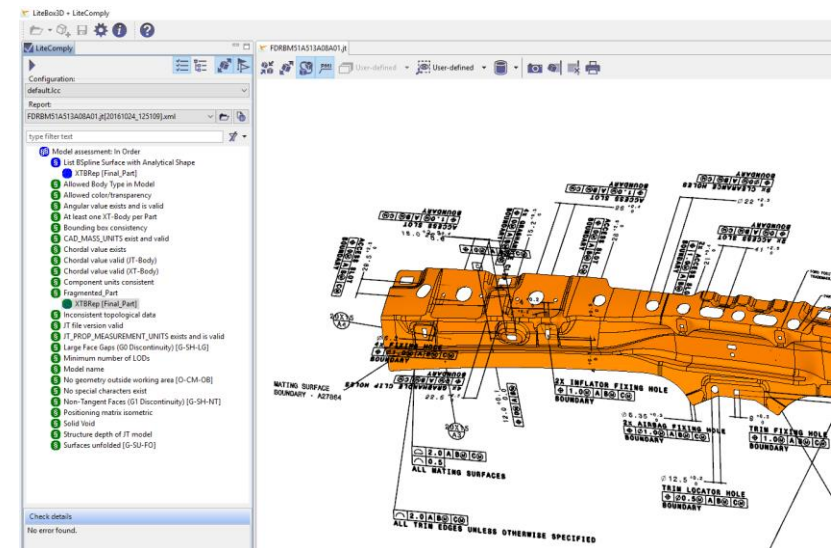
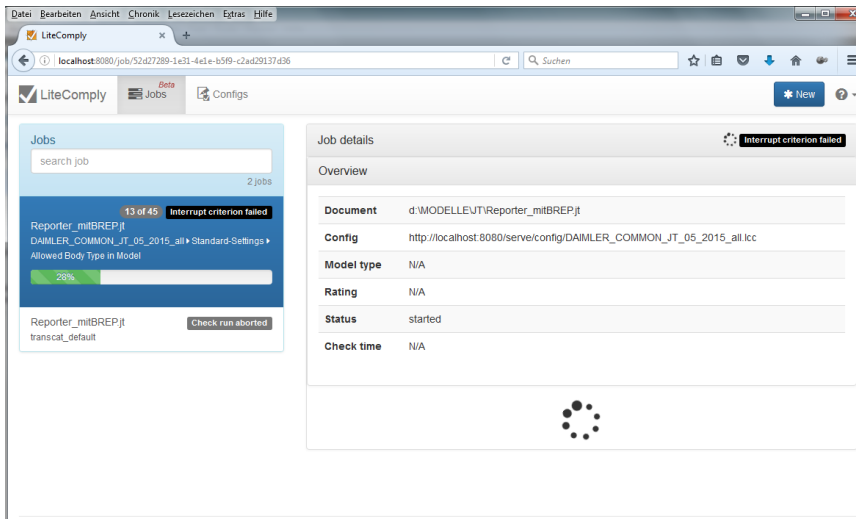
Master JT file vs. Process specific content & IP



- Validate new revisions and model translation in CATIA and JT
- Geometry and feature based model comparison
- Well documented change reports



- Data Quality for JT and TIFF
- Extensive rule library for geometry and standards
- JT data ready for the extended enterprise

