3D Juump Ace User Manual

[UM_EN] version 2.4

Introduction **6**

1 - Reading guidelines 7

2 - Scope 8

3 - Installation 9

3.1 - Host requirements 9

3.2 - Installation process 9

3.2.1 - Install classic version 9

3.2.2 - Install Microsoft Store version 9

3.3 - License Manager 9

3.3.1 - Trial license 10

3.3.2 - Fixed license 12

3.3.3 - Floating-license 14

3.3.4 - Microsoft store 17

3.4 - Renderer management 17

3.4.1 - Hardware renderer 18

3.4.2 - Software renderer 18

4 - Copyright 19

Main window **20**

1 - Top menu bar 22

1.1 - Main menu 22

1.1.1 - File menu 22

1.1.2 - Edit menu 24

1.1.3 - Settings menu 24

1.1.4 - Help menu 24

1.2 - Search box 25

1.2.1 - Free text search 26

1.2.2 - Advanced search 26

1.2.3 - Searched results visualization 27

2 - 3D view 28

2.1 - Main view 28

2.2 - Navigation 28

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2.3 - Edit 3D visible objects 29
2.4 - Browsing cube 30
2.5 - Selection 31
2.6 - Reframe 32
3 - Status bar 33
3.1 - Quick access features 33
3.2 - Visibility mode 33
3.3 - Picking selector 34
3.4 - Boxing 34
3.5 - Volume Min 35
4 - View box 37
5 - Product structure box 39
5.1 - 3D data structure 39
5.2 - Applicative data 41
5.2.1 - Cut plane applicative data 41
5.2.2 - Measurement applicative data 42
5.2.3 - Tag applicative data 42
6 - Tool box 44
6.1 - Information card ● 44
6.1.1 - Tag 45
6.1.2 - Metadata enrichment 46
6.2 - Transformation editor ● 47
6.2.1 - Translate 48
6.2.2 - Rotate 49
6.2.3 - Scale 53
6.2.4 - Align 54
6.2.5 - Transformation history 56
6.3 - Cut plane editor ● 56
6.3.1 - Moving cut planes in the 3D view 57
6.3.2 - Cut plane 58
6.3.3 - Section 58
6.3.4 - Quarter 59

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6.3.5 - Boxing 59
6.3.6 - Editing cut plane 59
6.4 - Measurement tool ● 60
6.4.1 - Measure feature 61
6.4.2 - Measure distance 62
6.4.3 - Save and delete measures 63
6.5 - Material tools 63
6.6 - Export tool 65
6.6.1 - Image export tool (IMG) 66
6.6.2 - Export vectorial tool (VEC) 66
6.6.3 - Export Bill Of Material tools (BOM) 67
6.6.4 - Export 3D data tool (3D) 67
6.7 - Reference system ● 68
Program settings 70
1 - General settings 72
1.1 - Rendering engine 72
1.2 - Hardware renderer 72
1.2.1 - Rendering parameters 72
1.2.2 - Units display 73
1.2.3 - Cache 73
1.2.4 - Folder 73
1.2.5 - Save and cancel settings 73
1.3 - Software renderer 73
1.3.1 - Rendering parameters 74
1.3.2 - Units display 74
1.3.3 - Performances 74
1.3.4 - Cache 74
1.3.5 - Folder 74
1.3.6 - Save and cancel settings 74
2 - Import settings 75
2.1 - Import 3D settings - 3D 75
2.2 - Import 3D settings - Tessellation 75

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3 - Export settings 77
3.1.1 - Image 77
3.1.2 - Vectorial 77
3.1.3 - BOM 77
3.1.4 - Geometric 77
3.1.5 - Save and cancel settings 78
4 - License Manager 79
5 - Privacy settings 80
Annexes 81
1 - Release notes 82
2 - Export control classification 83

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Introduction

1 - Reading guidelines

In order to point out the changes since the previous version, green and red spots have been added:

Green spots ● indicate

information.

Red spots ● indicate an

has been operated on information formerly provided.

Microsoft store symbol indicates that there is a microsoft store version of 3D Juump Ace.

`The words in blue and italics letters refers to a 3DJuump Ace technical terminology.

The highlighted words in blue are a hyperlink to another chapter in the usermanual, for example: License manager.

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2 - Scope

3D Juump Ace is a 3D viewer that allows you to import and improve *on virtually all native CAD files on the market*.

More than just a 3D viewer, with 3D Juump Ace *analyze, measure 3D assemblies and modify* your files.

3D Juump Ace is also a *3D files converter*. You can export your 3D models to provide input to a third party platform (virtual reality, augmented reality, training, etc.). 3D Juump Ace lets you *publish 2D illustrations* for your technical or commercial documentation.

Please don’t hesitate to visit our website (https://www.realfusio.com) and our Support web-page (https://www.realfusio.com/3d-juump-support/) for additional information.

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3 - Installation

3.1 - Host requirements

Minimum configuration requirements to install and run 3D Juump Ace are:

- **OS**: Windows 7, 8, 8.1 or 10 / 64-bit
- **Processor**: 1.2GHz Dual Core
- **Memory**: 2GB RAM
- **Hard drive**: 1GB
- **Keyboard** and **mouse** for a full use

An administrator account is mandatory to install 3D Juump Ace. Please note that the administrator account is only required upon installation. Once installed, 3D Juump Ace can be started from any regular account of the host computer.

3.2 - Installation process

3.2.1 - Install classic version

To install 3D Juump Ace 2.4:

- Double click on the installer (requires administrator privileges):
  - *3DJuump Ace X64-setup-admin-2.x.xxx.exe* for the 64-bit version
- Validate the license agreement
- If required, change the installation folder
- Then, if needed, modify the program folder in the start menu and choose if you want to create a shortcut on the desktop
- Click on the *Install* button to start the installation

The installer will deploy 3D Juump Ace application, plus any dependencies (including *Visual C++ Redistributable*).

Note: an alternative installer is also available for standard users lacking administrator privileges. This installer does not deploy any _Redistributable_hence it is only usable on computers already equipped with both of the following:

- Visual C++ Redistributable 2019 x64
- Visual C++ Redistributable 2010 x64

3.2.2 - Install Microsoft Store version

The Microsoft Store for Windows 10 version of 3D Juump Ace can be installed only using Microsoft Store.

Please go to Microsoft Support, in section ‘Microsoft Store and applications’ for details concerning installation and subscription management through your Windows account.

3.3 - License Manager

The **License Manager** window reflects license information mandatory to access 3D Juump Ace.

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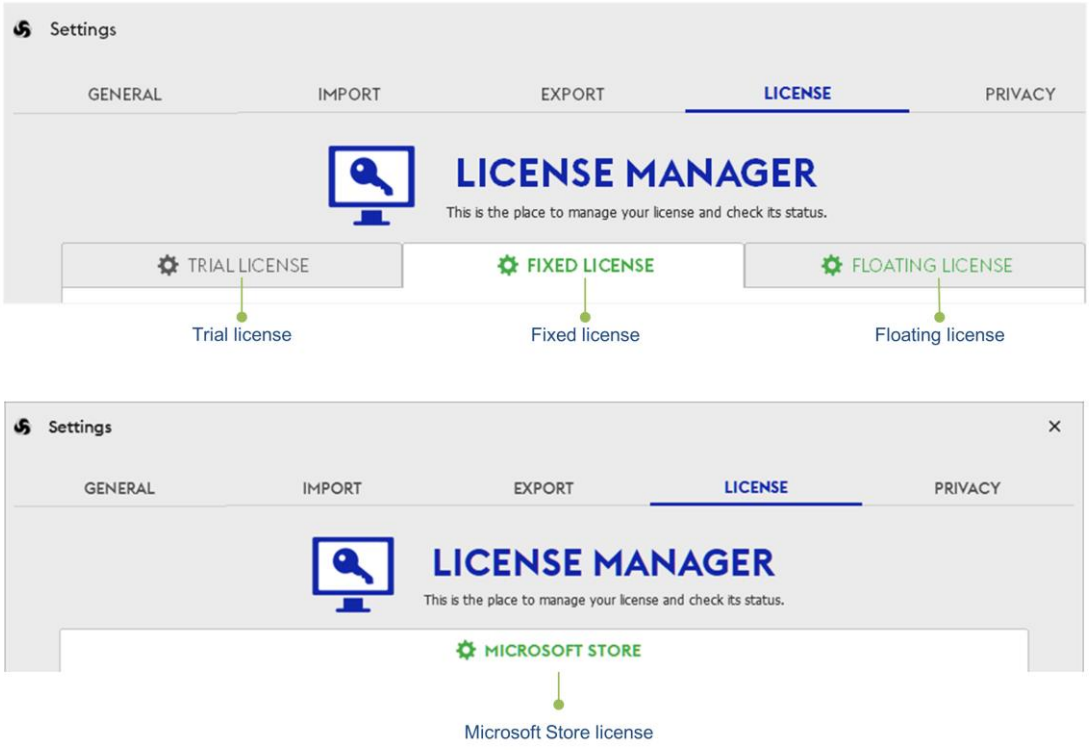

License Manager / Trial, fixed, floating or Microsoft store license

To connect to 3D Juump Ace, 4 options are available, renewable and modifiable in the License manager:

- **Trial license**: License for new users for a time-limited evaluation.
- **Fixed-license**: License associated with a single and Designated Computer.
- **Floating-License**: Shareable License. A Floating-License allows use 3D Juump Ace on any computer linked to a Token network.
- **Microsoft store licence**: available only if you buy 3D Juump Ace on Microsoft Store for Windows 10. Otherwise this option is not available.

3.3.1 - Trial license

Trial license is available for new users in order to evaluate the complete software for a time-limited evaluation. Then the trial version is completed, a license subscription is required. There are several types of licenses.

To activate the trial license there are 2 possibilities:

- **Automatic activation**: if you're connected to internet, you can automatically activate the trial license by sending us your email.

- **Manual activation**: you can also send us an email, we'll send you back an activation code. Simply input this activation code to activate the trial license.

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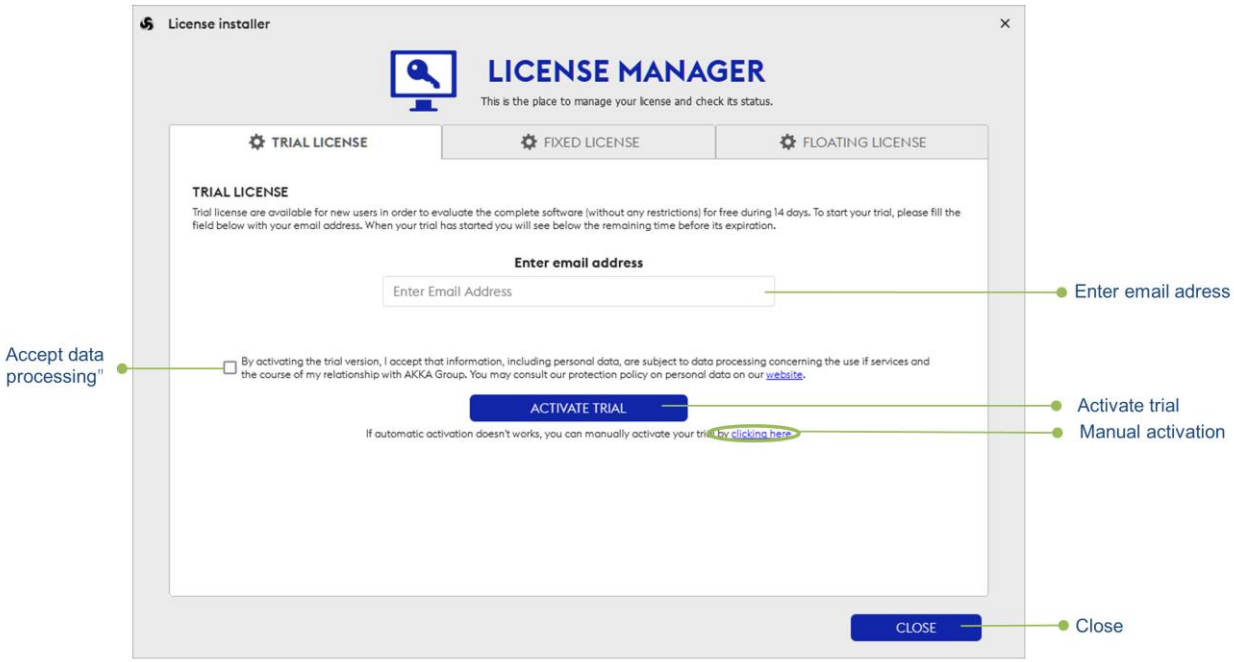
3.3.1.1 - *Automatic activation of Trial version*



Trial license / Automatic activation

- **Enter email adress**: send us your email adress to activate your Trial license.
- **Accept data processing**: in order to activate your Trial license, you must accept that some data will be sent to AKKA. Please refere to our policy on personnal data on our website.
- **Activate trial**: activate your trial license, once your email filled and you accepted the data processing.
- **Manual activation**: If automatic activation doesn't works, you can manually activate your trial.
- **Close**: Close the window.

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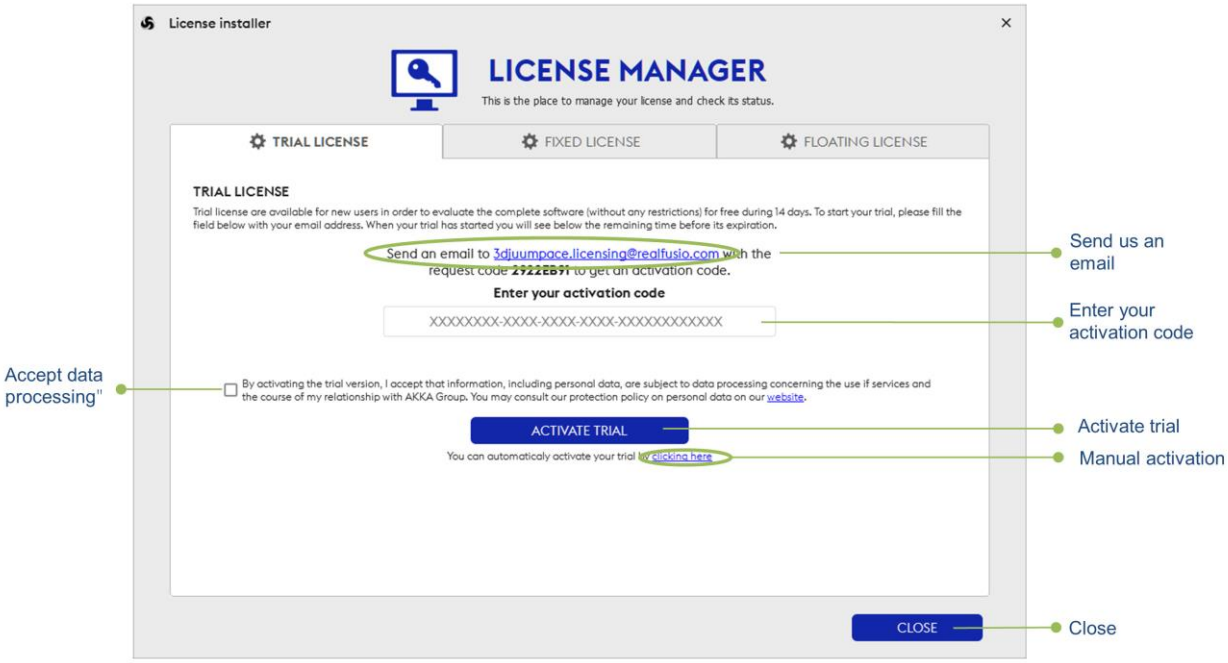
3.3.1.2 - *Manual activation of Trial version*



Trial license / Manual activation

- **Send us an email**: if you have a problem connecting to the internet, you can ask us for an activation code by sending us an email.
- **Enter your activation code**: You must enter the activation code we sent you answering your email request.
- **Accept data processing**: in order to activate your Trial license, you must accept that some data will be sent to AKKA. Please refere to our policy on personnal data on our website.
- **Activate trial**: click here to activate your trial license.
- **Automatic activation**: Come back to Automatic activation of your Trial license.
- **Close**: Close the window.

3.3.2 - Fixed license

A Fixed-license is a License associated on a single and designated computer.

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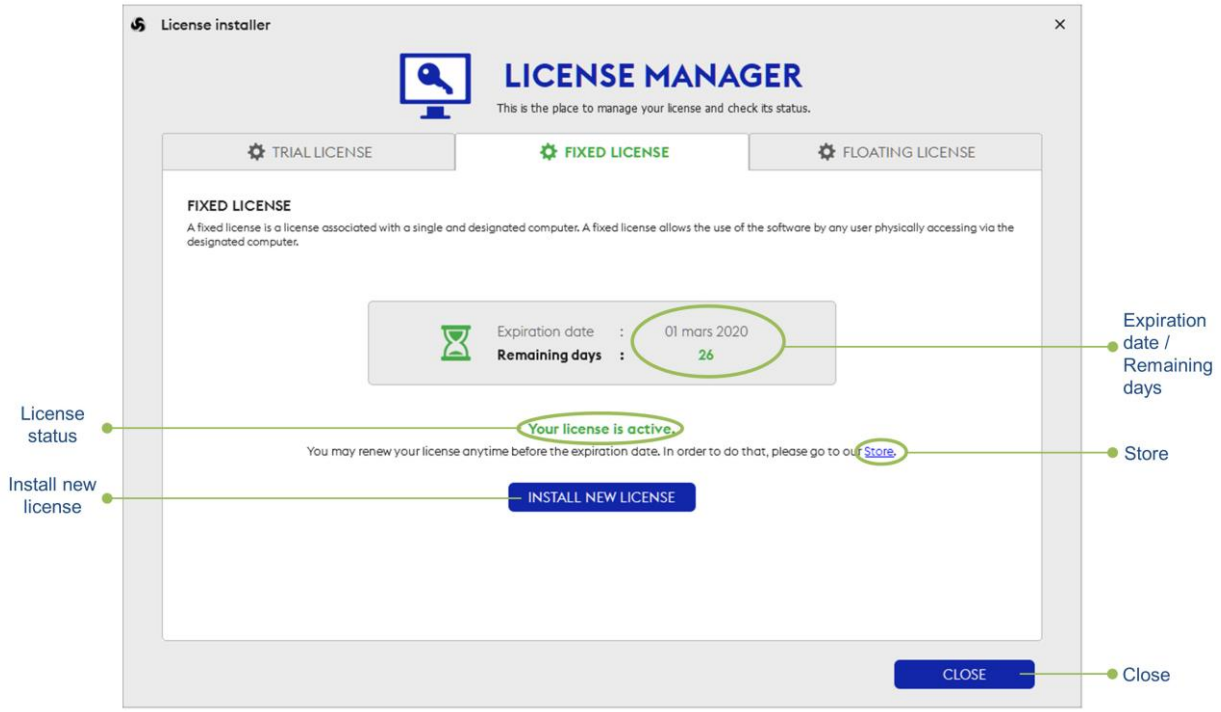

License Manager / Fixed license

- **Expiration date / Remaining days**: Indicates the expiration date of your licence and the number of remaining days.
- **License status**: Precise the current status of your license: not set (not installed license), acive or expired.
- **Install new license** : Launch the installation panel of your Fixed-license. It will guide you to ask us your license and to install it
- **Store**: Direct access to our web-store to renew your subscription
- **Close**: Close the window.

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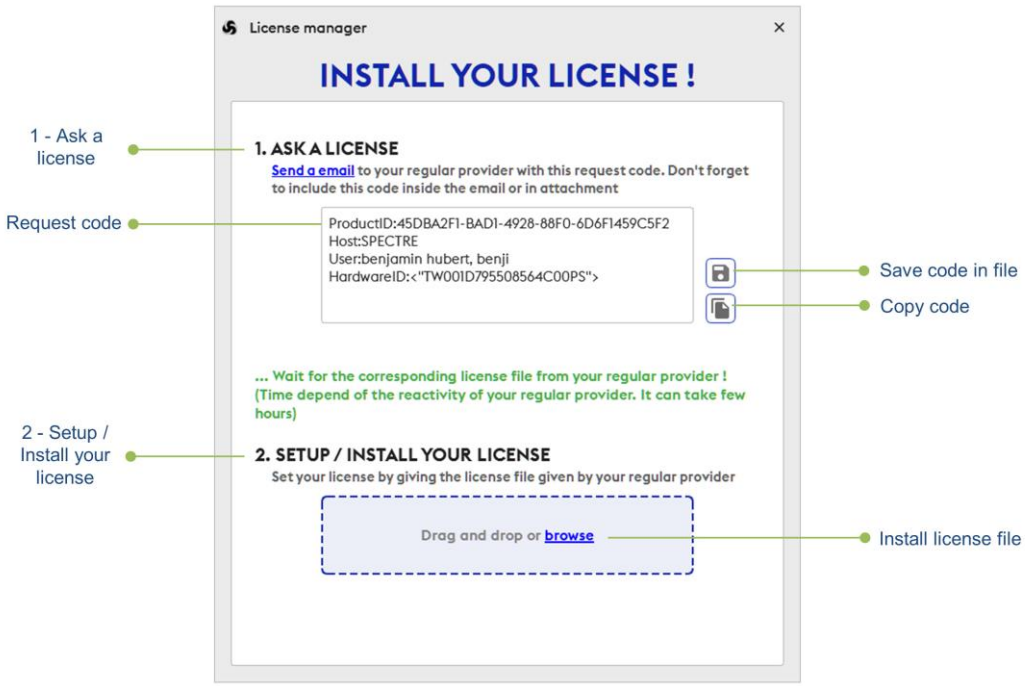

Fixed license / Ask and install a license

- **1 - Ask a license**: Send us the Request code at sales@realfusio.com, either by sending us the saved file or by copy/paste the code directly in your email.
- **Request code**: Unique identification of your computer where installing the license.
- **Save code**: Save the Request code in a file to send it by email.
- **Copy code**: Copy the Requestion code in the clipboard. Then simply paste it in your email to send us.
- **2 - Setup / Install your license**: Once we'll send you the license file, simply install it here to activate your Fixed-License.
- **Install license file**: Clik here then select the license file we sent you or simply drag-and-drop the license file here.

3.3.3 - Floating-license

A floating-license is a sharable license. Here, a *License-server* must exist on your network; It'll deliver a *Token* which will unlock your 3D Juump Ace license during the time of your session. If no token is available when you launch the software, you will not be able to use it.

You may want to use 3D Juump Ace with no connection to your network, and then no access to the license server. To do so, you can *borrow a token* for time-limited period.

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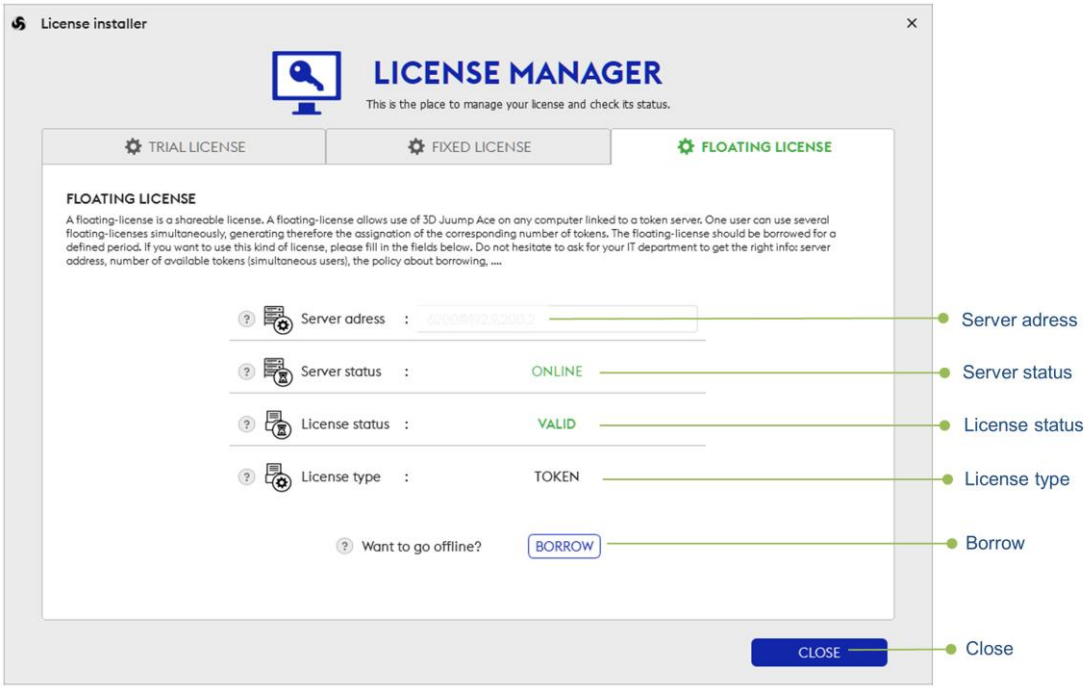

License Manager / Floating license

- **Server adress**: Enter here the server adress provided by your administrator. To do so, enter the name of the server running the Network license manager. Use port@servername to specify a port (eg.: 9200@LICENSE-SERVER).
- **Server status**: Precise the current status of the license server: offline or online.
- **License status**: Precise the current status of your license: valid or not.
- **License type**: Type of in-use license: Token or Borrow.
- **Borrow**: Tool enabling to borrow a token for a defined period of time. See Borrow a Token
- **Close**: Close the window.

3.3.3.1 - Borrow a Token

When you want to go off-line with a floartting-license of 3D Juump Ace, you need to borrow a token. You need to precise the end-date of the borrowed period using a calendar widget.

