

ASFALIS EX8.3 Release Note

August 2020
Elysium Co. Ltd.

Version: ASFALIS EX8.3

1. Products

ASFALIS CATIA V5	ENF Writer	ENF Reader
ASFALIS 3DEXPERIENCE	ENF Writer	ENF Reader
ASFALIS CATIA V4	ENF Writer	ENF Reader
ASFALIS NX I-deas	ENF Writer	ENF Reader
ASFALIS Creo Parametric	ENF Writer	ENF Reader
ASFALIS Parasolid	ENF Writer	ENF Reader
ASFALIS NX	ENF Writer	ENF Reader
ASFALIS SOLIDWORKS	ENF Writer	ENF Reader
ASFALIS Autodesk Inventor	ENF Writer	ENF Reader
ASFALIS Creo Elements/Direct	ENF Writer	ENF Reader
ASFALIS IGES	ENF Writer	ENF Reader
ASFALIS STEP	ENF Writer	ENF Reader
ASFALIS ACIS	ENF Writer	ENF Reader
ASFALIS JT	ENF Writer	ENF Reader
ASFALIS PLM XML	ENF Writer	ENF Reader
ASFALIS iCAD	ENF Writer	ENF Reader
ASFALIS CADmeister (Standalone)	ENF Writer	ENF Reader
ASFALIS CATIA V5 (Standalone)	ENF Writer	ENF Reader
ASFALIS Creo Parametric (Standalone)	ENF Writer	
ASFALIS NX (Standalone)	ENF Writer	
ASFALIS 3DXML	ENF Writer	
ASFALIS STL	ENF Reader	
ASFALIS XVL	ENF Reader	
ASFALIS 3D PDF	ENF Reader	
ASFALIS CATIA V5	ENF Reader 3D Annotation Option	
ASFALIS 3DEXPERIENCE	ENF Reader 3D Annotation Option	
ASFALIS NX I-deas	ENF Reader 3D Annotation Option	
ASFALIS NX	ENF Reader 3D Annotation Option	
ASFALIS STEP	ENF Reader 3D Annotation Option	
ASFALIS JT	ENF Reader 3D Annotation Option	
ASFALIS CADmeister (Standalone)	ENF Reader 3D Annotation Option	
ASFALIS CATIA V5	ENF Reader Attribute Option	
ASFALIS NX I-deas	ENF Reader Attribute Option	
ASFALIS NX	ENF Reader Attribute Option	
ASFALIS Creo Parametric	ENF Reader Attribute Option	
ASFALIS Autodesk Inventor	ENF Reader Attribute Option	
ASFALIS SOLIDWORKS	ENF Reader Attribute Option	
ASFALIS STEP	ENF Reader Attribute Option	
ASFALIS JT	ENF Reader Attribute Option	
ASFALIS CADmeister (Standalone)	ENF Reader Attribute Option	
ASFALIS PDQ Checker		
ASFALIS Geometry Simplifier		
ASFALIS CAD Validator		
ASFALIS Attribute Editor		

ASFALIS Assembly Editor	
ASFALIS Interference Checker	
ASFALIS Polygon Optimizer	
ASFALIS ENF Editor	
ASFALIS 3D PDF Editor	Authoring tool "Data Package Studio" is included
ASFALIS TOGO Healer	
ASFALIS CADCEUS Healer	
ASFALIS SmartController	
ASFALIS Controller	
ASFALIS TransServer	
ASFALIS TransServer	API Option

(*): There is no new component added at EX8.3.

2. Major Enhancements

- (1) Added Support for the Latest CAD Versions
 - CATIA V5(Plug-in) ENF Writer/Reader
Added support of R30(V5-6R2020)
[Supported versions: R19 – R30(V5-6R2020)]
 - CATIA V5(SA) ENF Writer
Added support of R30(V5-6R2020)
[Supported versions: R7 – R30(V5-6R2020)]
 - NX(Plug-in) ENF Writer/Reader
Added support of NX 1899 Series and NX 1926 Series
[Supported versions: NX9 – NX 1926 Series]
 - NX(SA) ENF Writer
Added support of NX 1899 Series
[Supported versions: UG10 – NX 1899 Series]
 - Creo Parametric(Plug-in) ENF Writer/Reader
Added support of Creo Parametric 7.0
[Supported versions: Creo Parametric 2.0 – 7.0]
 - Creo Elements/Direct ENF Writer/Reader
Added support of Creo Elements/Direct 20.3
[Supported versions: Creo Elements/Direct 18.1 – 20.3]
 - Inventor ENF Writer/Reader
Added support of Inventor 2021
[Supported versions: Inventor 2017 – 2021]
 - STEP ENF Writer/Reader
Added support of STEP AP242 edition 2
[Supported versions: AP203, AP214, AP242(ed1/ed2)]

3. Other Enhancements / Specification Changes / Fixed Issues

The IDs in the brackets shows the relevant Elysium support ID.