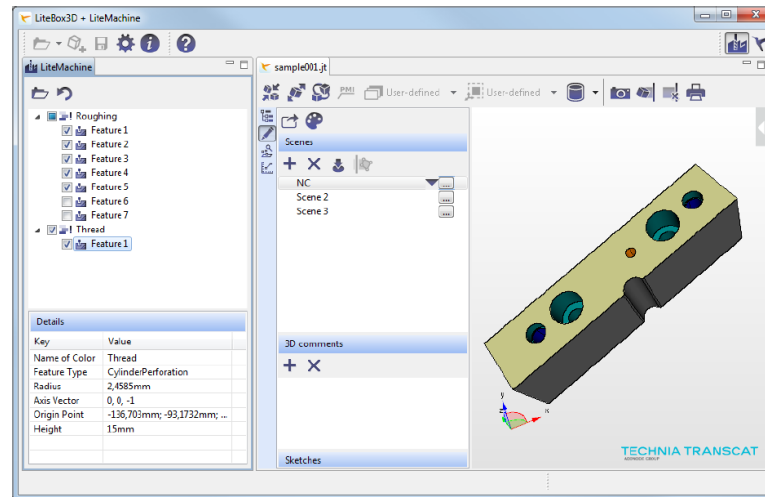


LiteMachine

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LiteMachine 

- Lite communication from design to manufacturing
- LiteMachine analyzes the JT model and automatically detects color-coded features to be manufactured.
- Information for NC operations is calculated based on the 3D model and can be saved in an Lite3D XML file.

