Tetra4D Enrich

Version 2018

Release Notes

Details of new features, updated format support and bug fixes for Tetra4D Enrich

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Version 2018

Definition of Release Types

We define each release type as follows:

- **Major release**: A major release associated with an incremented release number (e.g. 2018) and an approximate 12 months' product cycle.

- **Minor release**: An update between major releases that may include support for new file formats, new versions of currently supported formats, and bug fixes. These updates are Service Packs (SP), and are defined with an additional incremented number put aside the major release information (e.g. 2018.1 for the first Service pack of release 2018)

- **Out of cycle patch**: An unscheduled update. These contain few functional updates with the intention to limit impact.

Version Information

Item	Version Number
Tetra4D Enrich	2018.0.x

Notice that the third number is used to differentiate builds of the software, and may not be continuous.

Installation

This version can be installed over any prior installation of Tetra4D Enrich. For more installation information, please refer to the [Tetra4D Enrich Installation Guide](#) or visit our [Learning page](#).

Language Support Overview

Tetra4D Enrich provides support for multiple languages as noted in the table below. However, the language used is controlled by the local Adobe® Acrobat® installation. If there is a Tetra4D Enrich language option that matches the Acrobat installation, then that language is used; if not, Tetra4D Enrich defaults to English.

Tier 1 and Tier 2 are as defined by Adobe Systems.

Tier	Tetra4D Enrich Supported Languages
Tier 1	English, French, German, Japanese
Tier 2	Brazilian Portuguese, Italian, Korean, Spanish, Simplified Chinese

Acrobat Pro Compatibility

The Tetra4D Enrich is a plug-in for Adobe Acrobat Pro. The following table provides information about tested version compatibility. Note that older versions of Tetra4D Enrich may work with newer Acrobat Pro releases, even if compatibility is not explicitly mentioned here.

Tetra4D Enrich	Compatible Acrobat Pro XI / DC / 2017 Versions
2018.0	Acrobat Pro 2017: 2017.000.0000 - to 2017.011.30070 (Classic track) Acrobat Pro DC: 2015.000.00000 - to 2015.006.30394 (Classic track) - to 2018.009.20050 (Continuous track) Acrobat 11.0.0 to 11.0.23

Important note:

> **In accordance to the** Adobe Acrobat XI and Adobe Reader XI End of Support**, the Tetra4D Enrich V2018 release is the last version that supports Adobe Acrobat XI PRO.**
>
> The ADOBE Products and technical support periods can be found here.

System Requirements

Please refer to the Tetra4D Enrich Installation Guide to access to the system requirements.

Licensing

Message for Tetra4D Enrich existing customers

Tetra4D Enrich 2018 is a major release, and requires a new license.

Even if you already installed and licensed the version 2017, you will need to update your license and activate the seats when **Tetra4D Enrich 2018** is installed.

Notice that if you are under regular maintenance, you should automatically receive information to retrieve your serial number for **Tetra4D Enrich 2018,** in an email from tetra4d.com.

Please carefully read the Tetra4D Enrich Installation Guide for explanations on how to activate your licenses.

New Tetra4D Enrich customers

You should have automatically received information to retrieve your serial number for **Tetra4D Enrich 2018,** in an email from tetra4d.com.

Please carefully read the Tetra4D Enrich Installation Guide for instructions on how to activate your licenses.

Note: Tetra4D Enrich will run in trial mode for 28 days after completing the installation, providing you with the ability to use the product temporarily without a serial number.

You will have full functionality of the software during the trial period. If you experience any problem during the installation and activation process, please contact support by visiting our Learning page.

Information about the licensing management solution

The licensing management solution for **Tetra4D Enrich** offers flexibility and autonomy for customers to manage their licenses:

- Licensing Tetra4D Enrich can be done directly by customers, without requiring customers to contact Tetra4D support

- Online and offline activations are supported

    o Online activation requires a few actions and is fully performed within the product (no support request, no email communication)

    o In case of offline activation, information to activate the seat has to be communicated through email via submitting a support ticket.