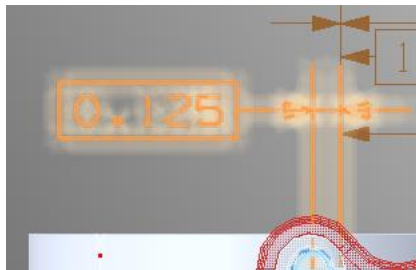
(1)	Common for all Components <ul style="list-style-type: none"> - Fixed an issue that an interruption of processes due to forced termination or timeout failed during repeating retrial of acquiring Elysium license or checking free CAD license(FLEXlm). (00055235)
(2)	CATIA V5(Plug-in) ENF Writer <ul style="list-style-type: none"> - Enabled to translate the user defined parameter right under a part. (00054198) - Fixed an issue that the text color of PMI could not be translated correctly. (00055329) - Fixed an issue that hidden elements could not be translated when the original model was created on R15 or earlier. - Fixed a model-dependent issue that the translated geometry was different from the geometry displayed on CATIA V5 right after opening the model.
(3)	CATIA V5(Plug-in) ENF Reader <ul style="list-style-type: none"> - Fixed a model-dependent issue that related elements of length dimension were lost during PMI translation. (00055321)
(4)	NX(Plug-in) ENF Writer <ul style="list-style-type: none"> - Enhanced to translate the standard (e.g., JIS, ISO, etc.) of surface finish as that of component when NX model includes surface finish. (00055322) - Fixed an issue that an invisible line was translated as graphic PMI when translating surface finish without leader line. (00055325)
(5)	NX(Plug-in) ENF Reader <ul style="list-style-type: none"> - Fixed an issue that the name of edge was lost during seam line removal process. (00051882)
(6)	Creo Parametric(Plug-in) ENF Writer <ul style="list-style-type: none"> - Added a new parameter "ConvertCombstate" to distinguish the translation of Combined View from PMI translation. (00054946) <ul style="list-style-type: none"> - EX8.2 or earlier: It was impossible to translate Combined View only without translating PMI because Combined View was translated when PMI translation was activated by the parameter "XConvert****". - EX8.3: It is possible to specify PMI translation "XConvert****" and Combined View translation "ConvertCombstate" independently. Please set both parameters when translating both of PMI and Combined View. - Fixed an issue that a part of related elements which are shared among multiple components were lost in PMI conversion. (00055530)
(7)	Creo Parametric(Plug-in) ENF Reader <ul style="list-style-type: none"> - Fixed an issue that the value of Creo configuration "default_decimal_places" which specify the number of decimal places was changed to "12" after translation with ASFALIS SmartLauncher(Plug-in). (00054646)
(8)	SOLIDWORKS ENF Writer <ul style="list-style-type: none"> - Fixed a model-dependent issue that it consumed a lot of resources when opening the model. (Fixed in SOLIDWORKS 2017 or later)
(9)	Parasolid ENF Reader <ul style="list-style-type: none"> - Fixed an issue that the name of edge was lost during seam line removal process. (00051882)
(10)	STEP ENF Writer <ul style="list-style-type: none"> - Enabled to translate name of isolated curves and points. - Enabled to translate transparency of volumes.

<ul style="list-style-type: none"> - Enhanced to translate relations from PMI to other graphic PMI in STEP AP242 to ENF translation. - Enhanced Saved View translation in STEP AP242 to ENF translation. It automatically selects a suitable way to translate Saved View according to the CAD system written in the header section of the STEP file. - Extended the functionality of the parameter "PartIDMapping" to support the translation Part ID in STEP BOM to PartName in ENF in STEP AP242 BOM XML to ENF translation. Due to this enhancement, the default value of this parameter is changed as below. <ul style="list-style-type: none"> - The default behavior of EX8.2 or earlier: The component name was translated to PartName in ENF. Part ID(*) in STEP BOM was translated to PartNumber in ENF. (*) Identifier.id was used as Part ID in preference to Id.id. - The default behavior of EX8.3: Part ID(*) in STEP BOM is translated to PartName in ENF. The component name is translated to PartNumber in ENF. (*) Identifier.id is used as Part ID in preference to Id.id.
<p>(11) STEP ENF Reader</p> <ul style="list-style-type: none"> - Enabled to translate name of isolated curves and points. - Enabled to translate transparency of volumes. - Enhanced to translate relations from PMI to other graphic PMI in ENF to STEP AP242 translation. (00055770, 00055772, 00055774) - Enhanced to translate relations from PMI to volumes in ENF to STEP AP242 translation. (00055773) - Added a new parameter "SavedViewMethod" to specify how to translate Saved Views for a target CAD system in ENF to STEP AP242 translation. - Enabled to translate PMI Validation Properties(Affected Geometry) in ENF to STEP AP242 translation. - Enabled to preserve the show/hide status of PMIs for each 3D View when using STEP importing function of SOLIDWORKS to import translated STEP AP242. - Fixed an issue that a target point of Saved View was translated to a wrong position in ENF to STEP AP242 translation.
<p>(12) JT ENF Writer</p> <ul style="list-style-type: none"> - Added new parameters "ForceBodyNode" and "ForceBodyNodeFile" that enable nodes that are not Body Nodes in JT to be treated as Body Nodes in JT to ENF translation. (00054361) - Fixed a model-dependent issue that instance placement and polygon color were not translated correctly.
<p>(13) JT ENF Reader</p> <ul style="list-style-type: none"> - Fixed a model-dependent issue that redundant related elements were converted for assembly PMIs.
<p>(14) 3D PDF ENF Reader</p> <ul style="list-style-type: none"> - Enabled to translate parallel-on-screen annotations to 3D PDF. - Fixed an issue that the viewing performance was lowered for 3D PDF, Validation Report(3D PDF) and PDQ Check Result Report(3D PDF) when they were exported from CATIA V5. - Fixed an issue that Validation Report(3D PDF) and PDQ Check Result Report(3D PDF) exported from CATIA V5 displayed unnecessary wires. (00055644)
<p>(15) CATIA V5(Plug-in) to JT</p> <ul style="list-style-type: none"> - Updated Daimler translation setting files to support Daimler JT Supplier Package 20.06.
<p>(16) CATIA V5(Plug-in) to 3D PDF</p> <ul style="list-style-type: none"> - Fixed an issue that bold points are shown on the thumbnails in View Carousel. (00055582)
<p>(17) Creo Parametric(Plug-in) to STEP</p> <ul style="list-style-type: none"> - Fixed an issue that it failed to translate a model which includes quilts. (00054860)

