

Using 3D/PDF
Presenting the 3D
Annotation / PMI
with 3D Geometry
of 3D/MBD Data

John Welton / Theorem Solutions

GLOBAL PRODUCT DATA
INTEROPERABILITY
S U M M I T
2015

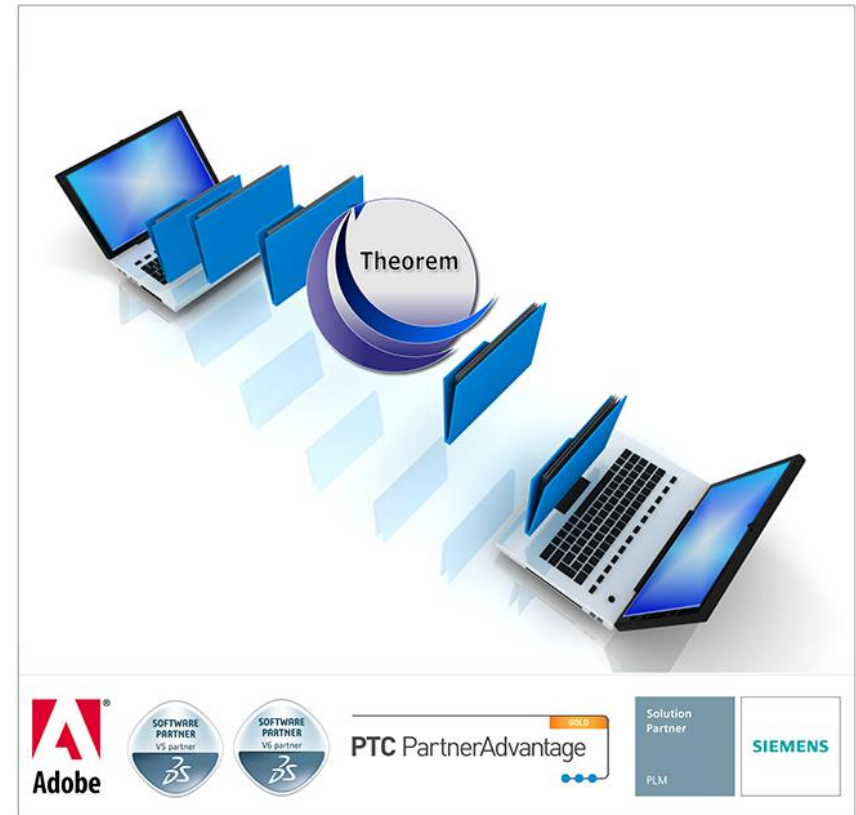


3D Annotation/PMI with 3D Geometry of 3D/MBD

Global Product Data Interoperability Summit | 2015

- **Data Collaboration of 3D Annotation & PMI with 3D Geometry of 3D/MBD has significant benefits in the Product Life-cycle Management with its availability and true integrity.**
- **Presenting these 3D/MBD data, the 3D Geometry with 3D Annotation, with CAD-independent viewer have been a great challenge to Data Collaboration, Interoperability and Exchange. Theorem Solutions' 3D/PDF Publisher can be used to fulfill these challenges with simply only using the Acrobat's Adobe Reader to view the content of 3D/MBD data.**

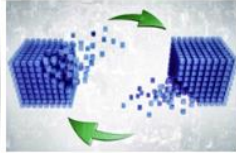
- **Theorem Solutions**
 - Established in 1990
 - Engineering heritage
- **Locations**
 - UK Head Office
 - 2 US Offices
- **Products**
 - Engineering Data Translation
 - Process Automation
 - Supply Chain Interaction
 - Publishing
- **Consultancy Services**
 - Implementation
 - Training



- **Development Partnerships**
 - Vendor APIs
 - ISO Standards i.e. STEP / JT

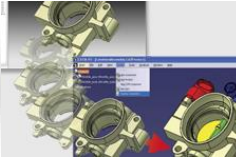
Theorem Product Brands

CADverter



Direct translation of 3D data to or from an alternate CAD, Visualization or Standards Based format