- Activation / deactivation is enabled making it possible to transfer a license from one system to another

    o In cases where a system / license is no longer used and has to be transferred to another one

    o The transfer can be performed directly by the customer

    Note:

    o The transfer of a license has to be occasional, and is allowed in case of:

        o Computer crash

        o Computer change

The Tetra4D support team is available to answer any questions and to assist whenever needed. To receive assistance from the support team, please contact support by visiting our Learning page.

Format Support

This release supports reading the following 3D file formats:

Format	Version	Extensions
ACIS (SAT)	Up to v27.0	SAT, SAB
Autodesk AutoCAD (3D only)	**Up to v2018**	**DWG, DXF**
Autodesk Inventor	Up to 2018	IPT, IAM
CATIA V4	Up to 4.2.5	MODEL, SESSION, DLV, EXP
CATIA V5	R4 to V5-6R2017	CATDrawing, CATPart, CATProduct, CATShape, CGR
CATIA V6	2011 to 2013	3DXML
I-deas	Up to 13.x (NX 5), NX I-deas 6	MF1, ARC, UNV, PKG
IGES	5.1, 5.2, 5.3	IGS, IGES
Industry Foundation Classes (IFC)	IFC2x Editions 2, 3 and 4	IFC, IFCZIP
JT	Up to version 10.0	JT
Parasolid (X_T)	Up to v30.0	X_B, X_T, XMT, XMT_TXT
PRC	All Versions	PRC
PTC Creo	Elements/Pro 5.0 Parametric 4.0	ASM, NEU, PRT, XAS, XPR
PTC Pro/Engineer	Up to Wildfire 5	ASM, NEU, PRT, XAS, XPR
Rhino	4, 5	3DM
Siemens PLM Software NX	Unigraphics V11.0 to NX 11	PRT
Solid Edge	V19 - 20, ST – **ST10**	ASM, PAR, PWD, PSM
SolidWorks	**Up to 2018**	SLDASM, SLDPRT
STEP	AP 203 E1/E2, AP 214, AP 242	STP, STEP, STP.Z
Stereo Lithography (STL)	All Versions	STL
Universal 3D (U3D)	ECMA-363 (1st to 3rd editions)	U3D
VDA-FS	Version 1.0 and 2.0	VDA
VRML	V1.0 and V2.0	WRL, VRML

Updated formats support and Reader/Writer enhancements

This section presents the CAD Readers and Writers with related enhancements for the Tetra4D Enrich V2018 release.

CAD Reader: Autodesk AutoCAD

- Support for AutoCAD files up to AutoCAD 2018

- Support of the 3D objects from DXF and DWG formats

CAD Reader: SolidWorks

- Support for SolidWorks 2018

CAD Reader: SolidEdge

- Support for SolidEdge ST10

Reading option: Force Compute Tessellation

- This new option is available for the formats:

    o SolidWorks

    o Catia V5

This option is available only if the reading mode is set to "Tessellation". When checked, the tessellation is calculated based on the exact geometry, according to the tessellation criteria, instead of being read from the CAD file itself.

The impacts of this option are:

- Reading time might be longer (compared to a direct reading of the native CAD tessellation), but the quality of the tessellation is controlled (according to the tessellation criteria)

- With SolidWorks files, this mode makes it possible to read the native CAD Attributes.

    Remark: This option is set as a default for the SolidWorks reader.

Reading option: CAD views filtering

These new options are available for the following formats:

      o   Catia V5

      o   Autodesk Inventor

They make it possible to retain in the PDF document only a subset of the native CAD views, according to the following filtering methods:

- Filtering views based on their names:

    CAD views containing a specified string can be kept or ignored.

- Filtering views based on their position in the assembly structure:

    CAD views defined at the top level of the assembly are kept while any CAD views defined in components are ignored.

New features and enhancements

This section presents the new features and enhancements released with this new version of Tetra4D Enrich.

Edit 3D

The Edit 3D function supports new features:

- Ability to toggle visible parts,

- Setting the rendering mode of parts,

- Setting transparency of parts,

- Definition of cameras.

Invert visible parts

This feature is part of the "Visibility" panel of the Edit 3D feature. It is meant to facilitate the definition of the visible parts in the context of view creation.

Setting the rendering mode of parts

This feature is part of the "Appearance" panel of the Edit 3D feature. It allows the ability to change the rendering mode of the selected parts.

