

# **User Guide** JT<->Catia Composer

Product Category	CADTranslate
Product Group	JT<->Catia Composer
Product Release Version	26.1

Document Type	User Guide
Document Status	Released
Document Revision	1.0
Document Author	Bruce Pittman
Document Issued	23/01/2024

0	THEOREM HOUSE
	MARSTON PARK
	BONEHILL RD
	TAMWORTH
	B78 3HU
	UNITED KINGDOM

Section 44(0)1827 305 350

THEOREM SOLUTIONS INC.
 100 WEST BIG BEAVER
 TROY
 MICHIGAN
 48084
 USA

🌭 +(513) 576 1100



## Contents

Overview of TRANSLATE	
About Theorem	3
Theorem's Product Suite CAD <b>Translate</b> CAD <b>Publish</b> Theorem <b>XR</b>	4 4
The JT – Catia Composer Translator	5
Primary Product Features	5
Primary Product benefits?	5
Getting Started	6
Documentation & Installation Media	6
Installation	6
License Configuration	6
Using the Product	6
Using the Product	7
Running the Product	7
Using the Catia Composer Product	8
Using the Catia Composer Sync Product	
Using the Catia Composer Enterprise Sync Product	
Large Assembly Processing	



## **Overview of TRANSLATE**

### About Theorem



Theorem Solutions is a world leader in the field of Engineering Data Services and Solutions. This leadership position stems from the quality of our technology and the people in the company. Quality comes not only from the skills and commitment of our staff, but also from the vigorous industrial use of our technology & services by world leading customers.

We are proud that the vast majority of the world's leading Automotive, Aerospace, Defense, Power Generation and Transportation companies and their Supply chains use our products and services daily. Working closely with our customers, to both fully understand their requirements and feed their input into our development processes has significantly contributed to our technology and industry knowledge.

Theorem Solutions is an independent UK headquartered company incorporated in 1990, with sales and support offices in the UK and USA. Theorem has strong relationships with the major CAD and PLM vendors, including; Autodesk, Dassault Systemes, ICEM Technologies (a Dassault company), PTC, SolidWorks, Spatial Technology and Siemens PLM Software. These relationships enable us to deliver best in class services and solutions to engineering companies worldwide.



## Theorem's Product Suite

Theorem have 3 main Product brands. These are:



#### CAD**Translate**

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

See our <u>website</u> for more detail.



## CAD**Publish**

The creation of documents enriched with 3D content

See our <u>website</u> for more detail.



### Theorem XR

Visualization for <u>Augmented (AR)</u>, <u>Mixed (MR)</u> and <u>Virtual (VR)</u> Reality applications

See our <u>website</u> for more detail.



### The JT – Catia Composer Translator

The translator may be installed on a number of machines each accessing a central network-floating license.

Theorem's Visualise 3D product for JT to Catia Composer is a direct converter between Siemens JT parts and Catia Composer .smg format. It enables the user to convert all forms of mechanical design geometry, as well as assembly and attribute information, between these two systems.

The JT-Catia Composer Visualise 3D can be used interactively or in a batch mode, from a standard GUI Interface, offering combined viewing, data filtering and translation capabilities.

#### **Primary Product Features**

- Converts all types of geometry, wire frame, surfaces, trimmed surfaces (faces) and solid models
- Converts assembly structure between the systems
- Converts attribute data including colour and layer information
- The conversion process can be run Interactively or in Batch mode

#### Primary Product benefits?

- Direct conversion between JT and Catia Composer reduces processing time, simplifies integration and retains accuracy of the model
- The integrated viewing capability enables visual verification, pre and post translation
- By converting all forms of geometry no data is lost, eliminating the time required to recreate missing data
- With over 20 years industrial use, Theorem's product robustness and quality is well proven, reducing your business risk

This document will focus specifically on guidance for the use of the Visualise 3D for JT-Catia Composer product. For information regarding any of Theorem's product ranges please contact <u>sales@theorem.com</u>



## **Getting Started**

#### **Documentation & Installation Media**

The latest copy of the User Guide documentation can be found on our web site at:

#### http://www.theorem.com/Documentation

Each product has a specific link that provides user documentation in the form of PDF and Tutorials.