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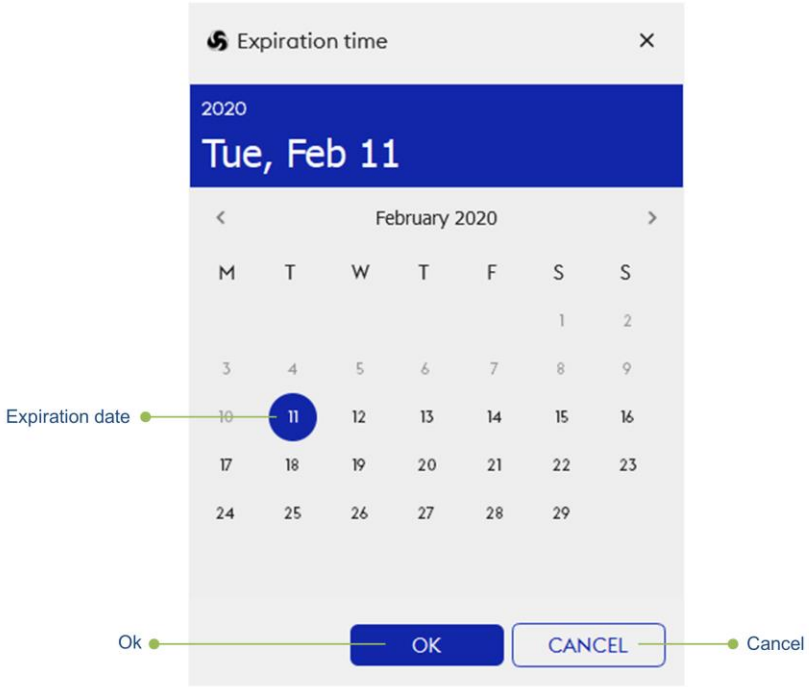
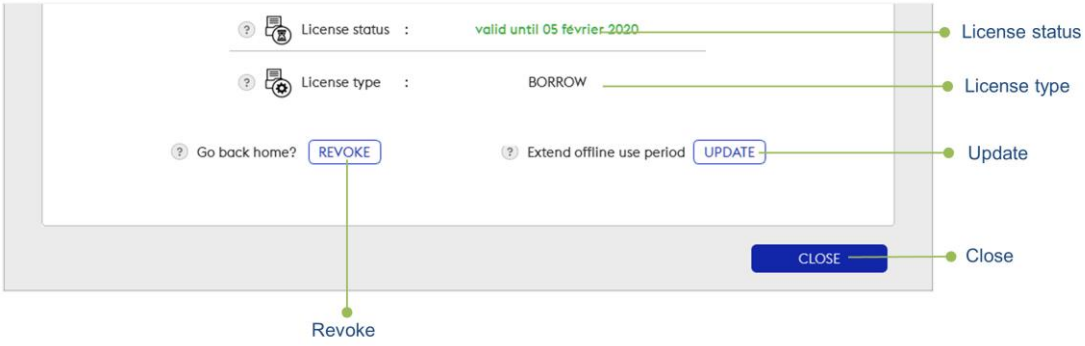


Floating license / Borrow Token expiration date

- **Expiration date**: Define the date until when the token is going to be used / borrowed.
- **Ok**: Validate the operation.
- **Cancel**: Cancel the operation.

3.3.3.2 - Borrowed Token

When you have borrowed a token, the status in the License Manager is changing accordingly. Then, you can also revoke the token to make it available to other persons before the planned date. You can also udpate the borrow in order to extend the offline period.



Floating license / Token revoke or Update

- **License status**: When using a Borrow Token, precise the date until when the currently borrowed token is valid.
- **License type**: Indicates the type of license.
- **Revoke** : Tool enabling to revoke your token anticipating the end date.
- **Update**: Tool enabling to renew your token for a longer period of time.

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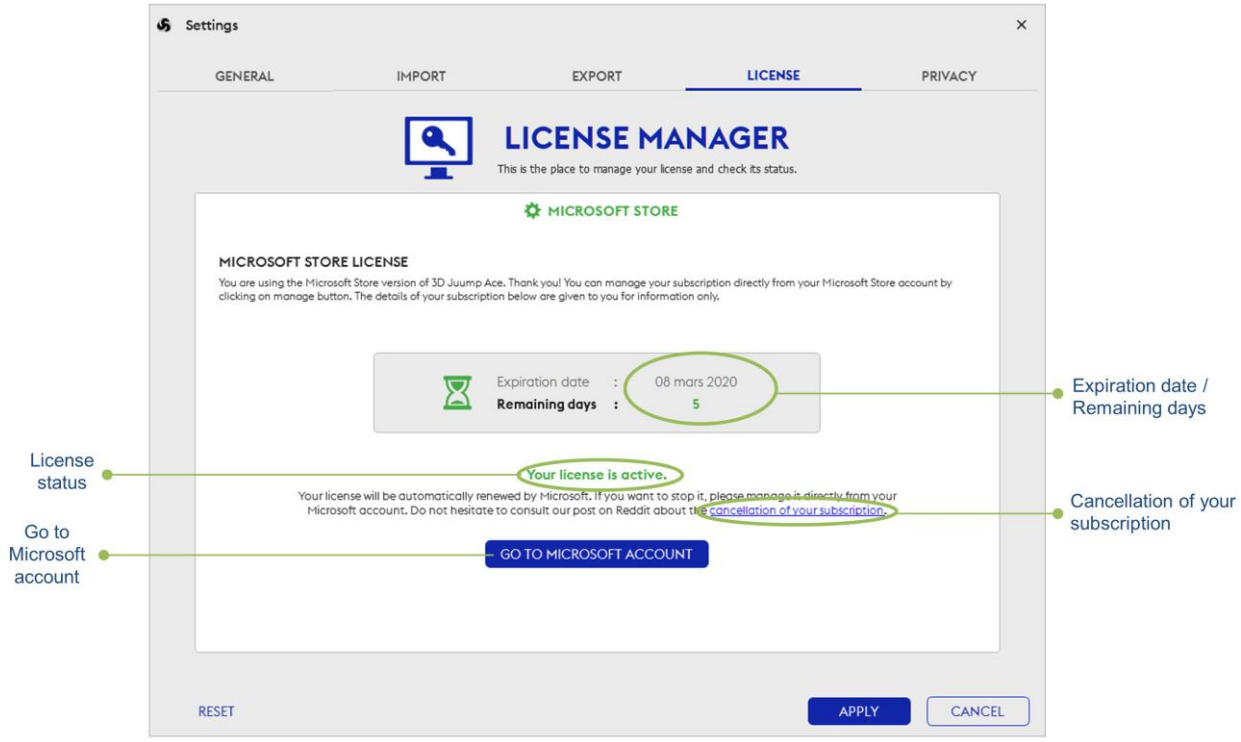
- **Close**: Close the window.

3.3.4 - Microsoft store

You can directly subscribe from the Microsoft Store. In this case, the License Manager dispay the current status of your subscription. Nevertheless, in order to have more details and to manage your subscription, you need to directly go to your Microsoft account.



Microsoft store license

- **Expiration date / Remaining days**: Indicates the expiration date of your licence and the number of remaining days.
- **License status**: When using a Borrow Token, precise the date until when the currently borrowed token is valid.
- **Cancellation of your subscription**: Your license will be automatically renewed by Microsoft. If you want to stop it you cas manage it directly from your Microsoft account.
- **Go to Microsoft account**: To access to your Microsoft account.

3.4 - Renderer management

3D Juump Ace can run on a broad range of CPU, from a mobile to a high-end x86-64 Central Processing Unit (CPU). The CPU power required for an optimal experience of the software depends on the complexity of the visualized 3D content and the availability of a Graphics Processing Unit (GPU). Thanks to an optional Software rendering mode, a GPU is not mandatory to run 3D Juump Ace. However, this mode causes intensive computations to be performed on the CPU, which may slow the system down on low-to-mid range configurations.

In the **General** settings panel, as covered in the chapter Program settings, the user can manage the renderer parameters to be applied, whether a Hardware or a Software renderer is preferred.

The different settings between the Hardware accelerated (GPU) and Software rendering modes are developed in Section General settings.

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3.4.1 - Hardware renderer

In Hardware rendering mode, 3D Juump Ace benefits from the help of the computer's GPU. This is the preferred rendering mode for computer equipped with a GPU installed with an OpenGL 3.0 and above driver. Any NVIDIA GeForce 8 and above, AMD Radeon 4xxx and above or Intel HD4000 and above may fit.

3.4.2 - Software renderer

In case the computer is not equipped with a compatible GPU, 3D Juump Ace defaults to its Software rendering mode. Some 3D-intensive features may not be available in Software rendering mode or may work slightly differently than in Hardware rendering mode. This is explicitly noted in the description of the feature.

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Main window

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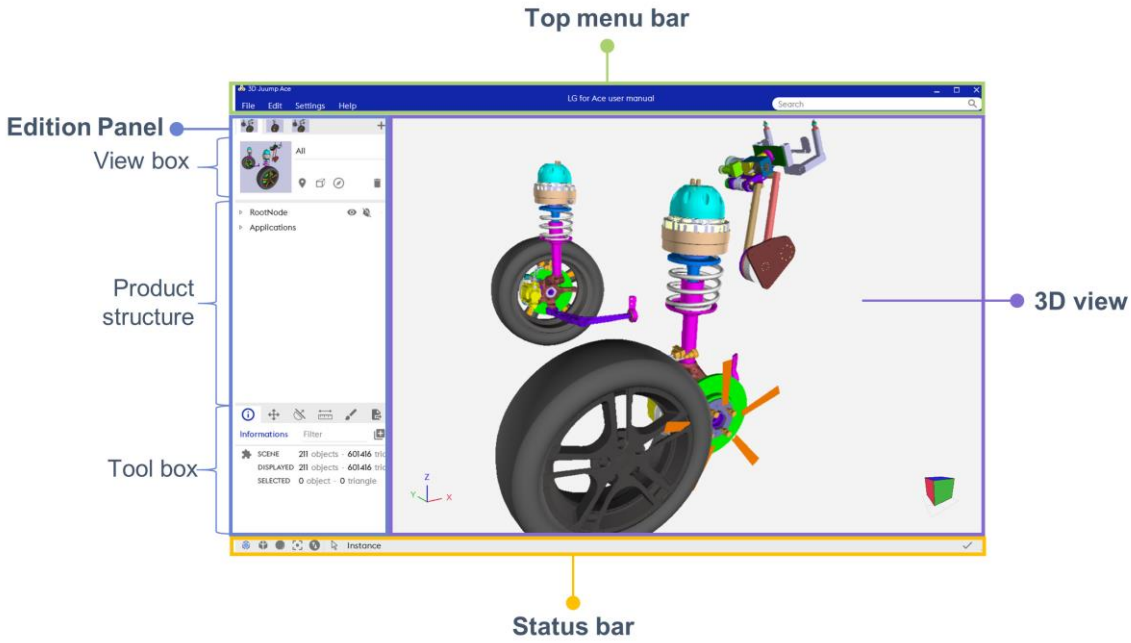
The main window of 3D Juump Ace gives accesss to all its functionnalities.



Main window of 3D Juump Ace - © Akka

Top menu bar: Give access to the Main menu : File menu, Edit menu, Settings menu, Help menu and to search box Search box ; please refer to Top Menu Bar chapter

Edition panel: Create views, browse the product structure, use authoring tools; please refer to Edition panel chapter

View box: Create, edit, manage new views/thumbnails; please refer to View box chapter

Product structure: Organize in a hierarchy the designated elements as displayed in the 3D view; please refer to Product structure box chapter

Tool box: List of tool enabling interaction with the designated elements as displayed in the 3D view; please refer to Tool box chapter

Status bar: Enable/disable features in the 3D View; please refer to Status bar chapter

3D view: Move camera, select objects; please refer to 3D view chapter

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1 - Top menu bar

Top menu bar: Give access to the Main menu - Drop-down menus : File menu, Edit menu, Settings menu, Help menu and to search box Search box

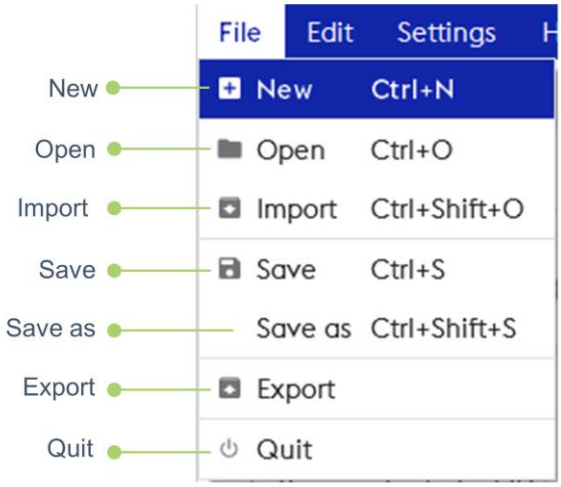
Top menu bar

1.1 - Main menu

The **Main menu** enables the user to manage File menu, Edit menu, Settings menu, Help menu

1.1.1 - File menu

The **File menu** entry is dedicated to file input and output. 3D Juump Ace is able to export 3D data in some of popular 3D file formats.



FILE menu

New: Clear the current project and open a dragged and dropped native CAD file, .juump or .ace3d project file

Open: Clear the current project and open a native CAD file, a .juump or a .ace3d project file. A formerly saved file can also be simply dragged and dropped to 3D Juump Ace.

Import: Add a native CAD file to the current project 3D Juump Ace is able to process the following formats: acis, asc Medusa 3D, Autodesk 3DS, Autodesk FBX, CADDS, CATIA V4, CATIA V5, CATIA V6, COLLADA, I-DEAS, IGES, Inventor, JT-Format, NX Unigraphics, OBJ, Parasolid XT-Format, ProEngineer, ROBCAD, STEP AP 203/214, STL, Solidworks, Straessle EUKLID, VDA, VRML, DAE, GLTF 2, GLB.

In the case of a ProEngineer file import, external references load existing latest version.

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While import/open operating, clicking on the displayed *X* does not cancel but interrupts the launch/import.

Save: Save the current modifications to the current .ace3d project file

Save as: Save the current project to a new .ace3d file

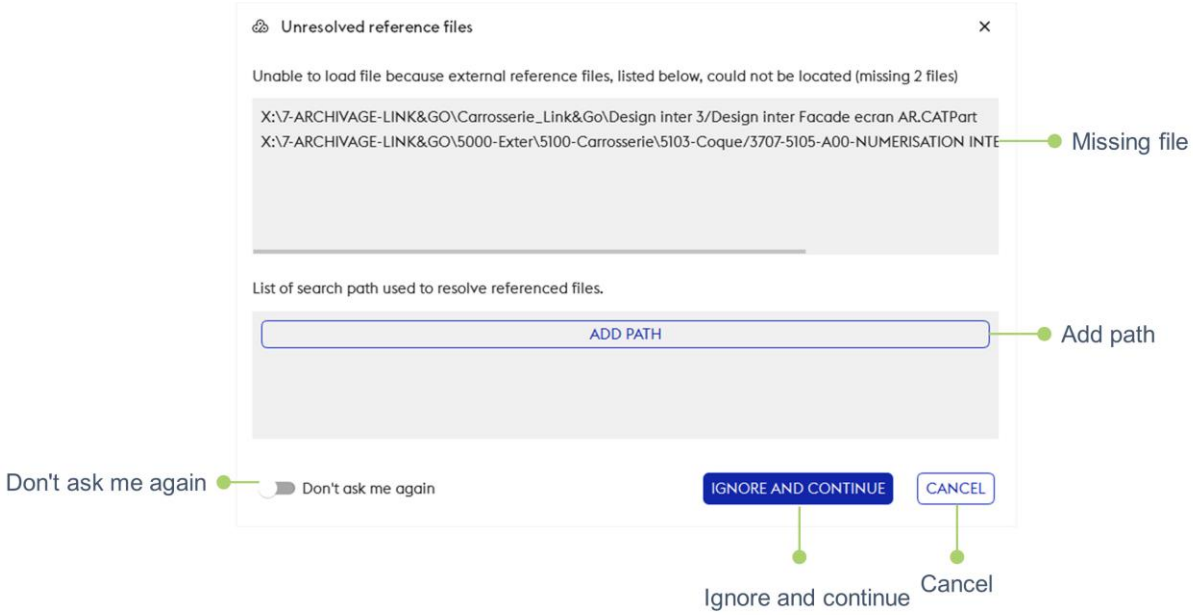
Export: Export the current project to a 3D file. 3D Juump Ace is able to process the following formats: JPG, PNG, TIFF, Scalable Vector Graphics, Drawing eXchange Format, Comma-separated value CSV, Autodesk FBX, JT, OBJ, STEP, STL binary, VRML97, VRML97 Compressed, 3DS, DAE (Collada files), GLTF 2 ●, GLB (GLTF 2 binary) ●

Quit: Exit the program

1.1.1.1 - Unresolved reference files

In some cases, questions regarding file reference resolution are required. (see Section Unresolved reference files).

`Unresolved reference files` error message might appear when (mainly CatProduct/CatPart) file(s) cannot be loaded because external references could not be located.



File / Open / Unresolved reference files

Missing file: Issued file

Add path: Indicate the path to access the missing file

Continue: Step further (step up to next missing path or application launch) once path has been added properly and successfully

Don't ask me again: Apply selected setting for the whole batch

Ignore and continue: Ignore currently displayed missing path and continue loading

Cancel: Cancel loading

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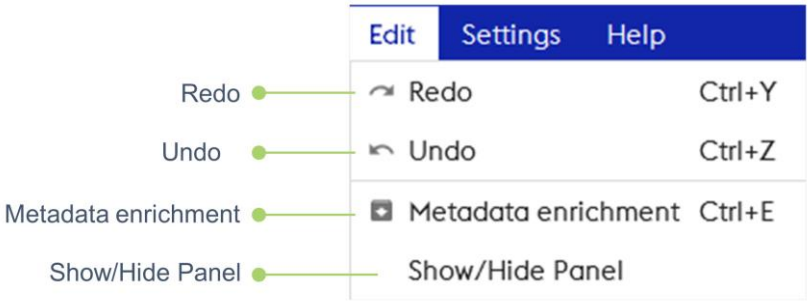
1.1.2 - Edit menu

The **Edit menu** entry gives access to the functions : Redo, Undo, Metadata enrichment and show/hide panel.



EDIT menu

Redo: restore the previous action

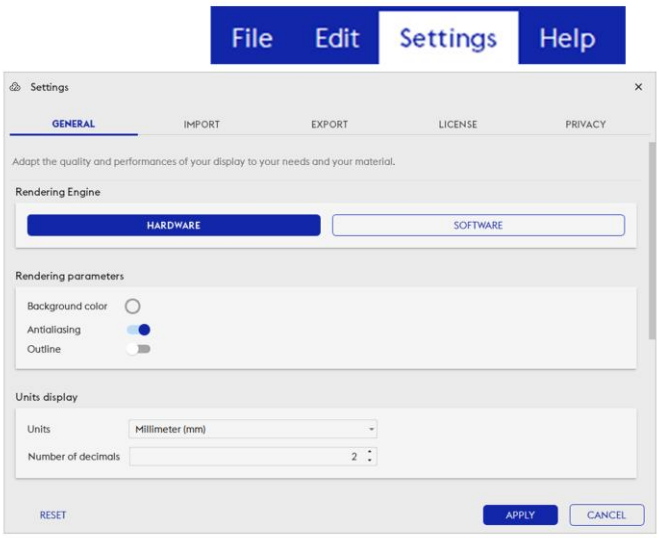
Undo: cancel the previous action

Metadata Enrichment: allows to enrich the data

Show/Hide panel: allows to show/hide the panel

1.1.3 - Settings menu

The **Settings menu** entry gives access to the program settings. They are covered Chapter Program settings.



SETTINGS menu

1.1.4 - Help menu

The **Help menu** button grants access to the list of keyboard shortcuts, to the User manual, to the tutorials, to the support contact, the community and displays the About information.

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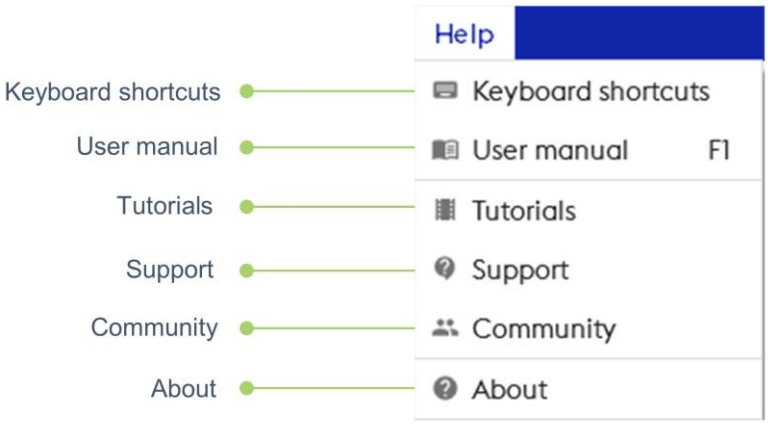


HELP menu

Keyboard shortcuts: Tool enabling to quickly perform general operations such as, non-exhaustively, save the document, select/unselect objects, show/hide authoring tools

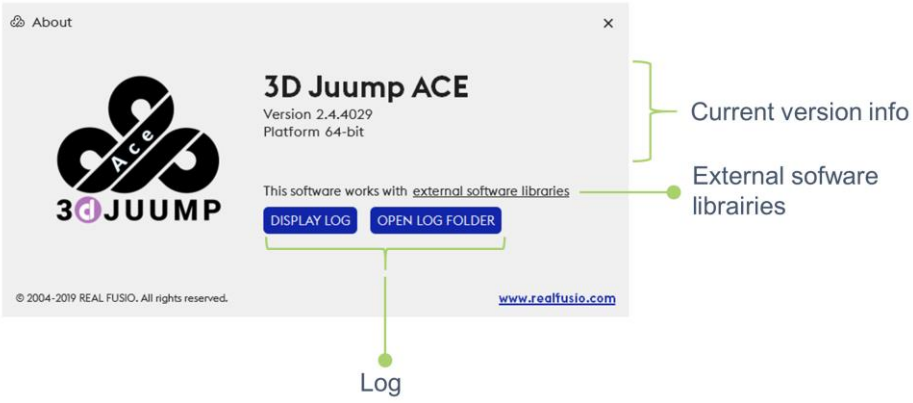
User Manual: Technical documentation explaining full functionalities of the software

Tutorials: Technical video explaining full functionalities of the software ●

Support: Pop-up providing the support contact for any question on the application.This contact link is customisable in settings file, by administrator see “Administrator Manual”. ●

Community: Exchange space between software users ●●

About: Pop-up displaying current log, current version of 3D Juump Ace information.



HELP menu / About window

Log: Record of events that occurred in the software runs since last launch

External sofware librairies: Software component distributed or sold by a third entity

Current version info: Information re. the version of the software currently used

1.2 - Search box ●

The **Search box** is the search engine used to perform queries in order to identify objects whose text data contain a given string entered by the user. The search is performed in the text field selected in the Product structure (see Section Product structure).

●Search is computed on the name of the objects, and all its metadata.

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Search: Tool enabling to look for a 3D object by means of a particular word or phrase /group of words (mainly by Metadata)

Search box

1.2.1 - Free text search

A **Free text search** returns objects of which any metadata contain the typed value

To launch a *Free text search*, type the value to search and press *Enter*: eg. abc to get all objects containing abc.

The value is not case sensitive; eg. abc will return parts named ABC

1.2.2 - Advanced search

An **Advanced search** is a search narrowed by a series of different filters.

Search engine uses PCRE query syntax.

String search: Return value(s) containing spaces

To launch a *String search*, use quotes; eg. “front left wheel”.

Search on metadata: Return value(s) depending on metadata specification

To launch a *Search on metadata*, use colon; eg. :s_component_responsable=Joe.

Then, a Search on metadata can be sharpened, adding a second (or more) query(ies).

Contains metadata search: Match with metadata containing typed value

To launch a *Contains metadata search*, use simple equal; eg. :name=abs123 to match with all objects for which metadata name contains abs123.

Excluding metadata search: Match with metadata with any value not matching

To launch an *Excluding metadata search*, use operators <>; eg. :color<>blue to match with all objects for which color metadata differs from blue.

Relational operator metadata search: Match with metadata containing numerical value depending on an operator query

To launch a *Relational operators metadata search*, use =, <>, <, <=, >, >=; eg. :weight>42.

Logical combinator metadata search: Match with metadata combining 2 or more several value(s) and/or alternatives

To launch an *And/or metadata search*, combine with “()”, “and” & “or” operators; eg. (:price<1.23) and (:name=="red cabbage").