Setting the transparency of parts

This feature is part of the "Appearance" panel of the Edit 3D feature. It allows the ability to change the transparency of the selected parts, and to define the transparency value.

Management of cameras

This feature is part of the "Camera" panel of the Edit 3D feature. It allows the ability to create user defined cameras in the 3D annotation, and to set back any saved camera.

These cameras are saved in the PDF document, and can be accessed only in the context of the Edit 3D feature.

An example of usage is to save a point of view (camera location and orientation and zoom value) by defining a camera, then prepare the model thanks to the other EDIT 3D features (changing part visibility, rendering mode, transparency and positions) and to set back the previously saved camera to retrieve the initial point of view, and create a View using the Acrobat feature.

Remark: These "cameras" are different from the "Camera" feature of Acrobat.

Search feature: Definition of "Search presets"

The "Search" feature provides a new option to define presets.

These presets enable the PDF consumer to directly highlight some components sharing the same criteria, without having to manually input any search criteria.
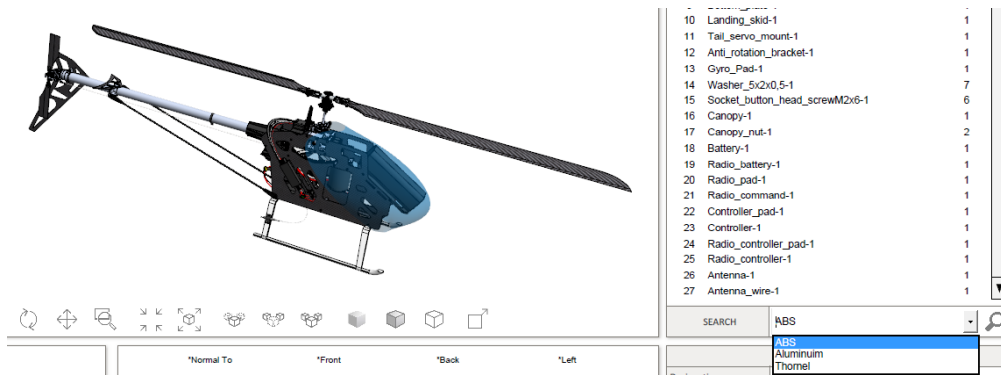
A preset is defined by a name, the attribute name and the searched value.

Definition of a preset
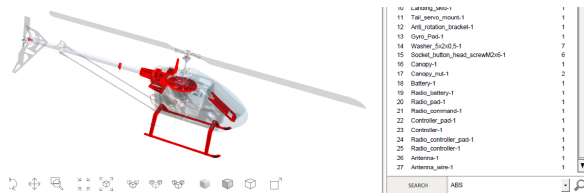

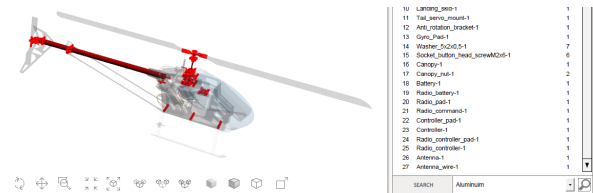Presets in the search widget definition

Access to presets in the search widget

Click on "ABS" preset

Click on "Aluminum" preset

New action: Show image

This new action displays an image in an existing button. It can be used to show 2D information or pictures that complement the 3D presentation of a product.

The "Show image" action can be triggered by the following events:

- On button

- On 3D View

- On table row

New action: Set link

This new action makes it possible to access different types of links:

- Attachment: Opens a document that is attached in the current PDF document

- Page: Move in the current PDF document to the specified page

- Web URL: Opens a Web URL in a Web browser

The "Set link" action can be triggered by the following events:

- On button

- On table row

Remark:

In addition to the new "Set link" action, this new release of Tetra4D Enrich also provides the ability to define attachments based on the "Add 3D attributes" existing feature (see below).

New feature: Set link while importing 3D attributes

This new feature makes it possible to define links to part meta-data to provide a direct access to attachments and external resources that complement a component.

The supported links are:

- Attachment: Opens a document that is attached in the current PDF document,

- Web URL: Opens a Web URL in a Web browser.