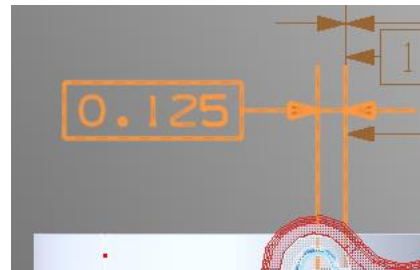
(18) CAD Validator

- Improved the accuracy of component mapping to match components which have different names but are located at the same position when comparing assembly models.
- Improved the instance name validation logic to ignore the serial number added to the end of instance name and not to detect it as a difference when the second model of validation is CATIA V5. (00055326)
- Enhanced the validation between source NX and target CATIA V5 which is translated from NX(Plug-in) to CATIA V5(Plug-in) as follows.
 - Fixed an issue that differences in an identification line of line weld were detected excessively. (00055327)
 - Fixed a model-dependent issue that differences in a target point of a model view were detected excessively. (00055330)
 - Changed the tolerance of transparency validation not to detect unnecessary differences. (00055331)
- Fixed an issue that differences in a leader zone type of GDT were detected excessively. (00055775)
- Changed the PMI highlighting method in 3D HTML validation report to make it easier to distinguish PMI.

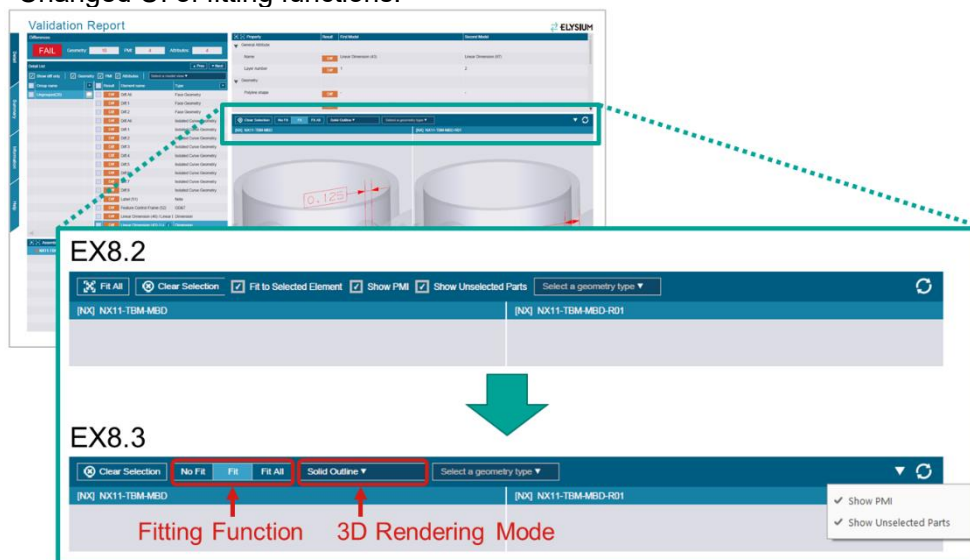
EX8.2



EX8.3



- Improved UI of 3D PDF validation report.
 - Added a UI component to switch the render mode of the two 3D views.
 - Changed UI of fitting functions.



- Enabled to create groups automatically by applying a customized script in a post process. Please contact Elysium or partners for details on automated grouping and CAD Validator customization.
- Fixed an issue that a Diff-Analyzer file could fail to be exported when an anti-virus software is installed.

