



PUBLISH 3D for 3DExperience



USER GUIDE

Version 25.4

Revision: 1.0
Issued: 13/03/2023

Contents

Overview of Translate	2
About Theorem	2
Theorem's Product Suite	3
What is a 3D PDF?	4
What is Publish 3D?	5
What does Publish 3D provide?	5
Publish 3D supplied templates.....	6
Getting Started	7
Documentation & Installation Media	7
Installation.....	8
License Configuration	8
Using the Product.....	8
Running the Product.....	8
Translating Interactively from within 3DExperience	9
Launching 3DExperience with Theorem Plug-ins	9
Theorem Interactive Conversion Settings.....	10
Configuration Manager.....	14
Advanced Arguments.....	24
3DExperience Advanced Arguments	24
3DPDF Advanced Arguments.....	25
Templates	33
Publishing to a Specific List of Templates – via the Configuration Manager	33
Publishing without a Template – via the Configuration Manager	35
Interactive Export to 3DPDF	36
Translating in Batch using CATUtil – DataExchangePLMBatch.....	38
Launching DataExchangePLMBatch	38
Batch Export to 3DPDF	39
Translating on the Command Line	42
Log File Generation.....	45
Export process Log Files	45
3DExperience Environment Files.....	46
Appendix A – Creating a Login Ticket	47
Appendix B – Security Changes to Adobe Reader PDF Documents	49

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, Defence, 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:



TRANSLATE

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

See our [website](#) for more detail.



PUBLISH

The creation of documents enriched with 3D content

See our [website](#) for more detail.



VISUALIZE

Visualization for [Augmented \(AR\)](#), [Mixed \(MR\)](#) and [Virtual \(VR\)](#) Reality applications

See our [website](#) for more detail.

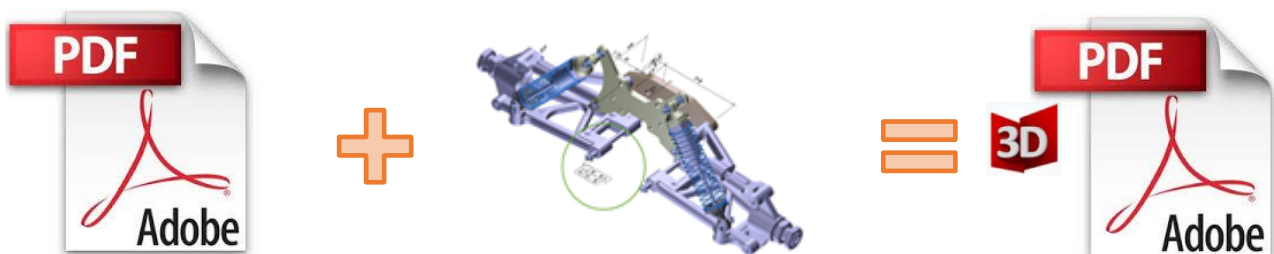
What is a 3D PDF?

In its simplest form a 3D PDF is a standard Adobe PDF document that contains interactive 3D content.

A PDF is a document format that can contain:

- 2D Graphics
- 3D Graphics (3D CAD model)
- Attached files to form a Technical Data Package
- The ability to interrogate and interact with the document.
- The ability to universally review CAD with a free viewer.
- Compressed data for optimum file size for sharing
- Support for Model Based Definition (MBD)
- The addition of 3D content to PDF allows your company:
 - To produce documents to fully describe the product
 - To achieve effective communication regarding product information.
 - To automate specific business processes
 - To improve understanding and eliminate ambiguity in relation to product data.
 - To create and extend customised, dynamic documents
 - To create rich documents with 3D content which can be consumed anywhere.
 - To create interactive and engaging documents such as brochures
 - It's already used for documents which commonly relate to products e.g.; Request for Quotation, Engineering Change Requests, Bill of Material reports, Inspection Documents, Works instructions, Service manuals, Sales literature, etc.

It's already used for documents which commonly relate to products e.g.; Request for Quotation, Engineering Change Requests, Bill of Material reports, Inspection Documents, Works instructions, Service manuals, Sales literature, etc.



Review our website [here](#) for a short video explaining 3D PDF or review our [Frequently asked questions](#) for more information

What is Publish 3D?

Theorem's **Publish 3D** brand - offers a 3D PDF publishing solution for organisations who design with 3DExperience, CATIA V5, Creo, NX or who want to extend the use of their JT data to create interactive 3D documentation - 3D PDF's.

The use of 3D PDF means that anybody can now consume, view and mark up 3D data with Adobe's ubiquitous Reader, eliminating the need to install specialist viewing software or to be trained to use a special tool.

Designed for organizations of all sizes, Publish 3D solutions are based on the original Adobe® and vendor specific technology, therefore are fully compatible with Acrobat and native CAD systems enabling users to take the intelligence contained within a 3D model directly into the world of PDF.

Theorem's Publish 3D suite of products is powered by native Adobe® technology 3D PDF publishing toolkit, which is also used in Adobe Acrobat® and Adobe Reader®.

For more information regarding Publish 3D Visualize please contact sales@theorem.com

What does Publish 3D provide?

A number of Adobe 3D PDF products and solutions are now available as part of the Theorem Solutions Publish 3D suite of applications:

- Publish 3D - **Interactive**
 - 3D PDF Publishing from within CAD Applications:
 - 3DExperience / CATIA V5 / Creo / NX
- Publish 3D - **On Demand**
 - Batch Publishing for:
 - 3DExperience / CATIA V5 / Creo / NX / JT
- Publish 3D - **Automated**
 - High volume batch 3D PDF Publishing Complex Workflow Support

The remainder of this document will focus on Publish 3D Support for 3DExperience to 3D PDF. For further information on other Theorem Publish 3D Products please contact sales@theorem.com

Publish 3D supplied templates

The “**Interactive**” Publish 3D for 3DExperience product in its basic form is limited to translating source data using a default template.

The configuration manager add on allows a user to create custom configurations using other templates alongside the interactive product functionality.

The “**On-Demand**” product will allow the use of other templates plus allow further translation options such as attachments.

Example templates are provided in the following location:

<installation_directory>\data\publish_3dpdf\templates

The following examples are available:

- publishAttachments – Illustrates adding attachments to a template
- publishBOM – Illustrates how to output an Assembly Bill of Materials
- publishMotion – Illustrates using CAD data with motion in PDF
- publishViewer – Illustrates JavaScript additions to a template replicating a CAD viewer

These templates are supplied as examples only and can be used by customers as a guide in creating their own template documents.

Theorem offer a wide range of services to assist customers with their document creation needs. If you would like more information regarding our template design services, please contact sales@theorem.com quoting “3D PDF Template Design”.

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's and Tutorials.

The latest copy of Theorem software can be found via the link above and by searching for the specific product. See image below:



Latest Release: Version V24.2

- [Product Release Notes](#)
- [User Guide](#)

Tutorials

- [Installation and Configuration](#)
- [License Server Configuration](#)
- [Configuration Manager](#)
- [Using in Interactive Mode](#)

Each product has a specific link to the Product Release Notes, which contains a link to the download location of the installation CD.

Installation

The installation is run from the .msi file download provided. For full details of the installation process, visit www.theorem.com/documentation

License Configuration

To run any product a valid license file is required. The Flex License Manager is run from the .msi file download provided. This can be accessed from the Product Release Notes. For full details of the installation process, visit www.theorem.com/documentation

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 www.theorem.com/documentation

Running the Product

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

There are 3 distinct ways of running the translator:

- Interactively from within 3DExperience



- The Interactive Interface provides a direct method of exporting from 3DExperience.

- In Batch via CATUtil - DataExchangePLMBatch



- The 3DExperience DataExchangePLMBatch Interface provides a direct method of invoking the translator. It can be used on an On Demand basis to translate single or multiple files.

- On the command Line



- A command line method of invoking the translator is possible.

Translating Interactively from within 3DExperience

Launching 3DExperience with Theorem Plug-ins

The 3DExperience to 3DPDF translator allows an opened 3DExperience part or assembly to be exported directly to 3DPDF.

In order to translate from within 3DExperience, the application must be started using a Theorem environment, so that the appropriate Theorem partner plug-ins are available. (See 3DExperience Environment files)

3DExperience can be started from a desktop shortcut created during installation.

Alternatively, it can be started via the script provided in the Translator installation located in:

<installation_directory>\bin

The script name is:

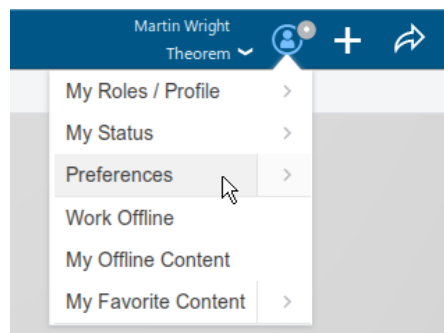
start_3DEXPERIENCE_Theorem_Multi-CAD_3DPDF_CATIAV6R<version>.cmd

(where <version> should be substituted for the version of 3DExperience that you have installed – e.g. 2020x, 2021x, 2022x):

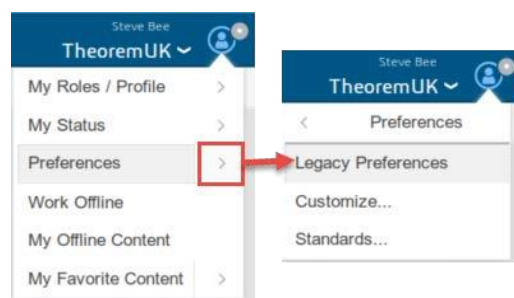
Theorem Interactive Conversion Settings

The 3DExperience interface does not currently require the user to apply any specific settings for the translation. There are some general settings that should be checked if required (e.g. for PMI conversion.) These are accessed through Preferences>Legacy Preferences>General>Compatibility>External Native 3D Formats. There are also some options that can be applied within the Theorem setting. These are accessed through Preferences>Legacy Preferences>Infrastructure>Theorem:

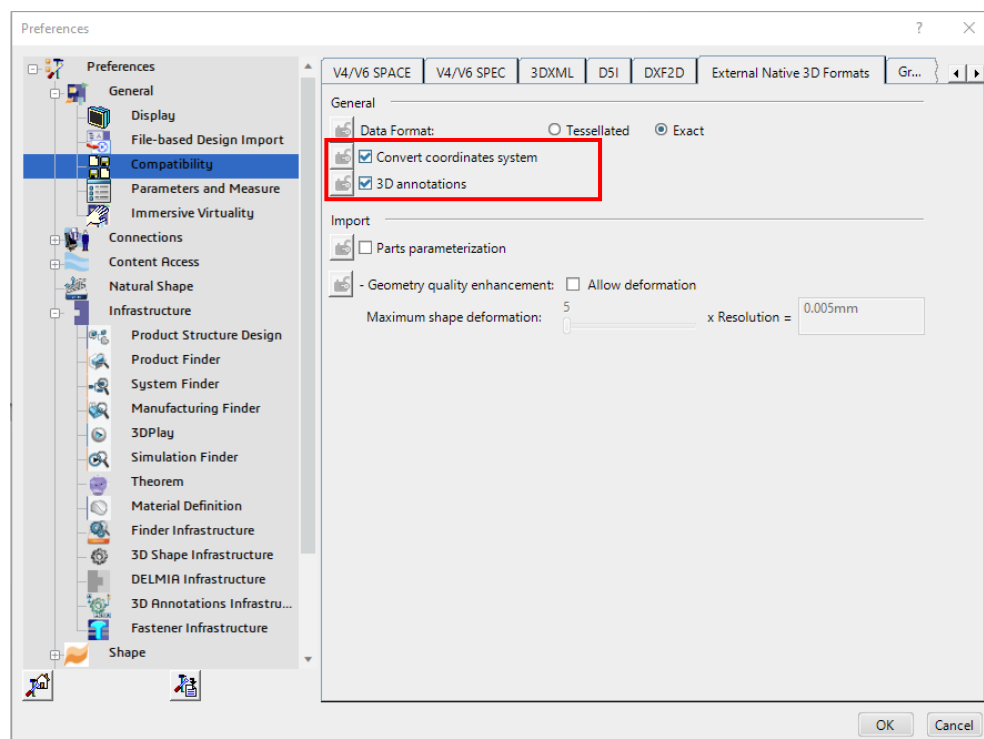
3DExperience 2018x



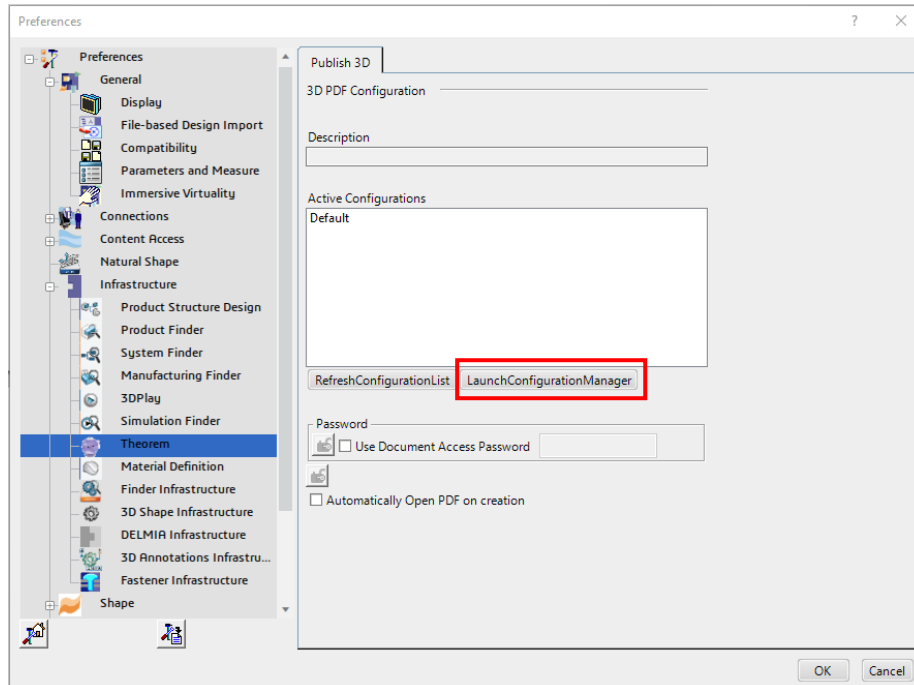
3DExperience 2019x onwards



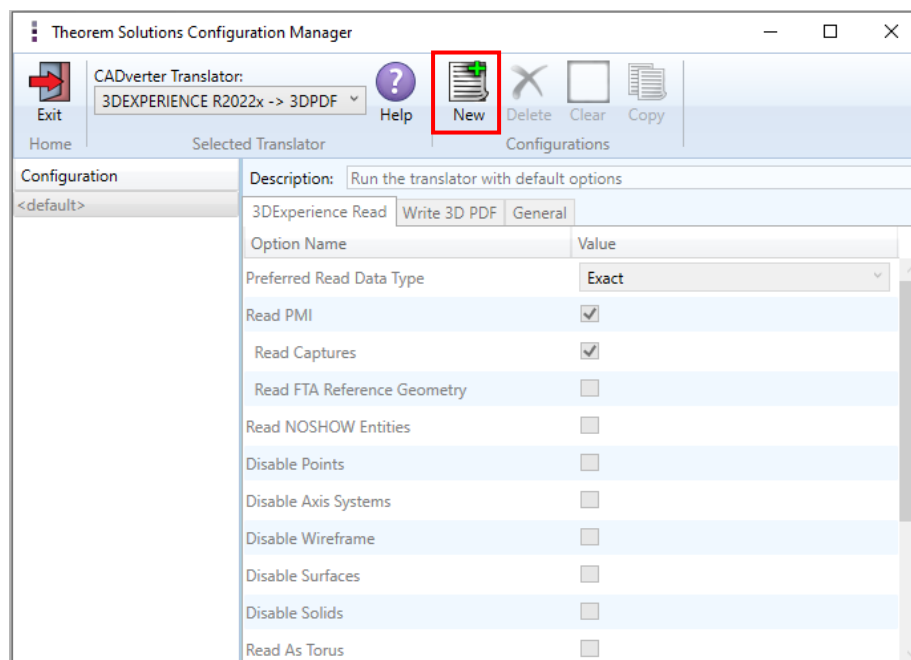
This page is a standard Dassault Page that sets the preferred mode of conversion (in this case Exact), and also the general options “Convert coordinate systems” and “3D Annotation”. Both of which are toggled on.

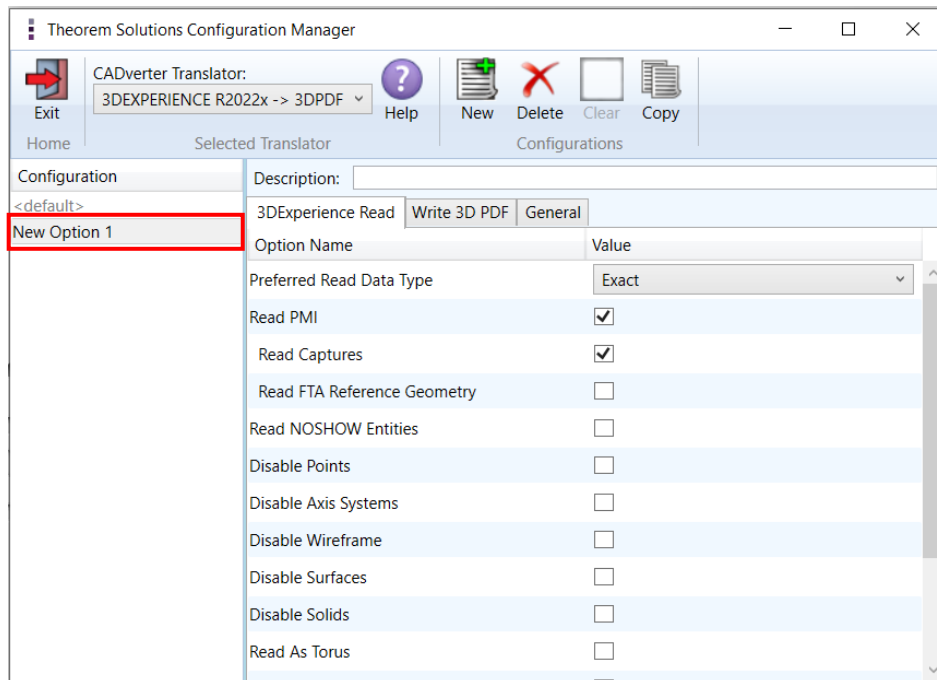


A dedicated tab under **'Infrastructure>Theorem'** allow the user access to Theorem Configurations for Publish 3D. From this Panel, the user can select a predefined configuration or create a new configuration. To create a new configuration, select the **'LaunchConfigurationManager'** command.

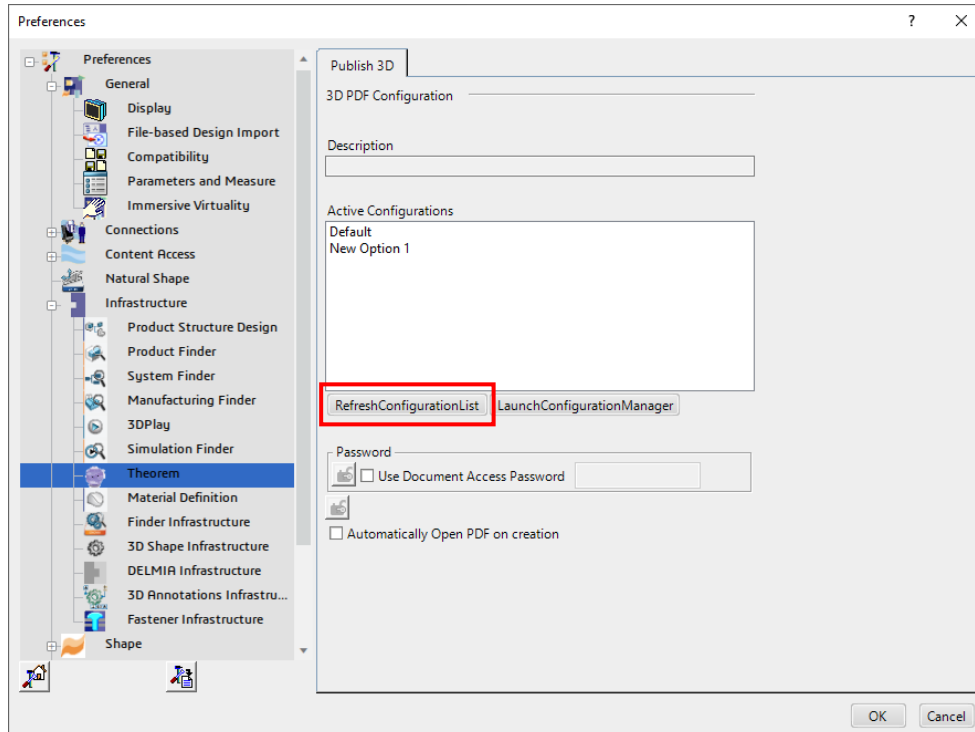


In the configuration manager window, select New. Rename as required.

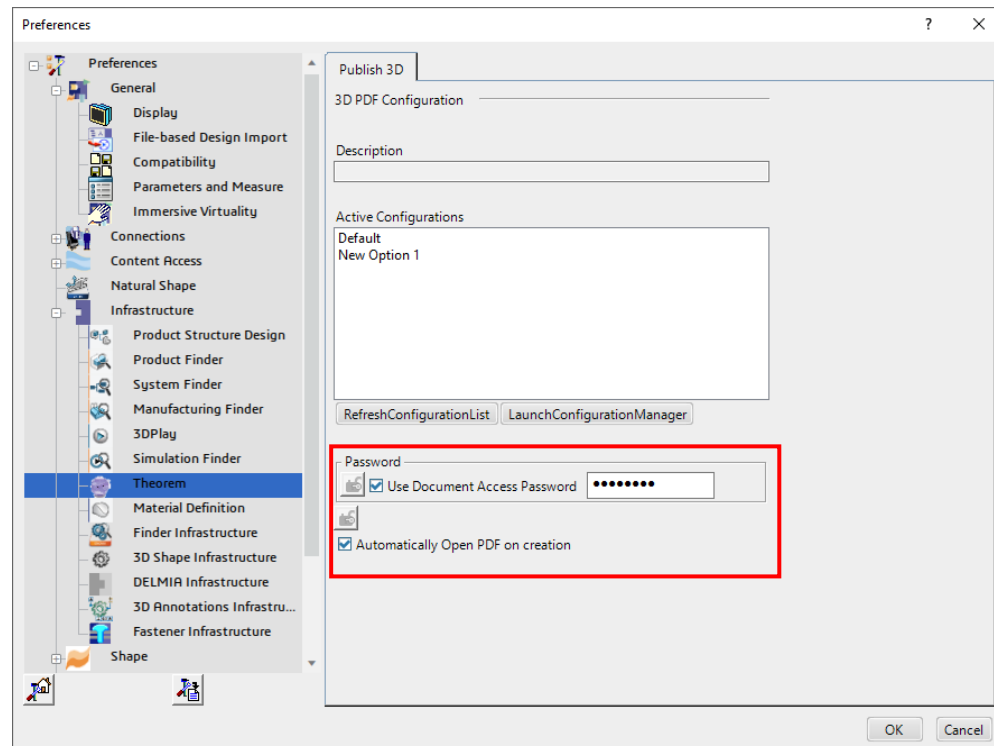




Any new configurations created will be displayed in the Active Configurations list once it has been refreshed. To do this select **'RefreshConfigurationList'**



An option for using a password to open the document and for automatically opening the PDF upon creation are also available to toggle on within this tab.



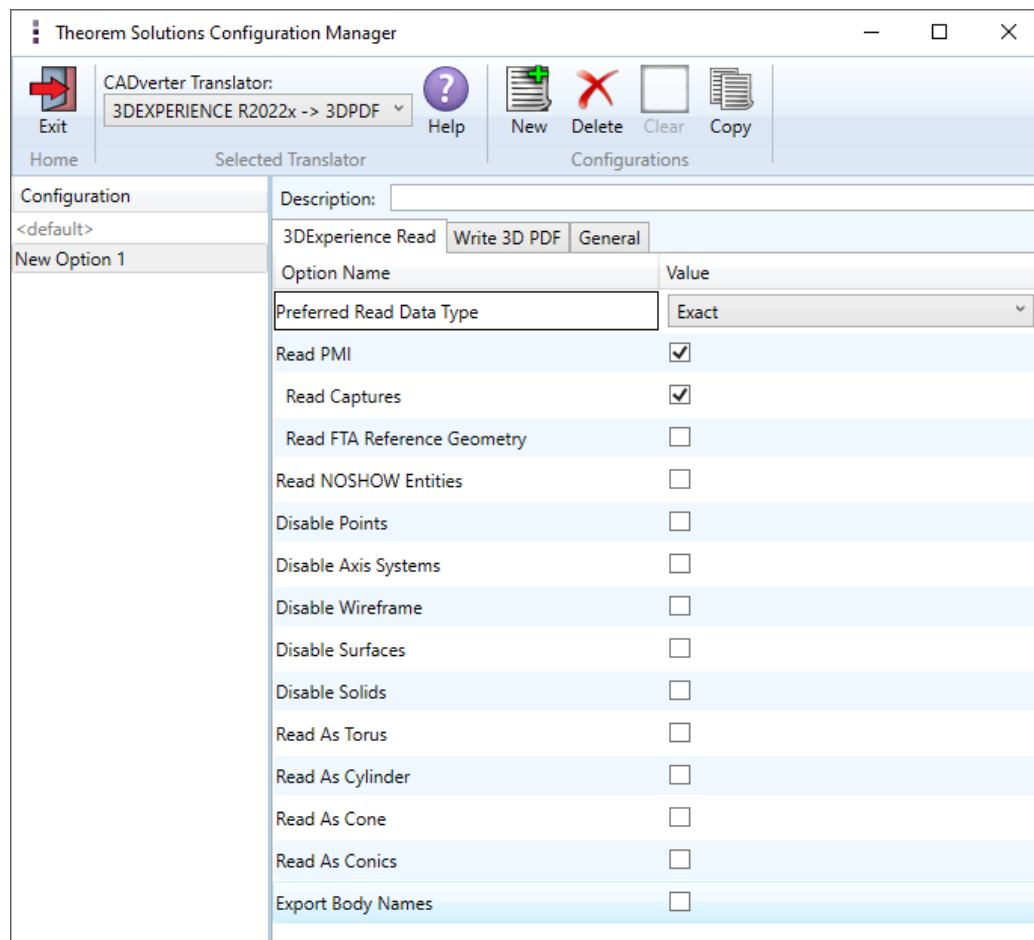
Configuration Manager

Publish 3D allows the information that is read from the source system and written to the target system to be tailored via a set of user specified options. Commonly used options are supported via the Configuration Manager, with Advanced Arguments being described within this document for use in the Configuration Manager or via the Command Line invocation.