These links can be defined by importing 3D attributes, and afterwards accessed by "On 3D part > Set text in field" actions.

Example:

The following XML file defines new attributes to be imported and mapped to parts.

```xml
<ATTRIBUTE key="ItemNumber" attribute_value="H7894561">
    <NEW_ATTRIB name="SUPPLIER" value="Tetra4D" attachment="Housing.pdf" hyperlink="www.tetra4d.com"/>
</ATTRIBUTE>
```

- o The attribute "SUPPLIER" is defined for the component having its ItemNumber being "H7894561", and the value of SUPPLIER is "Tetra4D".

  When the part will be selected, this value will be shown in a text field.
- o In addition to this value, the SUPPLIER attribute also defines links:
  - An attachment: "Housing.pdf"
  - A hyperlink: "www.tetra4d.com"

The behavior is the following:
- o The selection of the HOUSING part outputs the SUPPLIER attribute
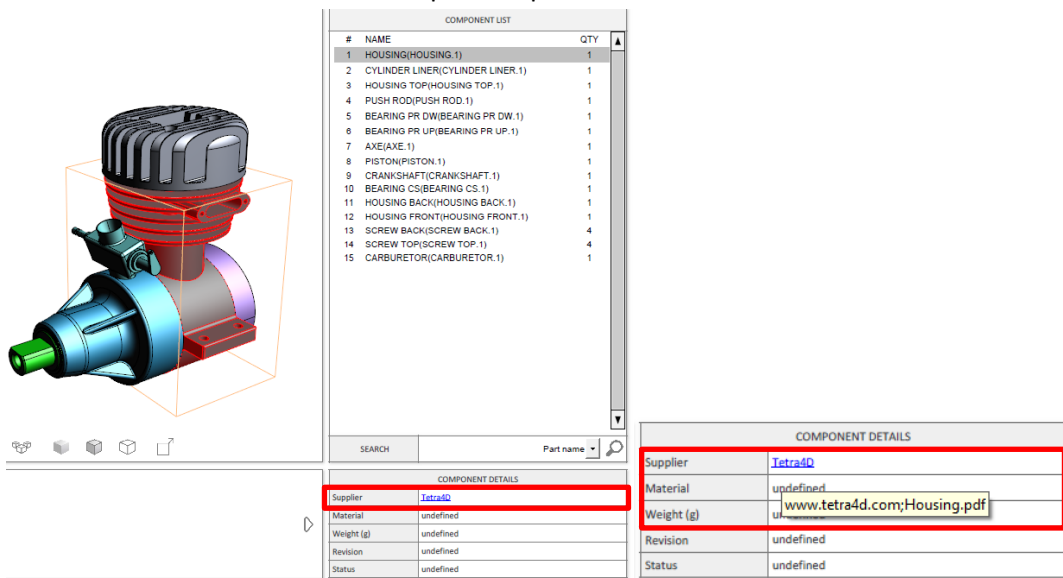
- o The value of SUPPLIER is shown as having "links"
- o The links appear as a tooltip if mouse cursor hovers the text field
- o Clicking in the text field will open the links

New feature: Export parts list

This new feature enables the ability to export the list of the parts from the 3D annotation into an XML file, and to optionally export some selected meta-data linked to these parts.

This XML file can be used, in the context of Tetra4D Enrich, as follows:

- A reference file that can be modified to define new attributes to be imported in the PDF document,
- A reference file that can be modified to define localization of some of the data of the 3D PDF.

Exporting parts list to create an XML file for attribute import

The creation of an XML file that can be used to import attributes in a PDF document (using the "Add 3D attributes" feature) requires the definition of the list of the parts and the identifiers of these parts. Selecting the "Import of attributes" type of file will export all the required information.

Example:

- The below settings enable export of an XML file that:
    - Lists all the parts from the 3D Annotation,
    - Having an identifier (mapping key) based on an existing meta-data "ItemNumber",
    - Including for every part an existing meta-data "Description".