(19) Data Package Studio

- Provided a public JavaScript API(TDP JS API) to enable simple access and control of a 3D View widget, such as show/hide PMI items.

Please refer to the Data Package Studio documentation(PDF) for the details.
The Data Package Studio online documentation is also available besides PDF.

URL	https://doc.elysium-global.com
ID	cs_dps
Password	LAjXGNtP

* The contents of the online documentation are the same as that of PDF.

(20) Slave Node

- Fixed an issue that it failed to run "ASFALIS Component Service" when a service registered user could not access the shared folder.

✧ Please refer to "ASFALIS_Manual_ENG.pdf" and the change logs at the bottom of "ASFALIS Parameter HTML" for specification changes on config file, parameters etc.

4. Known Issues

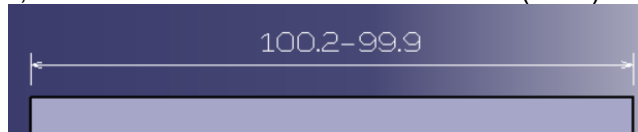
*Added at EX8.3 in bold.

(1) The character codes of the text log may be mixed in ASFALIS EX6.* or later.

(2) The total value of mass properties may not be translated in CAD to ENF translation when Memory Saving Mode is enabled.

(3) CATIA V5(Plug-in) ENF Writer
Due to CATIA V5 API limitation, the face color may not be translated correctly. (on CATIA V5-6R2018 sp1 or later)

(4) CATIA V5(Plug-in) ENF Writer
The left and right values may flip during CATIA V5 to ENF translation when the source model is created by V5-6R2019, and has a dimension which includes "-"(dash) between the two values.



(5) CATIA V5(Plug-in) ENF Reader 3D Annotation Option
A CAD API defect causes the following problems:

- The leader line for diameters can be translated as left and right reversed.
- Angular dimensions will not be translated. (on CATIA V5-6R2013)

(6) 3DEXPERIENCE ENF Writer
Due to 3DEXPERIENCE API specification changes, the specification of hidden elements translation differs depending on the 3DEXPERIENCE version.
The elements whose display flag is "Show" but whose layer filter status is "Hidden" on 3DEXPERIENCE will be translated as below when the value of the parameter "ConvertNoShowElement" is set to "0" (0: Don't translate hidden elements).

- R2019x FD05/FD06, R2020x Golden/FD01: The elements are NOT translated to ENF
- R2019x FD04 or earlier/FD07 or later, R2020x FD02 or later: The elements are translated to ENF

(7) 3DEXPERIENCE ENF Reader (3DEXPERIENCE R2017x)
Due to 3DEXPERIENCE API limitation, the clipping plane of capture is not translated.

(8) Creo Parametric(Plug-in) ENF Writer (Creo Parametric 2.0)
A CAD API defect causes the following problem:

- Hidden entities of quilt may be translated as visible entities.

This issue has been fixed in M030.

(9) **Creo Parametric(Plug-in) ENF Writer**
When using Creo Parametric 7.0, the mass properties of assembly will not be translated to ENF if the density is not set in parts under Creo assembly model.

<p>(10) Creo Parametric(Plug-in) ENF Reader The translation time of a model with multi volumes might be longer than with a single volume. Please refer to the following information available on PTC's Support Site for further details.</p> <p>https://www.ptc.com/en/support/article?n=CS317562</p>
<p>(11) Creo Parametric(Plug-in) ENF Reader When using Creo Parametric 7.0, the mass properties of assembly will not be translated to Creo if the density is not set in the template of part which is used in translation.</p>
<p>(12) Creo Parametric(Plug-in) ENF Writer/Reader When the following option is written in the configuration files of Creo Parametric (config.sup or config.pro), ENF Writer/Reader may crash depending on model data. In the case of crash, specify the value "no" for this option, show_geom_checks_on_creation yes</p>
<p>(13) Creo Parametric(Plug-in) ENF Writer/Reader The following issues have been found in Creo Parametric ENF Writer/Reader.</p> <ul style="list-style-type: none"> - When exporting neutral files with Creo Parametric ENF Writer. <ul style="list-style-type: none"> - There is a model-dependent issue that the instance color and the transparency may not be translated correctly. (Creo Parametric 3.0 or later) - When importing neutral files with Creo Parametric ENF Reader. <ul style="list-style-type: none"> - There is an issue that the color and the transparency of the back side of faces are not translated correctly. (Creo Parametric 3.0 / 4.0) - There is an issue that the processing time for translating isolated curves will increase. (It takes extremely long to translate a model with more than 10 thousand isolated curves) (Creo Parametric 3.0 or later)
<p>(14) Creo Parametric(Plug-in) ENF Writer/Reader It may fail to translate in Creo Parametric ENF Writer/Reader because of Creo Parametric crashing. We confirmed that the error has occurred between 0.1% to 4% (1 to 40 times for every one thousand times) depending on the environment, according to our test. (Now we are investigating the cause of the error.)</p>
<p>(15) Creo Parametric(Plug-in) ENF Writer/Reader When executing translation on Windows 8.1 using Creo Parametric 3.0 or later version, translation may fail depending on the application status of Windows Update. Please refer to the following information available on PTC's Support Site for further details.</p> <p>https://www.ptc.com/en/support/article?n=CS269539</p>
<p>(16) NX(Plug-in) ENF Writer 3D Annotation Option There is a restriction on the data translation of 3D annotation with NX ENF Writer</p> <ul style="list-style-type: none"> - The texts of "Hole Dimension" will not be translated when translating NX data from NX9.0 or later.
<p>(17) NX(Plug-in) ENF Writer When translating from NX by using ASFALIS SmartLauncher(Plug-in) with on-memory mode, properties (e.g., show/hide status etc.) and translation target elements could not be translated correctly according to the configuration of NX assembly load options. Related menu: NX Menu > [File] > [Options] > [Assembly Load Options]</p> <p>To export by using the on-memory mode, select "Fully Load" as the load option to open the NX model. It has been reported that the following selections in load option may cause incorrect translation.</p> <ul style="list-style-type: none"> - "Partially Load - Lightweight Display" - "Minimally Load - Lightweight Display" <p>Note that the default setting of NX assembly load options is changed to "Partially Load -</p>