Priority is given from left to right and, although it is not mandatory, upon bracketing

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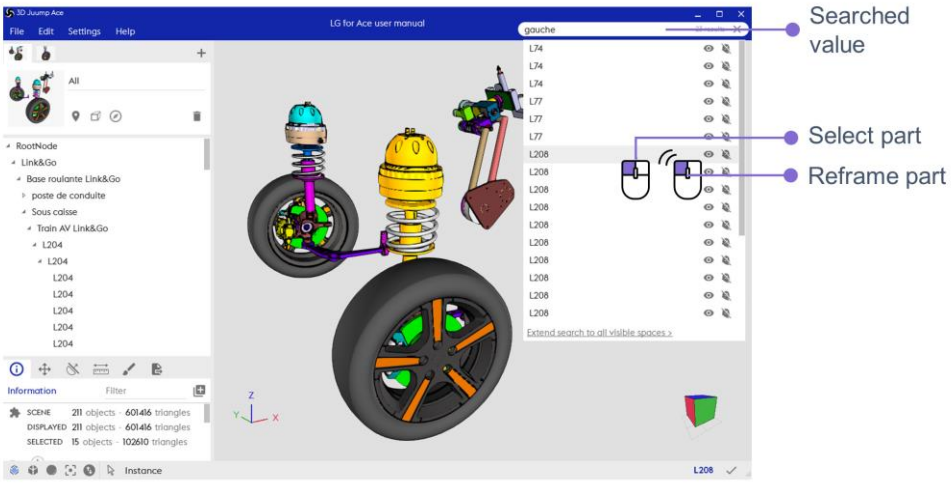
1.2.3 - Searched results visualization

A **Searched results visualization** enables to visualize the results of the search currently performed. To visualize results once search has been launched, just click on an item; it generates a crosslink in the application.



Visualize results © akka

Searched value: Value that has been typed in the search box

Select object: A single left click enables to select a searched element. Element flashes in yellow in the 3D view and is identified in the Mini-Id-card.

Reframe object: A double left click enables to both select and center the camera in the 3D view on a searched element. Element flashes in yellow in the 3D view, is identified in the Mini-Id-card and the content is scrolled in the Product structure until the corresponding element is visible; this allows the user to quickly find the location of an object in the hierarchy.

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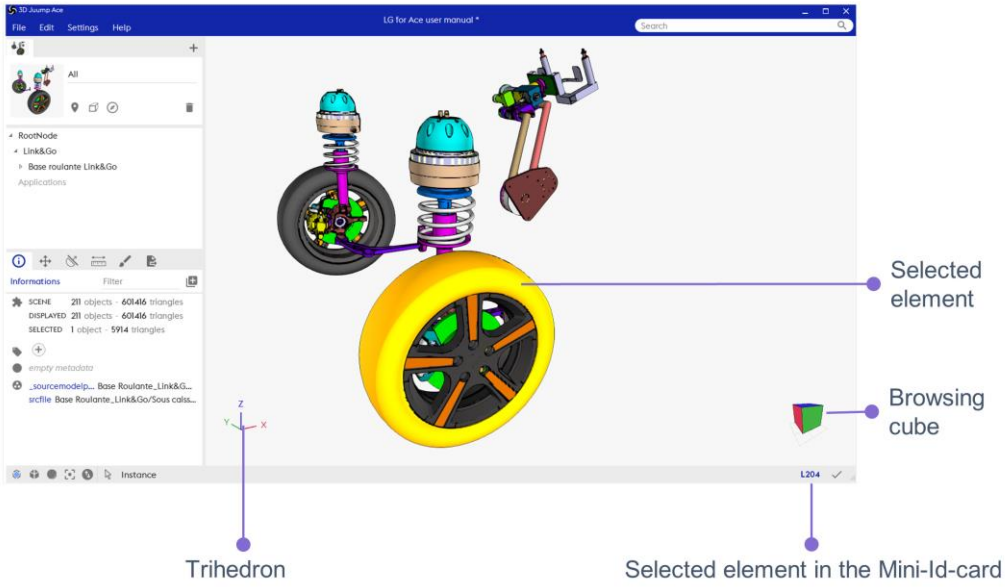
2 - 3D view

2.1 - Main view

The **3D view** shows the geometry of the imported objects.



3D view - © Akka

trihedron: The trihedron allows to quickly locate the X, Y and Z axes of the model.

Selected element in the Mini-Id-card: Displays the name of the selected element

Browsing cube: Tool enabling to navigate in the 3D view on a simple click; please refer to Browsing cube

Selected element: Designated element with which the user wants to interact

Selecting an object in the 3D view also selects the corresponding element in the product structure; its metadata is automatically displayed in the Mini-Id-Card. Conversely, selecting an element in the product structure highlights the corresponding object in the 3D view.

2.2 - Navigation

The **Navigation** enables the user to move the objects in the 3D view using his mouse only.

The camera controls are designed so as to make it easy to rotate around an object and look at it from different viewpoints. Actually, the camera is always looking at a point called the *center of interest* which the user can change at any time.

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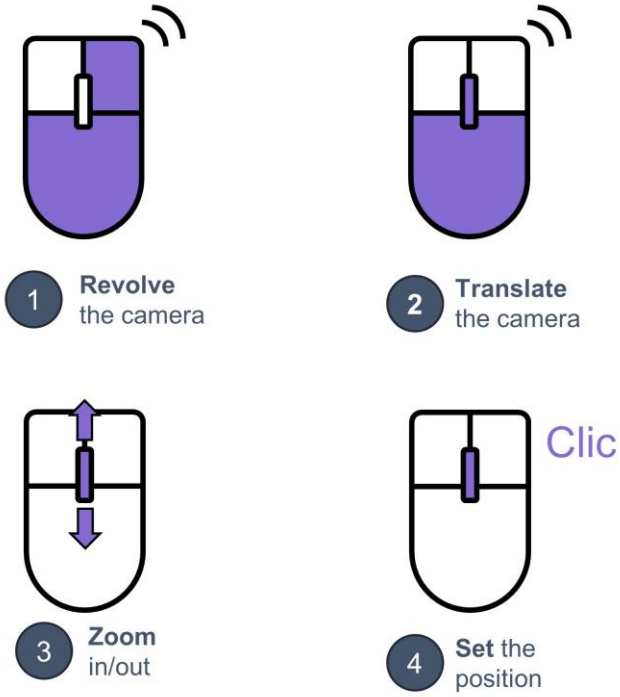

Navigation / Camera control

Revolve the camera: Revolve the camera around the center of interest

Translate the camera: Translate the camera in the image pan (pan)

Zoom in/out: Increase/decrease the magnification of the designated object

Set the position: Set the position of the center of interest

2.3 - Edit 3D visible objects

The **3D view context menu** grants access to the element(s) display features.

Accessible via a right click, the menu differs whether an element is selected before the click or not.

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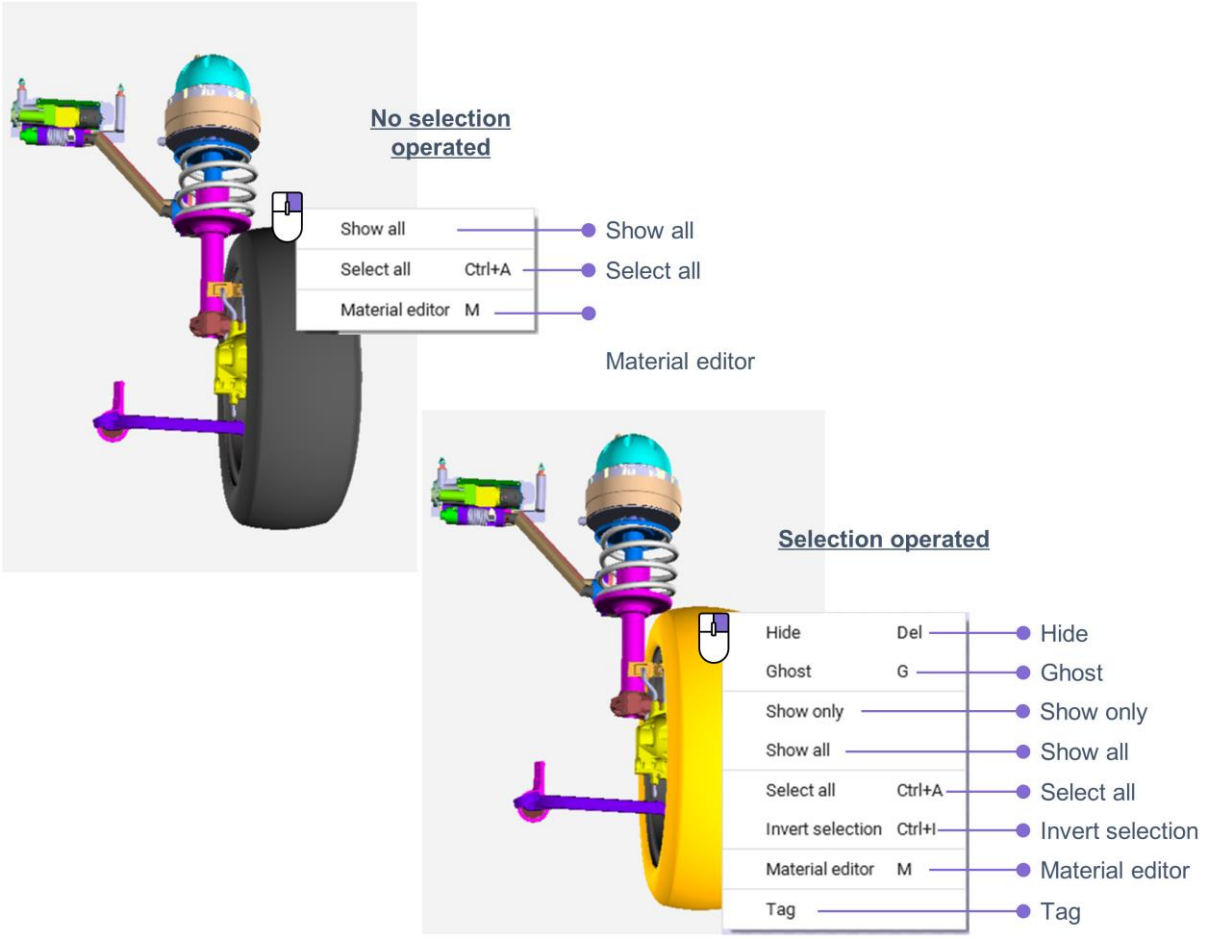

3D view / Context menu - © Akka

Hide: Hide the corresponding object(s) in the 3D view

Ghost: Enable ghost rendering mode for the corresponding object(s)

Show only: Hide every other object

Show all: Display all elements

Select all: Select all elements

Invert selection: Select elements formerly unselected in the selection and unselect elements formerly selected in the selection

Material editor: Pop-up the tool enabling to modify elements appearance, applying another element's information or creating a new model (see Section Material tools).

Tag: Create/Edit keyword assigned to an object (see Section Tag).

2.4 - Browsing cube

The **Browsing cube** is a tool enabling to align the camera further predefined orientations. It also allows to redefine the ground that will impact the camera behavior.

It is located at the bottom right of the screen.

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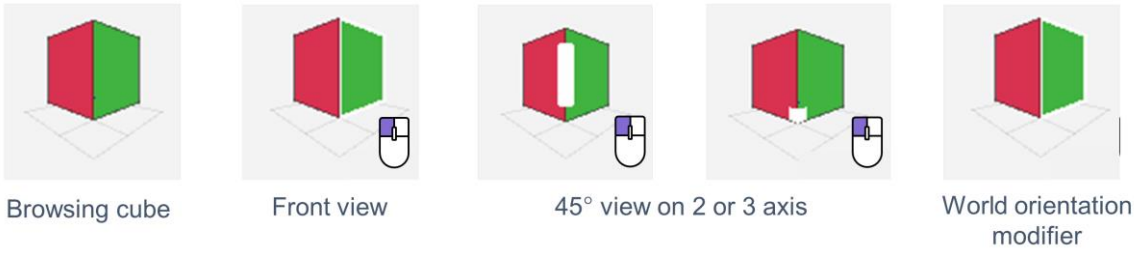


Navigation / Browsing cube

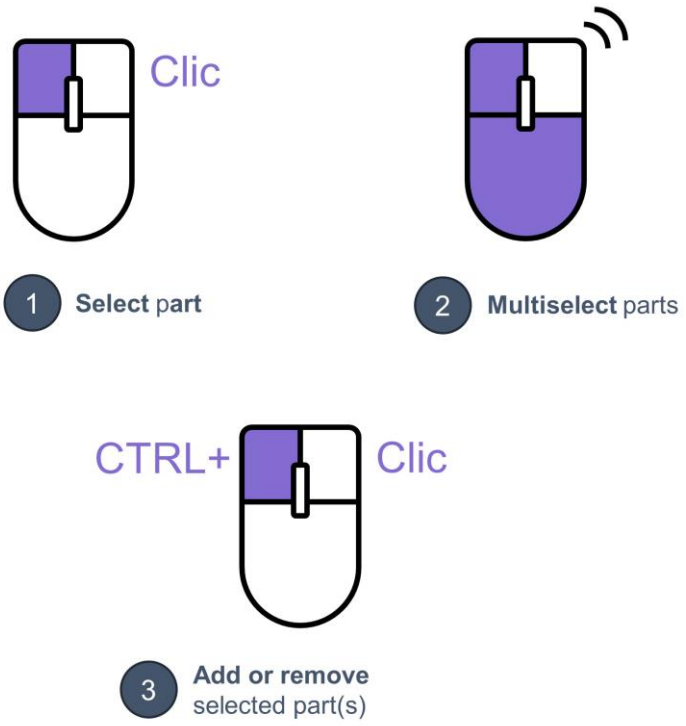
Front view: Align the camera direction with the x, y or z axis, via a left click on a face of the browsing cube

45° view on 2 or 3 axis: Align the camera direction with an intermediate axis, via a left click on an edge or a corner of the browsing cube

The **World orientation modifier** enables to select which axis is used as the ground normal vector via a right click on a face of the Browsing cube.

2.5 - Selection

The **Selection** enables the user to choose which object(s) he wants to interact with.



Navigation / Objects selection

Select object: Select the object pointed by the mouse cursor

Multiselect objects: Create a selection rectangle / release left mouse button to select every object in the rectangle

Add/remove selected object(s): Add (resp. remove) the selected objects to (resp. from) the current selection

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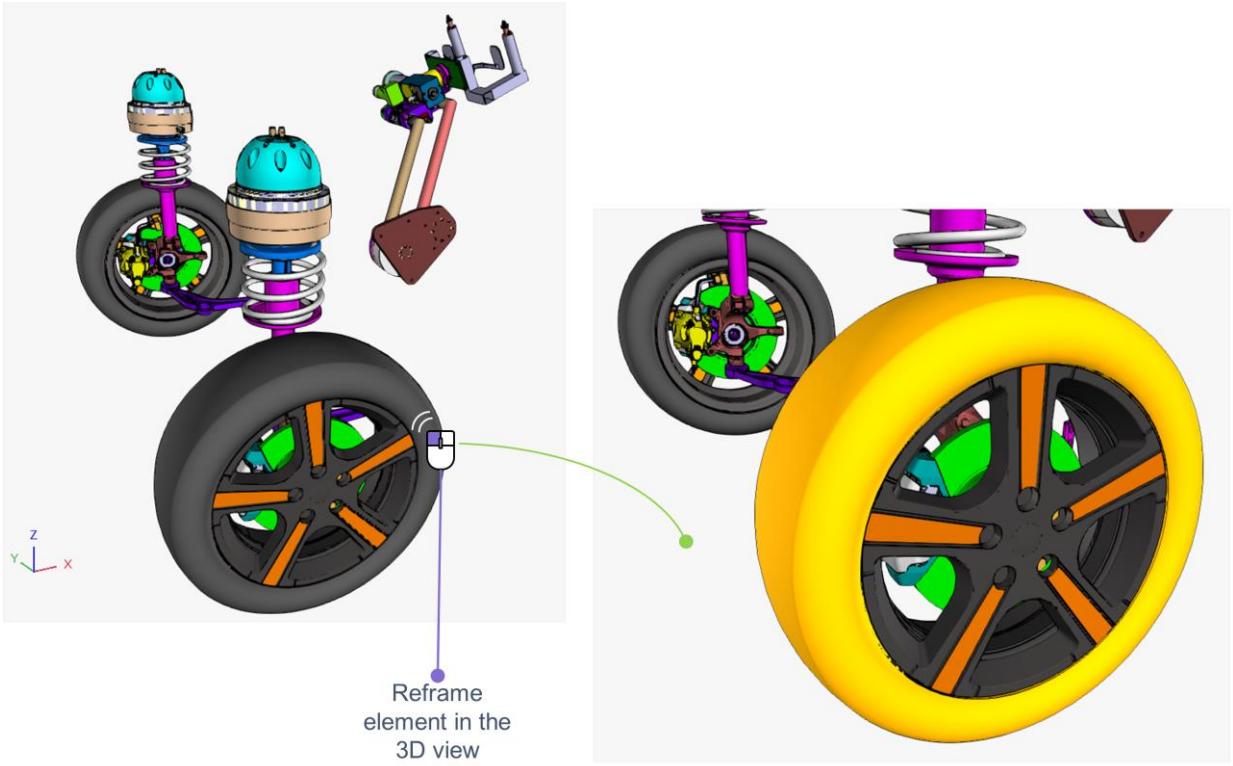
Selected element in the 3D view: Once an element has been selected with a left click in the 3D view, it flashes, the corresponding element is highlighted in the Product Structure and its metadata is automatically displayed in the Mini-Id-card.

2.6 - Reframe



Navigation / Reframe

Reframe element in the 3D view: To center the camera in the 3D view on a designated element, double click on it. In parallel, this operation scrolls the content of the Product Structure until the corresponding element is visible. This allows the user to quickly find the location of an object in the hierarchy.

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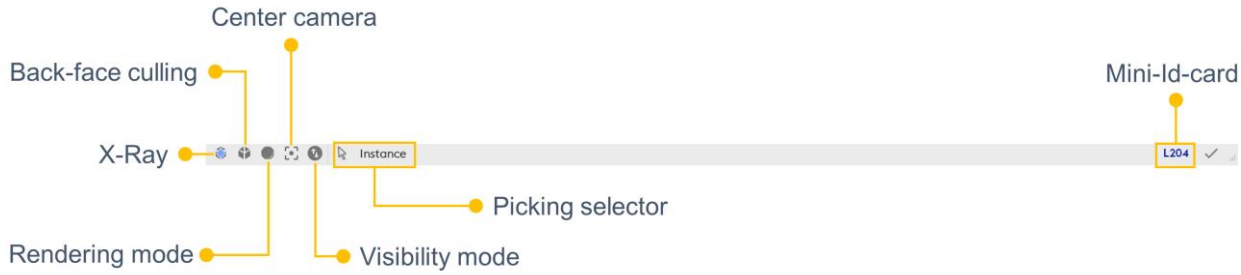
3 - Status bar

The **Status bar** grants access to the Quick access features, to the Frame mode selector and to the Mini Id card. It can be found at the bottom of the main window of 3D Juump Ace.

3.1 - Quick access features

The **Quick access features** is a box grouping shorter alternative routes to operate with the camera visualization.



Status bar / Quick access features

Center camera: Center the camera on the scene

Back-face culling: Enable/disable back-face culling, do not render triangles facing away from the camera

X-Ray: Enable/disable X-Ray mode, automatic ghosting of close geometries

Rendering mode: Modify the display of the 3D View, either as normal or wireframe

Visibility mode: Enable to display in one click all the hidden or ghost elements. Please refer to Visibility mode for more information regarding its functionalities.

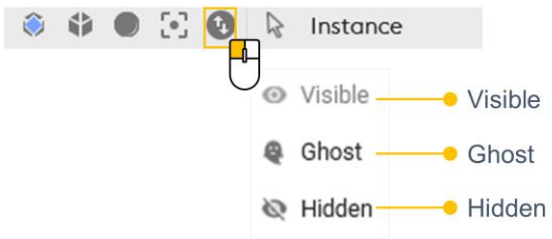
Picking selector: Enable to configure selection parameters. Please refer to Picking selector for more information regarding its functionalities

Mini-Id-card: Display the metadata of the 3D object currently selected.

Multiselection of objects: in this event, the Id-card toggles to a message mentioning the number of selected objects.

3.2 - Visibility mode

This mode enables to see the elements which have previously been ghosted and/or hidden



Status bar / Visibility mode

Visible: Enables to display the visible elements

Ghost: Enables to display the ghost elements

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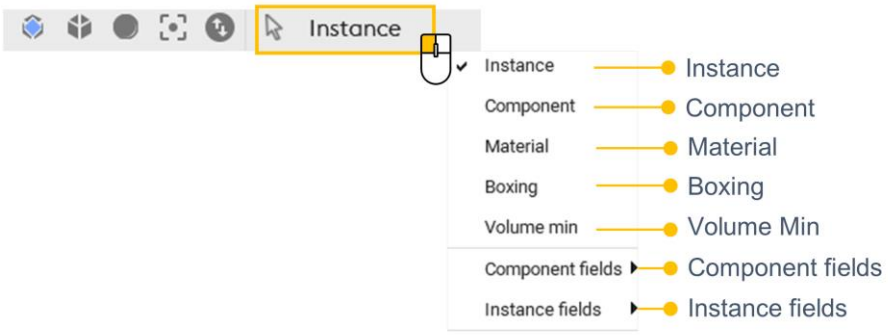
Hidden: Enables to display the hidden elements

3.3 - Picking selector

The **Picking selector** allows to define the criteria to select objects. It will be automatically applied in the Product structure.



Status bar / Picking selector

Instance: Tool enabling to select designated instances.

Component: Tool enabling to select designated components.

Boxing: Tool enabling to filter on a 3D box. See below.

Volume Min: Tool enabling to select object smallest that a given size. See below.

Material: Tool enabling to select elements sharing the same material.

Component fields: Tool enabling to select components sharing the same specific component metadata value. Select on metadata type in the submenu, then click a component in the scene will select all components holding the same value for this metadata.

Instance fields: Tool enabling to select instances sharing the same specific instance metadata value. Select on metadata type in the submenu, then click a component in the scene will select all instances holding the same value for this metadata.

3.4 - Boxing

Tool enabling to filter on a 3D box. Click on an element and a 3D box appears around this designated element. When Overlapped is active, it also select the elements next to the designated element.

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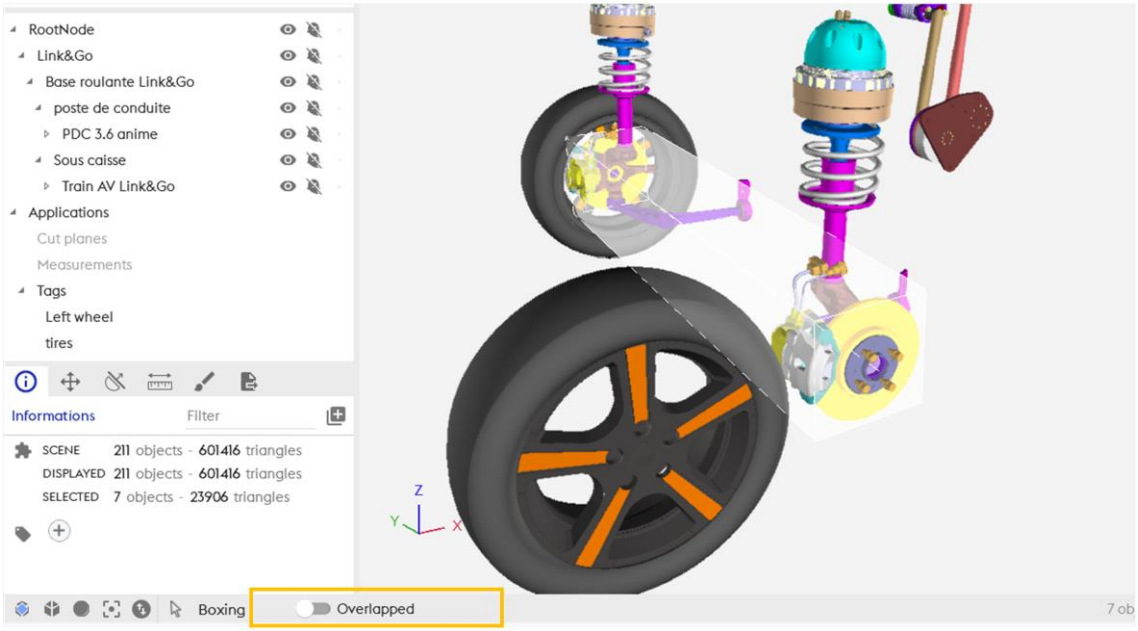
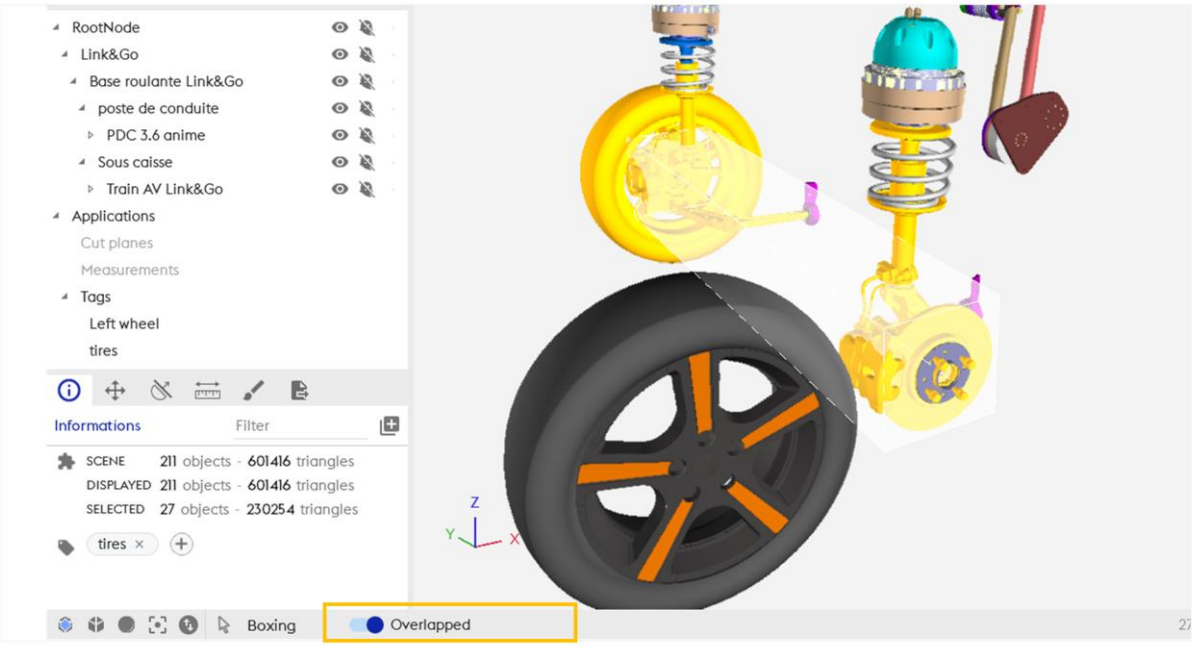


Status bar / Picking selector / Boxing with and without overlapped



Status bar / Picking selector / Boxing with and without overlapped

3.5 - Volume Min

Tool enabling to select all the items whose size is inferior to the selected value. You can insert it manually with the scrolling arrow or by selecting an element in the 3D view.