- The exported XML file is (one single component is shown below)

```
<ATTRIBUTE key="ItemNumber" attribute_value="H7894561">
    <NEW_ATTRIB name="Description" value="HOUSING" />
</ATTRIBUTE>
```

- This XML file can be used, for example, to define new meta-data to be imported and merged with the existing meta-data from the PDF.

```
<ATTRIBUTE key="ItemNumber" attribute_value="H7894561">
    <NEW_ATTRIB name="MyNewAttribute" value="MyValue" />
</ATTRIBUTE>
```

Example of a new attribute definition

Exporting parts list to create an XML file for localization of meta-data

This type of XML file is intended to create PDF documents that support multiple languages.

Remark:
> The creation of multiple language PDF documents is addressed by the new feature "Add language selector" – See below).
> This new feature requires the localization to be defined by XML files.

In addition to the parts lists files created using the "Import of attributes" type of files, the "localization of attributes and labels" option is included in the XML file:

- Some translation keys for all the exported attributes
- the text labels that exist in the PDF.
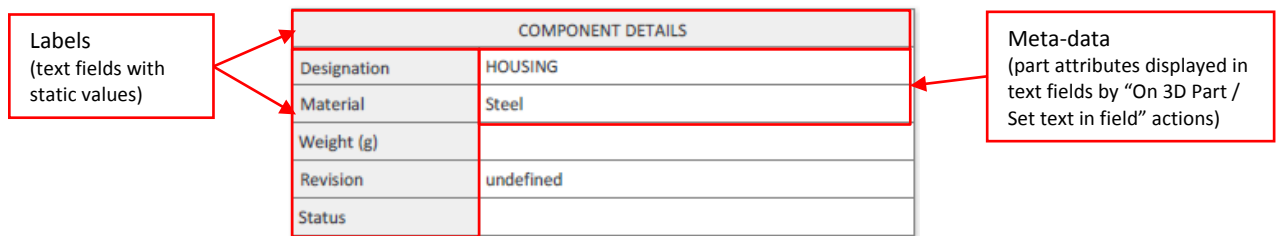
Example:

- The below settings enable export of an XML file that:
    - Lists all the parts from the 3D Annotation and all the labels, with a translation key
    - Has an identifier (mapping key) based on an existing meta-data "ItemNumber"
    - Includes for every part with an existing meta-data "Description" and "Material"

- The exported XML file is (one single component is shown below, and only 2 labels):

```
..........
<COMPONENT key="ItemNumber" attribute_value="H7894561">
    <ATTRIBUTE name="Description">
        <VALUE>HOUSING</VALUE>
        <TRANSLATION></TRANSLATION>
    </ATTRIBUTE>
    <ATTRIBUTE name="Material">
        <VALUE>Steel</VALUE>
        <TRANSLATION></TRANSLATION>
    </ATTRIBUTE>
</COMPONENT>
..........
<LABEL name="Details_Label_1">
    <VALUE>Designation</VALUE>
    <TRANSLATION />
</LABEL>
<LABEL name="Details_Label_2">
    <VALUE>Material</VALUE>
    <TRANSLATION />
</LABEL>
..........
```

- The localized values can be defined using the "translation" keys as shown below.

```
..........
<COMPONENT key="ItemNumber" attribute_value="H7894561">
    <ATTRIBUTE name="Description">
        <VALUE>HOUSING</VALUE>
        <TRANSLATION>Carter principal</TRANSLATION>
    </ATTRIBUTE>
    <ATTRIBUTE name="Material">
        <VALUE>Steel</VALUE>
        <TRANSLATION>Acier</TRANSLATION>
    </ATTRIBUTE>
</COMPONENT>
..........
<LABEL name="Details_Label_1">
    <VALUE>Designation</VALUE>
    <TRANSLATION>Désignation</TRANSLATION>
</LABEL>
<LABEL name="Details_Label_2">
    <VALUE>Material</VALUE>
    <TRANSLATION>Matière</TRANSLATION>
</LABEL>
..........
```

Remark:

Refer to the "Add language selector" feature introduction for detailed information about languages input in a PDF document.

COMPONENT DETAILS	
Designation	HOUSING
Material	Steel

COMPONENT DETAILS	
Désignation	Carter principal
Matière	Acier

Native language (English)   Additional language (French)

New feature: "Add language selector" widget

This new feature enables the creation of PDF documents supporting multiple languages. Thanks to this feature, a single PDF document can be consumed by users in various languages.