Within the Configuration Manager, the options that are available to use are grouped into the following 3 areas when translating data from 3DExperience to 3DPDF.

- 3DExperience Read – Those options that affect how data is read from 3DExperience.
- Write 3D PDF – Those options that affect how data is written to 3DPDF
- General – Those options that are common to ALL publishing activities regardless of source data. Advanced arguments are added in this tab.

3DExperience Read



The screenshot shows the 'Theorem Solutions Configuration Manager' window. The 'CADverter Translator' is set to '3DEXPERIENCE R2022x -> 3DPDF'. The '3DExperience Read' tab is selected, showing a list of options with checkboxes and a dropdown menu for 'Preferred Read Data Type'.

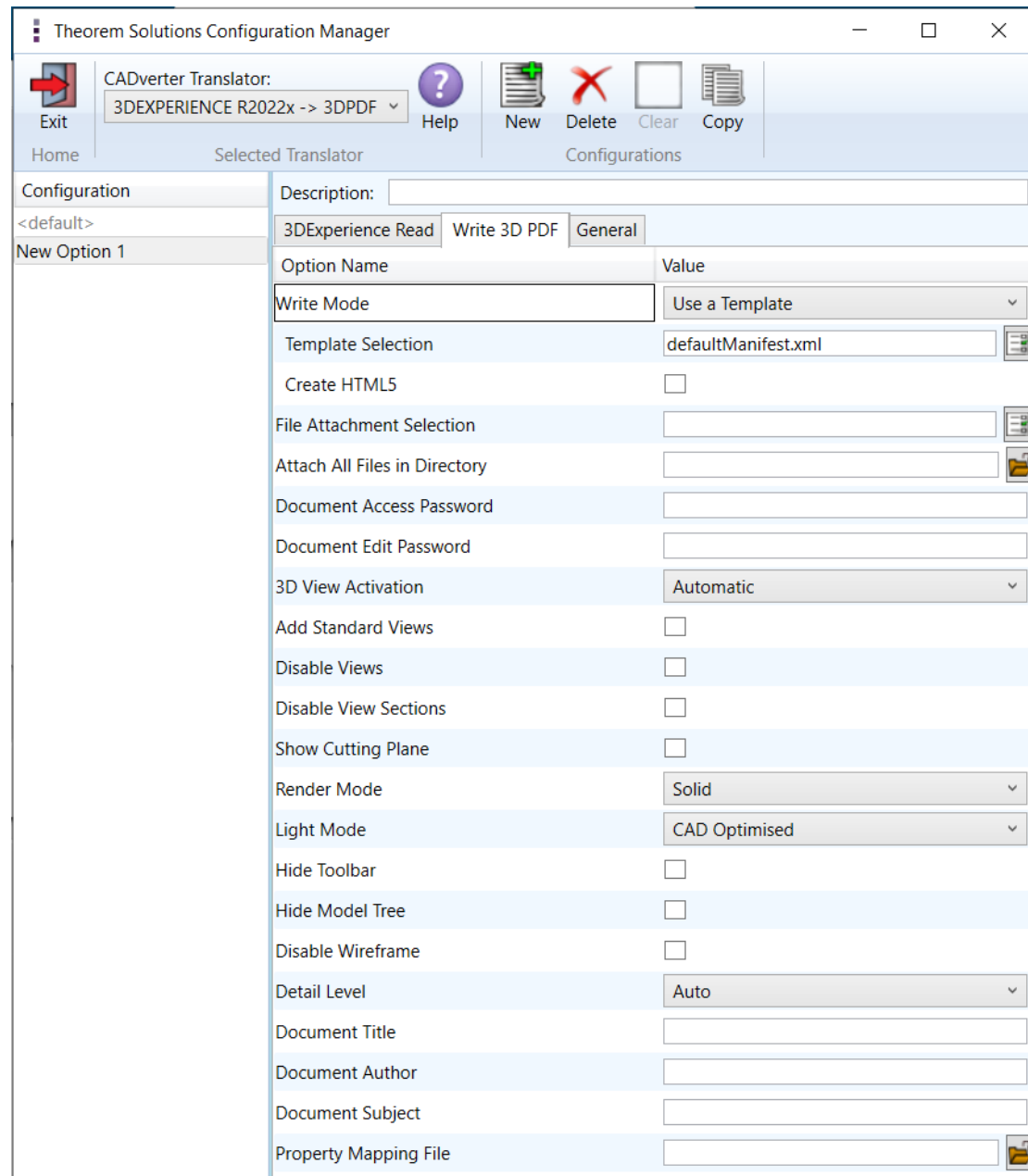
Option Name	Value
Preferred Read Data Type	Exact
Read PMI	<input checked="" type="checkbox"/>
Read Captures	<input checked="" type="checkbox"/>
Read FTA Reference Geometry	<input type="checkbox"/>
Read NOSHOW Entities	<input type="checkbox"/>
Disable Points	<input type="checkbox"/>
Disable Axis Systems	<input type="checkbox"/>
Disable Wireframe	<input type="checkbox"/>
Disable Surfaces	<input type="checkbox"/>
Disable Solids	<input type="checkbox"/>
Read As Torus	<input type="checkbox"/>
Read As Cylinder	<input type="checkbox"/>
Read As Cone	<input type="checkbox"/>
Read As Conics	<input type="checkbox"/>
Export Body Names	<input type="checkbox"/>

Each of the options displayed in the image above are described below:

Option	Description
Preferred Read Data type	<p>The setting options are EXACT (default) or TESSELATED</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_tess</i>
Read PMI	<p>Enables PMI data read (Default is ON).</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_pmi – default</i> <i>dont_read_pmi – to turn off</i> <p>Note! When '<i>read_pmi</i>' is enabled it also enables the '<i>fill_pmi_arrows</i>', '<i>fill_pmi_text</i>' and '<i>pmi_filled_text</i>' options. These can be overridden by setting the Advanced arguments: '<i>dont_fill_pmi_arrows</i>' and/or '<i>dont_fill_pmi_text</i>'</p>
Read Captures	<p>A secondary argument to 'Read PMI' and allows control over whether captures are read as part of the process. Default is ON when 'Read PMI' is marked as ON. Captures can ONLY be read when 'Read PMI' is ON.</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_captures - default</i> <i>don't_read_captures – to turn off</i>
Read FTA Reference Geometry	<p>Enables reading of FTA Reference Geometry (Default is Off). FTA Reference Geometry can ONLY be read when 'Read PMI' is ON.</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_geometry – to turn on</i>
Read NOSHOW Entities	<p>Read any entities that are in NOSHOW. Default is not to read NOSHOW entities</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>noshow</i>
Disable Points	<p>Switches off Point processing</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>disable_points</i>
Disable Axis Systems	<p>Switches off Axis System processing</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>disable_axes</i>

Disable Wireframe	<p>Switches off Wireframe processing</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>disable_wireframe</i>
Disable Surfaces	<p>Switches off Surface processing</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>disable_surfaces</i>
Disable Solids	<p>Switches off Solids processing</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>disable_solids</i>
Read As Torus	<p>Read Toroidal surfaces in analytical form (default is NURBS)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_torus</i>
Read As Cylinder	<p>Read Cylindrical surfaces in analytical form (default is NURBS)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_cylinder</i>
Read As Cone	<p>Read Cone surfaces in analytical form (default is NURBS)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_cone</i>
Read As Conics	<p>Read surfaces generated from a Conic in analytical form (default is NURBS)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>read_conics</i>
Export Body Names	<p>Maintains body names for parts that consist of multiple bodies.</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <i>body_names</i>

Write 3D PDF



Theorem Solutions Configuration Manager

CADverter Translator: 3DEXPERIENCE R2022x -> 3DPDF

Exit Help New Delete Clear Copy

Home Selected Translator Configurations

Configuration

<default>

New Option 1

Description:

3DExperience Read Write 3D PDF General

Option Name	Value
Write Mode	Use a Template
Template Selection	defaultManifest.xml
Create HTML5	<input type="checkbox"/>
File Attachment Selection	
Attach All Files in Directory	
Document Access Password	
Document Edit Password	
3D View Activation	Automatic
Add Standard Views	<input type="checkbox"/>
Disable Views	<input type="checkbox"/>
Disable View Sections	<input type="checkbox"/>
Show Cutting Plane	<input type="checkbox"/>
Render Mode	Solid
Light Mode	CAD Optimised
Hide Toolbar	<input type="checkbox"/>
Hide Model Tree	<input type="checkbox"/>
Disable Wireframe	<input type="checkbox"/>
Detail Level	Auto
Document Title	
Document Author	
Document Subject	
Property Mapping File	

Each of the options displayed in the image above are described below:

Option	Description
Write Mode	<p>Contains two options:</p> <ul style="list-style-type: none"> – Use a Template – Allows data to be published to a given template Command Line Syntax: <ul style="list-style-type: none"> • <i>Publish <XML Manifest file></i> – No Template – No template will be used during publishing. If this option is selected, 'Template Selection' is excluded as an option. Command Line Syntax: <ul style="list-style-type: none"> • <i>Publish off</i>
Template Selection	<p>Select which templates Publish 3D will use to create the output 3D PDF, if Write Mode is set to <i>Use a Template</i> (Default = <i>defaultManifest.xml</i>) Command Line Syntax:</p> <ul style="list-style-type: none"> • <i>This is a secondary argument to the publish command. The argument can be a single xml manifest file or a text file containing a list of manifest files</i>
Attachments	<p>This option allows files to be attached to the output PDF file together with a brief description of the selected files. (Default is for no files to be attached) Command Line Syntax:</p> <ul style="list-style-type: none"> • <i>Attach_file <Attachment List> Where Attachment_List is a list of full path names to file followed by an optional description line:</i> For example: <pre> C:\TEMP\my_image.jpg This is a jpg Image C:\TEMP\report.txt Report Document C:\TEMP\related.pdf C:\TEMP\another.pdf This PDF has a description </pre> <p><i>Note in this example the 'Related.pdf' attached file doesn't have the optional comment.</i></p> <p><i>The file path may contain environment variables which will be resolved. e.g. %TEMP%/myFile.pdf</i></p>

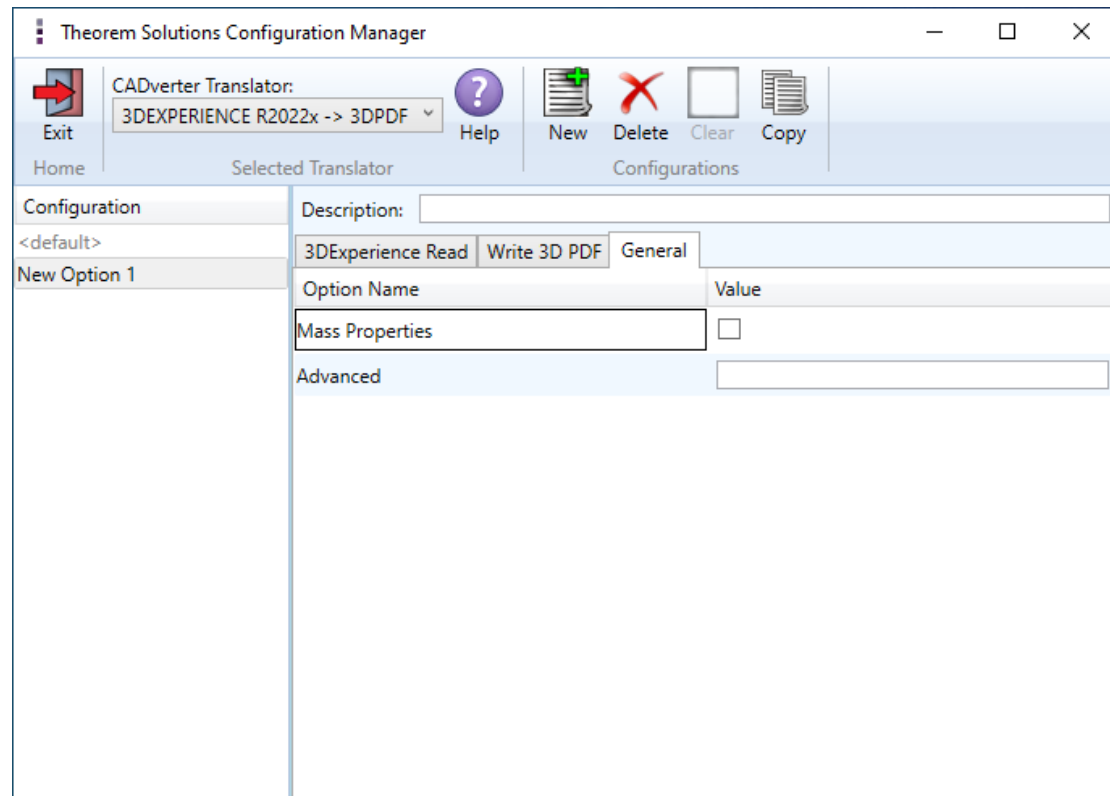
Document Access Password	<p>Contains two options selectable via a checkbox:</p> <ul style="list-style-type: none"> – No Password – Specifies that no password will be used to encrypt the PDF Document (<i>Default</i>). If this option is selected Password is excluded as an option. Command Line Syntax: <ul style="list-style-type: none"> • <i>No entry required</i> – Use Password – Allow a password to be specified to encrypt the PDF document. If specified, the user will be prompted for the password to open the resultant PDF files. Command Line Syntax: <ul style="list-style-type: none"> • <i>password <password></i>
Document Edit Password	<p>Contains two options selectable via a checkbox:</p> <ul style="list-style-type: none"> – No Password – Specifies that no password will be used to controls edits to the PDF Document (<i>Default</i>). If this option is selected Password is excluded as an option. Command Line Syntax: <ul style="list-style-type: none"> • <i>No entry required</i> – Use Password – Allow a password to be specified to controls edits to the PDF Document. Command Line Syntax: <ul style="list-style-type: none"> • <i>permission_password <password></i>
3D View Activation	<p>Controls when the 3D view is activated in the PDF document. Has 3 options:</p> <ul style="list-style-type: none"> – Automatic – Activates when the page is opened. (<i>Default</i>) Command Line Syntax: <ul style="list-style-type: none"> • <i>Activate_mode PAGE_OPEN</i> – On Selection – Activates when the user clicks on the model. Command Line Syntax: <ul style="list-style-type: none"> • <i>Activate_mode CLICK (default via the command line)</i> – Page Visible – Activates when the page becomes visible to the user Command Line Syntax: <ul style="list-style-type: none"> • <i>Activate_mode PAGE_VISIBLE</i>