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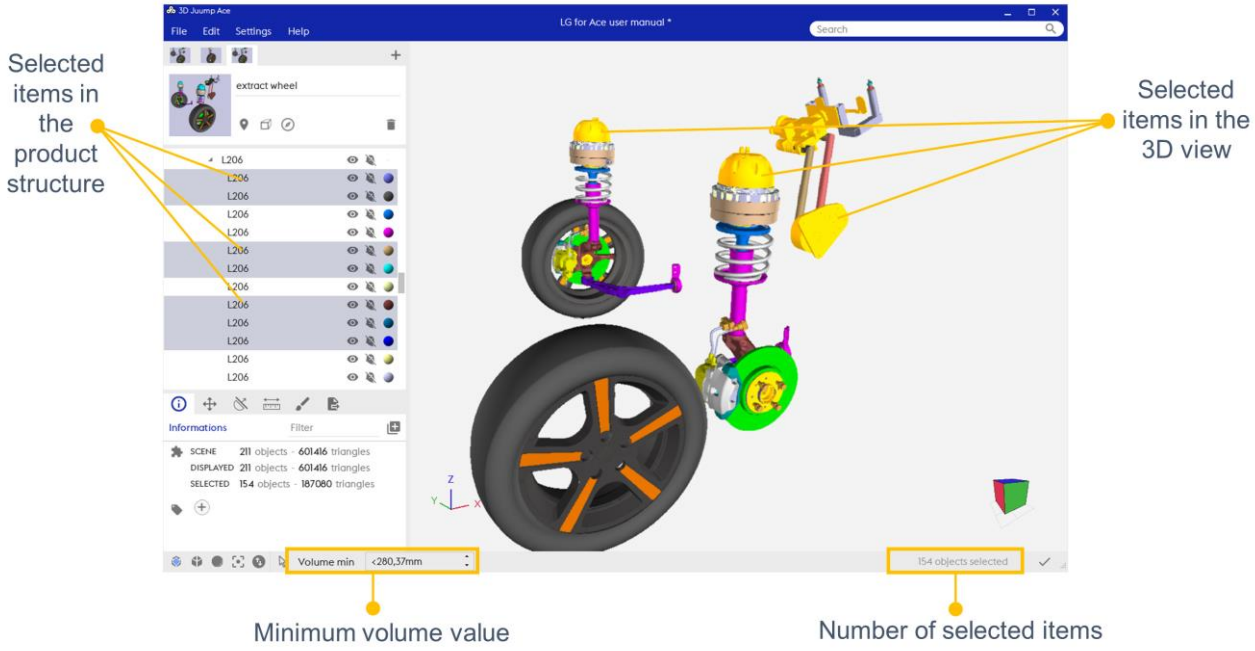

Status bar / Picking selector / Volume Min

Selected items in the product structure : shows the components corresponding to the selection result in the product structure

Minimum volume value: shows the requested minimum volume value. You can aslo use the fiel to set a precise minimal volume value; this will automatically select all corresponding objects in the scene.

Number of selected items: shows the number of components corresponding to the selection result.

Selected items in the 3D view: shows the components corresponding to the selection result in the 3D view.

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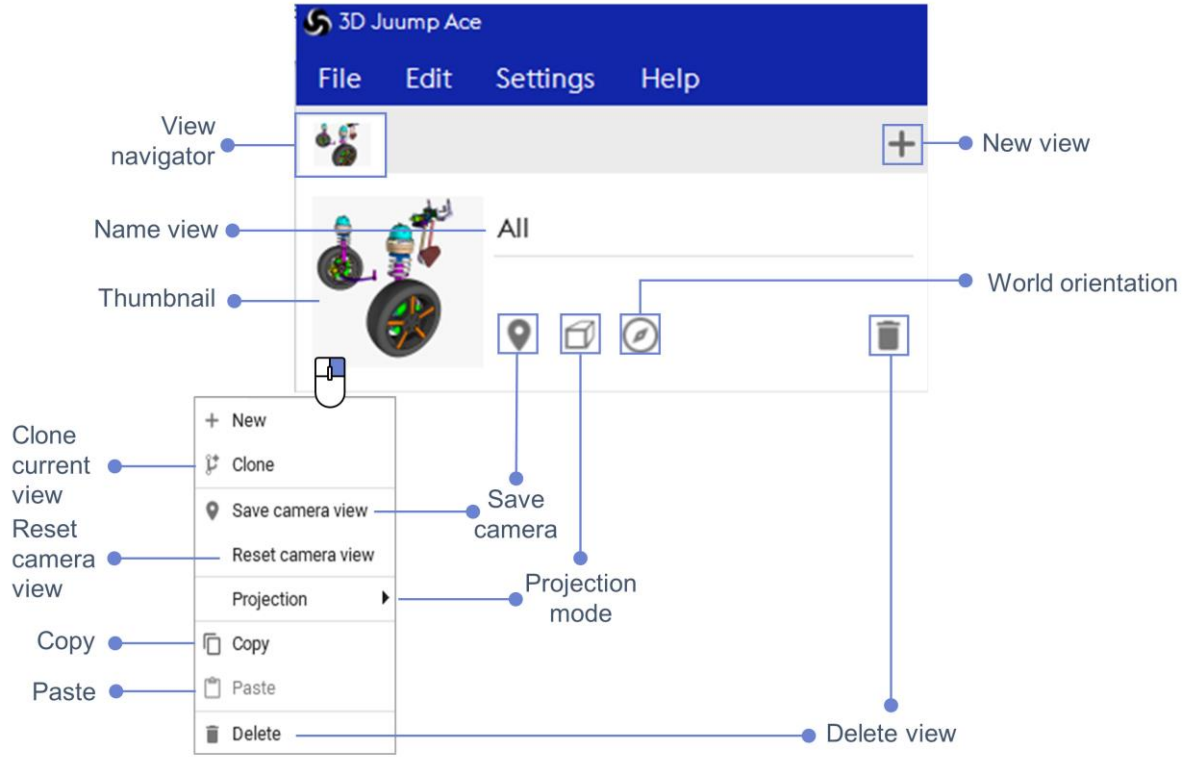
4 - View box

The **View Box** groups features enabling to interact with the Thumbnail and the 3D view mechanisms.

A user is free to create any number of views for a given project. However, only one view may be active at once: this view is referred to as the *current view*. Any change to the camera, object (transformation or material), cut plane or measurement is stored in the current view. In the View widget, the user can activate and manage Views.



View box

A right click on the thumbnail displays a context menu.

View navigator: Navigate between the different views formerly created

Name view: Create / Edit name of the current view. Any view created is given the default name “Untitled view”. The user is free to rename views by clicking on their name text field.

Thumbnail: Small picture drafting the content of the related View from a given point of view; it also enables to recenter the 3D view on the saved view.

Save camera location: Save camera position and orientation to the current view, this operation creates/modifies the thumbnail

Projection mode: Select either an orthographic or a perspective view.

World orientation: Align the world with an object. To *fix the world orientation*, click on the compass icon in the status bar, then select one or several objects to be aligned with the world’s frame. Upon selecting objects, a pop-up message appears at the bottom of the 3D view asking for the user to confirm the new orientation. Click the *Validate* button to enforce the new world orientation or click on the compass icon again to discard changes.

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Delete view: Delete current view.

New view: Create a new view with default parameters

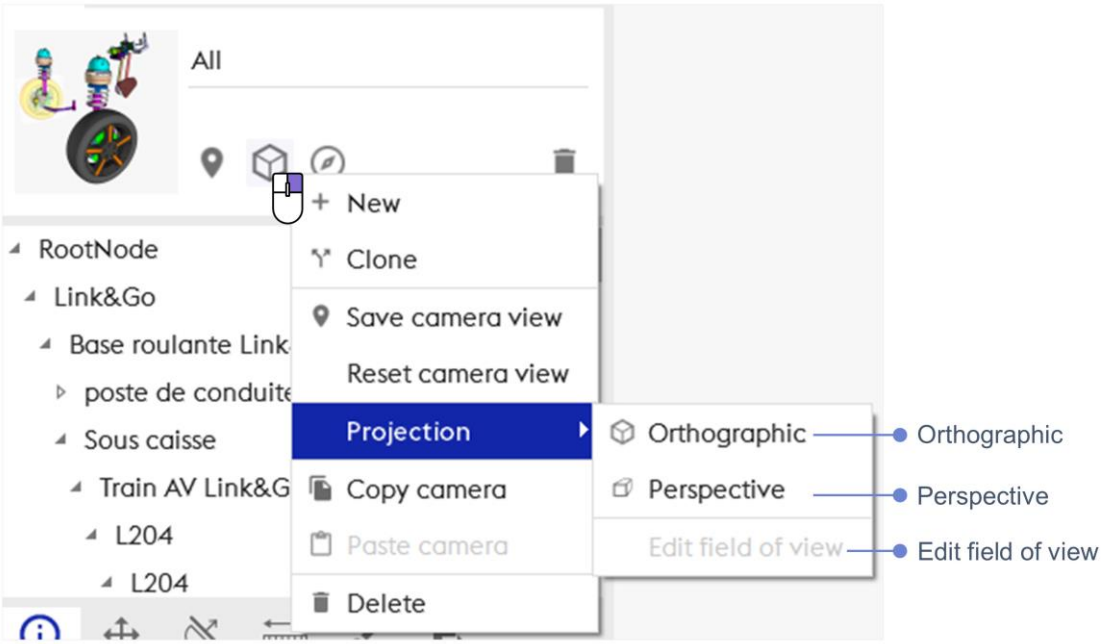
Right click on the thumbnail :

Clone current view: Create a new view with the same parameters as the current view.

Reset camera view: Reset the camera view in the thumbnail.

Copy: copy the current camera view.

Paste: paste the copied camera view.



Projection

Projection mode: Select either an orthographic or a perspective view.

Orthographic: Projection in which exact views of an object are two dimensional views.

Perspective: Projection of points by straight lines drawn through them from some given point to an intersection with the plane of projection.

Edit field of view: In perspective projection mode, adjust the vertical field of view.

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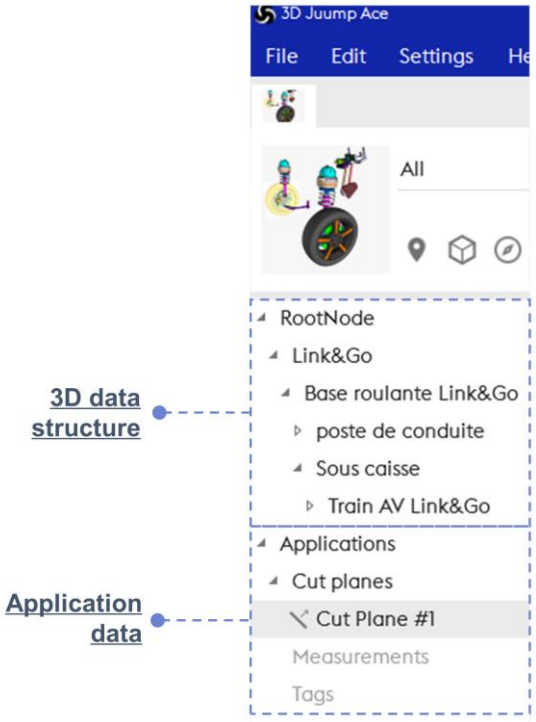
5 - Product structure box

The **Product structure** box shows the hierarchy of the project's 3D data and application data.



Product structure

5.1 - 3D data structure

In this representation, each row element corresponds either to a *node* or to a *leaf* of the hierarchy. Nodes can be expanded or collapsed by clicking on the triangle icon located on the left of the product structure element. The icons are hidden by default and only appear on hovering. The lines corresponding to hidden or ghosted objects appear in grey.

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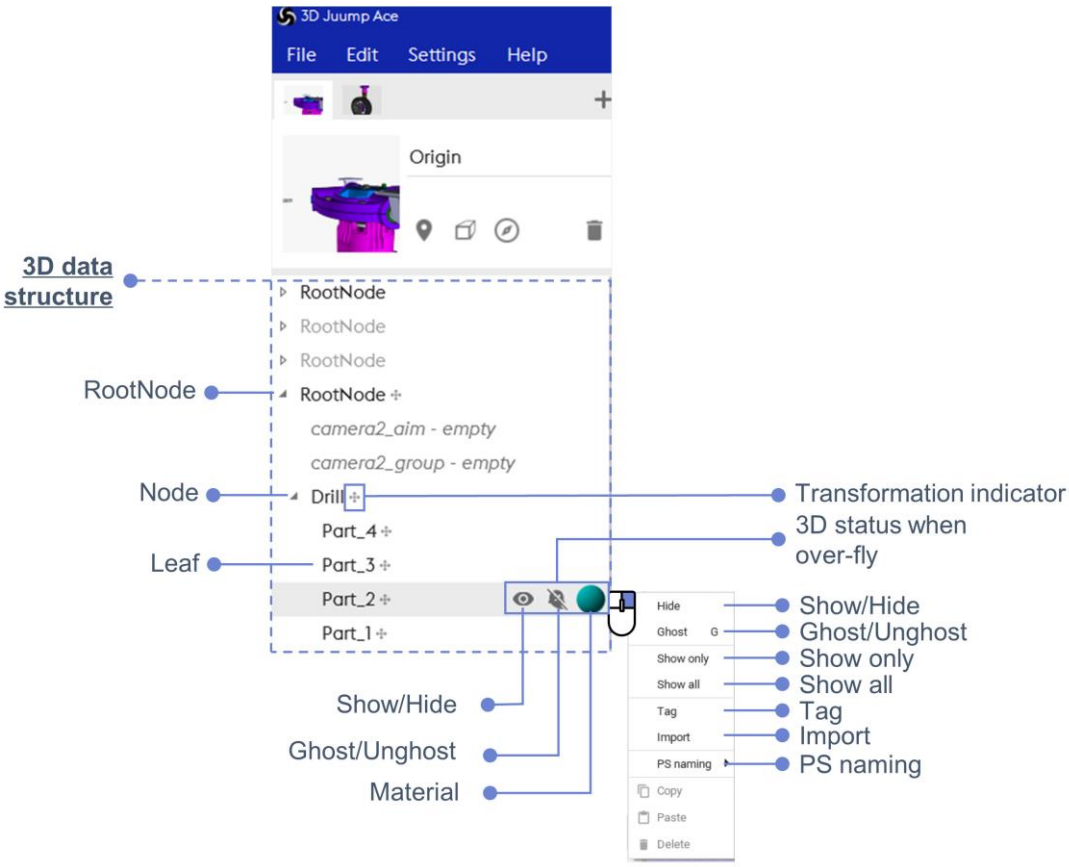

3D data structure

RootNode: Top node of an imported system. Several RootNode may exist when importing multiple 3D data in the same scene.

Node: Basic element of a hierarchy; using the image of a tree, a node is a junctions to branch(s)

Leaf: Termination elemeent in the tree (with no child nodes). The Leaf usually represent a goemetrical object.

Show/Hide: Show or hide the corresponding object(s) in the 3D view

Ghost/Unghost: Enable/disable ghost rendering mode for the corresponding object(s)

Material: Display the material of the corresponding object(s) (see Section Material tools)

Transformation indicator: Indicate a transformation has been operated on the designated object.

3D status when over-fly: Shows the status of the selected object: visible or hidden, ghosted or not and the type of materials.

A righ-click on an element of the Product structure opens a context menu, which holds the following actions:

Show/Hide: Show or hide the corresponding object(s) in the 3D view

Ghost/Unghost: Enable/disable ghost rendering mode for the corresponding object(s)

Show only: Hide every other object

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Show all: Display all the elements

Tag: Create/Edit keyword assigned to a object

Import: Import a file at the same level as the selected object.

PS naming: Select the text field to be displayed in the Mini-Id-card identifier. Information here-in referenced depend on input data.

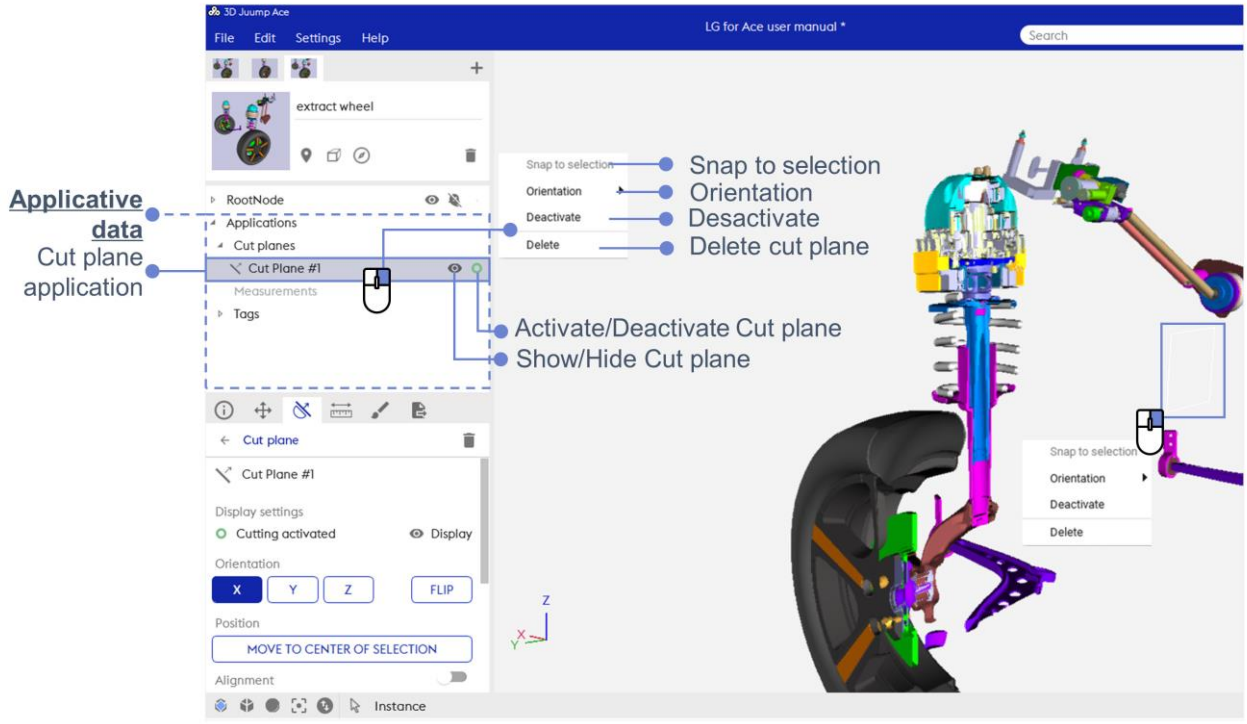
Selected element in the Product structure: Selecting an element in the Product structure also selects the corresponding part in the 3D view; its metadata is automatically displayed in the Mini-Id-Card.

Reframed element in the Product structure: To center the camera in the 3D view on a designated element, double-click on the element in the Product structure.

5.2 - Applicative data

The **Applications**, last node located at the very bottom of the list of the Product structure, groups tools interacting and already applied in the 3D view, such as Creating and erasing cut planes or Measurements for instance. A left click on the triangle at the beginning of each group of applications gives access to the scrolling list of accessible linked applications.

5.2.1 - Cut plane applicative data



Cut plane / Application - © Akka

Cut plane applicative data: List of cut planes applied in the 3D view

A left click on a designated Cut plane in the Product structure selects the cut plane, highlights it in grey in the list and the frame automatically appears in the 3D view. This enables to interact with the Cut plane (see Section Cut plane editor).

Show/Hide cut plane: Show or hide designated cut plane graphical representation

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Activate/Deactivate cut plane: Activate or deactivate the designated cut plane; when deactivated, a cut plane has no effect on the geometry of objects

A right click on a designated Cut plane in the Product structure or in the 3D view selects the cut plane and provides access to a context menu.

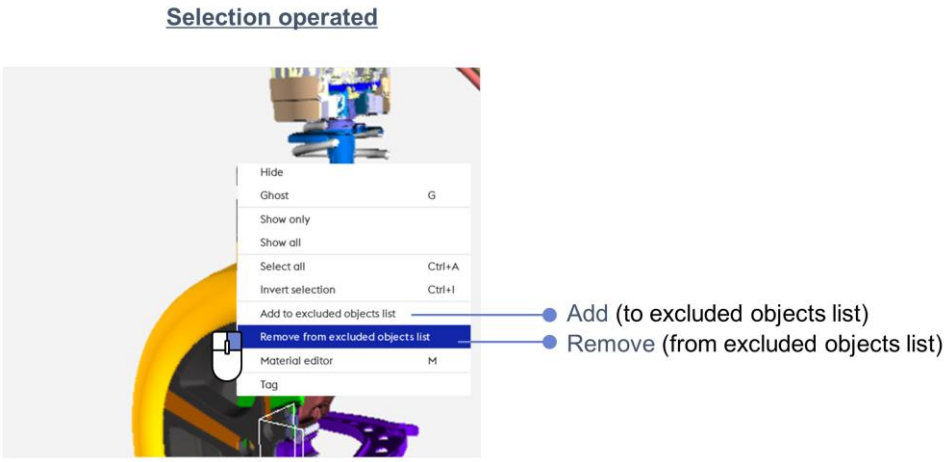
Snap to selection: Switch application of the cut plane to a different object

Orientation: Select along which axis (x, y or z) the normal of the cut plane is aligned

Deactivate/Activate: Deactivate or activate the cut plane; when deactivated, a cut plane has no effect on the geometry of objects

Delete cut plane: Manage cut plane, enabling to delete the designated cut plane

Shall an object being selected AND a cut plane cutting this particular element, a specific context menu is available via right click.



Cut plane / Selected and cut element Context menu - © Akka

Add (to excluded objects list): Add the selected object(s) to the list of objects uncut

Remove (from excluded objects list): Remove the selected object(s) from the list of objects uncut

5.2.2 - Measurement applicative data

Measurement applications: List of measurements performed in the 3d view

A left click on a designated Measurement in the Product structure selects and displays the measure in the 3D view. This enables to interact with the designated measure (see Section Measurements)

A right click in the Product structure gives access to a context menu.

5.2.3 - Tag applicative data

Tag application: List of tags available within the 3D view

A left click on a designated Tag in the Product structure selects and displays all the objects containing the designated tag in the 3D view. This enables to interact with the designated tag. Please refers to Tool box/Information/Tag for more information.

A right click in the Product structure gives access to a context menu.

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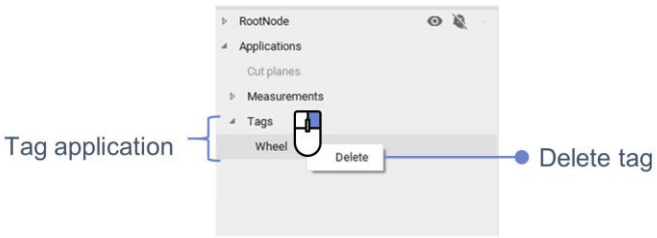

Tag Application - © Akka

Delete tag: Manage tag, enabling to delete the designated tag from all the objects sharing it

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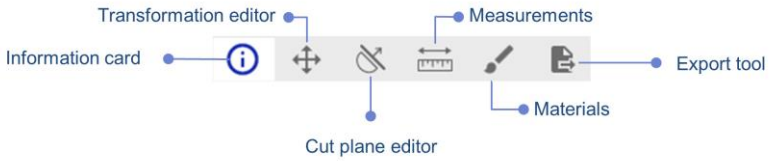
6 - Tool box

In the **Toolbar** located at the bottom of the Tool box, the user can change the active tool. It can be selected among one of the following tools:



Detailled toolbar

Information card: Docked/Floating Id-Card; toggle dock/float is operated via a right click of the mouse in the box light grey area.

Transformation editor: Move objects along axes from frames

Cut plane editor: Create and edit cut planes

Measurements: Measure lengths or diameters of geometrical features, and distance between objects

Materials: Modify elements appearance, applying another element's information or creating a new model

Export tools: Export images, vectored illustration, metadata or 3D data

6.1 - Information card

The *Information* dialog displays the metadata and the tag(s) of the 3D objectcurrently selected.