The latest copy of Theorem software can be found via the link above and by searching for the specific product. Each product has a specific link to the Product Release Document, which contains a link to the download location of the installation CD.

Alternatively, you can request a copy of the software to be shipped on a physical CD.

#### Installation

The installation is run from the .msi file download provided. For full details of the installation process, visit <u>www.theorem.com/documentation</u> and select UI from the product selection list.

#### License Configuration

To run any product a valid license file is required. The Flex License Manager is run from the .msi file download provided. For full details of the installation process, visit <u>www.theorem.com/documentation</u>

#### Using the Product

To use the product, follow the documented steps found in this document or follow the online video tutorials which can be found from <u>www.theorem.com/documentation</u>



## Using the Product

### Running the Product

Once configured and licensed, the product is ready to be run.

- Interactively from within Catia Composer
  - The Interactive Interface provides a direct method of Translating JT data into Catia Composer.
    - For a full guide to this process, please see our "Catia Composer Interactive" demonstration video located <u>here</u>.
- Batch via Catia Composer Sync



- The Catia Composer Sync Interface offers a Desktop Environment that allows the batch processing of multiple JT files into Catia Composer
  - For a full guide to this process, see the Catia Composer Command Line (Sync)" demonstration video located here.
  - o This product requires an additional license



- Via the Catia Composer Sync Enterprise Command Line
- The Command Line Interface provides a direct method of invoking the translator. It can be used via a DOS shell or called via a third party application as part of a wider process requirement.
  - For a full guide to this process, please see the Catia Composer Batch (Enterprise Sync)" demonstration video located here.
  - This product requires an additional license



## Using the Catia Composer Product

Once the Theorem JT-Catia product has been installed, the options to select the "Jt Theorem (.jt) format and the "PLMXML Theorem (.plmxml)" format will be added to the "Open" "Files of type" list.

🔁 Open					-
Look in:	support_test	•	G 🖻 📂 🛄 -		
<b>A</b>	Name		Date modified	Туре	V Preview
Recent Places	Affice ↓ 17.3 ↓ 19.3 ↓ A4812001E003.jt ↓ A4812001E003.smg		24/05/2017 10:35 24/05/2017 10:36 22/05/2017 17:12 25/05/2017 10:11	File folder File folder DirectMod SMG File	
Libraries					Open
Computer					Merge into the curren document
Vietwork	•	III		Þ	Merge into a new document
	File name:		-	Open	
	Files of type:	All authorized 3D files	-	Cancel	
	Recent folders:	CATIA V4 Export(.exp, .catexp, .dlv, CATIA V5 Part (.CATPart) - CATIA V5 Part (.CATShape)	dlv3)		
🚺 Import		CATIA V5 Graphic data (.cgr) CATIA V5 Assembly (.CATProduct)	-		
⅔ Refinement		Dassault Systemes (.3dxml) IGES (igs. iges) STEP AP203 AP214 (.stpstep) VDA (.vda) PTC ProE Part (.pt) PTC ProE Part (.pt) PTC ProE Part (.pt) PTC ProE Family (.xpr.,xas) Discreet 30 Studio (.3ds) Alias Wavefront (.obj) stereolithography (.stl) VTML 2.0 (.wl) Unavailable SOLIDWORKS Part (.st Unavailable SOLIDWORKS Assemt Unavailable Inventor Part (.ipt) Unavailable Inventor Part (.ipt) Unavailable Inventor Part (.ipt)	ldprt) ∋ly (.sidasm) ≡	mport coordina mport CATIA V mport CATIA V mport textures mport PMI	/5 graphic data /4 hierarchy 5
		Ut Theorem (;t) PLMXML Theorem (,plmxml) All supported image files Bitmap (bmp) Jpeg (,ipg, ,ipeg, ,ipe) Targa (,tga) Rgb (,rgb) SVG (,svg)			



The file can be opened as a new document or can be merged into the current or a new document by selecting either "Open", "Merge into the current document" or "Merge into a new document".