Add Standard Views	<p>Add isometric views to the data being written to PDF (<i>Default is off</i>)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <code>add_standard_views</code>
Disable Views	<p>Switch off any Captures/Views from being written into the PDF. (<i>Default is off</i>)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <code>no_views</code>
Disable View Sections	<p>Switch off any sections within the Captures/Views from being written into the PDF. (Default is off)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <code>no_sections</code>
Show Cutting Plane	<p>Enable cut plane visualization. (Default is off)</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <code>cutplane_on</code>
Render Mode	<p>Controls which Rendering Mode to use for the model. Options are:</p> <ul style="list-style-type: none"> Solid (<i>Default</i>) Transparent Wireframe Illustrated Outline Shaded <p>Command Line Syntax:</p> <ul style="list-style-type: none"> <code>Render_mode <mode></code> <p>Where <i><mode></i> is set to one of the above values</p>

Light Mode	<p>Controls which Light Mode to use. Options are:</p> <ul style="list-style-type: none"> • Default • Off • Day • Bright • Prim • Night • Blue • Red • Cube • Head <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <i>light_mode <mode></i> <p>Where <mode> is set to one of the above values. Note – no command is required for the default value.</p>
Hide Toolbar	<p>Hide the 3D Toolbar in the resultant document. This can be re-enabled in Adobe if required. <i>(Default is off)</i></p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <i>hide_toolbar</i>
Hide Model Tree	<p>Hide the Model Tree in the resultant document. This can be re-enabled in Adobe if required. <i>(Default is off)</i></p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <i>hide_model_tree</i>
Disable Wireframe	<p>Disable Wireframe Processing <i>(Default is to Enable Wireframe processing)</i></p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <i>process_wf off</i>

Detail Level	<p>The Detail Level option can be used to set the render quality of the resultant 3D PDF output. A number of discrete values are made available via the configuration manager. They correspond to a relative chordal deviation (% of the diagonal length across the model bounding box) or absolute chordal deviation, whichever is the smaller. The following options are available:</p> <ul style="list-style-type: none"> • Auto (Corresponds approximately to High) • Very High (relative = 0.0001%, absolute = 0.001mm) • High (relative = 0.001%, absolute = 0.01mm) • Medium (relative = 0.01%, absolute = 0.1mm) • Low (relative = 0.1%, absolute = 1mm) • Very Low (relative = 0.5%, absolute = 5mm) <p>For very large (detailed) parts the use of the options Low or Very Low can significantly reduce the size of the output PDF file and the time taken to produce it, at the cost of quality.</p> <p>A setting of Medium is seen as a good compromise, between quality and size. This value is the default value.</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <code>lod_level <value></code> <p>Where value = v_low, low, med, high, v_high, off</p>
Document Title	<p>Set the Document Properties 'title' field.</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <code>doc_description_title <"text"></code> <p>the text should be quoted</p>
Document Author	<p>Set the Document Properties 'author' field</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <code>doc_description_author <"text"></code> <p>the text should be quoted</p>
Document Subject	<p>Set the Document Properties 'subject' field</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <code>doc_description_subject <"text"></code> <p>the text should be quoted</p>
Property Mapping file	<p>Map CAD properties using a mapping file</p> <p>Command Line Syntax:</p> <ul style="list-style-type: none"> • <code>cad_prop_map_file <file></code>

General



Each of the options displayed in the image above are described below:

Option	Description
Mass Properties	Allows mass property information to be read Command line syntax: <ul style="list-style-type: none"> <i>mprops</i>
Advanced	Allows any of the advanced arguments documented to be added to the configuration manager and applied during translation

Advanced Arguments

3DExperience Advanced Arguments

Argument	Description
<i>dont_fill_pmi_arrows</i>	Disables the read of filled arrow information
<i>dont_fill_pmi_text</i>	Disables the read of filled text information

3DPDF Advanced Arguments

Argument	Description
<i>use_part_names</i> <on/off>	When 'on' the 3DGeom node names are replaced by the TAG name from the detail (part name). Default is off.
<i>progress_file</i> <filename>	Specify the log file for this process.
<i>info</i>	Add 'info' messages to the log file.
<i>no_inst_colours</i>	Switch off the writing of instance colours.
<i>no_colours</i>	Switch off the writing of any colours.
<i>no_attrs</i>	Switch off the writing of attributes into the PDF.
<i>no_pmi_edge_associations</i>	Disables edge highlighting
<i>no_poster</i>	By default, a 2D poster is generated from the 3D model which can be very time consuming for a complex model. This option disables that process and uses a default JPG called TS_INST\\data\\saveas_3dpdf_images\\no_poster.jpg . The user could replace this JPG file with their own if desired.
<i>background_RGB</i> <r g b>	Where r g b are values 1 to 255, this controls the background colour of the 3D display, which now defaults to pale grey (204,204,204).
<i>pmi_RGB</i> <r g b>	Where r g b are values 1 to 255, this controls the override PMI colour. By default, PMI is displayed in the same colour as the source CAD system. When a colour is not read the default will be black. This option allows the PMI colour to be fixed to any colour, clearly this is a single override colour for all PMI.
<i>wireframe_RGB</i> <r g b>	Where r g b are values 1 to 255, this controls the override PMI colour. By default, wireframe is displayed in the same colour(s) as the source CAD system. This option allows the wireframe colour to be fixed to any colour, clearly this is a single override colour for all PMI.

<p><i>pmi_flat_to_screen</i> <i><on/all/off></i></p>	<p>This option enables the processing of flat to screen PMI data, the default is off. Please note fonts are not currently supported.</p> <p>'on' allows for FLAT TO TEXT types to be processed 'all' allows all FLAT TO SCREEN types to be process, however only the text and NOT the frames are processed</p>										
<p><i>process_wf <value></i></p>	<p><i>Where value = tess_low, tess_med, tess_high, nurb or off</i></p> <p>When this option is selected the wireframe entities are written as lines/conic/nurbs. This results in a wire node for each entity contained under the Wireframe node in the model tree, there could be many wire nodes in a complex model.</p> <p>If any of the settings prefixed tess are used, these options convert wireframe into a number of sampled points on the curve and writes wireframe as a Poly Line, this allows many wires to be combined however a Poly Line can only be a single colour, so wireframe of the same colour will be grouped into a Poly Wire, which will be a wire node contained under the Wireframe node in the model tree. There will be a wire node for each colour, when multi colours exist.</p> <p>If however, all wireframe is the same colour, then all wireframe is contained in the Wireframe node.</p>										
<p><i>attr_filter_file <filter file></i></p>	<p>This is a method to define which attributes are masked or included during translation.</p> <p>By default, there is an attribute filter file installed at: <i>%TS_INST%\ data\publish_3dpdf\attrFilters\defaultAttrFilter.txt</i></p> <p>This command line option allows this file to be overridden, such that the named file is used instead of the default.</p> <p>The file format (in blue) is best explained by means of examples:</p> <table border="0"> <tr> <td><i>MPARTNAME,,0,,</i></td> <td>(Delete MPARTNAME attribute)</td> </tr> <tr> <td><i>FILENAME,F I L E (name),1,,</i></td> <td>(Rename 'FILENAME' to 'F I L E (name))</td> </tr> <tr> <td><i>FILESIZE,,3,big,,</i></td> <td>(Default (always) FILESIZE value to big)</td> </tr> <tr> <td><i>*END,,0,,</i></td> <td>(Delete all attributes that end with 'END')</td> </tr> <tr> <td><i>Theorem*,0,,</i></td> <td>(Delete all attributes that start with 'Theorem')</td> </tr> </table>	<i>MPARTNAME,,0,,</i>	(Delete MPARTNAME attribute)	<i>FILENAME,F I L E (name),1,,</i>	(Rename 'FILENAME' to 'F I L E (name))	<i>FILESIZE,,3,big,,</i>	(Default (always) FILESIZE value to big)	<i>*END,,0,,</i>	(Delete all attributes that end with 'END')	<i>Theorem*,0,,</i>	(Delete all attributes that start with 'Theorem')
<i>MPARTNAME,,0,,</i>	(Delete MPARTNAME attribute)										
<i>FILENAME,F I L E (name),1,,</i>	(Rename 'FILENAME' to 'F I L E (name))										
<i>FILESIZE,,3,big,,</i>	(Default (always) FILESIZE value to big)										
<i>*END,,0,,</i>	(Delete all attributes that end with 'END')										
<i>Theorem*,0,,</i>	(Delete all attributes that start with 'Theorem')										

<i>dump_attr_file <file></i>	This is a utility which can be used to generate a text file with the Key/Value pairs from the GCO DESIGN, DITTO and DETAIL entities, this can be used in the 'design' of templates.
<i>hide_empty_node</i>	<p>When assembly nodes contain no geometry, (could be due to missing part files) this option results in the model tree with 'un-ticked' nodes where no geometry was read. Where the 3DGeom node would be, there will be a NoGeom node instead.</p> <p>Please note in order to activate this behaviour it was necessary to add a point at 0,0,0 which is contained by the NoGeom node.</p>
<i>compress_tess <value></i>	<p>Where value = v_low, low,med, high ,v_high, off</p> <p>These options can be used to control the tessellation setting, using the values 10, 25, 50, 75, 90. These compression settings apply ONLY to PRC/U3D output files.</p>
<i>add_standard_views_1st</i>	Force views to be first angle projection regardless of source data
<i>add_standard_views_3rd</i>	Force views to be third angle projection regardless of source data
<i>attach_files_in_dir <dir></i>	Attach ALL files found in a specified directory
<i>add_meta_data <default or <file>></i>	<p>Option to append the attributes in PDF with useful data, like part count, which can be consumed by the templates.</p> <p><default> - just add part count <file> - add the part count and process the file, such that 3 lines are processed</p> <pre> part_name // matches the detail (part name) attr_name // name of attribute to be added attr_value // value of the attribute to be added </pre>
<i>move_subassy_pmi <on/off/all></i>	<p>Move the sub assy PMI to top level.</p> <p>"all" will reposition all PMI into global space which can be used for true assemblies</p>

<i>copy_part_attrs <on/off></i>	Attributes on parts can be copied on to instance nodes with this option (default is off). (The user can enable <code>dump_attr_file <file></code> option to confirm what attributes are available on part/instances, to check the effect of this option)
<i>cutplane_capping_off</i>	Disable section capping (Default is on)
<i>cutplane_RGB <r g b></i>	When section cutting planes are enabled, the cutting plane colour can be controlled by r g b values in the range of 1 to 255
<i>cutplane_opacity <val></i>	When section cutting planes are enabled, the cutting plane opacity can be specified by setting 'val' between 0.0 and 1.0
<i>cutplane_intersections</i>	Section cutting intersections can be enabled via this option. (Default is off)
<i>cutplaneIS_RGB <r g b></i>	When section cutting plane intersections are enabled, the cutting plane intersection colour can be controlled by r g b values in the range of 1 to 255
<i>enable_brep</i>	<p>By default, BREP data is omitted when the PDF file is generated so this option allows for such data to be retained.</p> <p>Do not use this option when the generation of BREP data in PDF is forbidden for legal or commercial reasons.</p>
<i>fixup</i>	There are occasions when the source data presented for publishing to the 3D PDF is invalid. In these circumstances, a validation of the data is carried out by the translator and the user is advised, via a message on the screen to re-run the translator, specifying the ' <i>fixup</i> ' command line option. Specifying this option will allow the translation to complete, omitting any faces that are not topologically correct.
<i>fix_inst_names <on/off></i>	By default, this option is on. It will detect instances with no names and apply the part name to those instances. This accommodates cases where instance names are not available in the source data.
<i>launch_adobe_viewer</i>	<p>This option will automatically display the resulting PDF file in an Adobe Reader. The environment variable TS_CMD_PATH_AND_EXE can be used to specify the Adobe application if it isn't found in a default location.</p>