Lightweight Display" from NX 1899 Series.	
(18)	NX(Plug-in) ENF Reader (NX9 or earlier) When the model that has the part and sub-assembly including Drafting PMI is translated using NX9 Legacy adapters, there is an issue that the model may not be displayed when switching the Model View in NX.
(19)	NX(Plug-in) ENF Writer/Reader (NX11) There have been reports that NX11 to/from ENF translation failed with some versions of graphic board driver. The following is a combination of graphic boards and driver versions that have been confirmed to fail translation: <ul style="list-style-type: none"> - NVIDIA Quadro P600, v23.21.13.8816 or later - NVIDIA Quadro P620, v24.21.13.9793 / v24.21.14.1195 - NVIDIA Quadro K420, v23.21.13.9077 Set the following environment variable to avoid translation errors. JT_OGL45=1
(20)	NX(Plug-in) ENF Writer/Reader The translation of multi-plane section (e.g., two parallel-plane type and box type) is available only in NX11 or later.
(21)	NX I-deas ENF Writer Due to the IDI API limitation, hidden entities of Coordinate System (CS) will be translated as visible entities.
(22)	NX I-deas ENF Writer/Reader The NX I-deas API defect may cause an inconvenience that NX I-deas window is displayed during the translation with NX I-deas6.7.
(23)	SOLIDWORKS ENF Writer The SOLIDWORKS API defect may cause a model-dependent issue that face colors are not translated correctly.
(24)	SOLIDWORKS ENF Reader The SOLIDWORKS API defect may cause a translation error when the original SW model has many parts. The following environment variable settings may help to avoid the translation error. ELY_SW_PREOPEN_DOCUMENT=1 ELY_CONFIG_ELCFB_ENABLE_SERVER=1 ELY_FBT_FORCE_PARALLEL_PROCESSING=1 ELY_CONFIG_ELCFB_SERVER_RESTART_COUNT=1000 ELY_CONFIG_ELCFB_NUM_OF_PROCESSES=1
(25)	SOLIDWORKS ENF Writer/Reader Please note that an error may occur when using SOLIDWORKS ENF Writer/Reader on the same computer at the same time. Please ensure that SOLIDWORKS adapters will not be used on the same computer at the same time when setting Slave Nodes.
(26)	Autodesk Inventor ENF Reader It may encounter an error when trying to save a data on a mounted folder on network.
(27)	Autodesk Inventor ENF Reader The part names such as Part1, Part2 and so on which are often used by default may get renamed to Part1U0, Part2U1 and so on during translation depending on the environment.
(28)	Autodesk Inventor ENF Reader The memory consumption is higher when translating assembly models using Inventor 2017 compared to Inventor 2016 or earlier. This is because a thumbnail is created at data import of e.g., ACIS files due to a restriction from CAD system side.
(29)	Parasolid ENF Reader Translating a model containing multibyte character in its element name to a Parasolid text