The information that can be localized includes:

- Meta-data linked to components (native CAD attributes or imported)
- Text labels (texts displayed in text fields and in buttons)

The selection of the language by the consumer of the PDF document is done by a "Language selector" widget.

The "Add language selector" feature makes it possible to:

- Define the layout of the widget
- Import localization files (one file per language)
- Define the names of the available languages

The definition of a language (localized values for meta-data and labels) is done by XML files.
The process of creating an XML language file is:

- Create the PDF documents (all data and information must be defined prior to any localization operation)
- Export a part list (the reference XML file) using the feature: "Export parts list" with the option "Localization of attributes and labels)
- Define the translated values (using any external means) and put them in the XML file
- Use the "Add selector language" to define the widget and import all the languages files

Remark:

See "Export parts list" feature presentation above for more explanation about Languages files.
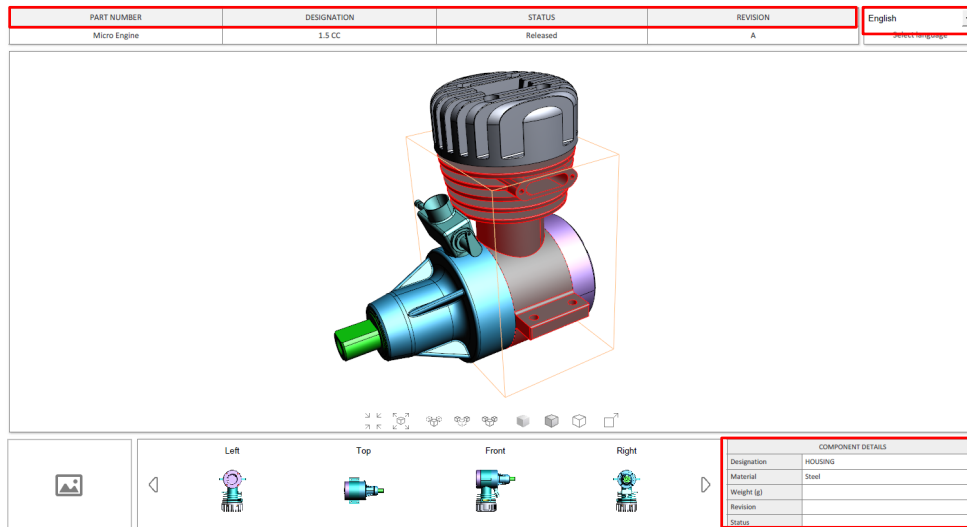
English version
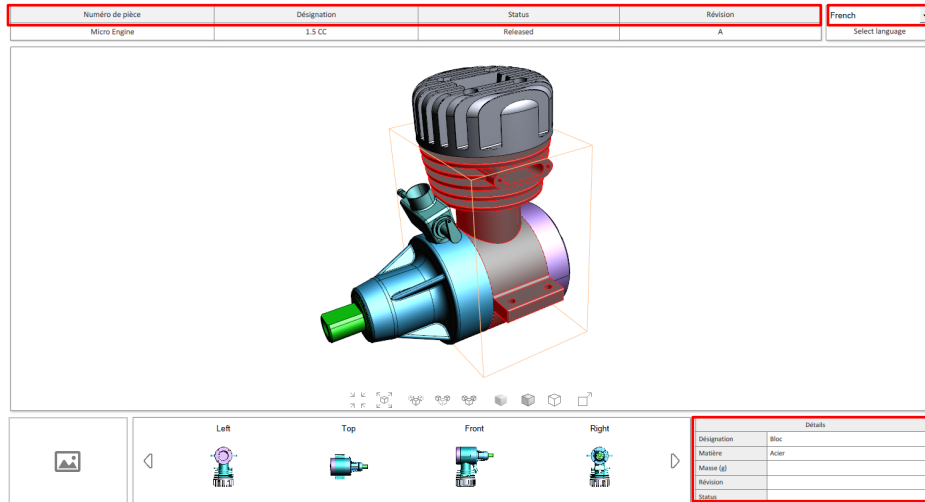
French version

Bug Fixes

The 2018 release of Tetra4D Enrich fixes several customers' reported issues. Please contact support by visiting our support page if you have questions about any specific issue.