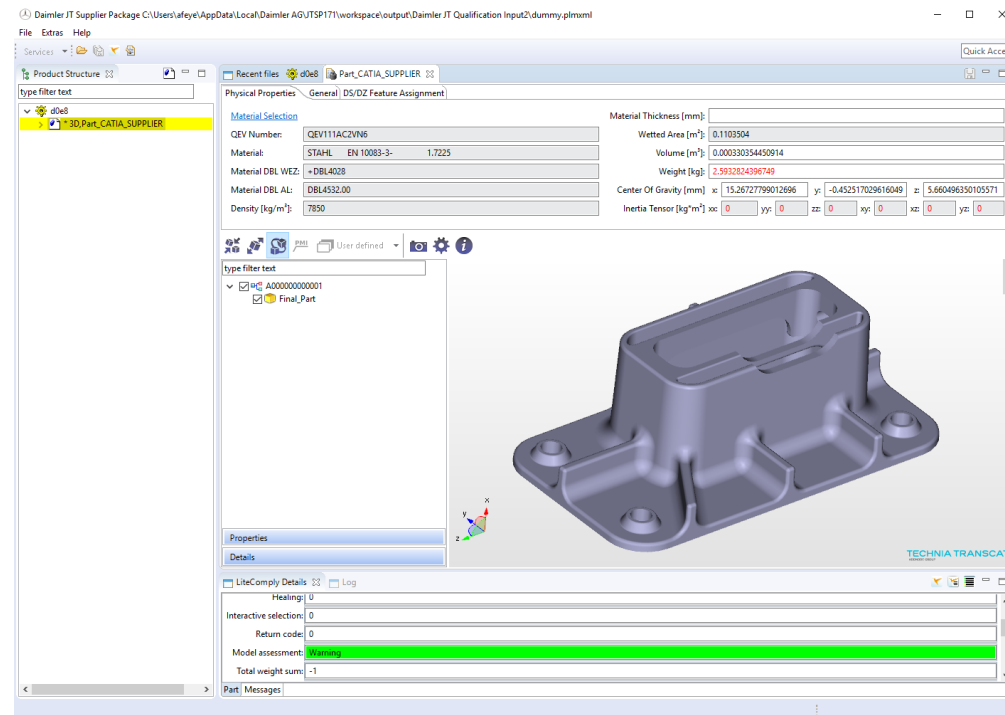


Use Cases

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Data exchange

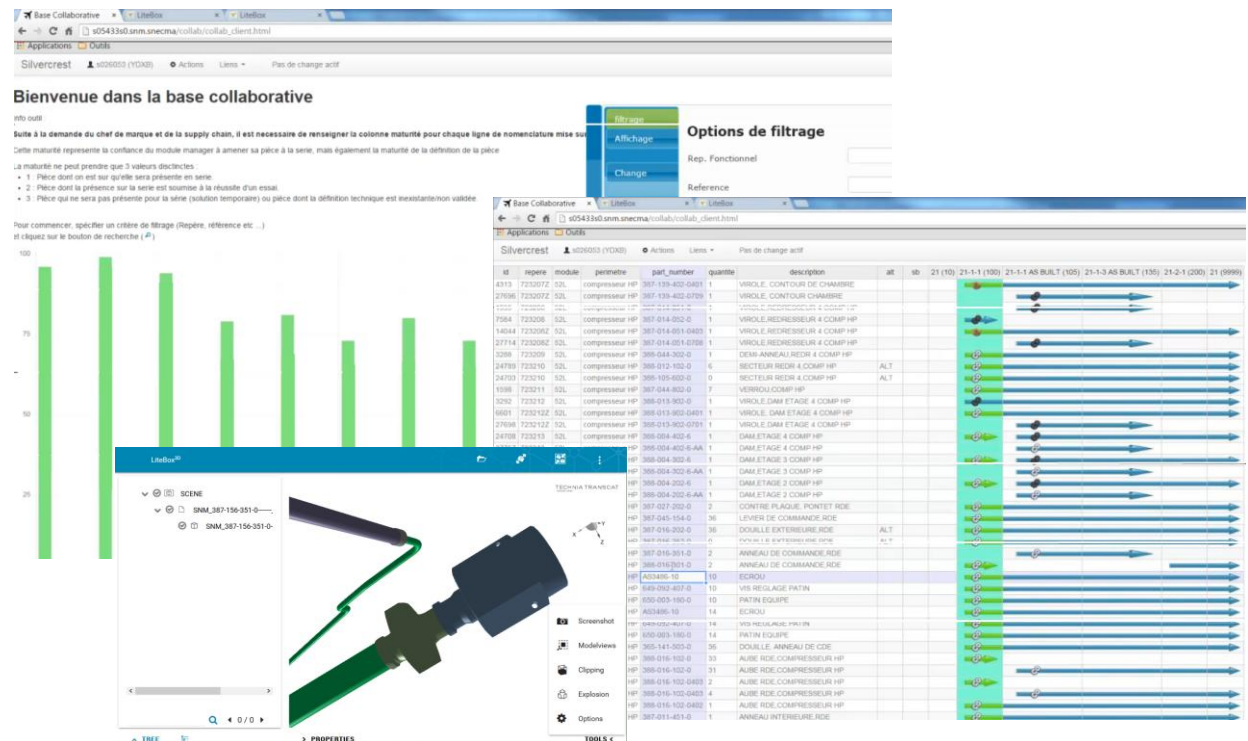
- **Daimler JT Supplier Package**
 - Viewing components based on LiteBox3D Desktop viewer
 - JT ISO & Tiff
 - Writing of JT properties with TechniaTranscat software
 - Customer specific functionality for Title block handling in Tiff
 - JT data quality proven with LiteComply



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BOM Manager

- LiteBox3D Web viewer integrated in BOM manager at Safran Aircraft Engines
- Prototype used in production on specific programs