<i>group_solids</i>	<p>This can be useful when data is created with many open solids (1 per face). This can result in many 100's or even 1000's of solids which causes the 3D PDF file to have a massive entity tree, to be slower and larger than necessary, and with a Bounding Box for each face.</p> <p>Setting this option groups the solids into logical entities.</p>
<i>dont_group_solids</i>	<p>Some systems will group solids by default, so this option allows that setting to be disabled.</p>
<i>invisible <on or off></i>	<p>Wireframe entities that are marked as invisible are by default NOT processed. This option allows them to be processed.</p>
<i>pmi_assoc_limit <off or number></i>	<p>This option is used to limit the number of PMI to Geometry associations that exist for any single PMI node. The default value being 500.</p> <p>It has been found that in rare cases many 1000's of associations exist and this has a significant effect on the translation time. If the limit is exceeded the log file reports the PMI entities names and reports an error, allowing the user to modify the limit, or review the PMI's validity.</p>
<i>part_level_views</i>	<p>Enable the processing of Part Level Views within an assembly. (Off by default)</p>
<i>part_level_pmi</i>	<p>Enable the processing of PMI on parts within an assembly. (Off by default)</p>
<i>set_perm <text option></i>	<p>Set the permissions for the PDF file, the options being "PRINT" or "LOCK", if no options are set then the create PDF file is fully open.</p> <p>The "PRINT" setting allows the file ONLY to be printed. The "LOCK" setting ensures the document cannot be modified.</p> <p>(Be aware that with Adobe Writer it is possible to override any permission setting).</p>

set_perm_mask <int value>

This allows the full control of all the permission settings when creating a PDF file, the in values need to be logically ORed together so 0x2 and 0x1 become 3. values are 0xHex (decimal)

0x01 (1) - **DocumentPermOpen** The user can open and decrypt the document.

0x02 (2) - **DocumentPermSecure** The user can change the document's security settings.

0x04 (4) - **DocumentPermPrint** The user can print the document. Page Setup access is unaffected by this permission, since that affects Acrobat's preferences - not the document's. In the Document Security dialog, this corresponds to the Printing entry.

0x08 (8) - **DocumentPermEdit** The user can edit the document more than adding or modifying text notes (see also DocumentPermEditNotes). In the Document Security dialog, this corresponds to the Changing the Document entry.

0x10 (16) - **DocumentPermCopy** The user can copy information from the document to the clipboard. In the document restrictions, this corresponds to the Content Copying or Extraction entry.

0x20 (32) - **DocumentPermEditNotes** The user can add, modify, and delete text notes (see also DocumentPermEdit). In the document restrictions, this corresponds to the Authoring Comments and Form Fields entry.

0x40 (64) - **DocumentPermSaveAs** The user can perform a Save As.... If both DocumentPermEdit and DocumentPermEditNotes are disallowed, Save will be disabled but 'Save As...' will be enabled. The 'Save As...' menu item is not necessarily disabled even if the user is not permitted to perform a Save As...

0x100 (256) - **DocumentPermFillandSign** Overrides other DocumentPerm bits. It allows the user to fill in or sign existing form or signature fields.

0x200 (512) - **DocumentPermAccessible** Overrides DocumentPermCopy to enable the Accessibility API. If a document is saved in Rev2 format (Acrobat 4.0 compatible), only the DocumentPermCopy bit is checked to determine the Accessibility API state.

0x400 (1024) - **DocumentPermDocAssembly** Overrides various DocumentPermEdit bits and allows the following operations: page insert/delete/rotate and create bookmark and thumbnail.


	<p>0x800 (2048) - DocumentPermHighPrint This bit is a supplement to DocumentPermPrint. If it is clear (disabled) only low quality printing (Print As Image) is allowed. On UNIX platforms where Print As Image doesn't exist, printing is disabled.</p> <p>0x8000 (32768) - DocumentPermOwner The user is permitted to perform all operations, regardless of the permissions specified by the document. Unless this permission is set, the document's permissions will be reset to those in the document after a full save.</p> <p>0x10000 (65536) - DocumentPermFormSubmit This should be set if the user can submit forms outside of the browser. This bit is a supplement to DocumentPermFillandSign.</p> <p>0x20000 (131072) - DocumentPermFormSpawnTempl This should be set if the user can spawn template pages. This bit will allow page template spawning even if DocumentPermEdit and DocumentPermEditNotes are clear.</p> <p>0xFFFFFFFF - All permissions.</p>
<i>expand_part</i>	<p>This option creates a pseudo assembly structure below a part, such that each solid is modelled by a separate node. The default is to combine all solids that belong to the same part.</p> <p>Using this option can be useful when control over part with multiple solids is required, e.g. view/hide separate solids, however it should be noted that this option may compromise other functionality, such a PMI association.</p>
<i>zoom_views_x <value></i>	<p>This option will magnify the view by the value provided, this is defaulted to 2.0 for all CAD systems.</p> <p>Values < 1.0 zoom out. Values > 1.0 zoom in.</p> <p>The purpose of this option is to expose an adjustment factor that a given CAD system might need to best fit the VIEWS in the PDF, this may be affected by the aspect ratio of the page size/template used in PDF write.</p> <p>Every effort has been made to set a good value by default.</p>
<i>optimize_save off</i>	<p>By default, the PDF will be automatically optimized to make the file smaller. This disables the optimization feature.</p>

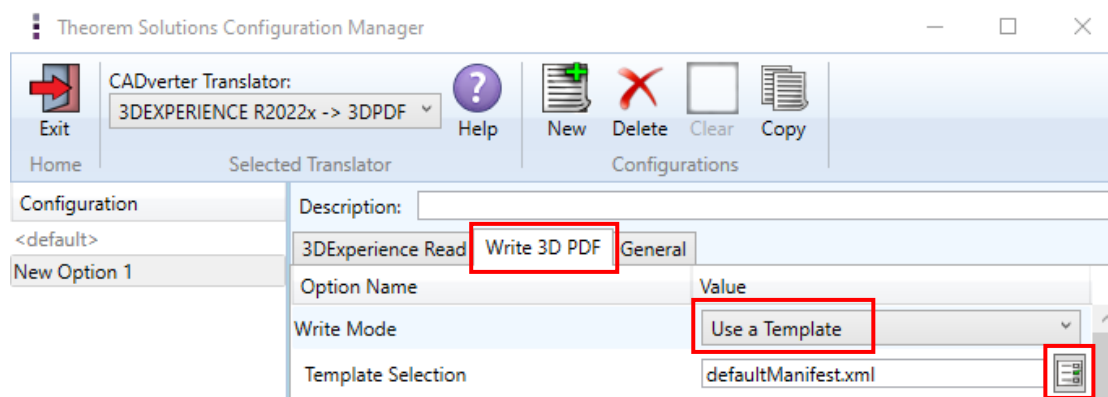
<i>image_dir</i> <directory>	Import images into a template from a directory.
<i>axis_systems</i> <on>/<size in mm>	Enables the output of axis systems to the PDF. Default is 25mm
<i>ts_cfile</i> <text file>	<p>This option allows command line arguments to be placed in a text file, with one command or option line per line, for example:</p> <pre>read_pmi dont_fill_pmi_text disable_points pmi_RGB 255 1 1 wireframe_RGB 255 1 1</pre> <p>Please note! that the <code>progress_file <file></code> option cannot be added into the text file because the progress file is opened before the command file is read.</p>
<i>attach_2D_views</i> <on or WxH>	<p>It is possible to automatically generate JPG images for each view and attach them to the output PDF file. This is off by default. If it is enabled, then the options are:</p> <p>on - this generated a JPG based upon a WxH of 1600x1200. WxH - allows the image size to be defined e.g. 1200x1800.</p> <p>The view name is prefixed with the input PDF file name to name the image files</p>
<i>attach_2D_views_name_only</i> <on or WxH>	<p>It is possible to automatically generate JPG images for each view and attach them to the output PDF file. This is off by default. If it is enabled, then the options are:</p> <p>on - this generated a JPG based upon a WxH of 1600x1200. WxH - allows the image size to be defined e.g. 1200x1800.</p> <p>ONLY the view name is used when creating the image files</p>


Templates

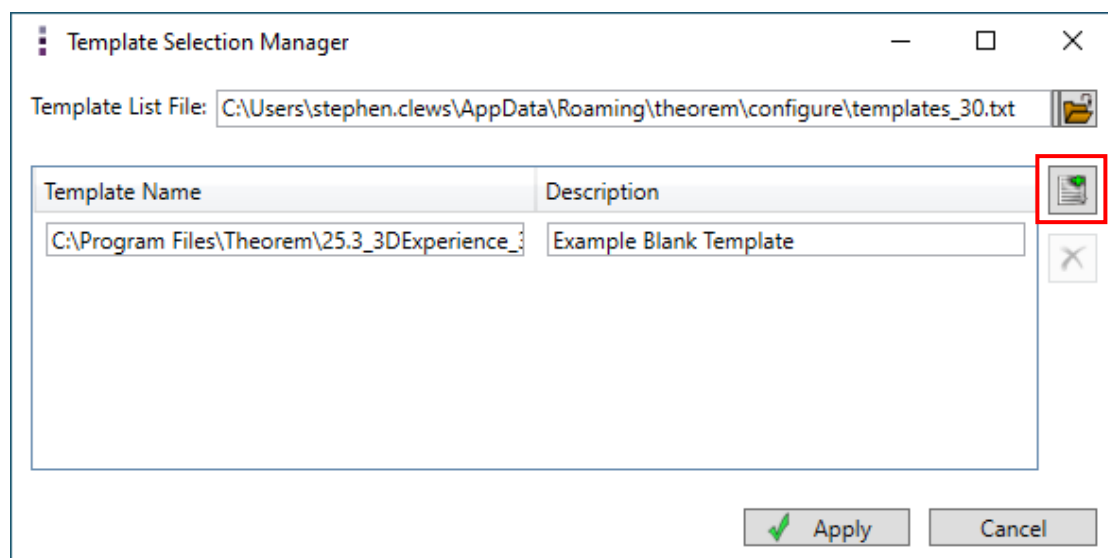
Publishing to a Specific List of Templates – via the Configuration Manager

It is possible to publish to an individual or multiple templates via one translation run using the Configuration Manager. To do this create a new configuration as described earlier or use an existing configuration if one has been created previously. Having a user generated configuration will enable the user to change any Publish 3D argument including the template selection. By default, the template selected is defaultManifest.

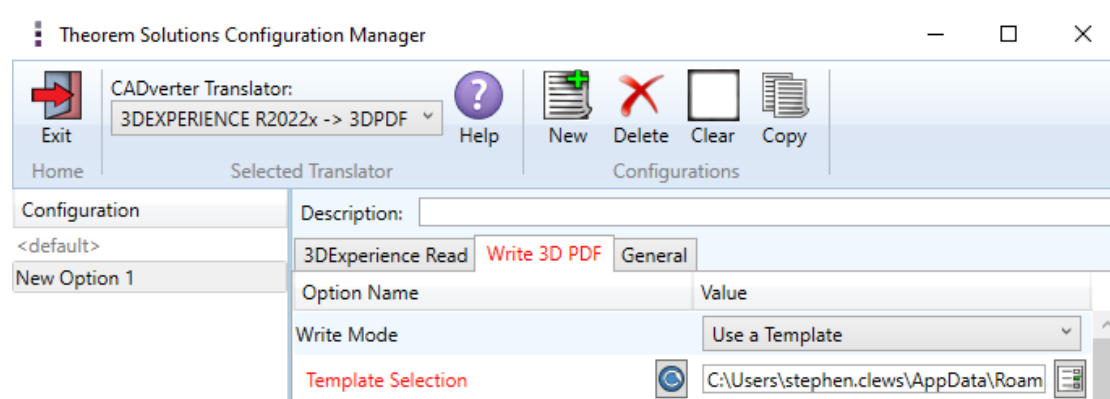
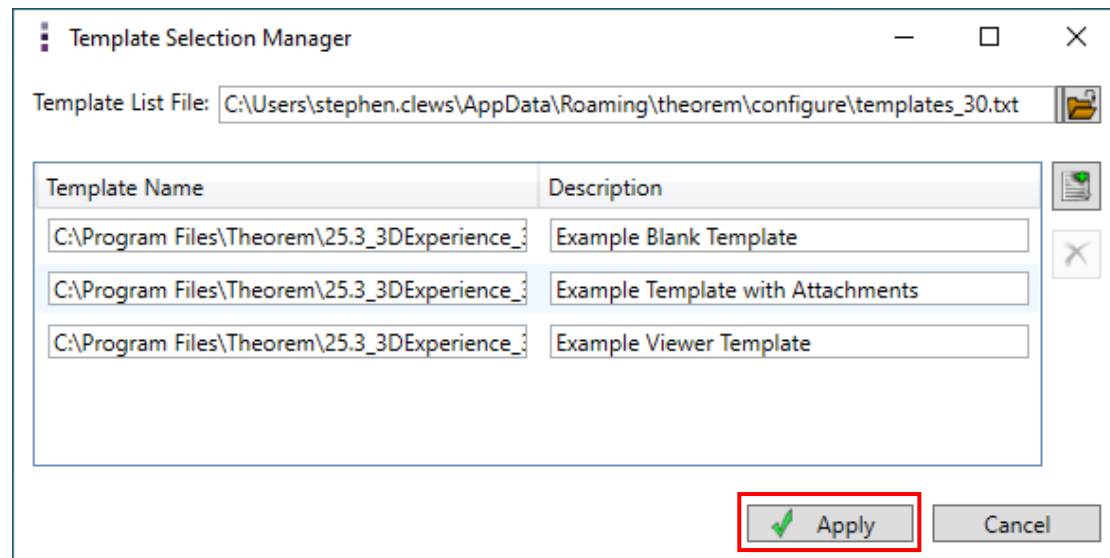
To change the template, select the **'Write 3D PDF'** tab to display the Write Mode and Template Selection options. Ensure that **'Use a Template'** is selected, then select the  icon next to the Template Selection field.