Originally, Information feature is available from the Tool Box which corresponds to the *dock mode*. Nevertheless, a right click in the Information box opens a contextual menu and enables to free-float the window. The information dialog will then be accessible by clicking left on the Mini Id-Card identifier.

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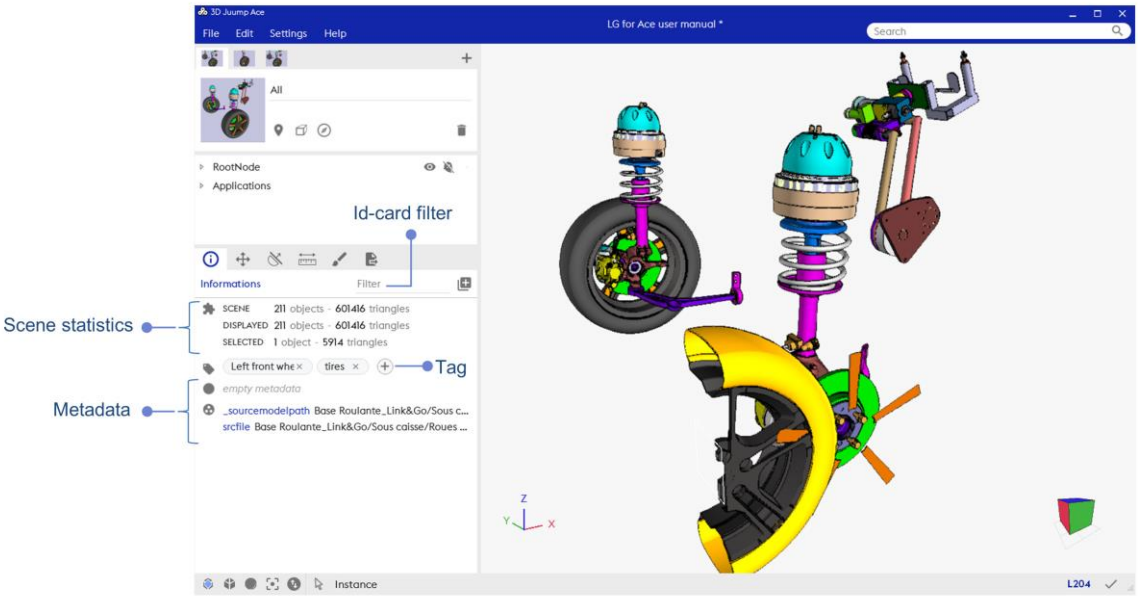

Tool box / Information card - © Akka

Id-card filter: Perform search of a particular value on the object metadata

Tag: Create/Edit keyword assigned to an object

Metadata: Provide data that defines the selected object but not represented in 3D.

Scene statistics: indicates the number of objects and triangles selected in the scene and information about these objects. ●

Multiselection of objects: in this event, the Id-card toggles to a cleared mode and displays only the list of all the tags of objects currently selected.

6.1.1 - Tag

A *Tag* allows to set a label one or various selected objects with a keyword to easily find it or them when necessary. Please refer to Tag applications.

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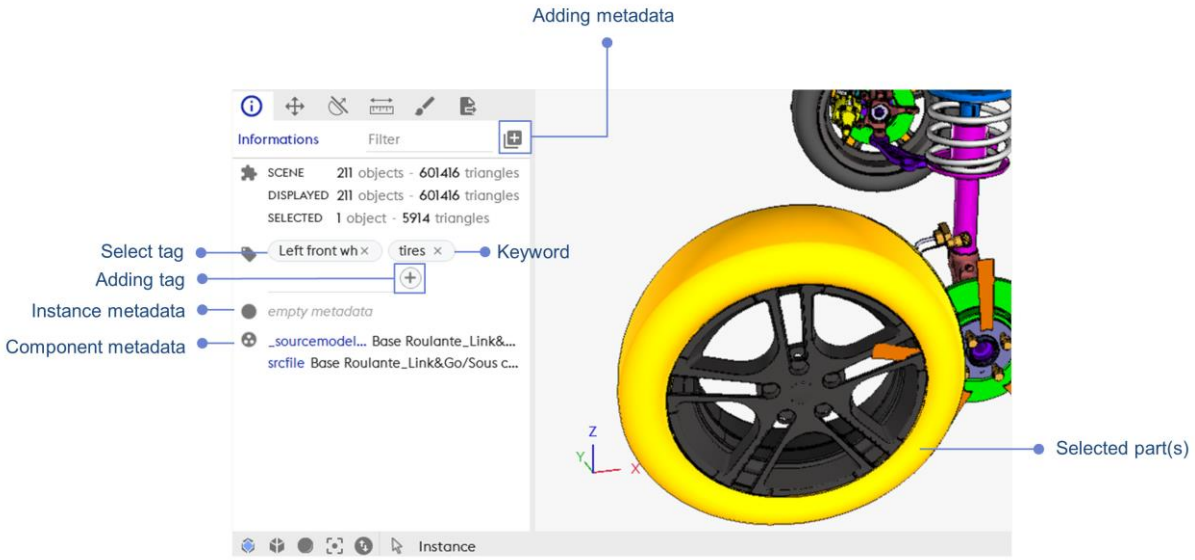

Tool box / Information card

Select Tag: It can be used to manipulate multiple-objects together. Select an existing Tag in order to manipulate multiple objects together (**Selected object(s)** in the 3D zone).

Adding tag: create a tag you select the required object(s), click on **adding a tag** and identify it (them) with a **keyword**. The tag appears then in the product structure box.

Instance metadata: Metadata linked to the currently selected object

Component metadata: Metadata linked to the component

Adding metadata: New import metada tool, to enrich your 3D.

6.1.2 - Metadata enrichment

Further the format, the Metadata originate from 3D files; they can be imported from CSV or FBX files.

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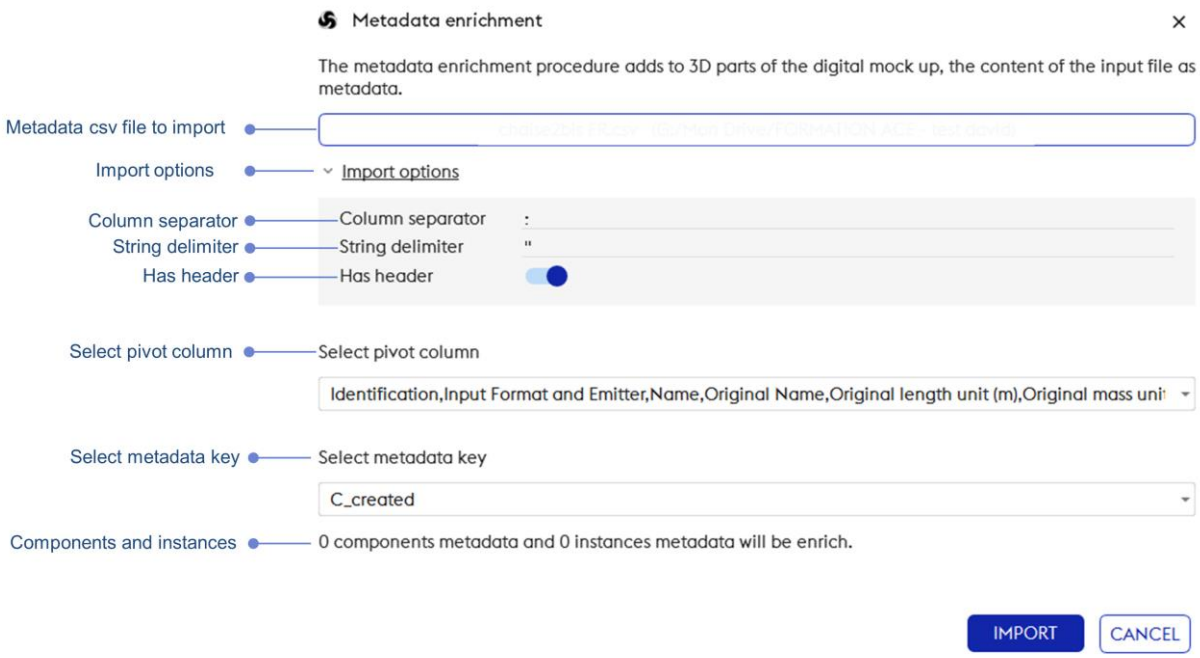

Tool box / Adding metadata

Metadata csv file to import: Name of the metadata csv file to import

Import options: for formatting the csv file

Select pivot column: to map with selected metadata key in 3D scene

Column separator: value separation character in the csv file

String delimiter: Chain delimiting character

Has header: if the first line of the csv file is the header. Ignores the first line of the csv, it is the name of the column.

Select metadata key: Choice of the key metadata to associate in the 3d file

Components and instances: Number of components and instances that will be enriched with metadata from CSV file

6.2 - Transformation editor

In the transformation editor we can find tools like translate, rotate, scale, and align.

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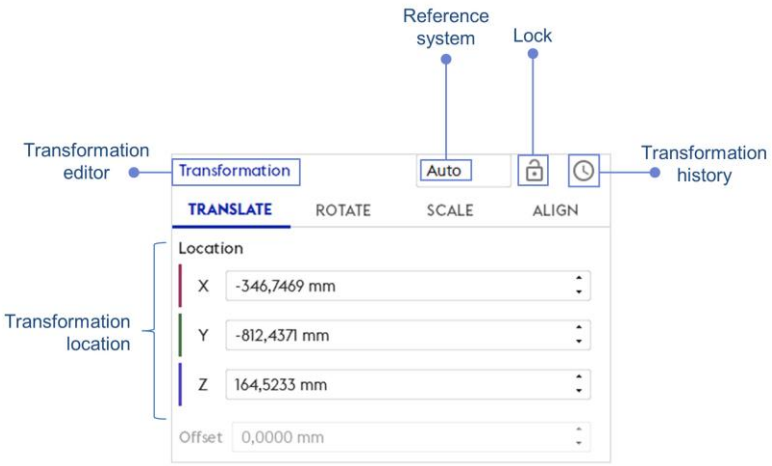

Tool box / Transformation editor / Tools

6.2.1 -Translate

The **Translate tool** enables to translate objects along axes from frames; basically, when the Transformation editor is activated, the user can move objects around the scene.

Reference system: Enable to configure the translation manipulator displayed

Lock: Active / Inactive transformation mode

Transformation history: contains the list of single changes in objects position made by the user from the creation of the current view.

The orientation of the translation manipulator defines in which directions the user can move the selected object(s). The user can change the orientation of the translation manipulator by modifying the Reference system.

Tranformation location: Information enabling to locate your transformed selection in the DMU

Selecting an object or a group of objects with the Transformation editor as the active tool will make a translation manipulator appear in the 3D view at the center of the selection.

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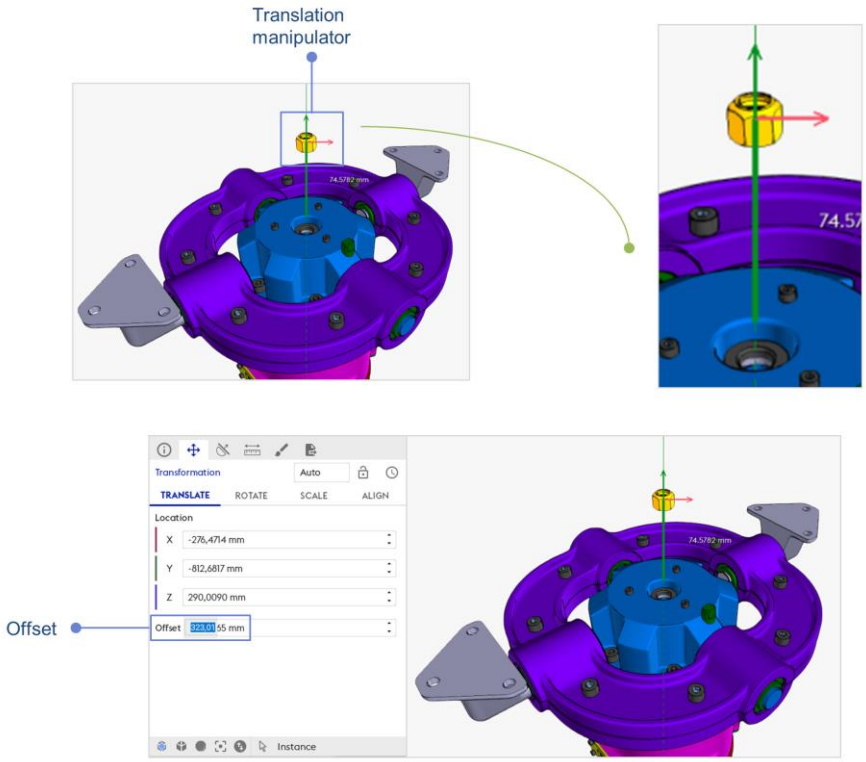

Tool box / Transformation editor / offset

Translation manipulator: Provide access to the selected object (s) movements, by drag & drop

Offset: When selecting an axis of the manipulator or at the end of the translation this box recovers the focus, so you can edit the offset translation of the object(s).

6.2.2 - Rotate

The **Rotate tool** enables to rotate objects around their orginal pivot or around a new selected Pivot.

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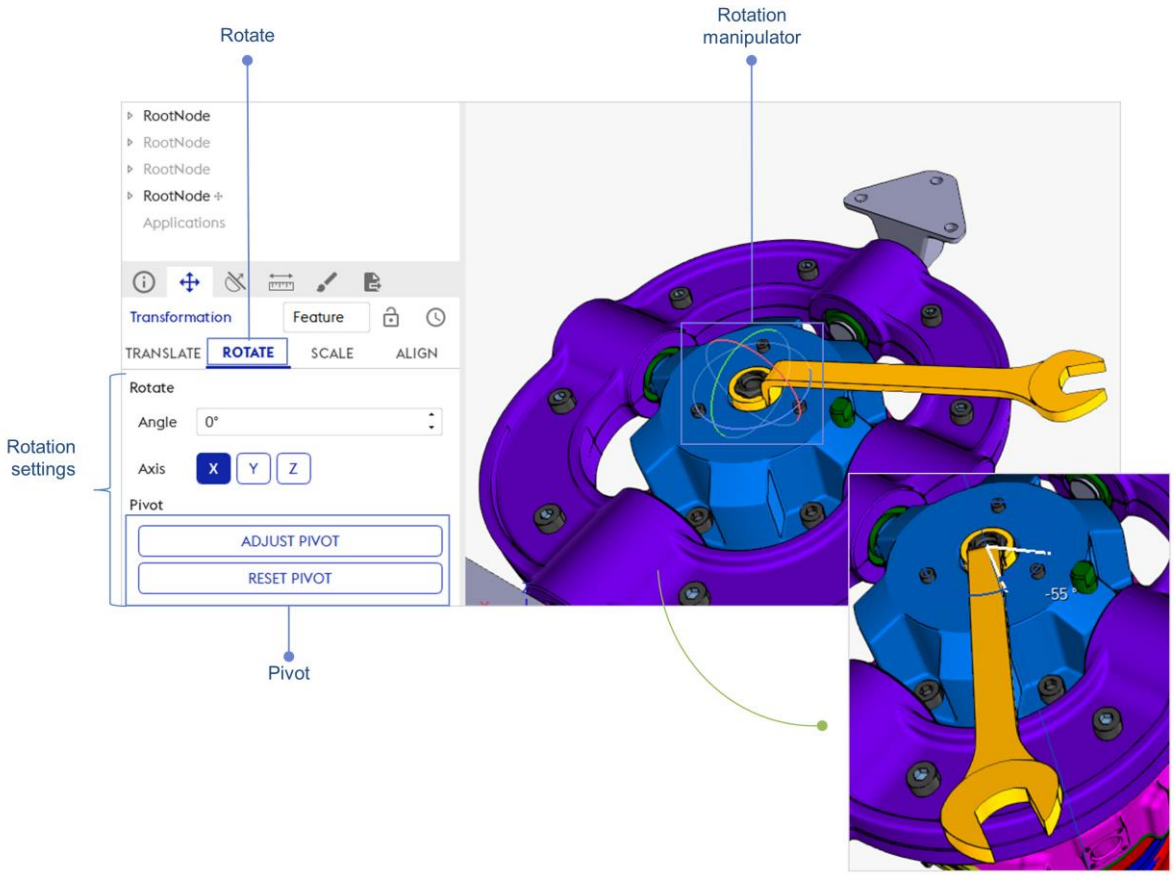

Transformation editor / Rotate - © Akka

Rotate: Spin designated element(s) around an axis using the Rotation Manipulator

Rotation Manipulator : Graphical handler to adjust the selected objects rotation; click-and-drag one of the axis circle to rotate.

Rotation settings: Select the specific *axis* on which an *angle* must be manually applied

Angle: Space (usually measured in degrees) between two intersecting lines or surfaces at or close to the point where they meet

Axis: Cartesian coordinate system indicating in which direction designated element will be moved (X, Y, Z - please refer to Orientation for more information)

6.2.2.1 - Adjust rotation pivot

The **Pivot** can be modified in order to adjust the objects rotation center precisely.

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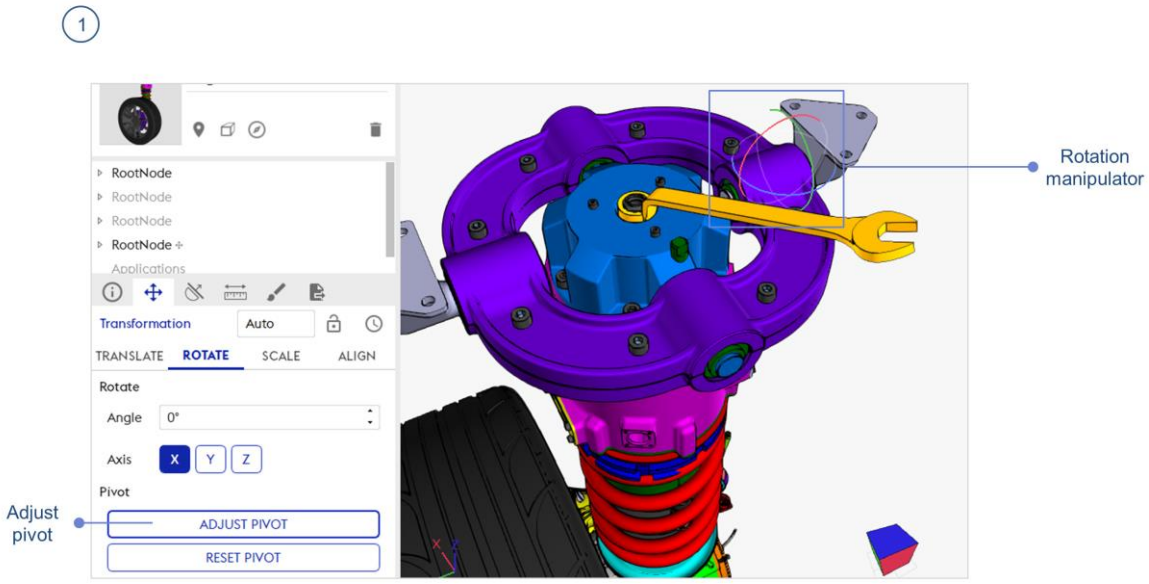
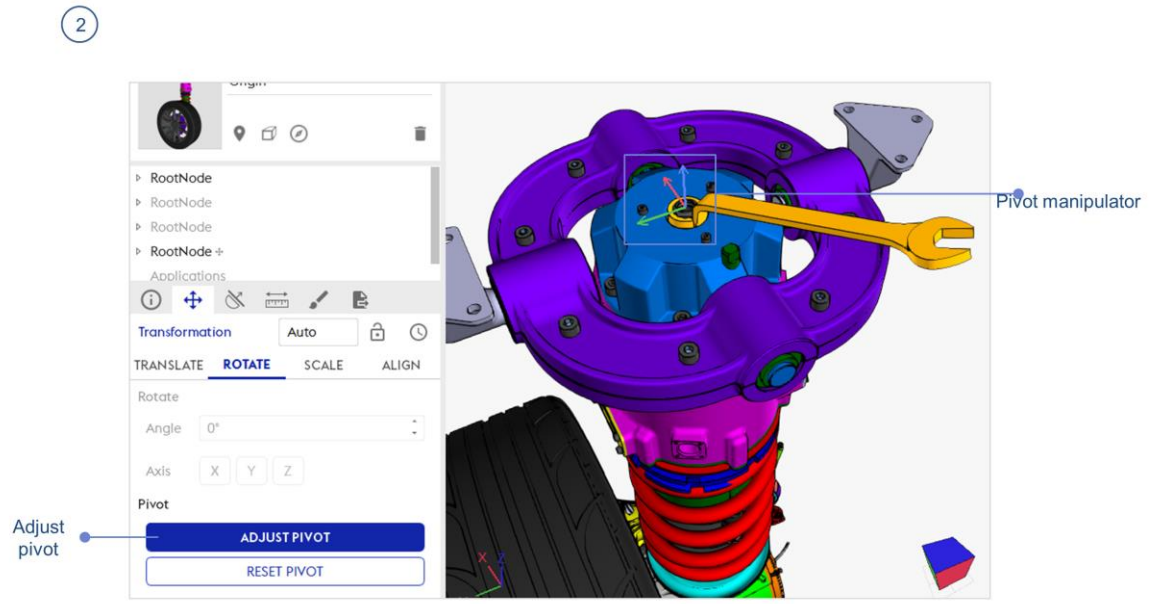


Transformation editor / Adjust rotation pivot - © Akka



Transformation editor / Adjust rotation pivot - © Akka

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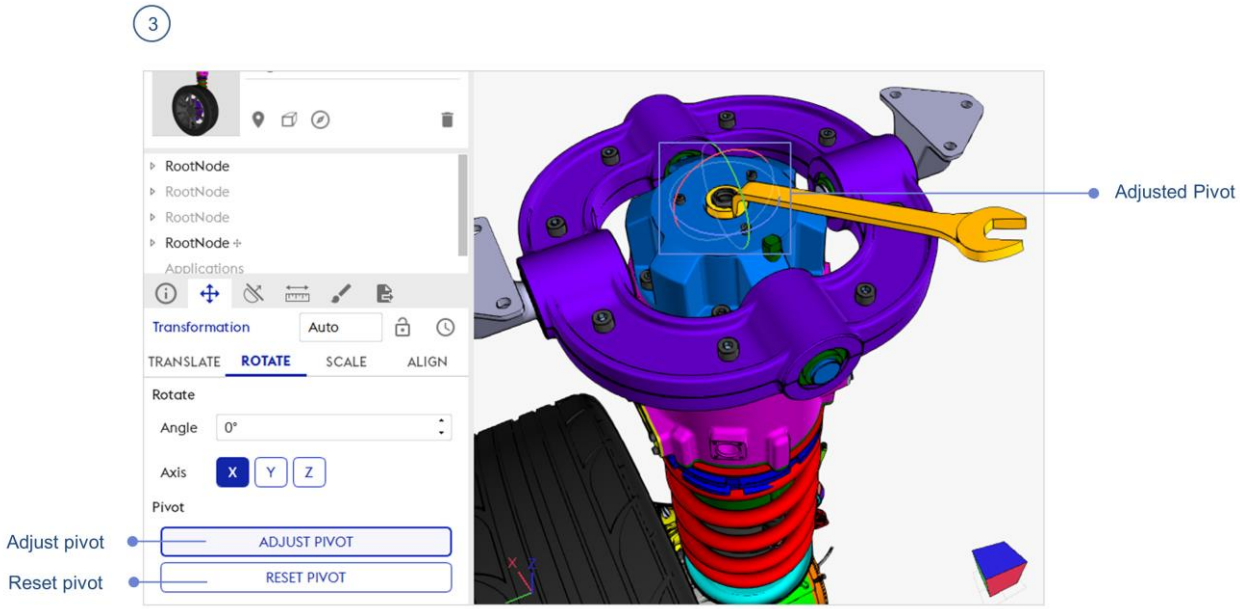

Transformation editor / Adjust rotation pivot - © Akka

Adjust Pivot: Select the function then move the Pivot frame, and validate the new position by clicking again on **Adjust Pivot**. Now, you can rotate the selected objects through this new point of reference.

Adjusted Pivot: Once the button **Adjust Pivot** has been clicked, the manipulator changes to allow to rotate the selected Object(s) around the new pivot."

Reset Pivot: Reset the Rotate Pivot to its initial position.

6.2.2.2 - Adjust rotation pivot using Feature reference system

The **Pivot** can be modified in order to adjust the objects rotation center precisely using Feature reference system.