<p>format (.x_t, .xmt_txt) file may cause problems when importing to another system. You can avoid the error by using a binary format (*.x_b, *.xmt_bin).</p>
<p>(30) STEP ENF Reader When the STEP file of the assembly model translated by ASFALIS is opened by SOLIDWORKS 2009 or before, a defect in SOLIDWORKS causes the following problems.</p> <ul style="list-style-type: none"> - Step files will be read as empty assembly models. - The assembly structure and matrix information will be lost and read as parts.
<p>(31) JT ENF Writer 3D Annotation Option There are restrictions on the data translation of 3D annotation with JT ENF Writer.</p> <ul style="list-style-type: none"> - Following properties of GDT are not supported: <ul style="list-style-type: none"> - Common Zone - Maximum - Unit Basis Value - All over - Third or later datum feature of Compound Datum - Following property of surface finish is not supported: <ul style="list-style-type: none"> - Tolerance of Machining Allowance - Special characters (such as super-/subscript) in PMI in NX data will be translated to standard characters in the translation of JT data exported from NX.
<p>(32) JT ENF Writer The JT library defect may cause an incorrect translation of Polygon geometry when translating ULP(Ultra Lightweight Precise) elements which are created in JT v10.3 or earlier.</p>
<p>(33) 3D PDF ENF Reader</p> <ul style="list-style-type: none"> - It has been reported that parallel-on-screen PMIs are not shown on the thumbnails in View Carousel. - It has been reported that parallel-on-screen PMIs are not translated to 3D PDF as parallel-on-screen if they have a leader line.
<p>(34) 3D PDF Report The display (highlight / exclusive show of selected elements) may not function correctly due to the restriction on the 3D PDF rendering.</p>
<p>(35) 3D PDF Report Please note that there is an issue that Left/Right 3D Views are not synchronized to each other when manipulating a model with 3D mouse/Spaceball.</p>
<p>(36) 3D PDF Report Please note that you may fail to open 3D PDF reports when the model contains many PMIs. (As a reference, we failed when a model had more than 3,000 PMIs in our test.)</p>
<p>(37) 3D PDF Report When opening a 3D PDF attached to another PDF, save the 3D PDF report before opening. It is reported that directly opening the attached 3D PDF before saving does not work correctly.</p>
<p>(38) 3D PDF Report It has been reported that the viewing performance of 3D PDF report is lower than EX8.1 when the report includes an attribute difference on B-rep(e.g., color and transparency) with many related elements.</p>
<p>(39) HTML Report Processing time as well as memory consumption will increase compared to EX7.1 when opening HTML validation report that contains many detected differences. (For your reference, increased by 50 percent in our test.)</p>
<p>(40) HTML Report The validation results of hatching patterns and caps of cross sections are displayed in 3D view only under the following condition.</p> <ul style="list-style-type: none"> - The cross section is defined only by a single plane

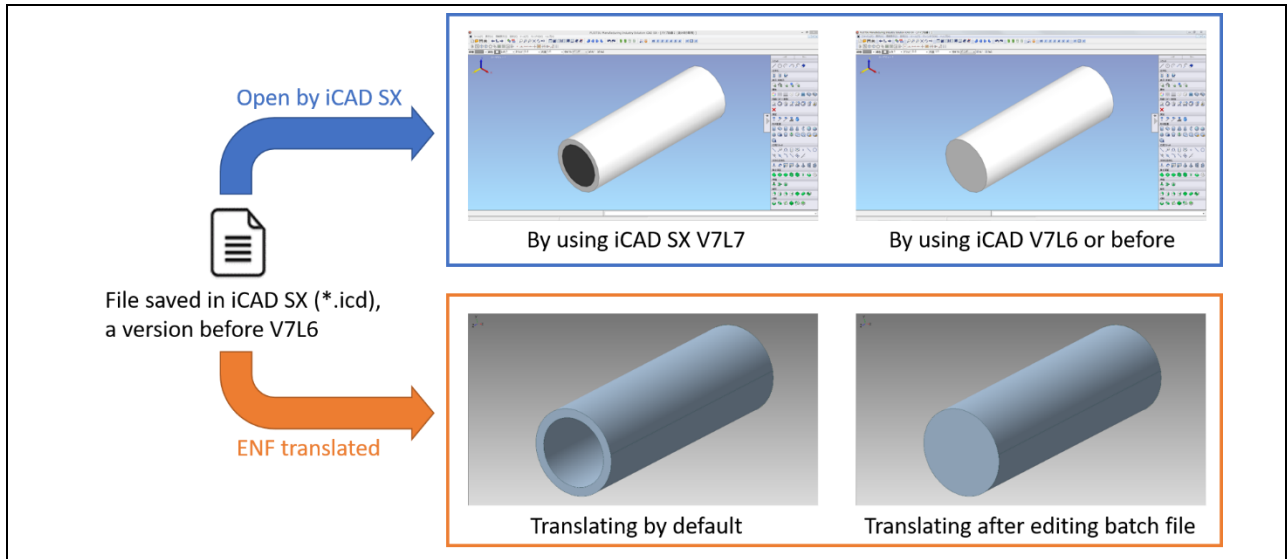
-	There is no interference between each solid
(41)	"Supplier Name" will not be applied to the file names of top files (PLM or JT files) when performing CATIA V5 to PLM XML or CATIA V5 to JT translation on ASFALIS Desktop Controller or ASFALIS TransServer with Daimler settings on.