In the Template selection manager window select the  icon. Go to the required directory and select the template XML file to add it to the list.



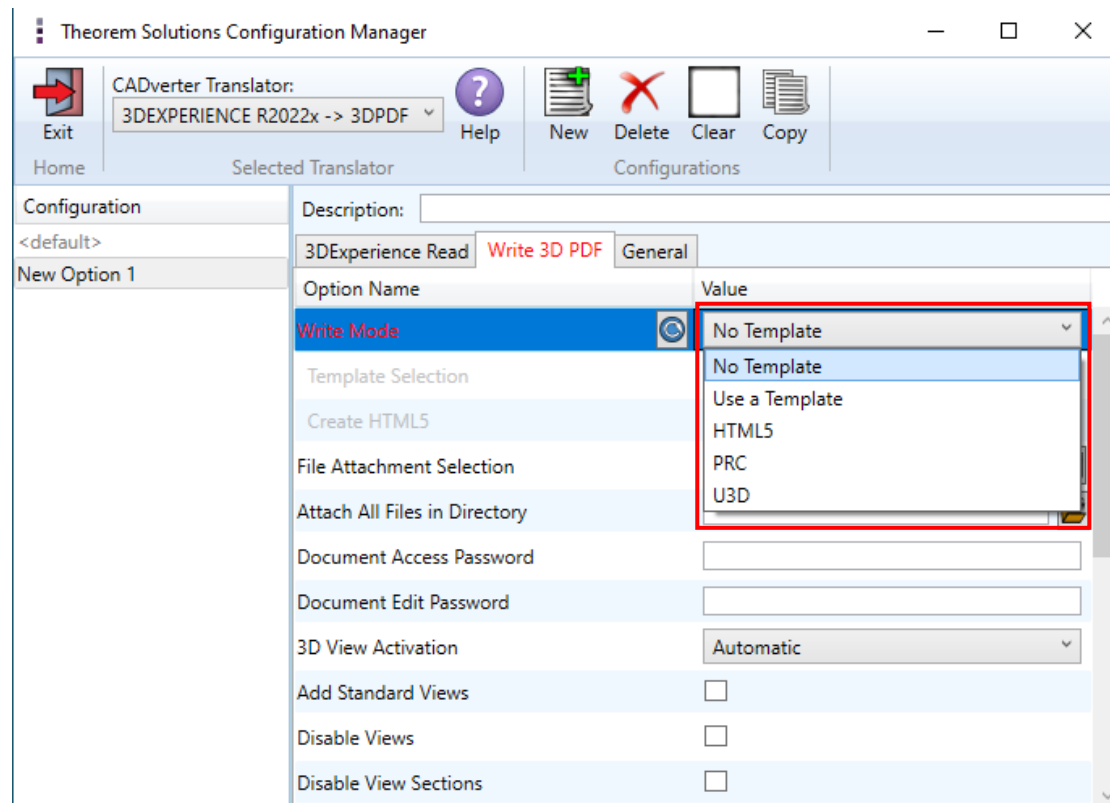
Repeat the process to add more templates if required. Select apply to update the Template Selection.



The configuration can then be selected from the Active Configurations list within the Theorem preference shown previously.

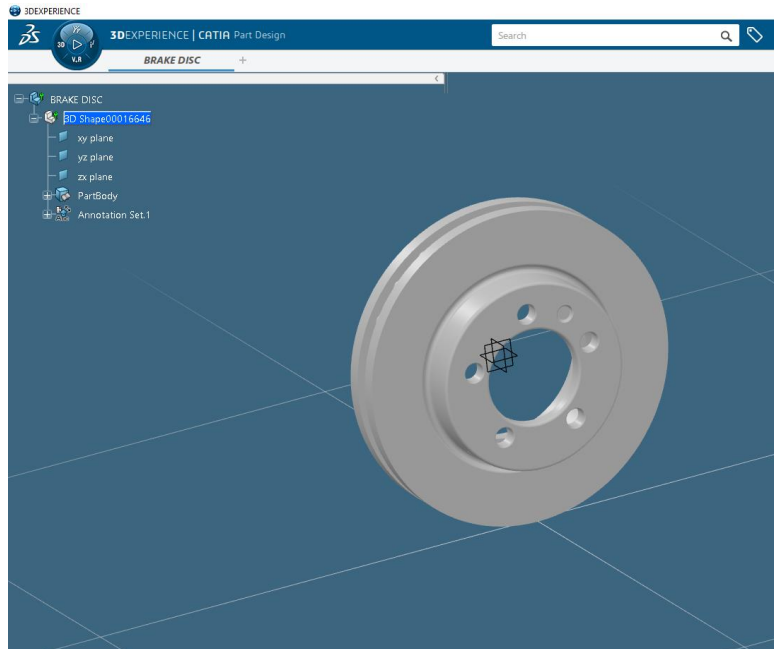
Publishing without a Template – via the Configuration Manager

Running the translation without a template will create a 3DPDF output file with no containing document. To do this in the configuration manager, select the Write 3D PDF tab then from the **'Write Mode'** dropdown, select **'No Template'**.

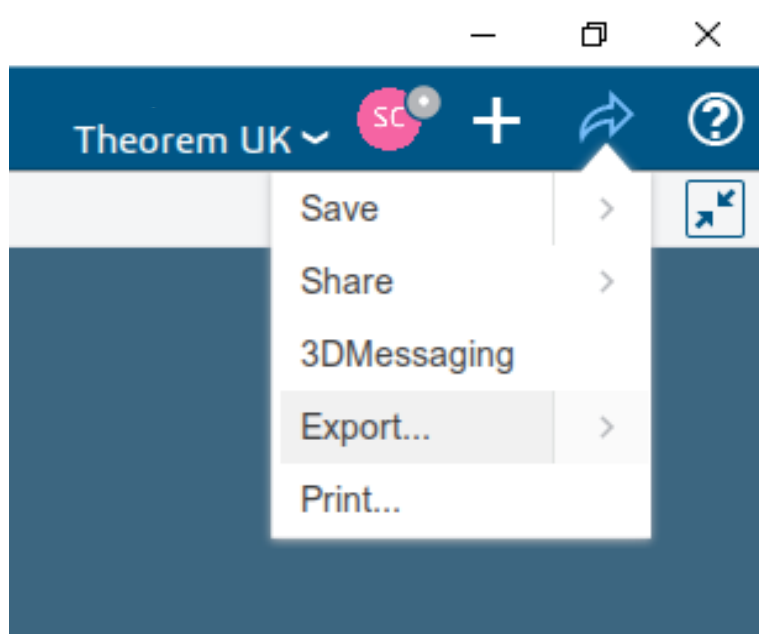


Interactive Export to 3DPDF

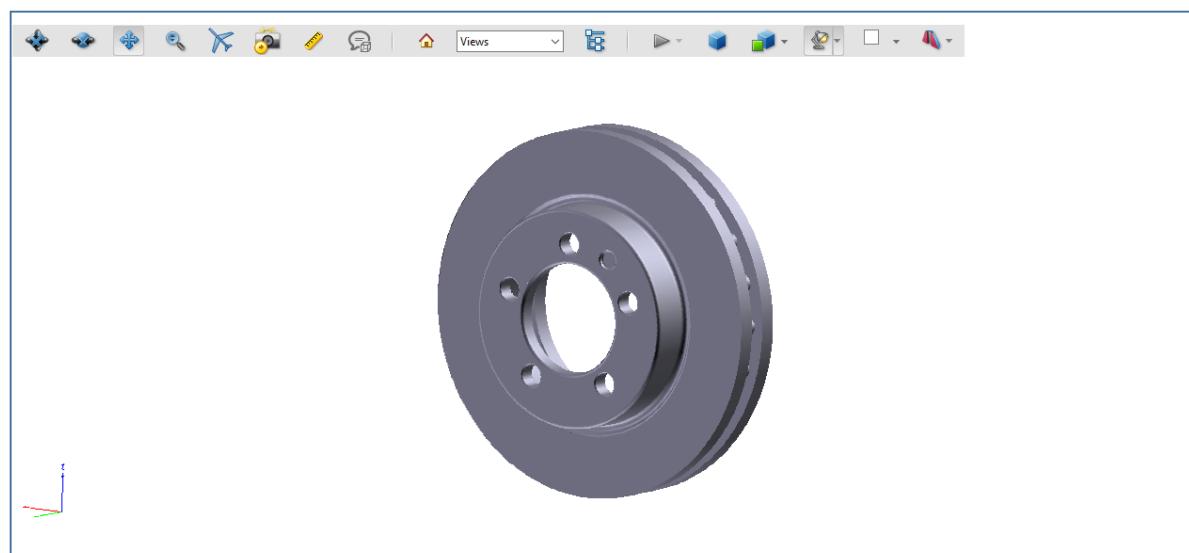
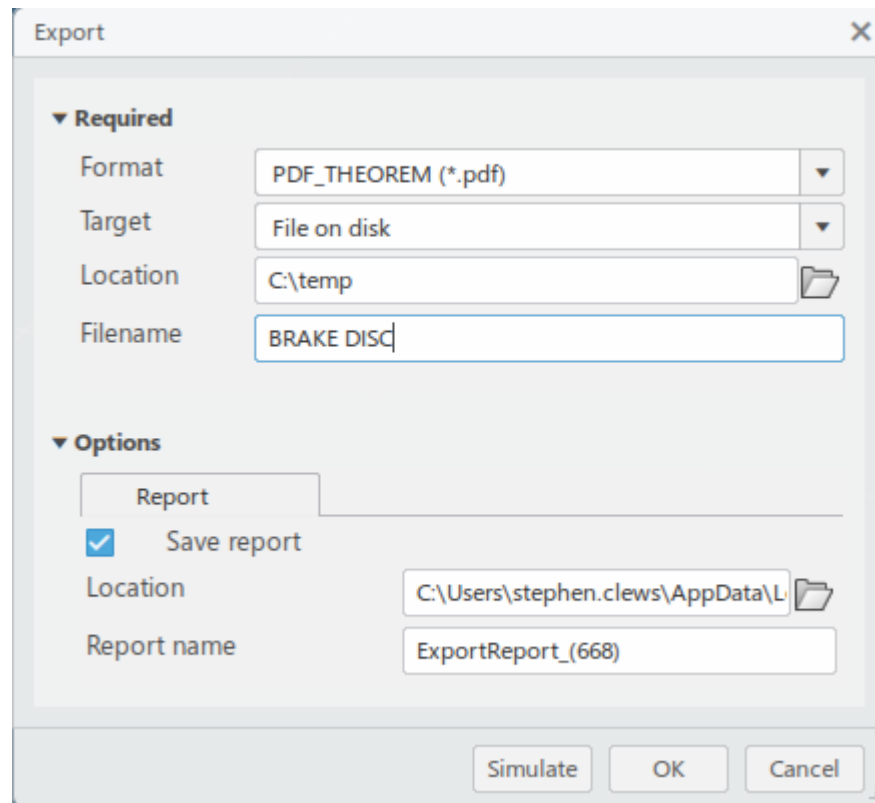
Once 3DEXperience application has been launched, open the product or representation that is going to be exported to 3DPDF.



Select the arrow in the top right corner, then from the list displayed select Export



Export dialog box is displayed. Ensure the “Format” is set to PDF_THEOREM (*.pdf). Select the required location for the file and ensure the Filename displayed is correct. Click OK to initiate the translation.