🛃 Open					
Look in:	🕌 Theorem	•	G 🤌 📂 🛄 -		
Recent Places	Name	♪ Dimxml	Date modified 09/10/2013 16:03 29/07/2015 13:27	Type File folder DirectMoc	Preview
Libraries Computer Computer	۲ile name:	111	-	Dpen 1	Open     Merge into the current     document     Merge into a new     document
	Files of type: Recent folders:	All authorized 3D files P:\apps\plmxml\Theorem	•	Cancel	
Import % Refinement		Import profile Custom Merge file into one actor per Import instance names Import instance names Import as bodies Import areas, volumes, inert Import points Import curves Import curves Import free faces Import hidden components (	ia axes	port coordina port CATIA V port CATIA V port CATIA V port textures port PMI Overwrite c	5 graphic data 4 hierarchy

The import options at the bottom of the page will allow you to define how the JT data is opened, for instance the import of points, curves or pmi.



## Using the Catia Composer Sync Product

The Catia Composer Sync product allows you to create batch translations of multiple files. The batch files can be translated immediately (Translate) or can be saved as a Catia Composer Sync batch (.seeb) file to be executed later.

🛃 CATIA Composer Sync (64-bit)		- • •
Monitor Access to Yo	our 3D Native CAD Repository	
Files	🚡 Files	
	Folder C:\Theorem\CAD_19.5_JTSWC_WIN.01\samples\JT\nist	🔹 🛃 👔 🖬 🔹
Publish	anist_01jt anist_02jt bit (C:)	
🥸 Right Manager	tar dano tar dano ta	
Repair/Refinement	ia-]i output ia-1i java_64	
Feature Filtering	⊕- <mark>u</mark> Perflogs ⊕- uP Program Files ⊕- uP Program Files (¢80)	
Toport Options	ip-ji Renault ⊕-ji SwSETUP ⊕-ji SWSET	
Image Configuration	Ist, output     Theorem	
PDF Configuration	Filter All authorized 30 files	Add to List
Cogging	Files and folders to translate:	J
Default Settings	Ci(Theorem)CAD_98_JTSWC_WIN.01[samples])T[risk]net_01.8 Ci(Theorem)CAD_195_JTSWC_WIN.01[samples])T[risk]net_02,8 Ci(Theorem)CAD_195_JTSWC_WIN.01[samples])T[risk]net_03,8 Ci(Theorem)CAD_195_JTSWC_WIN.01[samples])T[risk]net_04,8 Ci(Theorem)CAD_195_JTSWC_WIN.01[samples])T[risk]net_04,8	Remove Remove All
Scheduling		
	Recurse subfolders	
🥑 Help 🔻 🔳 File 🔹	More Properties	C Exit

The "Import Options" are the same as the Catia Composer product.

🛃 CATIA Composer Sync (64-bit)			- • •
Monitor Access to `	Your 3D Native CAD Repository		
I Files	b Import Options		
😣 Publish	INPUT	(when translating to CATIA Composer format)	
🥹 Right Manager	IMPORT	Import coordinate systems	
✤ Repair/Refinement	Import instance names Import meta-properties	Import CATIA V5 graphic data Import CATIA V4 hierarchy	
<b>T</b> Feature Filtering	Import as bodies Import areas, volumes, inertia axes	Import textures Import PMI Overwrite color	
Import Options	Import points		
Image Configuration	✓ Import free faces ✓ Import hidden components (no show)	SOLIDWORKS version Auto Detect	
PDF Configuration			
Cogging			
Default Settings			
Scheduling			
🥹 Help 🔻 📃 File	More Properties	🖙 🗈 Translate	🖸 Exit

Using the Catia Composer Enterprise Sync Product

This product allows the user to run the translator from the command line, thus enabling the translator to be incorporated into any other script or programme. The command line syntax is:-

#### %TS\_INST%/bin/ComposerConverter.exe filename.jt

By default the output .smg file will have the same name as the jt file and will be created in the same directory.

## Large Assembly Processing

Efficient Large Assembly Processing (LAP) is now afforded via the following scripts :

Run the following script to use the LAP process:

(For CATIA Composer or SolidWorks Composer to run)

%TS\_INST%\bin\CATIA\_Composer\_lap.bat <JT or PLMXML assembly>