5. Restrictions of New Adapter

(1)	<p>New adapters are supported for the following adapters.</p> <ul style="list-style-type: none"> - CATIA V5(Plug-in) ENF Writer/Reader - 3DEXPERIENCE(Plug-in) ENF Writer/Reader - NX(Plug-in) ENF Writer/Reader - Creo Parametric(Plug-in) ENF Writer/Reader - JT ENF Writer/Reader - PLM XML ENF Writer/Reader - STEP AP242 BOM XML ENF Writer/Reader - SOLIDWORKS ENF Writer/Reader <p>New adapters other than the above are available but not supported.</p>
(2)	<p>ENF Reader</p> <p>Because of the overhead for parallelization, performance of the new adapter in terms of speed and memory usage may sometimes be worse than the legacy adapter, especially for small models.</p>
(3)	<p>ENF Reader</p> <p>Interval of progress update is rough compared to the legacy adapter.</p>
(4)	<p>CATIA V5(Plug-in) ENF Writer</p> <p>Parameters "NoShow" and "NoShowInstance" accept only values "0"/"1", not "Yes"/"No".</p>
(5)	<p>CATIA V5(Plug-in) ENF Writer</p> <p>Parameters "PartNumber", "BodyName", "PartName" and "WriteProperty" are not available.</p>
(6)	<p>CATIA V5(Plug-in) ENF Writer</p> <p>User attributes are not translated when the value of the parameter "ProductMode" is set to "2".</p>
(7)	<p>CATIA V5(Plug-in) ENF Reader</p> <p>Parameters "InstancePathDisp" and "KeepNativeFilename" accept only values "0"/"1", not "Yes"/"No".</p>
(8)	<p>CATIA V5(Plug-in) ENF Reader</p> <p>When an assembly is imported as internal component, the order of instances may not be preserved.</p>
(9)	<p>Creo Parametric(Plug-in) ENF Writer</p> <p>The translation time may be longer than the legacy adapter.</p>
(10)	<p>NX(Plug-in) ENF Writer</p> <p>Parameter "ProductMode" does not support "2" as its value.</p>
(11)	<p>JT ENF Reader</p> <p>When a relative tolerance is specified during tessellation, the translation speed of parallelization mode may sometimes be much slower than non-parallelization mode.</p>

6. Note

(1)	CADmeister ENF Writer/Reader is supported on Japanese OS and locale only or on English OS.
(2)	CATIA V5(Plug-in) ENF Reader Please note that it may take long to translate using V5-6R2014 or later when the number of referenced objects of PMI is large.
(3)	"Remove Invisible Part" and "Extract Visible Face" of Geometry Simplifier If you wish to run the sub process "RemoveInvisiblePart" or "ExtractVisibleFaceRemove", it is recommended to use a machine with a video board which supports OpenGL Ver3.0 or later. The power of these functionalities will be equivalent as EX7.2 if you run these sub processes on a machine without the GPU.
(4)	For PDQ Checker, check tolerance could be referred by another check item.
(5)	It has been reported that you may experience unsteadiness in the performance of SOLIDWORKS in the environment where Microsoft Update "KB3072630" is applied. Please check whether your environment meets these conditions when SOLIDWORKS ENF Writer/Reader does not behave properly. This issue is fixed in SOLIDWORKS 2016 PR1 and SOLIDWORKS 2015 SP5.0. Please refer to the following page on SOLIDWORKS website for the details of the behavior and workaround. https://www.solidworks.com/sw/support/TechKB3072630.htm
(6)	Regarding Visual C++ Runtime libraries Visual C++ Libraries are required to run the ASFALIS components. Please install the libraries from the included installer (vcredist_x86.exe/vcredist_x64.exe) if your environment does not have the Runtime libraries. Included installer: <ul style="list-style-type: none"> - Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package MFC Security Update (KB2538242) - Microsoft Visual C++ 2008 Service Pack 1 Redistributable Package MFC Security Update (KB2538243) - Microsoft Visual C++ 2010 Service Pack 1 Redistributable Package MFC Security Update (KB2565063) - Visual C++ Redistributable for Visual Studio 2012 - Visual C++ Redistributable for Visual Studio 2013 - Visual C++ Redistributable for Visual Studio 2015 - 2019
(7)	SOLIDWORKS ENF Writer: This does not support the translation of CAD models that are created in SOLIDWORKS 2017sp2 or later using 3D Interconnect functionality, and contain CAD data in third-party native format.
(8)	iCAD ENF Writer Starting from version EX8.1.8, pipes with hollow shapes can now be translated. To translate a pipe into a cylinder, like in the former version, edit the file "moduleIcadExewinicad2enf.bat" located in the installation folder as follows: <pre>"%~dp0V7L7\icad2enf.exe" %* -> "%~dp0V7L6\icad2enf.exe" %*</pre> When edited as the above, files created with iCAD V7L7 cannot be translated.



7. Copyright and License

Refer to the following file to check the copyrights and licenses for third-party software products and open source software.