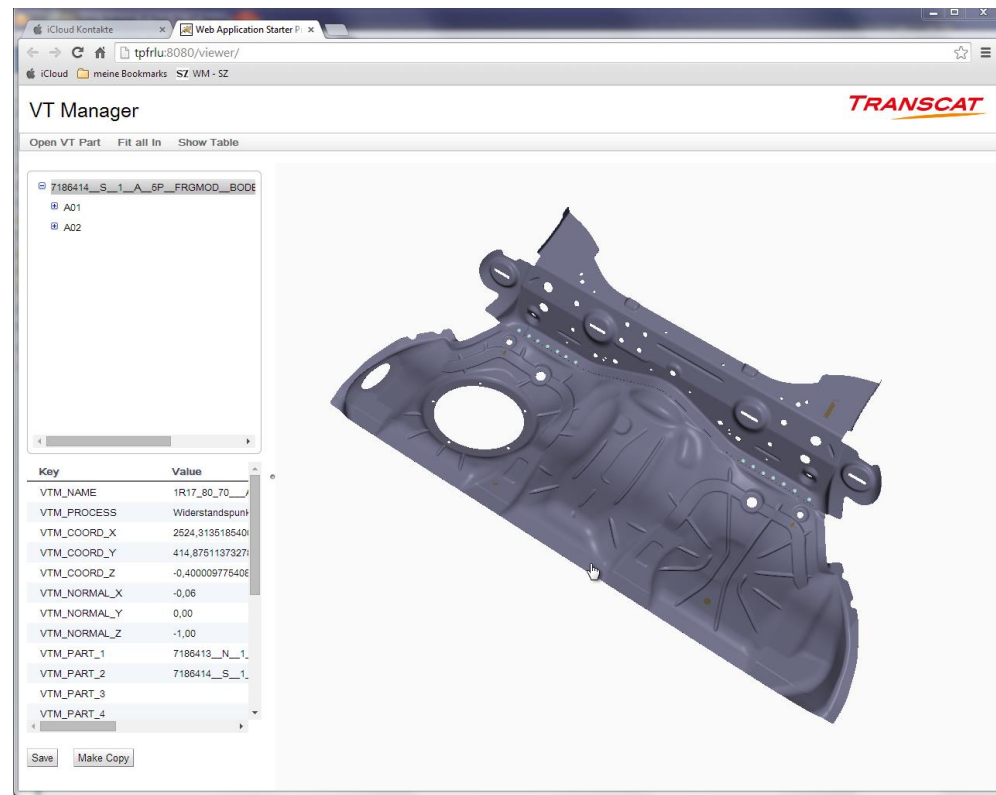


Use Cases

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Management of welding points

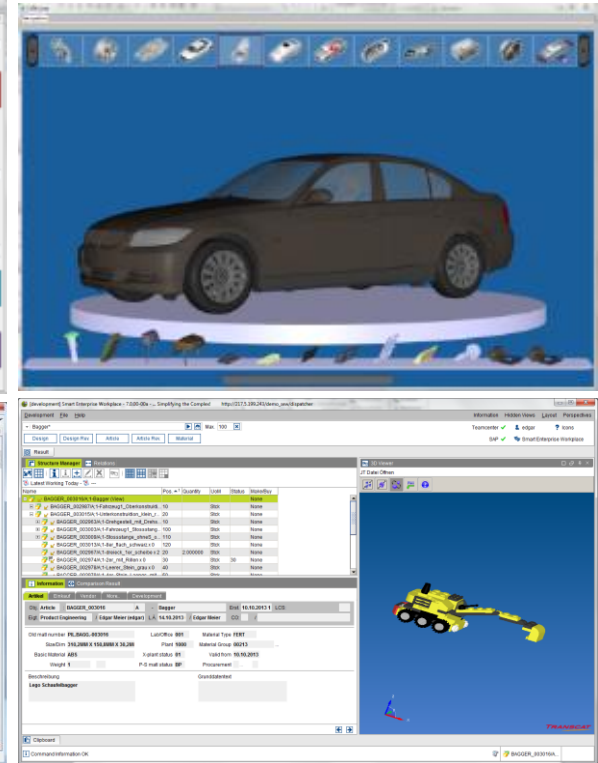
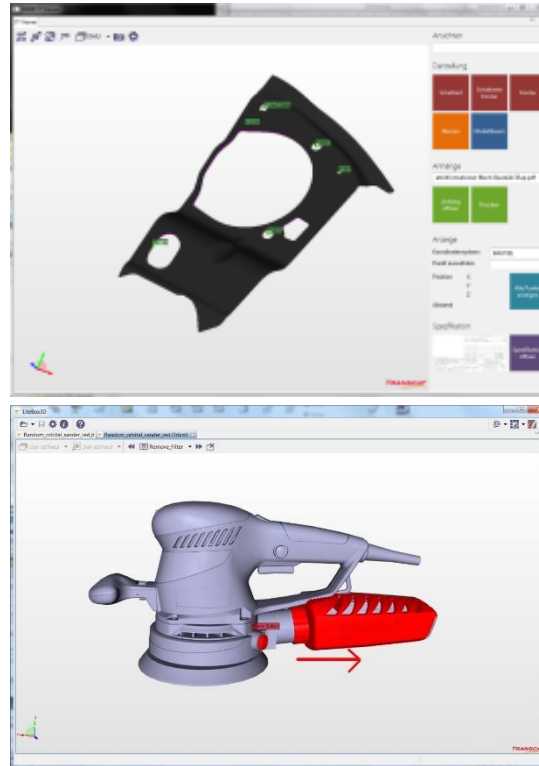
- JT web viewing combined with database containing welding point information
- Aim:
 - Reduce CAD usage
 - Easy to use and mobile device ready application