Multi-CAD



Interactive integration of non-native 3D data formats into the native CAD system

Visualize 3D



Direct translation of 3D data for the purpose of Visualization

Publish 3D



The creation of documents enriched with 3D content

Process Automation



Applications to automate any Data Exchange and collaboration processes

Publish 3D Overview

• Publish 3D Interactive

- “Save As” PDF plug-in for CAD applications
- Pre-defined templates
- Bespoke templates via consultancy activity

• Publish 3D On Demand

- CATIA V5 / NX / Creo Parametric (Pro/E) / JT to PDF translators
- Batch processing
- Bespoke templates via consultancy activity

• Publish 3D Automated

- Customised integration of standard Theorem product your current applications
- Bespoke or standard templates
- Batch publishing with customized workflows

• 3D PDF Add On

- Available for CAD to CAD and CAD to Visualization Translators

Theorem Solutions

Bill of Materials Listing

3D Data - Click to activate

Part Status

Part no. _Rear_Suspension_R18.CATProduct

Description Fully rear suspension assembly

Status Released for Prototype

Date Thu Mar 05 09:38:45 2015

Authorisation Dave Signatory

Notes This is an example to illustrate:
 1- notes can be in external file and can be formatted
 2- style sheet used to colour table
 3- use of join table data
 4- landscape example
 5- use of drop down selection

ISO Capture

Section Right

Part no.	Quantity	Designed By	Designer	Source	Cage Code	Cost	Manufactured By	Weight
Rear Suspension - Damper Support	1	Smiths	R.Smith	UK	3T	20.00	purchased	1.3kg
Rear Suspension - Support	1	A.J Autos	A.S.Lock	UK	3	1.50	in house	0.4kg
Rear Suspension right	1	SB Automotive	J.C.Cook	USA	4A	119.00	in house	3.4kg
Wheel Flaring	2	BCCZ-Son	Dr.Harris	USA	88Q	2.50	purchased	99g
Wheel Nut	2	SB Automotive	R.Smith	UK	88Q	9.87	in house	250g
Drive Train Threaded rod	2	Smith & Harris	Unknown	France	6C	19.99	purchased	30g
Rear Suspension - Lower Triangle pin	2	SB Automotive	Dave Davis	Germany	2K	45.25	in house	165g
Rear Suspension - Axle Pivot/Lower pin	2	SB Automotive	Dave Davis	UK	2K	16.50	in house	45g
Rear Suspension - Axle Pivot Upper Pin	2	SB Automotive	Jane Jones	UK	2K	10.28	in house	345g
Rear Suspension - Upper Triangle pin	2	SB Automotive	Jane Jones	Germany	2K	10.28	in house	345g
Rear Suspension - Lower Triangle	2	A.J Autos	P.Charles	UK	88A	11.00	in house	45g
Rear Suspension - Upper Triangle	2	BCCZ-Son	J.C.Cook	UK	4A	7.06	in house	3.4kg
Rear Suspension - Pivot Housing	2	DH-Fuses	Dr.Harris	USA	66Z	13.95	purchased	99g
Rear Suspension - Upper Triangle Head	2	ACME Fasteners	R.Smith	UK	88Q	20.90	in house	250g

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 Registered in England No. 2081114

Publish3D Licensing Options

Option 2: Automated

- Contains both the interactive and On Demand functionality
- Automated batch PDF publishing application
- Processing of large volumes of data
- Can be run unattended using the user's (Unified 0, 125, 500 users) license
 - leveraging CAD licenses when designers aren't using them
- Multiple PDF's can be created – RFQ, ECR, BOM....
- Watch Directory functionality
 - Can be linked with Teamcenter, Envovia, Windchill, etc.

Publish3D Demonstration