Translating in Batch using CATUtil – DataExchangePLMBatch

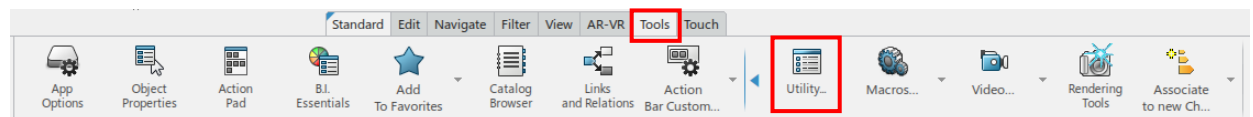
Launching DataExchangePLMBatch

The Dassault Systemes CATUTIL Batch Monitor tool can be launched with the correct Theorem enabled environment using the scripts provided in the Translator installation at:

<installation_directory>\bin\start_CATUTIL_Theorem_Multi-CAD_3DPDF_CATIAV6R<revision>.cmd

(where <revision> should be substituted for the version of 3DExperience that you have installed – e.g. 2020x, 2021x, 2022x)

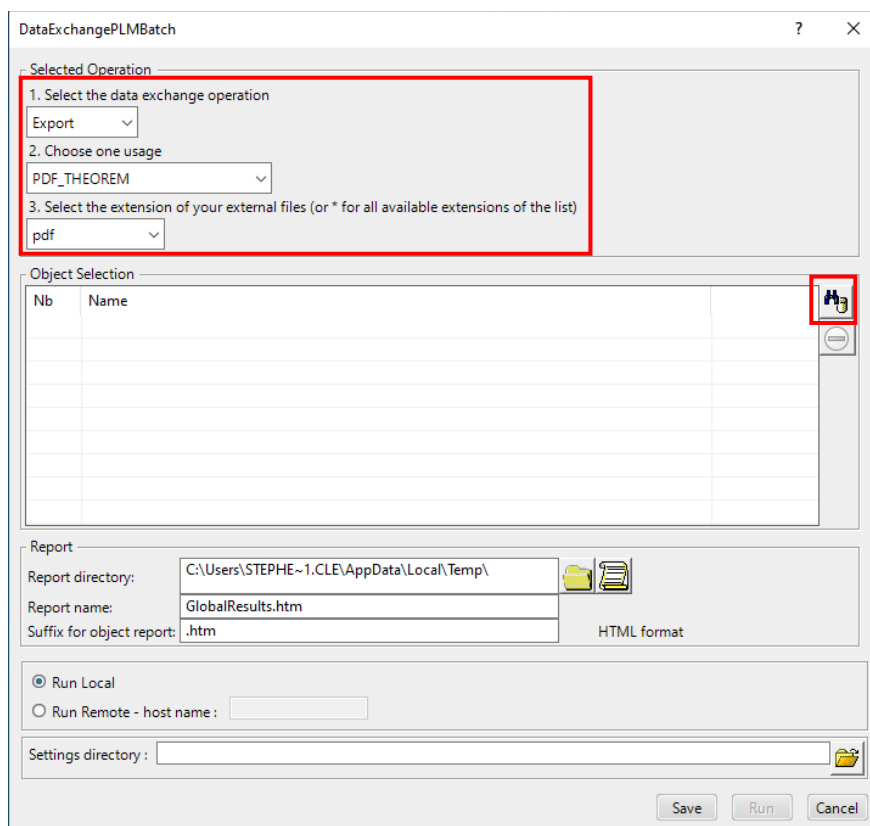
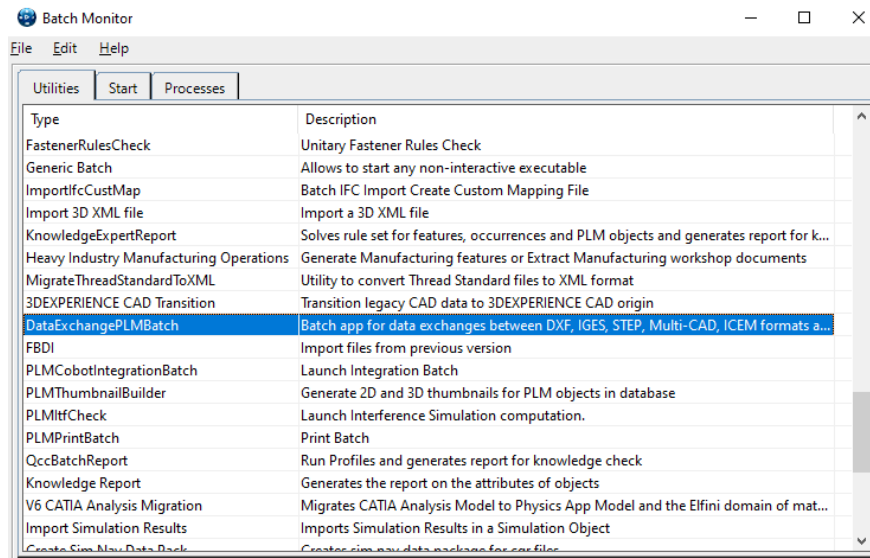
It can also be started from the Tools>Utility workbench within an Interactive 3DExperience session.




Batch Export to 3DPDF

Here is an example showing what is required in preparation for a 3DExperience database selection and export.

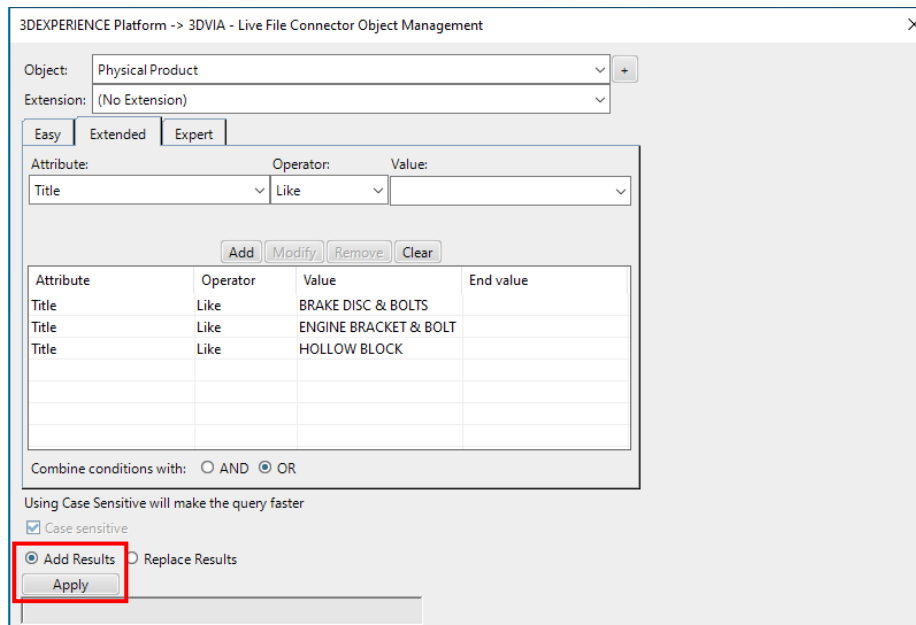
Double click on **DataExchangePLMBatch** to launch the command.



Note selection of “Export” operation, usage “PDF_THEOREM” and extension “pdf”.

To add the required products to the batch for export, select the 3DEXperience Platform Object Search icon. 

In the subsequent window displayed, add the products using the correct attribute, operator and value ensuring that the correct object type has been selected. (E.g. Physical Product.) For multiple products ensure that the **OR** condition has been selected. Select Add results and click Apply to add the list of products to the Object Selection field.



3DEXPERIENCE Platform -> 3DVIA - Live File Connector Object Management

Object: Physical Product
Extension: (No Extension)

Easy Extended Expert

Attribute: Title Operator: Like Value:

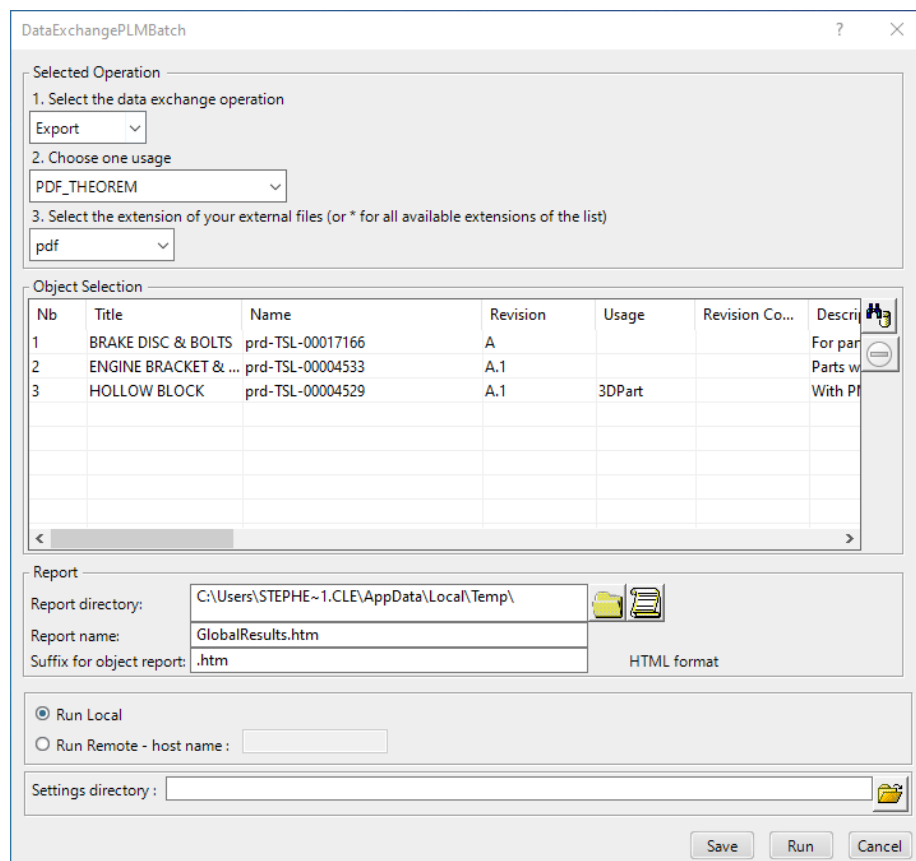
Attribute	Operator	Value	End value
Title	Like	BRAKE DISC & BOLTS	
Title	Like	ENGINE BRACKET & BOLT	
Title	Like	HOLLOW BLOCK	

Combine conditions with: ☐ AND ☒ OR

Using Case Sensitive will make the query faster

☒ Case sensitive

☒ Add Results ☐ Replace Results



DataExchangePLMBatch

Selected Operation

1. Select the data exchange operation
Export

2. Choose one usage
PDF_THEOREM

3. Select the extension of your external files (or * for all available extensions of the list)
pdf

Object Selection

Nb	Title	Name	Revision	Usage	Revision Co...	Descri
1	BRAKE DISC & BOLTS	prd-TSL-00017166	A			For par
2	ENGINE BRACKET & ...	prd-TSL-00004533	A.1			Parts w
3	HOLLOW BLOCK	prd-TSL-00004529	A.1	3DPart		With P

Report

Report directory: C:\Users\STEPHE~1.CLE\AppData\Local\Temp\

Report name: GlobalResults.htm

Suffix for object report: .htm HTML format

☒ Run Local
☐ Run Remote - host name :

Settings directory :

To change the location where both the report and PDF files will be saved, select the icon next to the Report directory field, then select the required directory.



DataExchangePLMBatch

Selected Operation

1. Select the data exchange operation

Export

2. Choose one usage

PDF_THEOREM

3. Select the extension of your external files (or * for all available extensions of the list)

pdf

Object Selection

Nb	Title	Name	Revision	Usage	Revision Co...	Description
1	BRAKE DISC & BOLTS	prd-TSL-00017166	A			For part
2	ENGINE BRACKET & ...	prd-TSL-00004533	A.1			Parts with
3	HOLLOW BLOCK	prd-TSL-00004529	A.1	3DPart		With PM

Report

Report directory: C:\temp\Batch\

Report name: GlobalResults.htm

Suffix for object report: .htm

HTML format

☒ Run Local

☐ Run Remote - host name :

Settings directory :

Save Run Cancel

Click Run to initiate the Batch Export to PDF.

Name	Date modified	Type	Size
Data	10/01/2023 12:03	File folder	
BRAKE DISC & BOLTS.htm	10/01/2023 12:03	Chrome HTML Do...	1 KB
ENGINE BRACKET & BOLTA.1.htm	10/01/2023 12:03	Chrome HTML Do...	1 KB
GlobalResults.htm	10/01/2023 12:03	Chrome HTML Do...	2 KB
HOLLOW BLOCKA.1.htm	10/01/2023 12:03	Chrome HTML Do...	1 KB
prd-TSL-00004529.pdf	10/01/2023 12:03	Adobe Acrobat D...	770 KB
prd-TSL-00004533.pdf	10/01/2023 12:03	Adobe Acrobat D...	1,181 KB
prd-TSL-00017166.pdf	10/01/2023 12:03	Adobe Acrobat D...	936 KB

Translating on the Command Line

It is possible to run a 3DExperience to 3DPDF translation on the command line, however as all CAD data is saved in the 3DExperience database an XML file will need to be used as the input file instead of a CAD file. This is explained in more detail below. In order to run a translation on the command line the following inputs are required: -

<TS_INST>\bin\catia6r<revision>_3dpdf.cmd <input_file> <output_file> publish <XML Manifest file> <options>

Where: - <TS_INST> is the Theorem Solutions software installation directory.

Where: - <revision> is the version of 3DExperience that you have installed – e.g. 2020x, 2021x, 2022x.

<input_file>

Is an xml file defining access to a specific object in the 3DExperience database.

This file provides user login details (V6R2013x) or a Login Ticket (2015x onwards) (see appendix A), to a specified Enovia repository plus a set of 3 attribute names and values which will uniquely identify the input object required for the conversion.

These are highlighted in **green** in the example below and will need changing to the object and revision being used for the conversion. The lines highlighted in **yellow** should be modified with 'your' login details which are required to access Enovia.

Examples of the input file XML can be found in the

<TS_INST>\samples\3dexperience folder. These can be modified and saved on your local drive.