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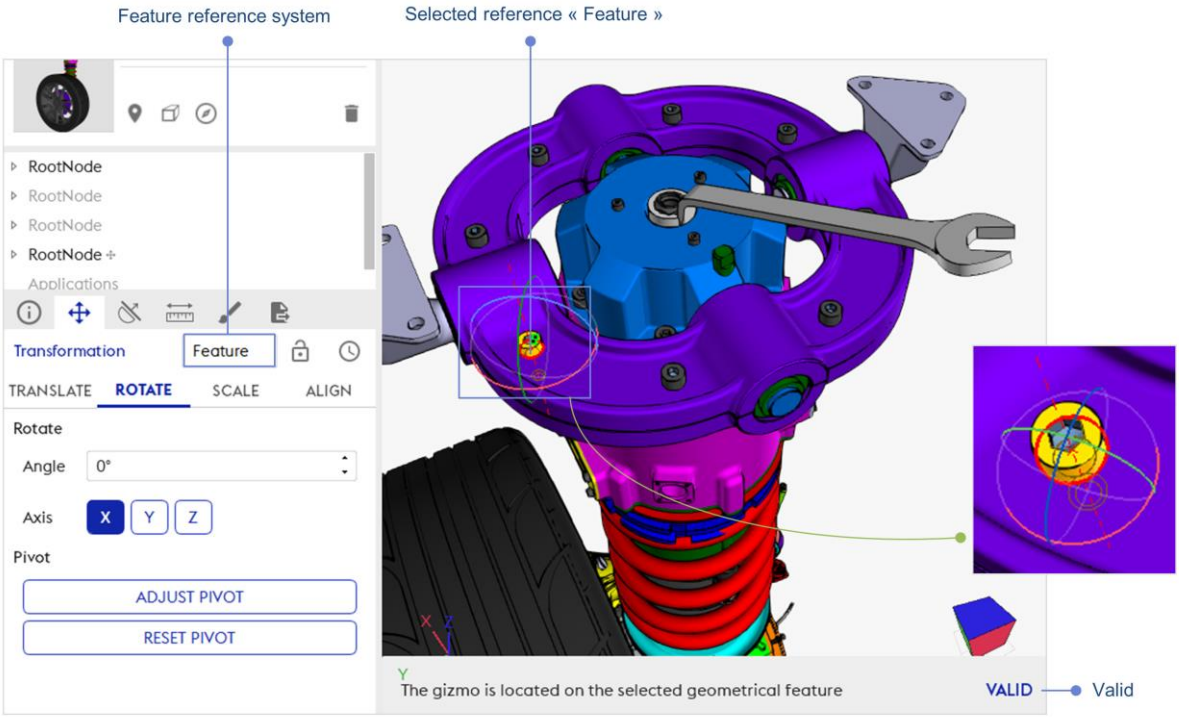


Adjust pivot / Feature reference system - © Akka

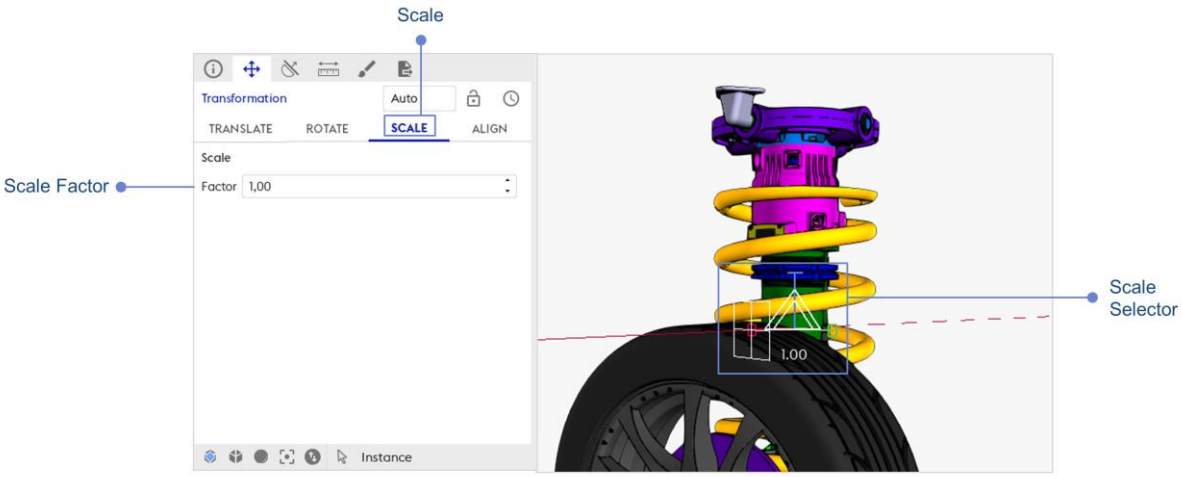
Feature reference system: Changing Reference system enables to configure the frame displayed. Select “Feature” in order to be able to use geometrical element of an object as reference. This will be used to adjust precisely the pivot or rotation of the selected object

Select Feature reference: Select in the 3D one geometrical element of an object (vertex, segment, faces or axis) to select its reference system

Valid: Confirm pivot adjustment; the rotation manipulator is now adjusted to the precise pivot

6.2.3 - Scale

The **Scale tool** enables to scale objects either uniformely.



Transformation editor / Scale - © Akka

Scale: Adjust objects size of a scale factor by using the Scale Selector.

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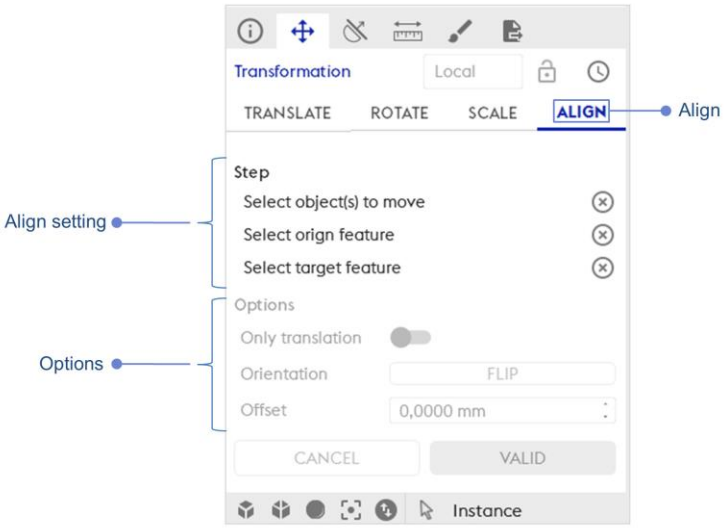
Scale selector: Graphical handler to adjust the scale; click-and-drag one of the axis handle to scale.

Scale factor: Input scale factor manually to adjust it precisely.

6.2.4 - Align

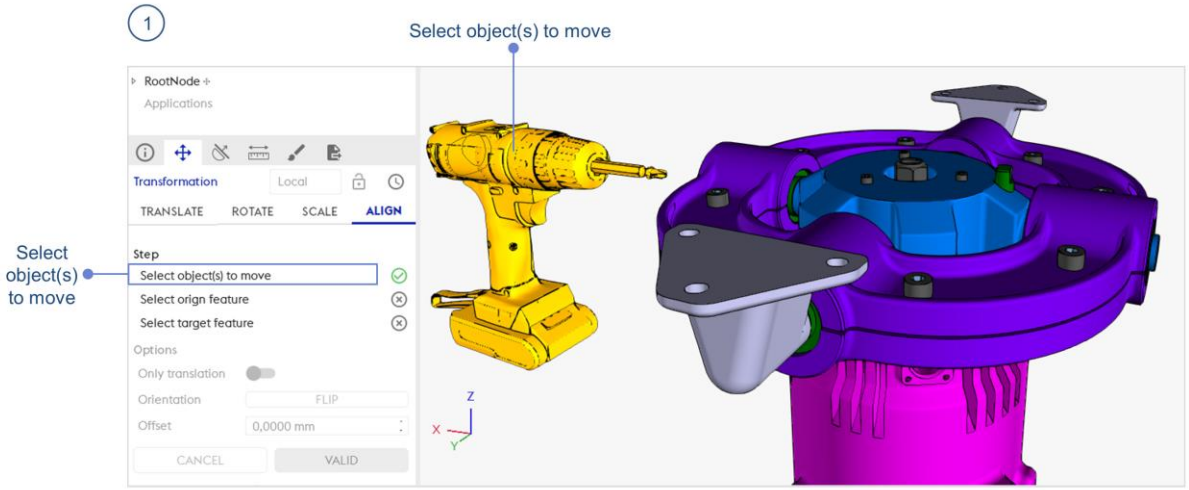
The align button allows you to align one object with another using one geometrical element (vertex, segment, faces or axis).



Transformation editor / Align - © Akka

Align settings: Align tool parameters.

Options: Align tool options.



Transformation editor / Align step 1 - © Akka

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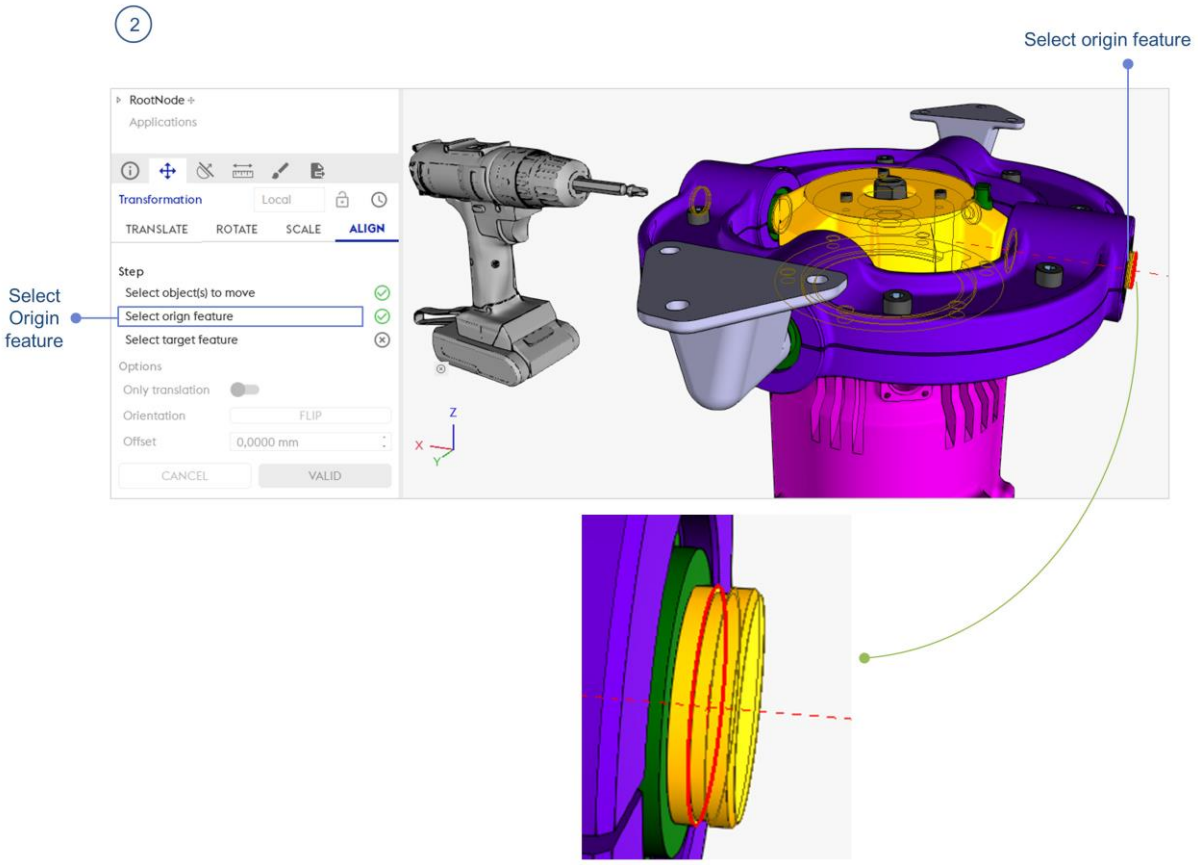
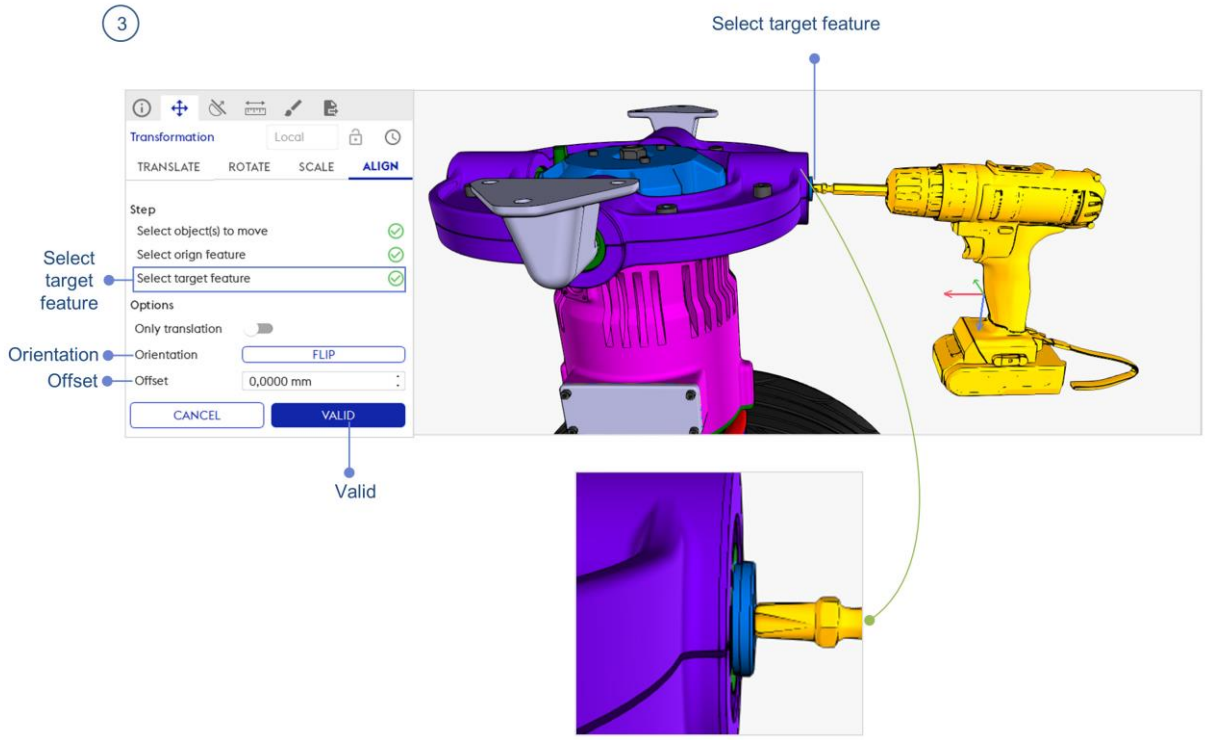


Transformation editor / Align step 2 - © Akka



Transformation editor / Align step 3 - © Akka

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Follow the next steps to align easily two objects:

Select object(s) to move: Select the object(s) to move

Select Origin feature: Select a geometrical element (vertex, segment, faces or axis) as reference element to align

Select target feature: Select a geometrical element (vertex, segment, faces or axis) as reference element to be aligned on

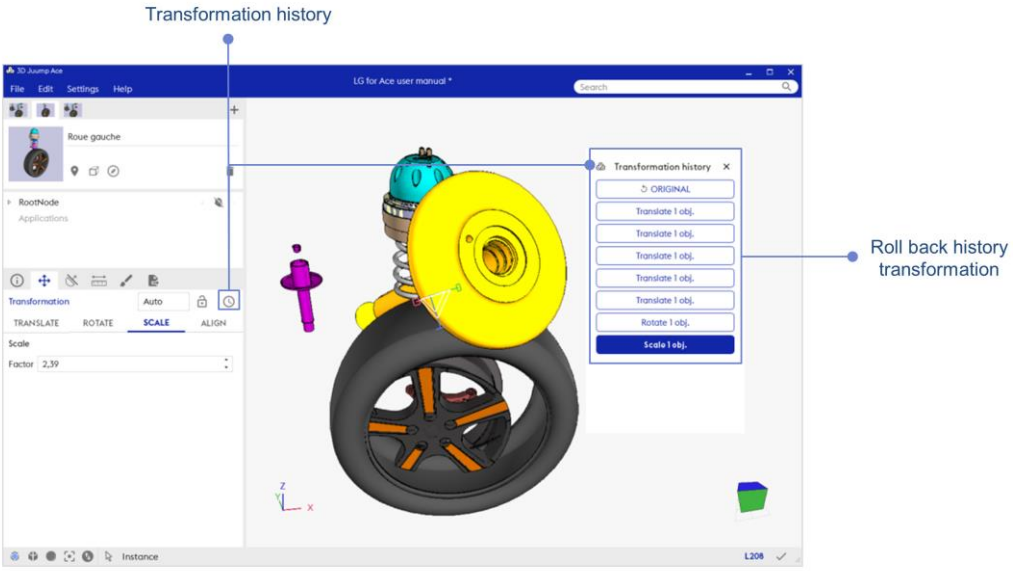
Orientation: Optionnaly, invert the orientation of the aligned object, if not appropriate at fist try

Offset: Optionnaly, adjust the aligned object along the axis of certain distance

Valid: Finalize the manipulation. You're ready for another alignement!

6.2.5 - Transformation history

The **Transformation history** contains the list of single transformation applied on objects by the user from the creation of the current view.



Transformation history example - © Akka

Roll back history transformation: Restore every object to the position they had after the corresponding move was performed by clicking on an element of the list

6.3 - Cut plane editor ●

The **Cut plane editor** enables the user to create and edit cut planes. Users can move and rotate cut planes freely in the scene and the set of objects which get cut through can be specified individually for each cut plane.

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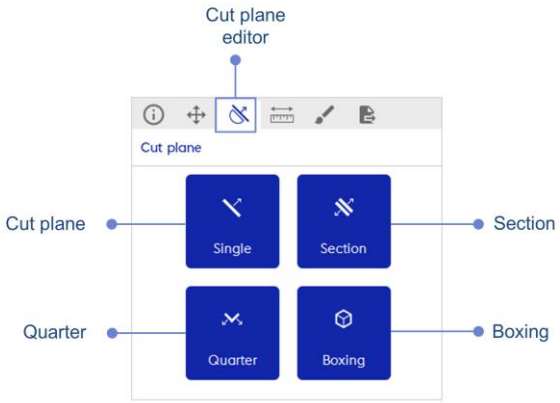


Cut plane editor - © Akka

Cut plane: Create a single cut plane performing a full section of the geometry

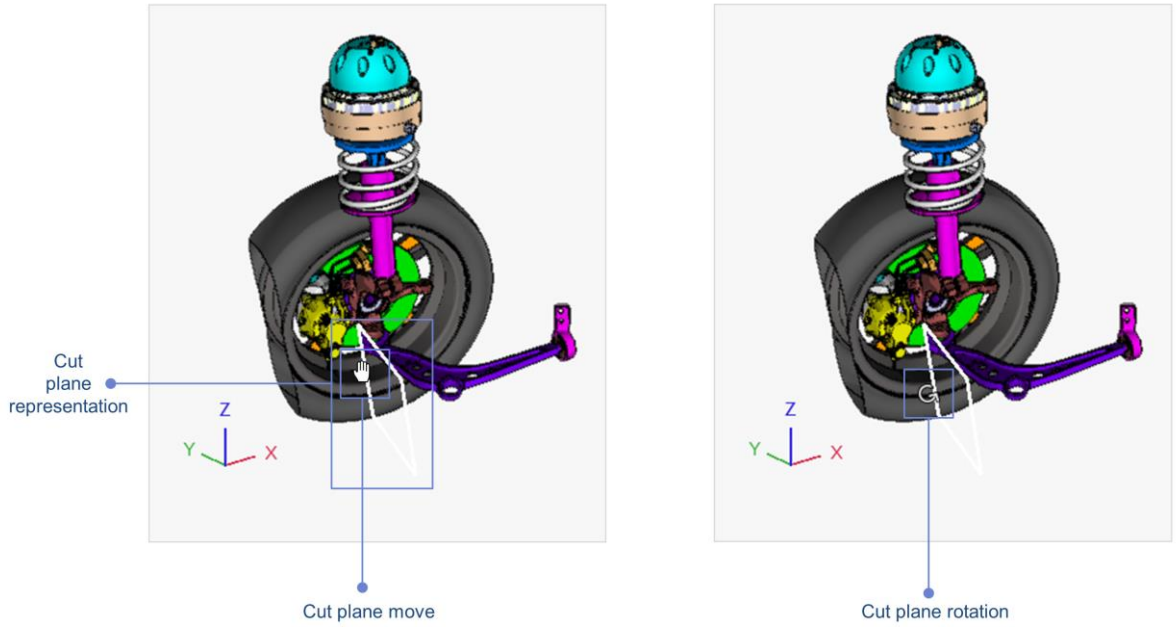
Section: Create a compound of two parallel cut planes isolating the geometry between them

Quarter: Create a compound of two orthogonal cut planes performing a quarter section of the geometry

Boxing: Create a compound of six cut planes forming a box

6.3.1 - Moving cut planes in the 3D view

The position and the orientation of a cut plane can be edited from the 3D view. Cut planes are graphically represented by squares or rectangles in the 3D view. The user can interact with these representations in order to select, move or rotate cut planes. Each graphical representation of a cut plane can be enabled or disabled from the Product structure view (see Section Applications data).



Cut plane representation, move and rotate - © Akka

Cut plane representation: Graphical representation of cut planes in the 3D view.

Cut plane move: Inside the graphical representation of a cut plane, click and hold the left mouse button while moving the mouse to drag the cut plane along its normal vector

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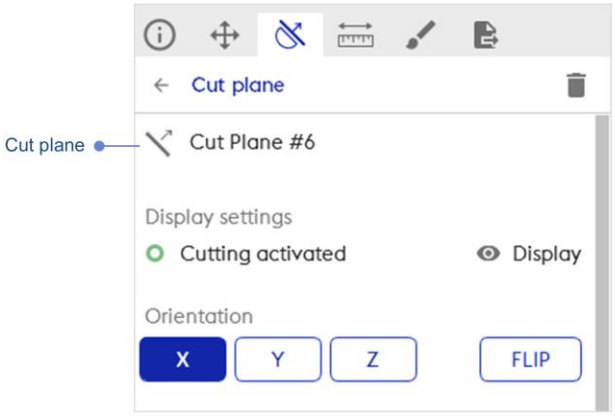
Cut plane rotation: On an edge of the graphical representation of a cut plane, click and hold the left mouse button while moving the mouse to rotate the cut plane.

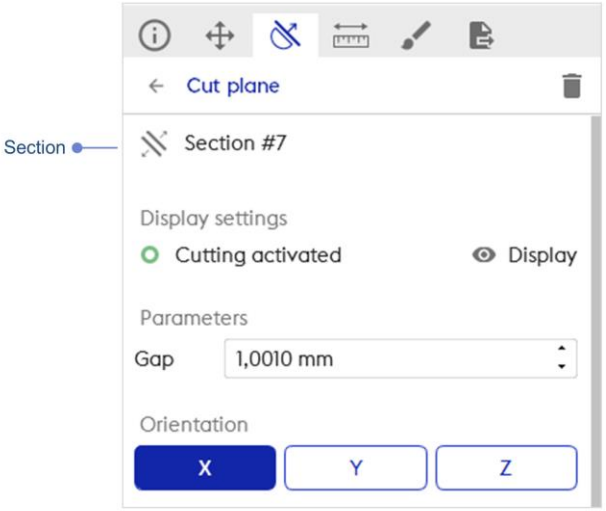
6.3.2 - Cut plane



Cut plane - © Akka

Cut plane: Create a single cut plane performing a full section of the geometry

6.3.3 - Section



Section - © Akka

Section: Create a compound of two parallel cut planes isolating the geometry between them

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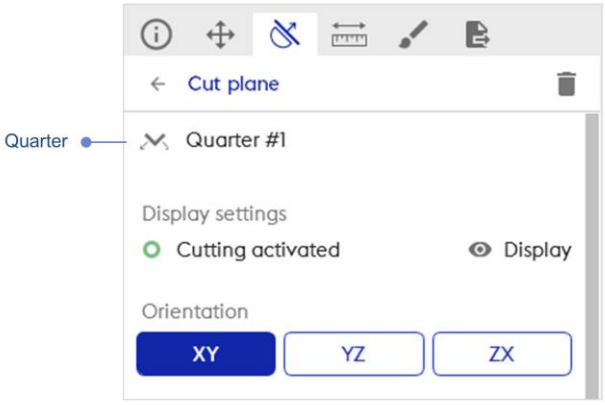
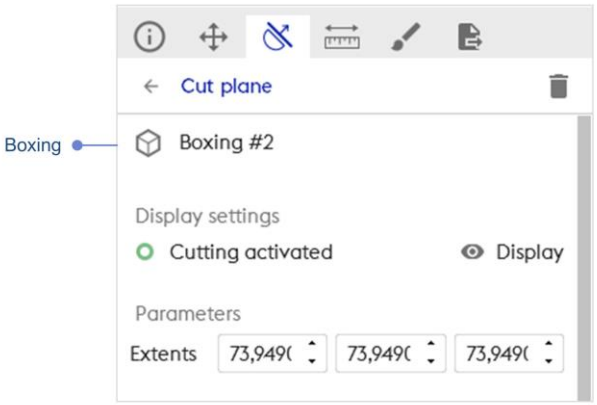
6.3.4 - Quarter



Quarter - © Akka

Quarter: Create a compound of two orthogonal cut planes performing a quarter section of the geometry

6.3.5 - Boxing



Boxing - © Akka

Boxing: Create a compound of six cut planes forming a box

6.3.6 - Editing cut plane

Selecting a cut plane in the 3D view or in the Product structure will make the cut plane editor become the active tool and the parameters of the selected cut plane will be editable in the Cut plane editor. Available parameters depends on the type of the cut plane. The definition of each parameter is detailed below.