Use Cases

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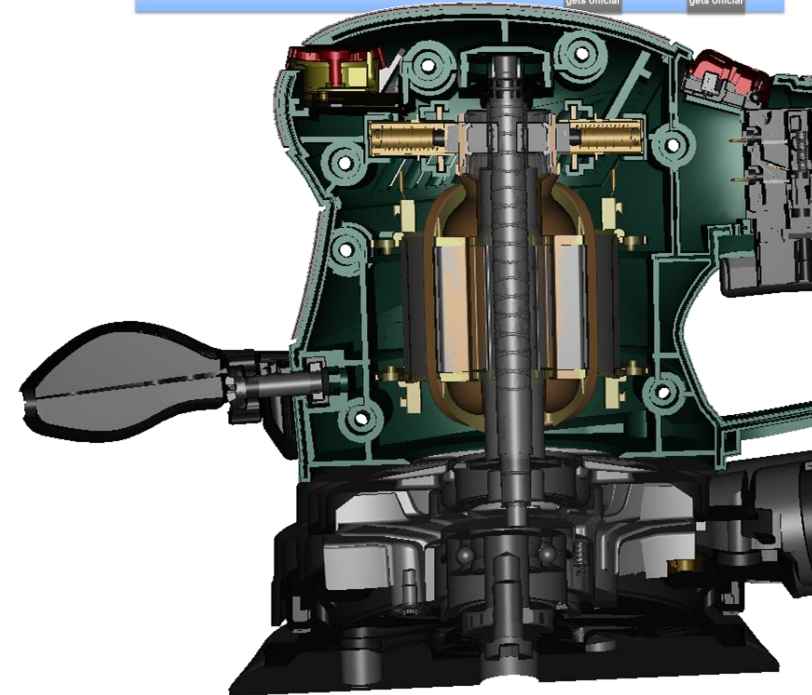
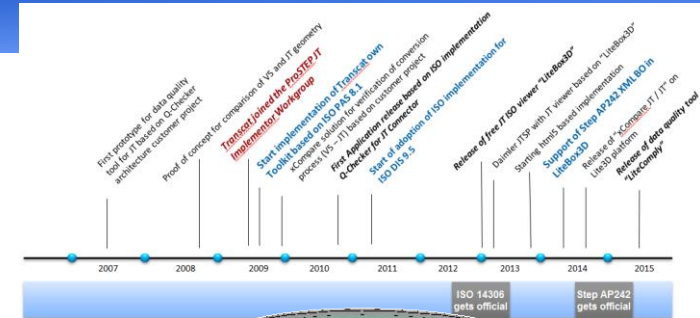
- Spare part catalogs
- Viewing embedded in PDM/ERP
- Customer specific applications
- Work instructions
 - Using LiteBox3D Pro redlining functionality



Takeaways

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- MBD/3D Master is the future – TechniaTranscat offers several solutions to help customers achieving this
- TechniaTranscat provides consulting services and develops custom specific applications in the JT domain
- TechniaTranscat is the 3DExperience partner number one globally



Thank you!

Questions?

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