Here is an example of the xml input file for 3DExperience

```
<?xml version="1.0" encoding="utf-8"?>

<mc6_read>
  <!-- parameters must be in this ORDER -->
  <!-- parameters only the value passed to V6 -->
  <parameters>
    <attribute name="repository" value="PLM1"/>
    <attribute name="ServerName" value="3dspace.theorem.com"/>
    <attribute name="ServerPort" value="447"/>
    <attribute name="ServerRootURI" value="3dspace"/>
    <attribute name="LoginTicket"
value="REeYNzM3M0Q1REM2NDgxQzIFNzk1QzlwNjZGRDYzODN8Um9iaW58Um9ia
W58fHwwfA==" />
    <attribute name="PLMType" value="VPMReference"/>
    <attribute name="ReportDirectory" value="C:\TEMP\V6Export"/>
    <attribute name="LicenseData" value="LIC"/>
    <attribute name="BatchXMLFileName" value="Default"/>
  </parameters>
  <!-- arguments both key and value are passed to V6 -->
  <arguments>
    <attribute key="PLM_ExternalID" value="prd-Interfix"/>
    <attribute key="V_version" value="A"/>
    <attribute key="minorrevision" value="1"/>
  </arguments>
</mc6_read>
```

Note – In some cases, the “minorrevision” value is not required in the XML file, only the V_version value is required. This value could be A.1 for example.

<output_file>

is the required output PDF file name.

publish <XML Manifest file>

This is the template that the data will be translated in to. A text file containing a list of manifest files can also be used in order to publish to multiple templates.

<options>

Options displayed in the configuration manager and advanced arguments can be added at the end of the command using the correct syntax, e.g. disable_points, disable_wireframe. (See Configuration Manager and Advanced Arguments for list of command line syntaxes.)

progress_file <file name>

The path and file name for the log file e.g. C:\TEMP\progress.log

```
"C:\Program Files\Theorem\25.4_3DExperience_3DPDF\bin\catia6r2022x_3dpdf.cmd"  
C:\temp\3dex_2022x_input_Engine_Bracket.xml "C:\temp\ENGINE BRACKET.pdf" publish "C:\Program Files\Th  
eorem\25.4_3DExperience_3DPDF\data\publish_3dpdf\templates\publishBlank.xml" disable_wireframe
```

Log File Generation

Export process Log Files

In the process of exporting the selected 3DExperience part or assembly, the following log files are generated by the JT Export plug-in.

The process log and error messages are recorded in a '.err' file located in the 3DExperience CATReport directory. The file is named after the active CATIA component.

e.g. %CATReport%\model1.err

Additional log files are created in the TSC_TEMP_DIR directory. This directory is defined in the %TS_INST%\ts_env.bat file.

%TSC_TEMP_DIR%\Read_to_viewer_<input_part_name>.log

Where: <input_part_name> is the name of the input part (or the active part name in interactive usage)

This contains information describing the 3DExperience 'data read' processing into Theorem Intermediate data format. Normally a list of entities.

List of gco entities :-			
Type	Total	Standalone	Subordinate
Lines	237		237
Curves	468		468
Surfaces	189		189
Planes	81		81

%TSC_TEMP_DIR%\viewer_<part-name>_screen_output.log

Where <part-name> is the selected output file name

This contains the screen output of the process of writing the data to PDF. The status of the translation can be found here

%TSC_TEMP_DIR%\viewer_<part-name>.log

Where <part-name> is the selected output file name

This contains detailed process information of the write of the data to PDF and contains additional information such as modifiers and options used.

3DExperience Environment Files

As part of the Theorem installation process, a set of 3DExperience environment files are created which are subsequently used in the launch of 3DExperience and CATUtil sessions to support the Theorem partner plug-ins for 3DPDF export.

A 'CATEnv' file is created for each installed version of 3DExperience.

These environment files are located in the 3DExperience revision specific folder e.g.

<installation_directory>\B422\win_b64\CATEnv\Theorem_Multi-CAD_3DPDF_CATI6R2020x.txt

<installation_directory>\B423\win_b64\CATEnv\Theorem_Multi-CAD_3DPDF_CATI6R2021x.txt

<installation_directory>\B424\win_b64\CATEnv\Theorem_Multi-CAD_3DPDF_CATI6R2022x.txt

These files consist of the current 3DExperience settings with the required Theorem settings appended at the bottom.

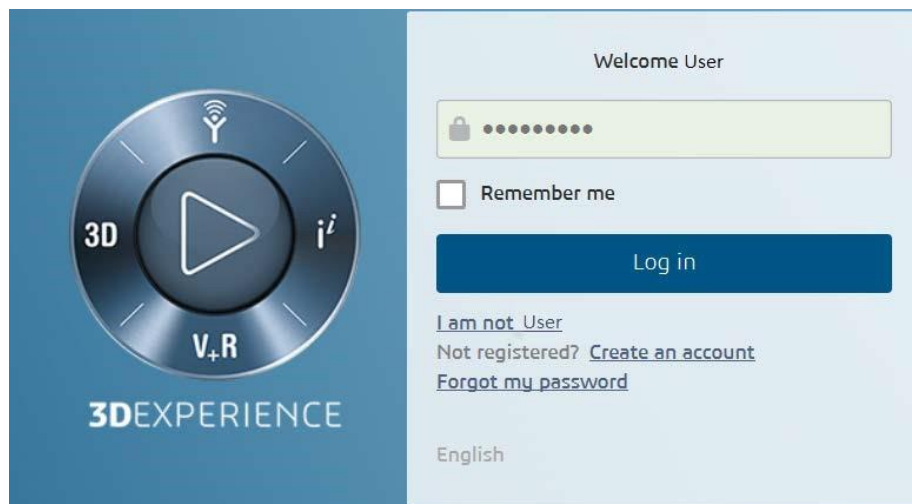
```
!-----
! Theorem Additional Multi-CAD Settings
!-----
TS_INST=C:\Program Files\Theorem\25.3_3DExperience_3DPDF\
THEOREM_LICENSE_FILE=7601@tscpc04
TSC_TEMP_DIR=%TEMP%
OPTIONS_MULTICAD_PARTNER=1
CNEXTOUTPUT=%TSC_TEMP_DIR%\3DEXPERIENCE_B424_output.log
!TS_MCAD_OPTIONS_PRODUCT_NAMING=C:\Program Files\Theorem\25.3_3DExperience_3DPDF\data\3dx\export_name_format.txt
MEPREF_LEGACYPANEL=1
```

Appendix A – Creating a Login Ticket

Use a browser link (similar to the one below) to your 3DExperience Server

<https://3dspace.2017x.theorem.com:447/3dspace/common/emxNavigator.jsp>

A page will appear in the browser

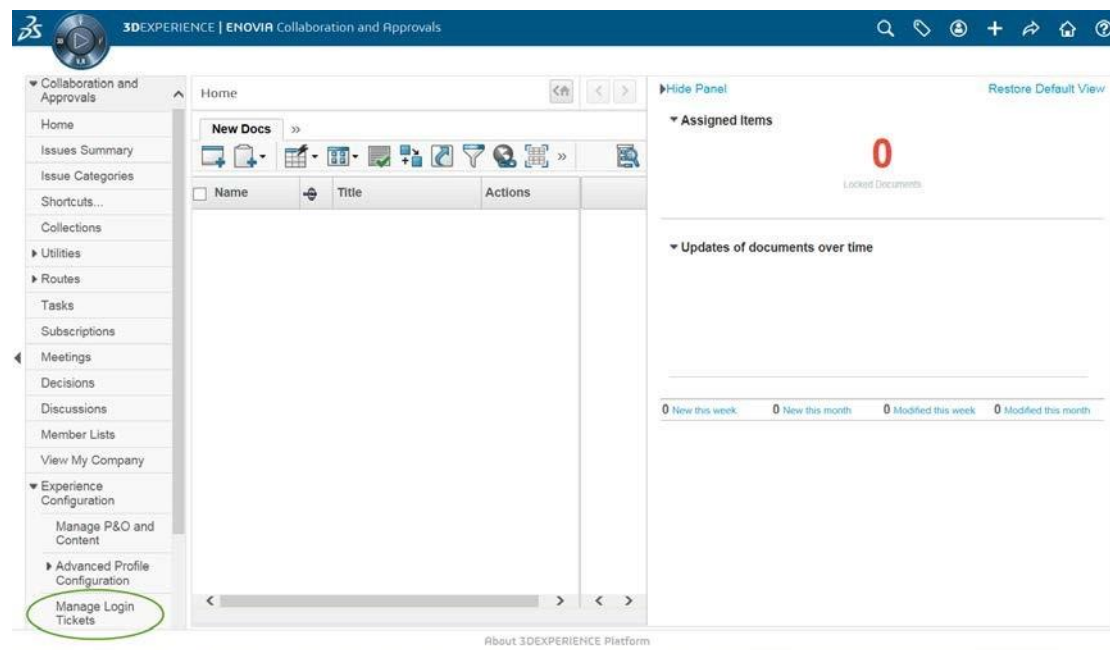


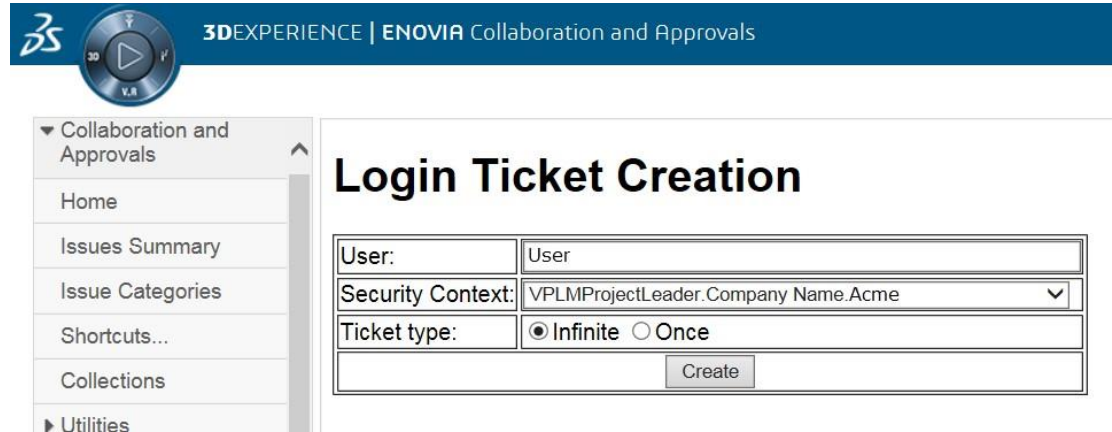
Login as normal, e.g.

User

Password

Select Collaboration and Approvals > Experience Configuration > Manage Login Tickets





The screenshot shows the 3DExperience | ENOVIA Collaboration and Approvals interface. On the left is a navigation menu with the following items: Collaboration and Approvals (expanded), Home, Issues Summary, Issue Categories, Shortcuts..., Collections, and Utilities. The main content area is titled 'Login Ticket Creation'. It contains a form with the following fields: 'User:' with the value 'User', 'Security Context:' with the value 'VPLMProjectLeader.Company Name.Acme' and a dropdown arrow, and 'Ticket type:' with radio buttons for 'Infinite' (selected) and 'Once'. Below these fields is a 'Create' button.

Select the values required for your user:

User and Security Context should already be set, make sure that Ticket Type: Infinite is selected. Then click on 'Create'

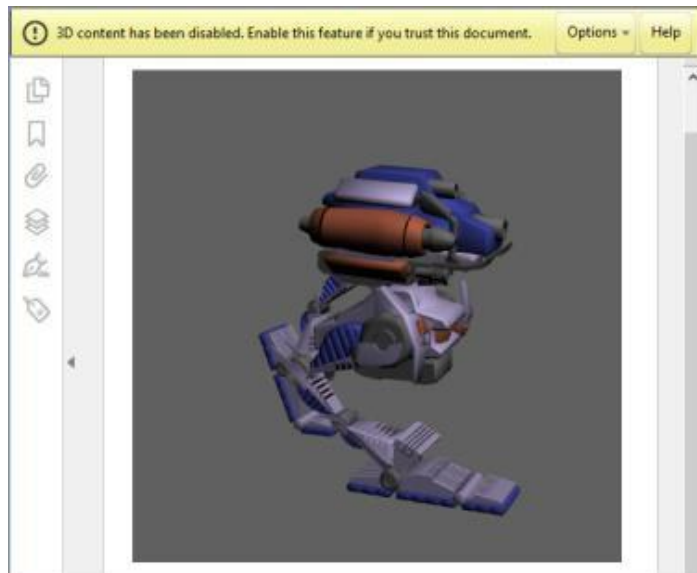
'Create' will produce the ticket. See example below: -

REEyNzM3STE1MER2NDgxQzIFNzk1QzlwNjZGNATzDAN8Um9iaW58Um9iaW58fHwwfA==

This can then be used as the 'LoginTicket' value explained previously.

Appendix B – Security Changes to Adobe Reader PDF Documents

Adobe have implemented new security options to disable the auto-play of 3D content in PDF files. The following banner will be displayed upon opening a PDF file that contains 3D content:



To enable 3D content in the current document:

Click the Options button and then select an appropriate option:

- Trust this document one time only
- Trust this document always

To enable 3D content permanently in ALL documents:

- Go to Edit > Preferences > 3D & Multimedia and then select the Enable playing 3D content checkbox