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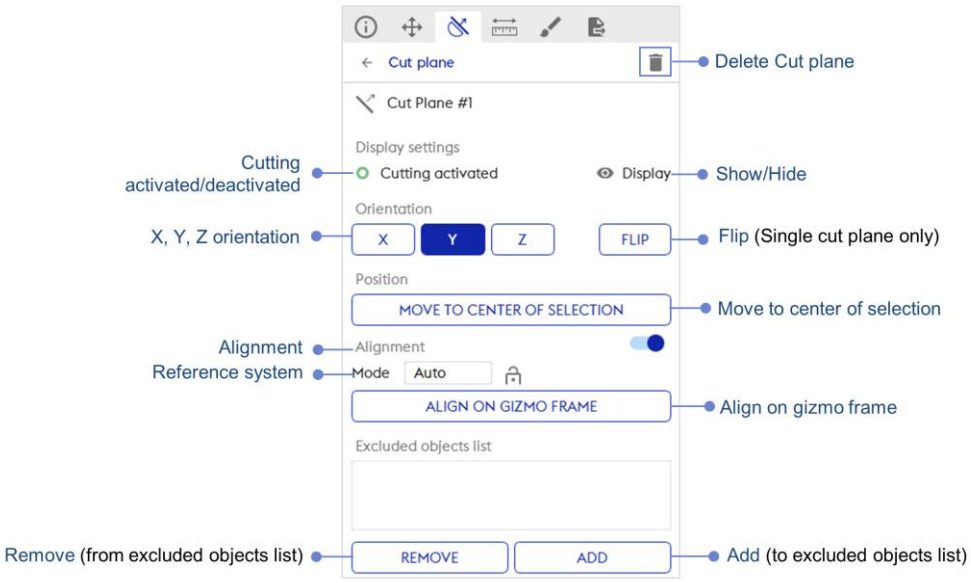

Cut plane edition / Parameters

Cutting activated/deactivated: Activate or deactivate the cut plane; when deactivated, a cut plane has no effect on the geometry of objects

X/Y/Z orientation: Select along which axis (x, y or z) the normal of the cut plane is aligned

Alignment: Alignment of the cutplane with the selected mark (world in this case)

Reference system: The Reference system enables to adjust more precisely the cut plane manipulator. For example, uou can use “Feature” and select a face in order to move the cut plan parallel to this face

Remove (from excluded objects list): Remove the selected objects from the list of objects getting cut

Add (to excluded objects list): Add the selected objects to the list of objects getting cut

The **Excluded objects list** is the list of the objects that shall not to be cut by the cut plane by default

Align to gizmo frame: Fix the orientation of the cut plane so that it gets aligned with the current frame; the current frame depends on the reference system (see Section Reference system and the currently selected objects

Move to center of selection: Center the cut plane and the current selection of objects

Flip (Single cut plane only): Flip the normal of the cut plane

Show/Hide: Display or hide the cut plane graphical representation in the 3D View

Delete cut plane: Manage cut plane, enabling to delete the selected cut plane

6.4 - Measurement tool

The **Measurement tool** allows the user to perform various types of measurements. By default, the Measurement tool enables to locate geometric features and their dimensions.

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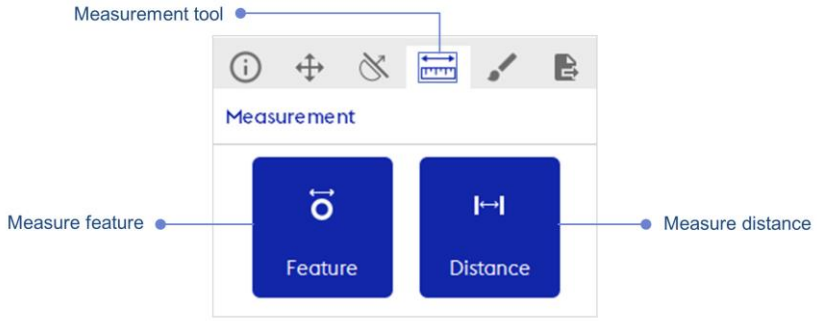
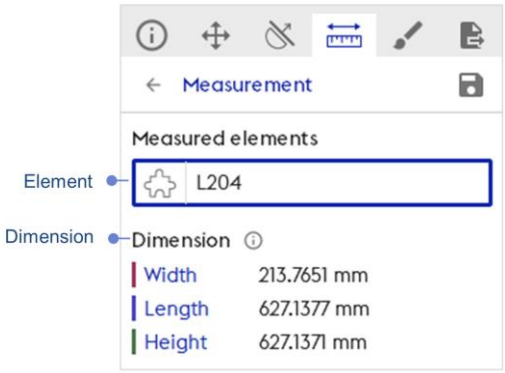


Measurements

⚠ **All measurement values are indicative and non-contractual**. All the reported values in the measurements tool have limited precision due to floating point round-off errors and the approximation made when using tesselated surfaces. In the estimation of measurement errors, the input data is considered to have absolute precision. In most cases, however, the input data is subject to floating point round-off errors, resulting from inaccuracies in geometric transformations or clamping in the source file data format. Thus, **any measurement error computed by 3D Juump Ace may differ from its actual value**.

6.4.1 - Measure feature

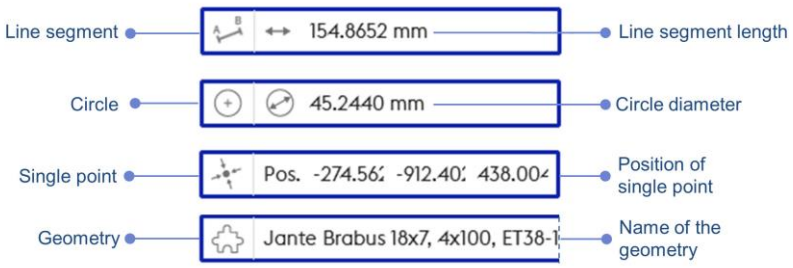
When the Measurement tool is active, clicking on an object with the left mouse button in the 3D view will select it. Toggling option to *Measure item* indicates a single element measures.



Measurements - Measure feature

Element: It can be a line, a circle, a single point, a geometry

Dimension : box dimension providing the **width**, **lenght** and **height**.



Measurements - Type of element to mesure

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Line segment: Edge with the shape of a straight line on the surface of an object; available measurements: length of the line segment

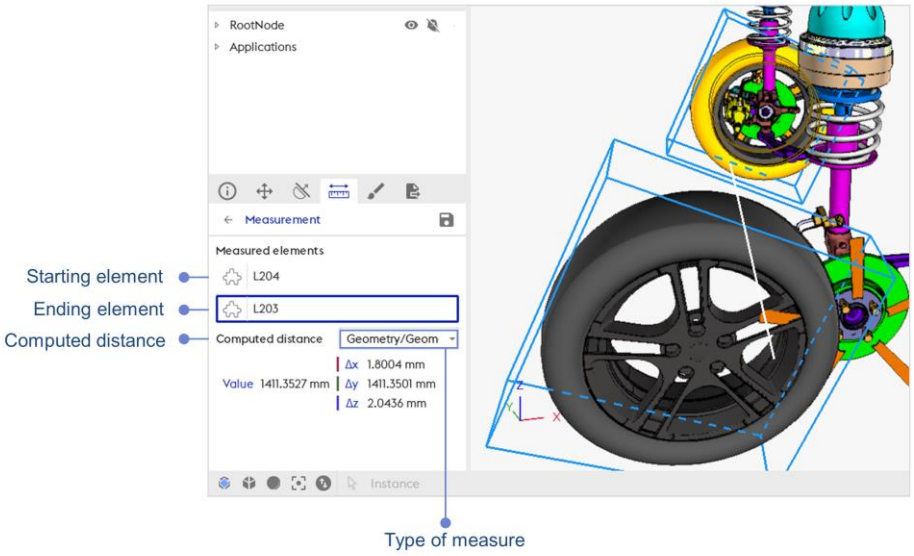
Circle: Edge with the shape of either a full circle or a circular segment on the surface of an object; available measurements: diameter, angle measure of the arc and center of the circle

Single point: Salient point on the surface of an object; available measurement: position of the point in the scene.

Geometry: 3D object

6.4.2 - Measure distance

When the Measurement tool is active, clicking on an object with the left mouse button in the 3D view will select it. Toggling option to *Measure distance* computes the minimum distance between this element and any other designated geometric feature (object, circles or single points).



Measure distance - © Akka

Starting element: Initiate the measure by selecting the origin element in the 3D view (either a geometry, a point or a feature)

Ending element: Close the loop of the measure by selecting the destination element in the 3D view (either a geometry, a point or a feature)

Computed distance: Display computed distance

Type of measure: Depending on the characteristics of the selected elements, several types of measure may be available to chose from. For instance, when one of the selected element is a circle feature, it is possible to measure either from its center or from the nearest point on the circle:

- Point: measure to/from the selected point,
- Line: measure to/from the nearest point on a line,
- Center: measure to/from the center of a circle,
- Circle: measure to/from the nearest point on a circle,
- Axis: measure to/from the nearest point on an axis (the axis of a circle for instance),
- Plane: measure to/from the nearest point on a plane (the plane of a circle for instance),
- Geometry: measure to/from the nearest point on a geometry object

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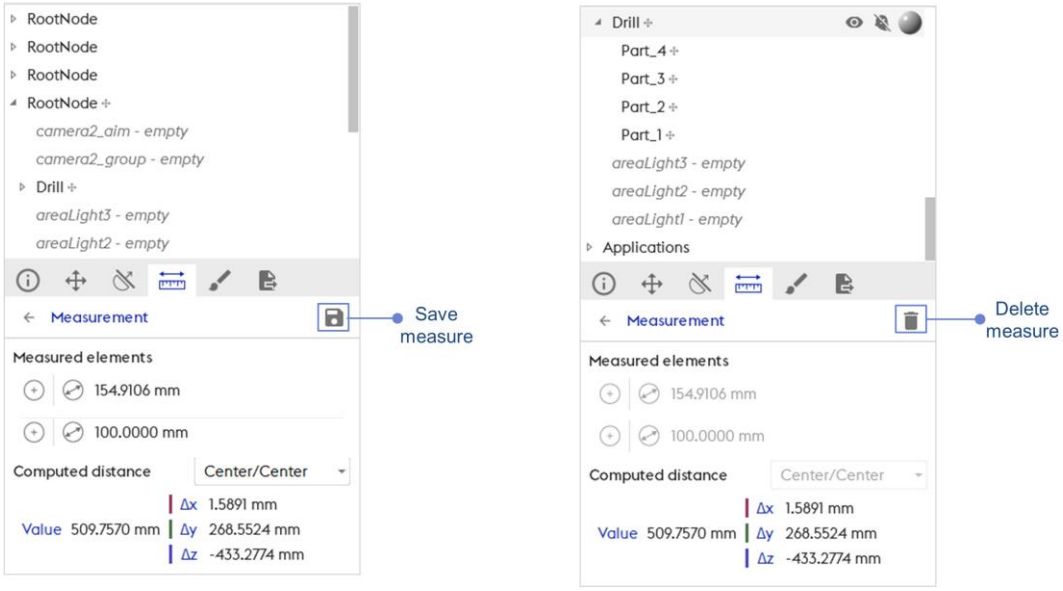
- Box: measure to/from the nearest point of a box (the bounding box of a geometry for instance).

6.4.3 - Save and delete measures

It is possible to save the measurements in the application data.



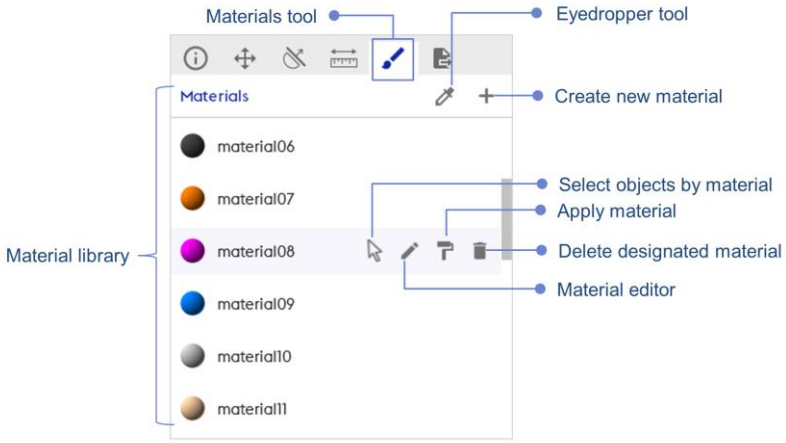
Save and delete measures - © Akka

Save measure: measure saved on application data in the product struture view box

Delete measure: delete the designated measure; in the Product structure, a right click on the designated measure pops-up a menu enabling to delete it

6.5 - Material tools

The **Material tools** define the appearance of objects in the 3D view.



Material tools

Material library: Exhaustive list of the available materials of the current project

Eyedropper tool: Select material in the 3D view and display in the Material editor

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Create new material: Create a new material at the bottom of the Material editor list; the new material appears at the bottom of the *material library*

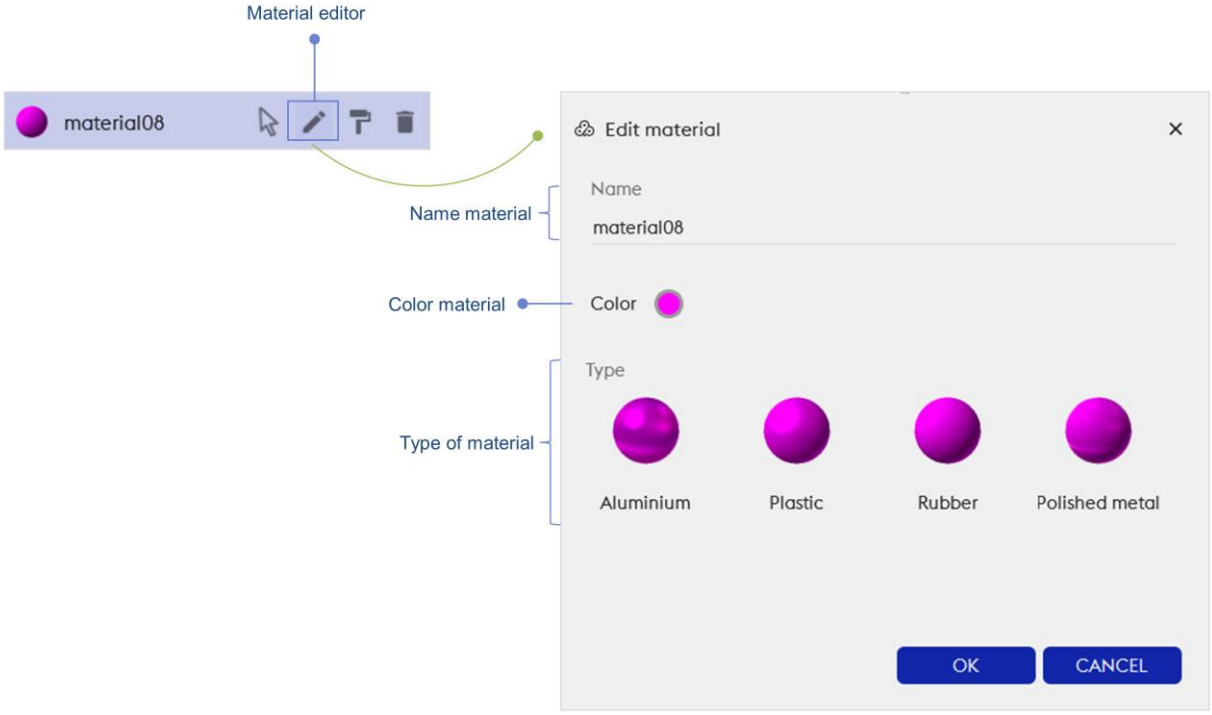
Overflying a material, the user can:

Select objects by material: Select all objects of the designated material

Apply material: Apply designated materials to the element(s) formerly selected in the 3D view

Delete designated material: Delete the designated material

Material editor: Modify the features of the designated material in the Material editor



Material editor

Name material: Edit name of the current material

Color material: Indicate the color of the material currently selected and enable its modification

Type of material: Edit the type of material, choice is given between aluminium, black plastic, rubber or polish aspects

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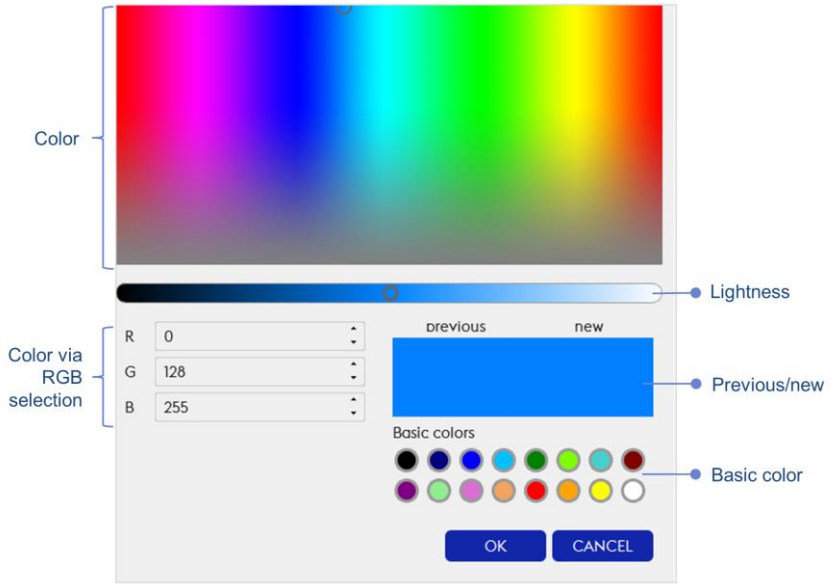


Color material

Color: Edit color of the designated material

Color via RGB selection: Choose a color using RGB color code

Lightness: Edit lightness of the designated material

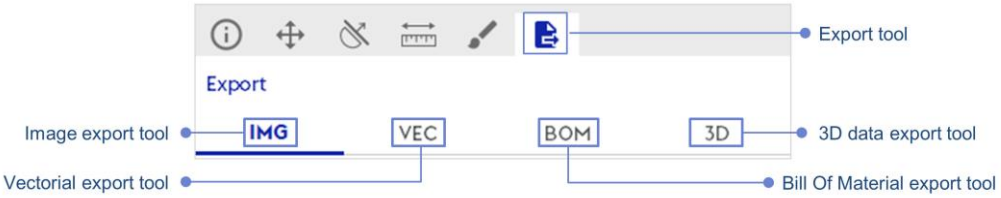
Previous/next: Compare previous color to the new one you wish to apply

Basic color: Quickly choose a basic color to apply

Materials modifications are applied and saved to the view currently displayed only. Each view is Material independant from the other.

6.6 - Export tool

The **Export tool** allows to export the content of the current project to different file types. The nature of the exported content can be selected in the top bar menu of the Export.



Export tool - formats

Image export tool: Export a picture that has been created or captured in electronic form

Vectorial export tool: Export digital images created through a sequence of commands or mathematical statements that place lines and shapes in a given two-dimensional or three-dimensional space

Bill Of Material export tool: Export a list of the available metadatas

3D data export tool: Export data that provide the perception of depth

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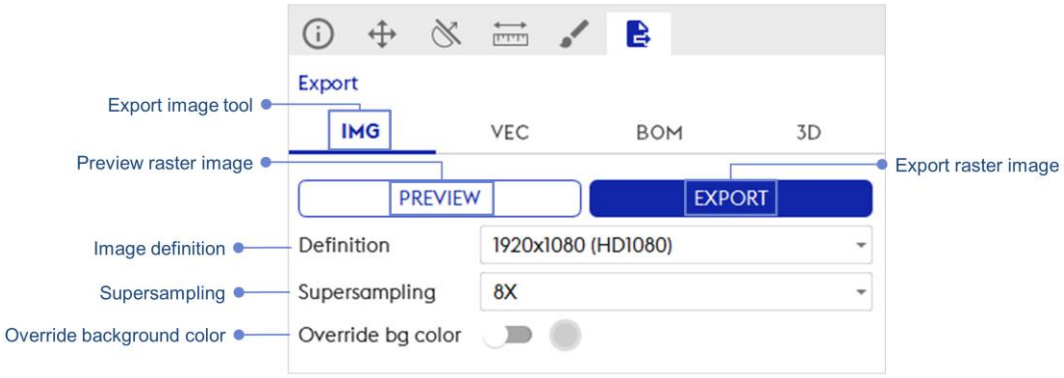
6.6.1 - Image export tool (IMG)

In the **Image export tool (IMG)**, the user can modify export options.



Export raster image

Preview raster image: Enable to visualize criterias applied before exporting raster image

Export raster image: Enable to directly export raster image (bitmap) in PNG, JPG or TIFF format

Image export reflects objects effectively loaded in the 3D view.

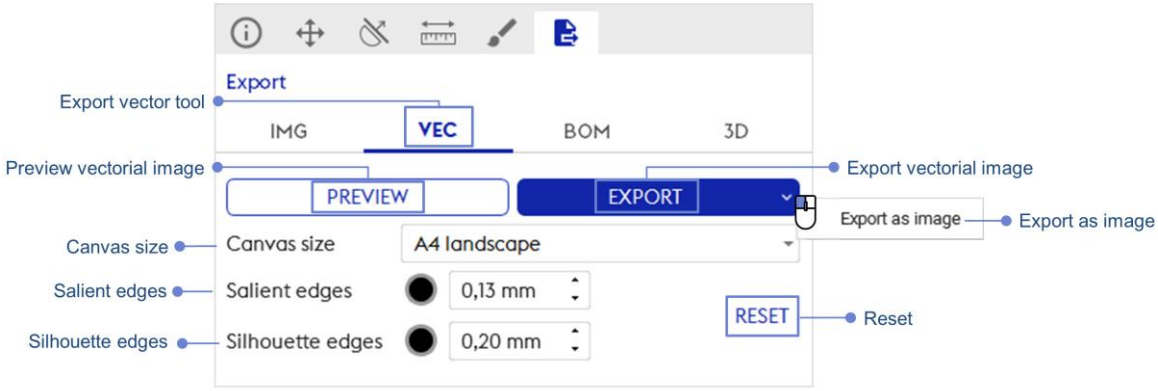
Image Definition: Output size of the raster image

Supersampling: Number of samples per pixel (larger value = better quality)

Override background color: When the option is activated, edit the background color for the export only

6.6.2 - Export vectorial tool (VEC)

In the **Export vectorial tool (VEC)**, the user can configure the vector image output.



Export vector image

Preview vectorial image: Enable to visualize criterias applied before exporting vectorial image

bom

Export vectorial image: Enable to directly export vectorized images in SVG or DXF format

Under DXF format, salient and/or silhouette edge modifications WILL NOT be exported

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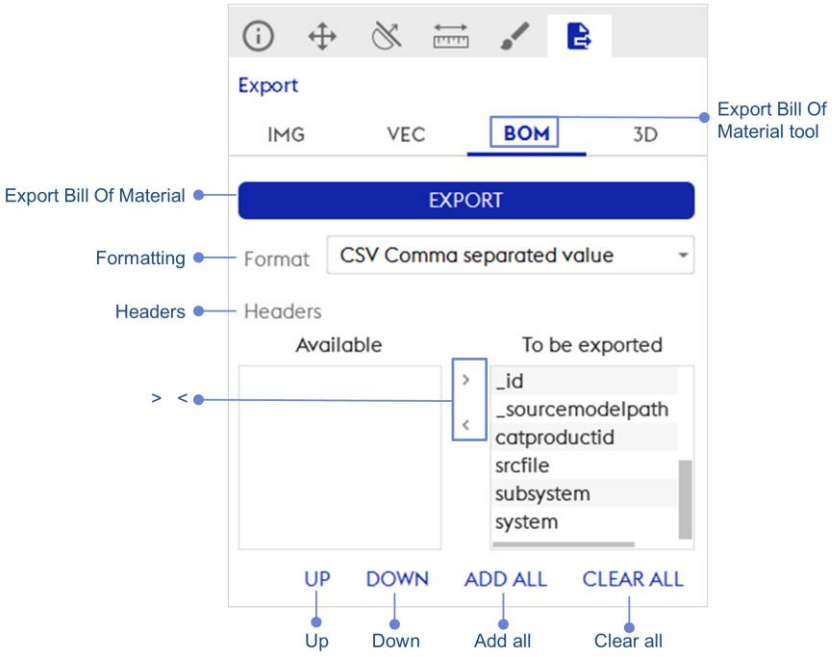
Export as image: Enable to directly export image in JPG, PNG or TIFF format

Reset: Restore default settings of export

6.6.3 - Export Bill Of Material tools (BOM)

In the **Export Bill Of Material tools (BOM)**, each object can be exported as a CSV file. Export options for text data are available in the BOM settings panel.



Export Bill Of Material

Export Bill Of Material: Enable to export text data of objects in CSV format

Formatting: CSV export format; 2 available formats: CSV (Comma Separated Value), CSV French version (semi-colon separated value)

Headers: At the bottom of the BOM settings panel, the user can select which text field should be exported in the CSV file

>: add the selected 'Available' metadata in the list of metadata to be exported

<: remove the selected 'To be exported' from the list of metadata to be exported

Up / Down: Move up/down the selected 'To be exported' metadata, to reorder list of metadata to be exported

Add all: Add all 'Available' metadata in 'To be exported' list

Clear all: Clear the 'To be exported' list of metadata

6.6.4 - Export 3D data tool (3D)

The **Export 3D data tool (3D)** shows the options for exporting geometry of the project in a 3D file format, where the user can choose between the simplification settings.