<ASFALIS Base Package>\doc\LICENSE\third_party_notices.html

8. Supported CAD Version

CAD	Supported CAD Versions
CATIA V5(Plug-in)	R19, R20, R21, R22(V5-6R2012), R23(V5-6R2013), R24(V5-6R2014), R25(V5-6R2015), R26(V5-6R2016), R27(V5-6R2017), <u>R28(V5-6R2018)</u> , <u>R29(V5-6R2019)</u> , <u>R30(V5-6R2020)</u>
CATIA V5(SA)	Import: R7 - <u>R30(V5-6R2020)</u> Export: R14, R19, R20
3DEXPERIENCE(Plug-in)	<u>R2017x</u> , <u>R2018x</u> , <u>R2019x</u> , <u>R2020x</u>
CATIA V4(SA)	V4.2.1 - V4.2.5
NX(Plug-in)	NX9, NX10, NX11, NX12, NX 1847 Series, <u>NX 1872 Series</u> , <u>NX 1899 Series</u> , <u>NX 1926 Series</u>
NX(SA)	UG10 - <u>NX 1899 Series</u>
Creo Parametric(Plug-in)	Creo Parametric 2.0, Creo Parametric 3.0, Creo Parametric 4.0, <u>Creo Parametric 5.0</u> , <u>Creo Parametric 6.0</u> , <u>Creo Parametric 7.0</u>
Creo Parametric(SA)	2000i - Creo Parametric 6.0
NX I-deas(Plug-in)	NX I-deas6.3, 6.4, 6.5, 6.6, 6.7
SOLIDWORKS(Plug-in)	SOLIDWORKS 2015, 2016, 2017, <u>2018</u> , <u>2019</u> , <u>2020</u>
Creo Elements/Direct(Plug-in)	Creo Elements/Direct 18.1, 19.0, 20.0, 20.1, 20.2, 20.3
Autodesk Inventor(Plug-in)	Inventor 2017, 2018, 2019, 2020, 2021
CADmeister(SA)	V4.0 - V14.0
iCAD(SA)	V7L1 - V7L7
Parasolid(SA)	V7 - V32.0
ACIS(SA)	R6 - R29
STEP(SA)	AP203, AP214, AP242(ed1/ ed2)
JT(SA)	Import: v6.4 - v10.5 Export: v8.0 - v10.5
PLM XML(SA)	-
3DXML(SA)	R2010x - R2019x
IGES(SA)	5.2, 5.3
STL(SA)	-
XVL(SA)	P-XVL(V3), V-XVL(V5, V7, V9), U-XVL(V10, V11)

*Please refer to Requirement_ENG.pdf for more details

***Red**: Latest CAD versions added at EX8.3

*CAD Plug-in of ASFALIS SmartLauncher is available for underlined versions only

9. Update Status of CAD Adapters

Enhancement, Specification Changes, and Issue Fixing are implemented according to the policy below.

CAD	Adapter Type		Shipment Status		Update Method	
			New Adapter	Legacy Adapter	New Adapter	Legacy Adapter
CATIA V5	Plug-in	Writer	Δ	✓	A	A
		Reader	✓	Δ	A	A
CATIA V5	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
3DEXPERIENCE	Plug-in	Writer	✓	-	A	-
		Reader	✓	-	A	-
CATIA V4	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
NX	Plug-in	Writer	Δ	✓	A	A
		Reader	✓	Δ	A	B
NX	Standalone	Writer	-	✓	-	A
Creo Parametric	Plug-in	Writer	Δ	✓	B	A
		Reader	✓	Δ	A	B
Creo Parametric	Standalone	Writer	-	✓	-	A
NX I-deas	Plug-in	Writer	-	✓	-	A
		Reader	-	✓	-	A
SOLIDWORKS	Plug-in	Writer	✓	Δ	A	B
		Reader	✓	Δ	A	B
Creo Elements/Direct	Plug-in	Writer	-	✓	-	A
		Reader	-	✓	-	A
Autodesk Inventor	Plug-in	Writer	Δ	✓	A	A
		Reader	Δ	✓	A	A
CADmeister	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
iCAD	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
Parasolid	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
ACIS	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
STEP	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
STEP BOM XML	Standalone	Writer	✓	-	A	-
		Reader	✓	-	A	-
JT	Standalone	Writer	✓	Δ	A	A
		Reader	✓	Δ	A	A
PLM XML	Standalone	Writer	✓	-	A	-
		Reader	✓	-	A	-
3DXML	Standalone	Writer	-	✓	-	A
IGES	Standalone	Writer	-	✓	-	A
		Reader	-	✓	-	A
STL	Standalone	Reader	-	✓	-	A
XVL	Standalone	Reader	-	✓	-	A
3D PDF	Standalone	Reader	-	✓	-	A

[Legend]

Shipment Status	✓	Available and used by default
	Δ	Available but not used by default
	-	Not available
Update Method	A	All the updates are implemented to all the supported CAD versions
	B	Some of updates are implemented to all the supported CAD versions
	-	No update is implemented

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