TRANSLATE

Theorem's **Translate** suite of solutions enable **you** to work with and share native 3D CAD and Visualization data authored in different design systems.

Theorem have three solutions available dependent upon your use case and data exchange requirements; **CADverter**, **Lightweight 3D** and **Multi-CAD**. Each supporting the translation of 3D Product Manufacturing Information (PMI), assembly structure, geometry, attributes and metadata for a complete Model-Based Engineering process.

| CADverter

When you require direct CAD to CAD or CAD to STEP translations between the world's leading mechanical CAD systems.

| Lightweight-3D

For when you need translation between 3D CAD and 3D Visualization formats such as 3DXML, Creo View and JT; helping to protect IP.

| Multi-CAD

Supporting design in context and enables CATIA V5 and 3DEXPERIENCE users to work interactively with Creo, NX or JT without the need for external translation, within a native CATIA design session

| Who should use Theorem Translate?

If you are using one of the major CAD or Visualization applications as your design authoring tool as part of your product design process, you will inevitably need to exchange native design data with suppliers, partners and other areas of your business that is in an incompatible format. Receiving data that you can't open directly within your own system will require you to seek a translation solution in order to save the time and effort to complete a rework.

Translate enables you to access the different 3D CAD and visualization data sets using the robust and high quality translation capabilities built upon vendor API's.

Theorem Solutions

|Why

If you are working with suppliers on different design projects, or have a single partner with a specific but different CAD system to yourselves, then the TRANSLATE range of products give you the edge and capability that you need to receive, create, or share CAD data that is not native in your own company.

Due to the nature of design in engineering companies, there is no one standard CAD system. Manufacturers and their supply chains often have different systems in place, often within the same four walls of the company. Each of these has particular nuances and they store their design information in widely differing formats.

As technology has evolved, and the performance capabilities of computers has dramatically improved, it has enabled a much wider set of use cases and applications to be commercially and technically viable. However, these different use cases and applications require different types of 3D data in order to work. Sometimes the differences in the 3D data are subtle, in other cases the differences are significant.

Translation is the enabler that allows all of the different types of 3D data to be created.

MBD
Theorem's **TRANSLATE** products support the translation of 3D Product Manufacturing Information (PMI), assembly structure, geometry, attributes and metadata between the worlds' leading mechanical CAD/CAM systems enabling Model-Based Engineering.

|How

How can Translate products be of benefit?

By enabling you to translate data between different formats and work with incompatible data, Theorem's Translate products allow you to collaborate and share data throughout your supply chain.

|Benefits

- Facilitate cross-platform collaboration
- Built upon proven products and validation technology
- Help to improve the process of design collaboration between CAD and Visualisation users
- Seamless exchange of data
- Streamlines the product lifecycle management process
- Handle tessellated and precise data as well as PMI
- Facilitates the re-use of 3D design data in the visualisation format of choice
- The use of lightweight formats help to protect IP
- Lightweight formats also help to futureproof 3D design data
- Integrated directly within vendor applications but can be used in batch
- Built with development tools and APIs supplied and supported by the CAD and Visualisation vendors
- Provides support for exchanging PMI data for downstream activities
- Options available to publish data to 3D PDF format to create interactive documentation from source data
- Options available to visualise CAD and lightweight data assets in the latest Augmented, Mixed and Virtual Reality technologies.

| Uniquely

Our unique approach to the challenge of an enterprise level workflow is built from over 25 years of experience with CAD to CAD conversion and PLM data exchange. Our solutions are built with development tools and APIs supplied and supported by the major CAD vendors that we have strategic partnerships with. This means we can provide you with a robust application that offers full control over data preparation and optimization for the target formats.

|Translate

CADverter

Our high quality and cost effective CADverter solutions can help you solve any issues of working with and sharing, incompatible data formats. Theorem's CADverter's will help you to achieve a completely digital product lifecycle process, from concept, to design, to production.

If you are working with suppliers on different design projects, or have a single partner with a specific but different CAD system to yourselves, then the CADverter products give you the edge and capability that you need to receive, create, or share CAD data that is not native in your own company and helps to reduce costs, time to manufacture, and improve quality.

CADverter's are direct database converters that can be integrated with any workflow or PDM/PLM environment. They are available in uni-directional and bi-directional configurations dependent upon product and user requirement.

Lightweight 3D

If you need to create visualization data to use within desktop viewing applications (including digital mock-up), and for data exchange, Lightweight 3D enables you to work with, and share, data directly between different CAD and Visualization applications.

With a product focus specifically on the direct translation of 3D CAD and 3D Visualization data, our Lightweight 3D solutions support 3DXML, Creo View and JT lightweight data formats, for 3D design data re-use in downstream activities.

The requirement to read visualization formats help to secure intellectual property, whilst at the same time, support a rich enough set of design data so that suppliers have all of the information required to complete their job. product and user requirement.

| Supporting

CAD Formats
► 3DEXPEREIENCE
► CADDS
► CATIA V4
► CATIA V5
► Creo Parametric
► ICEM Surf
► IDEAS NX
► Inventor
► NX
► Parasolid
► SolidWorks
► STEP

Visualization Formats
► 3D XML
► Creo View
► JT

Multi-CAD

If you are a CATIA V5 or CATIA 3DEXPERIENCE user, you could benefit from Multi-CAD. The Multi-CAD application is an interactive solution to the problems that can be encountered when a CATIA V5 or CATIA 3DEXPERIENCE user needs to work on projects where other CAD (Creo and NX) or Visualization (JT) data needs to be regularly worked on during a design project.

This product enables CATIA V5 and CATIA 3DEXPERIENCE users to work interactively with Creo, NX and JT data inside of a design session without the need for external translation and supports 3D Product Manufacturing Information (PMI), assembly structure, geometry, attributes and Metadata. Multi-CAD maintains the integrity and correct version of the imported data as it comes into CATIA V5 or CATIA 3DEXPERIENCE by keeping an associative link back to the source data. Using Multi-CAD offers a greater level of security and protection as the link to the source data is a direct link, without the need to leave the application or use third-party external applications. This also removes any errors that can occur from potentially working with old, out of date data.

About Theorem Solutions

Theorem Solutions have been helping engineering and manufacturing users leverage the value of their CAD and PLM assets for over 25 years. We help the world's leading Automotive, Aerospace, Defense, Power Generation, Transportation, and White Goods manufacturers and their end-to-end value chains to optimize the use of their Digital assets. Our solutions enable product development and manufacturing businesses to compress design and manufacturing lifecycles, whilst improving product quality. Our core strength is in the visualization and utilization of data across complex organizations to maximize efficiency.

Theorem Solutions offers a consultative approach to help customers get the most from technology. We advise on optimum use cases, deployment strategy, and custom development as required to maximize the Return on Investment.

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