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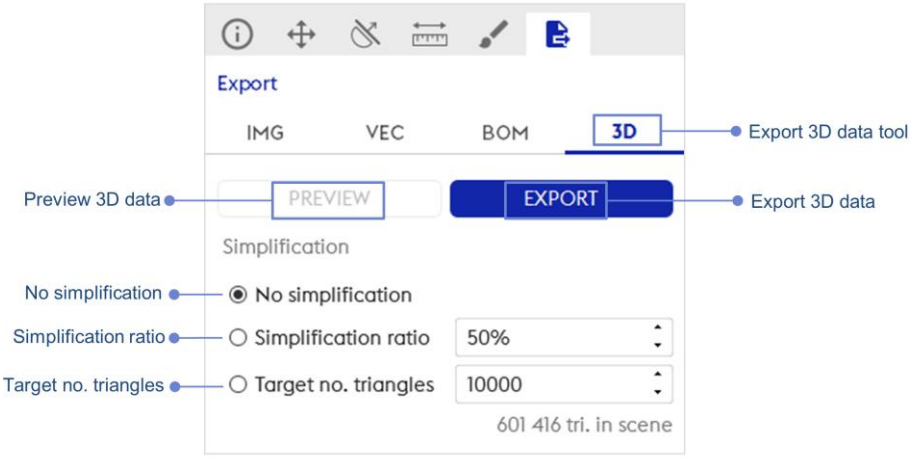


Export 3D data

Preview 3D data: Enable to visualize criterias applied before exporting geometries

Export 3D data: Enable to directly export geometries in Autodesk FBX, JT, OBJ, STEP, STL binary, VRML97, VRML97 Compressed, 3DS, DAE (Collada files), GLTF 2 ●, GLB (GLTF 2 binary) ●

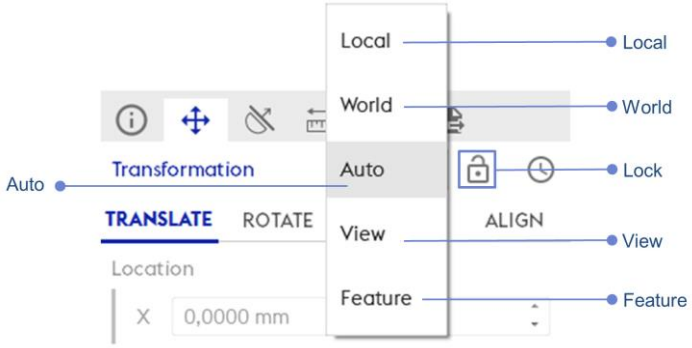
No simplification: The geometry will be exported without simplification (same amount of triangle than initially loaded at import)

Simplification ratio: The geometry will be simplified so that the final number of triangles will not exceed a the input fraction,in percentage, of the original number of triangles lodaded at import

Target no. triangles: The geometry will be compressed so that the final number of triangles will not exceed the input amount of triangle

6.7 - Reference system ●

Reference system : The Reference system enables to configure the frame displayed when the Transformation editor, Cut plane editor or World orientation is activated.



Reference system

The available reference systems are listed below:

Local: Select the local referent system of the currently selected element

World: Select the world referent system

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Auto: Compute a referent system aligned with the current set of selected elements (by default and recommanded)

View: Select the screen ; limited to the 2D of the screen.

Feature: sets the mark on the axis, line or point. ●

Lock: Fige the marker in the plane ●

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Program settings

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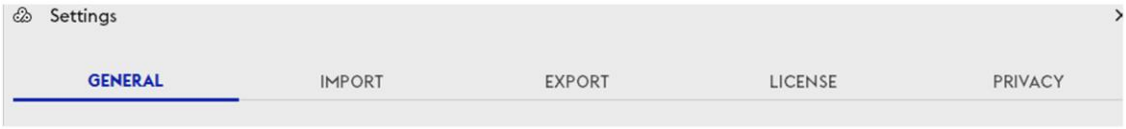
The **Program settings** is the control panel that enables the user to configure the appearance or actions of the application.

It can be opened by clicking on the **Settings** entry in the top menu bar of 3D Juump Ace.



General settings

General: General settings of the 3D Juump Ace, including technical and aspect parameters

Import: Settings of CAD and 3D data import

Export: Export settings used by default by Export tools

License: License manager; provide status and installation of licenses

Privacy: Legal information and parameters about your personnal data and privacy policy

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1 - General settings

The *General settings* enables to configure the display for optimal rendering performance on his computer, depending on its hardware and drivers configuration. It allows the user to manage the unit and number of decimals in the application settings for all metric value displays. Will appear in the tools for transformations (translate, align) and 3D displacements, measurements (which once saved are displayed in the PS under Applications -> measures) and for cut planes. They can let you adjust the cache size and folder location on your computer. Be careful, these parameters can modify 3D Juump Ace behaviour and performances.

1.1 - Rendering engine

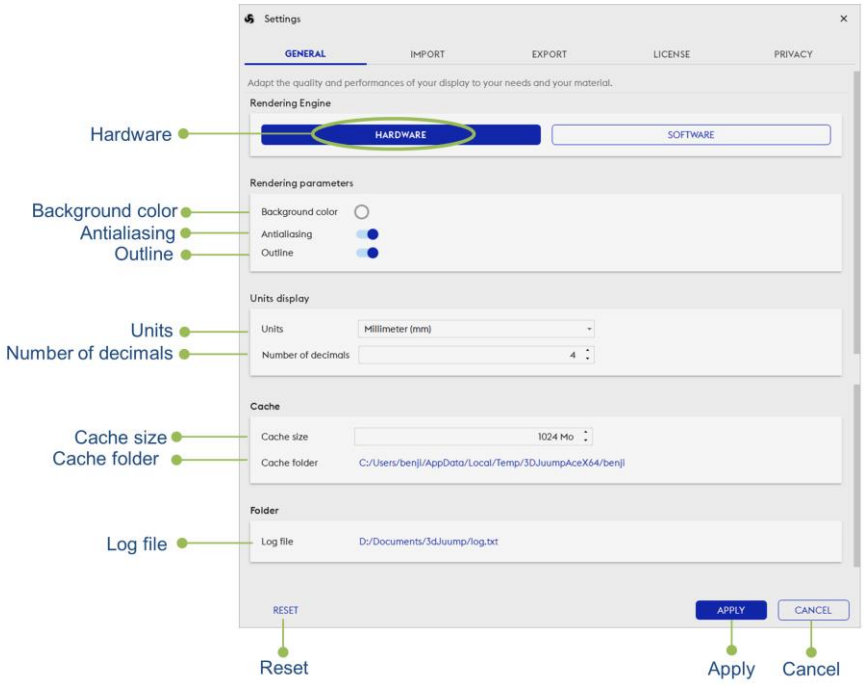
The user can choose either the *Hardware* renderer or the *Software* renderer for display. Please also refer to Renderer management.

Hardware renderer: If a graphics card is available on the host computer, the hardware renderer is the recommanded choice since it is likely to provide the best performance.

Software renderer: If the display hardware is not supported by the hardware renderer, the user can switch to the software renderer which does not make use of the graphics card.

In general, the Software renderer provides less performance than the Hardware renderer, except on low-range or integrated graphics hardware. In those cases, if the rendering performance is insufficient with the hardware renderer, the user may get better results by switching to the software renderer.

1.2 - Hardware renderer



General settings / Hardware renderer

1.2.1 - Rendering parameters

Background color: The color of the background; it is possible to set a transparent color for screenshots (only supported in the PNG file format)

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Antialiasing (Hardware renderer only): makes rendering smoother at a small performance cost

Outline: sketchs the outline of elements

1.2.2 - Units display

Units: Select the unit to use between milimeter, centimeter, meter or inch

Number of decimals: Select the number of decimal to display

1.2.3 - Cache

Cache size: The size of the disk cache; for a better experience, it is advised to set an amount of disk space of at least 1Go

Cache folder: The folder used for cacheing models on the HDD

1.2.4 - Folder

Log file: The path to the log file; the log file contains information on the various events that occur during the execution of the program

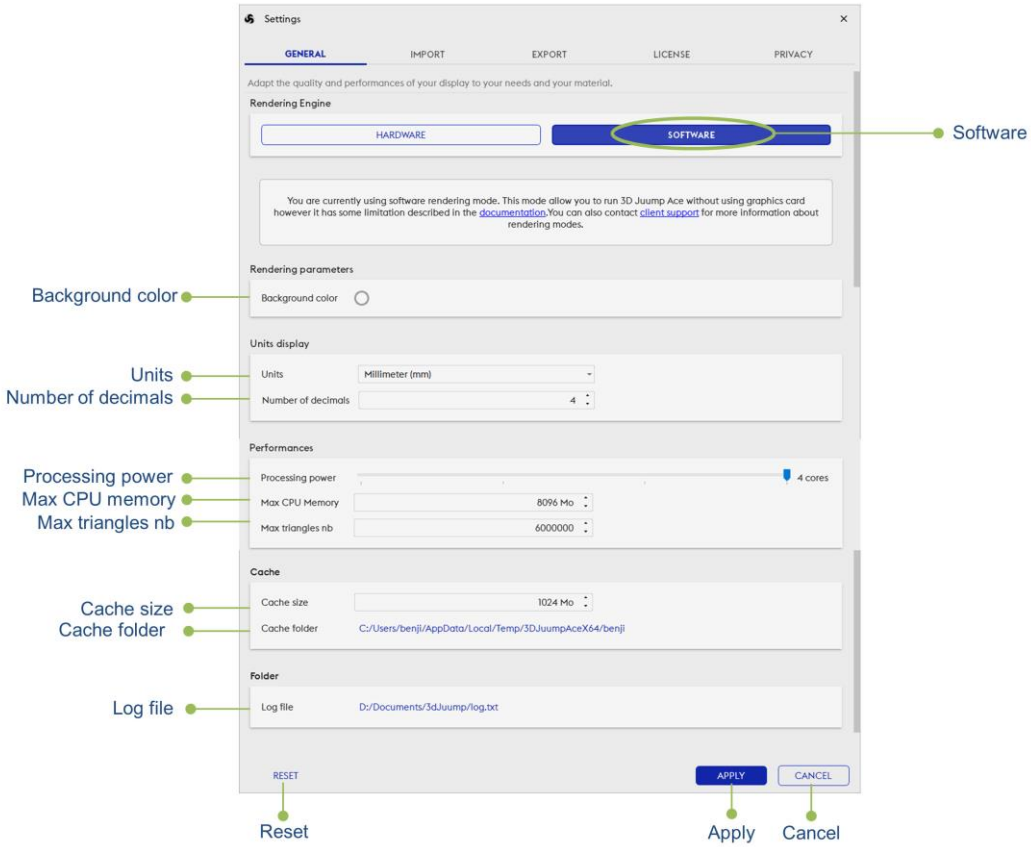
1.2.5 - Save and cancel settings

Reset: Restore default settings

Apply: Perform settings modifications operated since last application

Cancel: Cancel settings modifications operated since last application

1.3 - Software renderer



General settings / Software renderer

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1.3.1 - Rendering parameters

Background color: The color of the background; it is possible to set a transparent color for screenshots (only supported in the PNG file format)

1.3.2 - Units display

Units: Select the unit to use between milimeter, centimeter, meter or inch

Number of decimals: Select the number of decimal to display

1.3.3 - Performances

Processing power (Software renderer only): the number of threads used for display; set to the number of cores of the host CPU for the best performance

Max CPU memory: The maximum amount of memory than can be used by the software to store geometric data; higher value leads to better performance on large scenes with many objects

Max triangles nb: The maximum amount of triangles that can be displayed on a single frame

1.3.4 - Cache

Cache size: The size of the disk cache; for a better experience, it is advised to set an amount of disk space of at least 1Go

Cache folder: The folder used for caching models on the the hard disk drive of the computer, used by 3D Juump Ace for an efficient processing of large models

1.3.5 - Folder

Log file: The path to the log file; the log file contains information on the various events that occur during the execution of the program

1.3.6 - Save and cancel settings

Reset: Restore default settings

Apply: Perform settings modifications operated since last application

Cancel: Cancel settings modifications operated since last application

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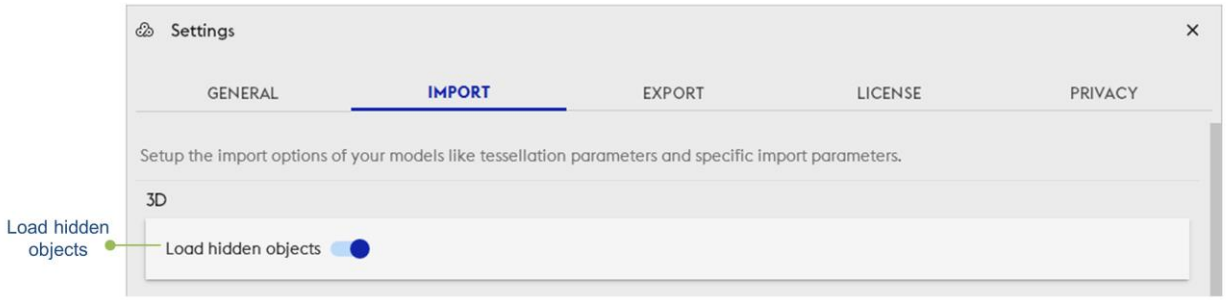
2 - Import settings

The **Import settings** panel gives the user control on how the data of CAD files is imported in 3D Juump Ace.

2.1 - Import 3D settings - 3D

3D section is relative to general parameters when importing 3D data.



Import settings / Load hidden objects

Load hidden objects: Allowed to import hidden objects.

In the case of a ProEngineer file import, external references load existing latest version.

2.2 - Import 3D settings - Tessellation

Some CAD files contain native (parametric) surfaces definitions. These surfaces must be converted to polygons for 3D Juump Ace to display them. The 3D category of the Import settings panel allows the user to modify the parameters used for surface tessellation. For most users, the default tessellation settings should work for all CAD files. They are configured to generate well-balanced meshes providing satisfying visuals for a moderate number of triangles. Only users with advanced knowledge of what these parameters do should try and fix them, as they can decrease either the visual quality or the rendering performances of the surfaces.

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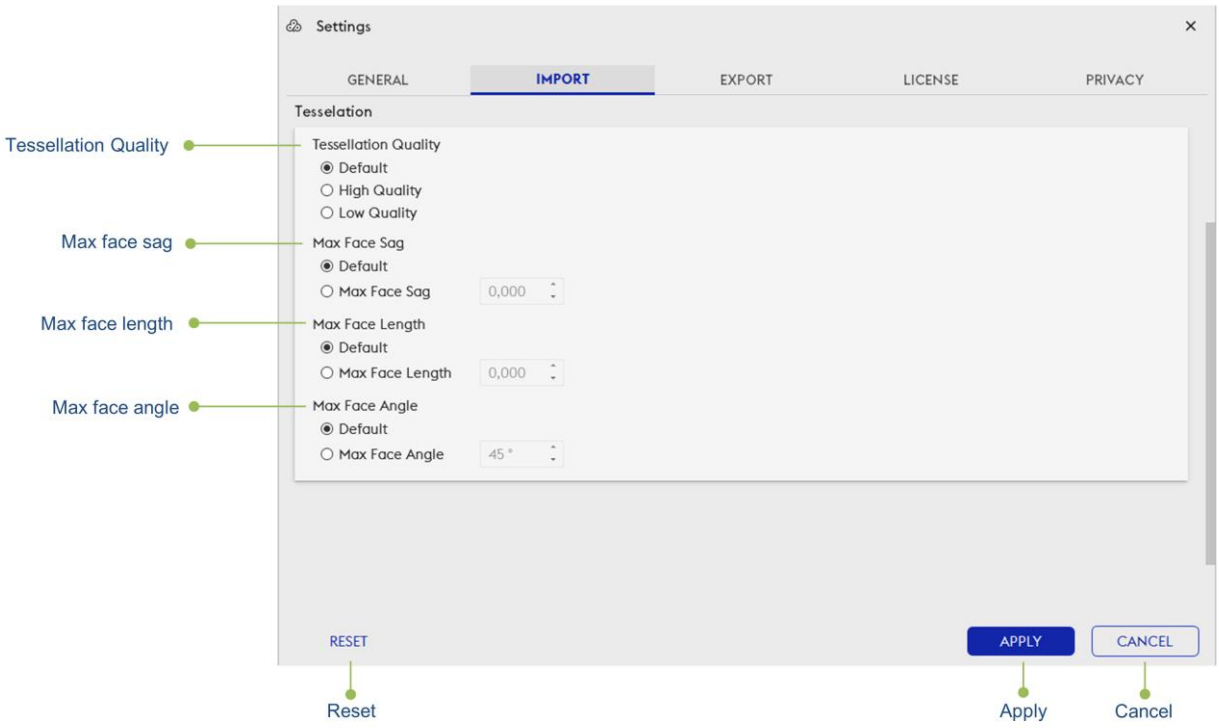

Import settings / Tessellation

Tessellation quality: Selection of heuristic tessellation. *Default* is the recommanded parameter. *High quality* will increase the number of triangle thus the quality and the size of the data. *Low quality* will reduce the number of triangle thus the quality and the size of the data.

Max face sag: Maximum allowed distance between the planar approximation polygon and the surface. This parameter ensures that mesh is similar enough to the original analytical surface (or the polyline is similar to the original curve). *Default* is the recommanded parameter.

Max face length: Maximum allowed size of the approximation polygon (for triangulations it can be maximum allowed length of triangle sides). This parameter ensures enough detail for further analysis. *Default* is the recommanded parameter.

Max face angle: Maximum allowed angle between two adjacent approximation polygons (on the same face). This parameter ensures that even very small humps or hollows that can have significant effect to analysis will not disappear in mesh. *Default* is the recommanded parameter.

Reset: Restore default settings

Apply: Perform settings modifications operated since last application

Cancel: Cancel settings modifications operated since last application

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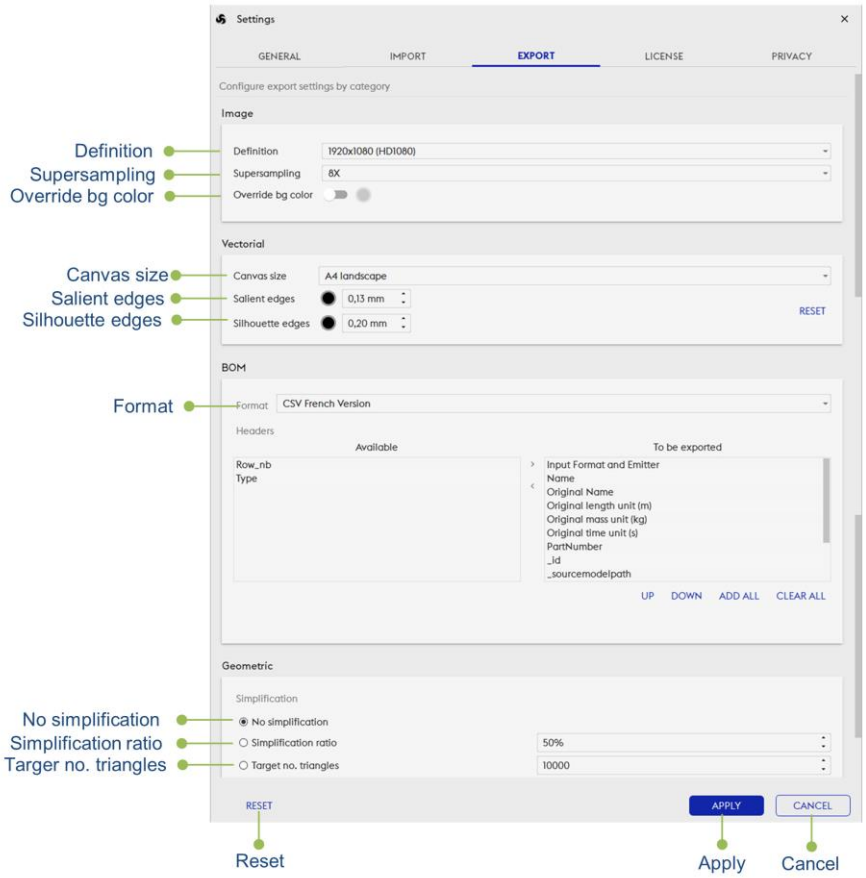
3 - Export settings

The **Export settings** panel gives access to the default parameters use by export tools.



Export settings

3.1.1 - Image

Definition: Default output size of the raster image

Supersampling: Default number of samples per pixel (larger value = better quality)

Override background color: Default background color when activated; edit the background color for the export only

3.1.2 - Vectorial

Canvas size: Default target image size and format

Salient edges: Default color and thickness of salient (crease) edges

Silhouette edges: Default color and thickness of silhouette edges

3.1.3 - BOM

Format: Default CSV export format; 2 available formats: CSV (Comma Separated Value), CSV French version (semi-colon separated value)

3.1.4 - Geometric

No simplification: The geometry will be exported without simplification (same amount of triangle than initially loaded at import)

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Simplification ratio: The geometry will be simplified so that the final number of triangles will not exceed a the input fraction,in percentage, of the original number of triangles lodaded at import

Target no. triangles: The geometry will be compressed so that the final number of triangles will not exceed the input amount of triangle

3.1.5 -Save and cancel settings

Reset: Restore default settings

Apply: Perform settings modifications operated since last application

Cancel: Cancel settings modifications operated since last application

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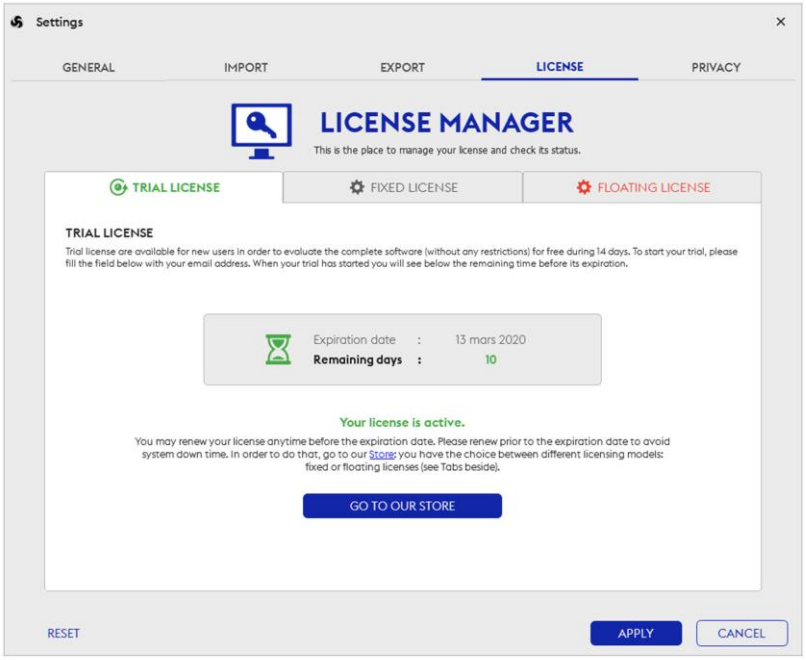
4 - License Manager

The **License Manager** panel gives access to the license request (including renewal) and to the current licensing information; please also refer to License Manager.



License Manager

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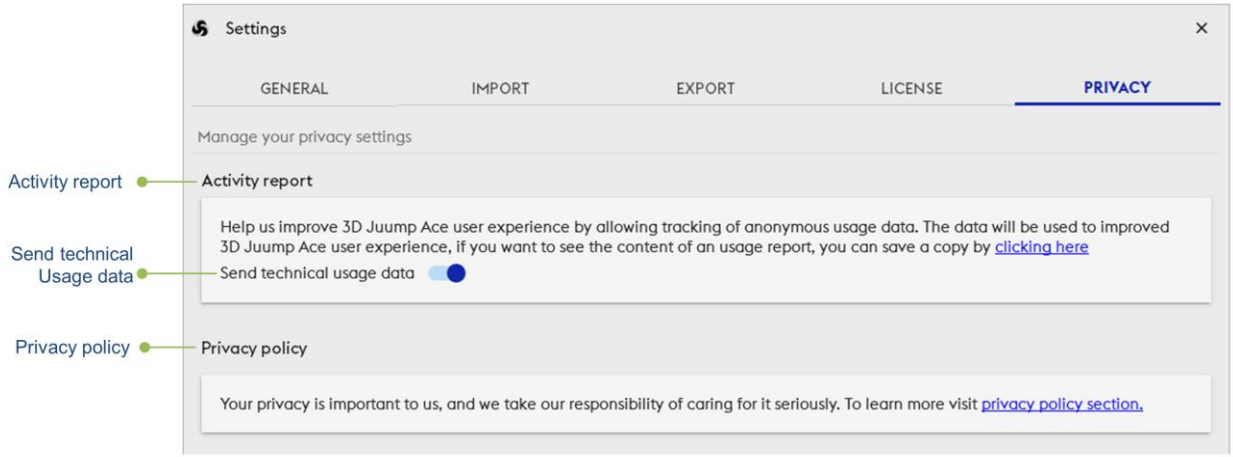
5 - Privacy settings



Privacy settings

Activity report: What concerns the activity report.

Send technical usage data: if you want to see the content of an usage report, you can save a copy by clicking here.

Privacy policy: Legal information and parameters about your personnal data and privacy policy

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Annexes

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1 - Release notes

Please refere to: https://www.realfusio.com/3d-juump-ace-release-notes/

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2 - Export control classification

3D Juump Ace is subject to the US Export Administrative Regulations (EAR) 15 C.F.R. part 730 et seq. for the country Group E:1 and E:2 which are, at the date of the License Terms and Conditions: Iran, North Korea, Sudan, Syria and Cuba. In particular, the user shall not use, export or re-export 3D Juump Ace in those countries and with end users or for end uses in breach of the US export control regulations.

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