

Part Library

General user information

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1 PART LIBRARY OVERVIEW

1.1 Main areas of Part Library

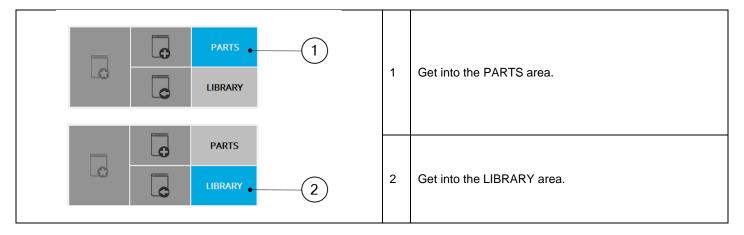
1.1.1 Overview

Part Library is a dedicated application to allow an effective machine part management. Libraries are provided with standard parts. Many slots and magnets are available. All the topologies are parameterized.

Part Library consists of two main areas:

- The LIBRARY area to manage the libraries
- The PARTS area to visualize and manage all the parts stored in the selected libraries

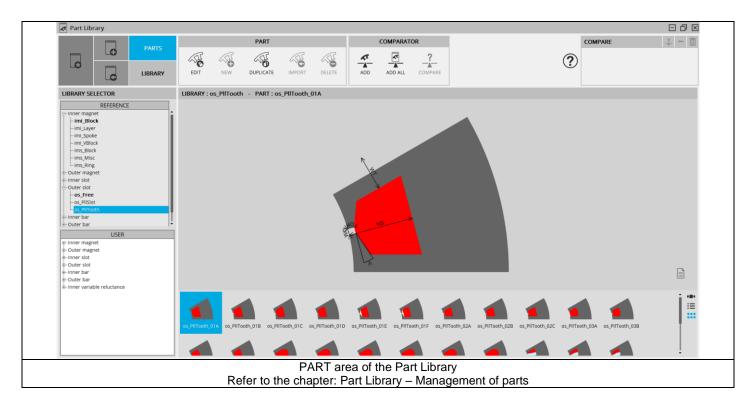
To reach one of these areas, just click on the corresponding button.



1.1.2 LIBRARY area of the Part Library application

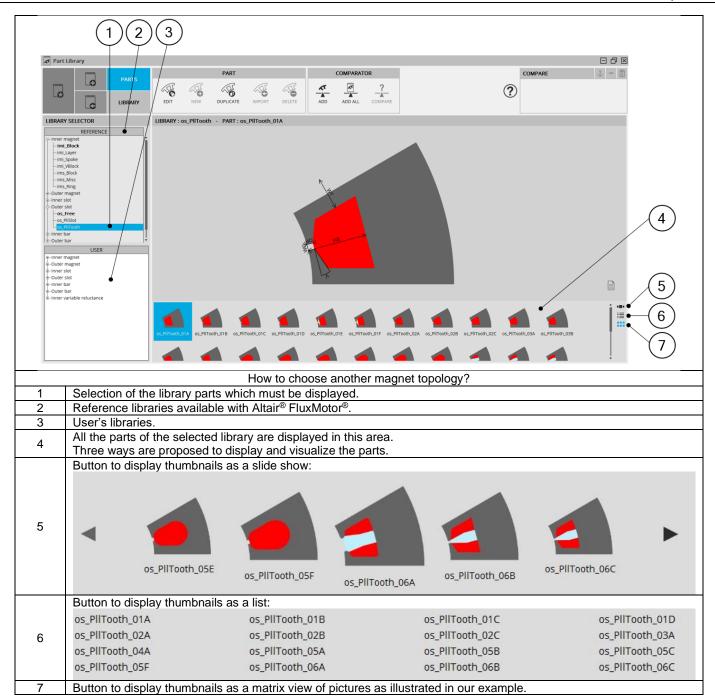


1.1.3 PARTS area of the Part Library application



Note: Three different ways are proposed to display and visualize the parts. They are all illustrated below:

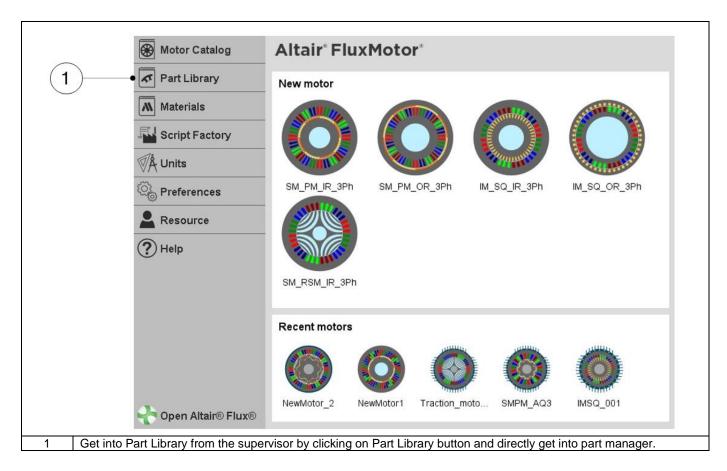




1.2 How to get into Part Library?

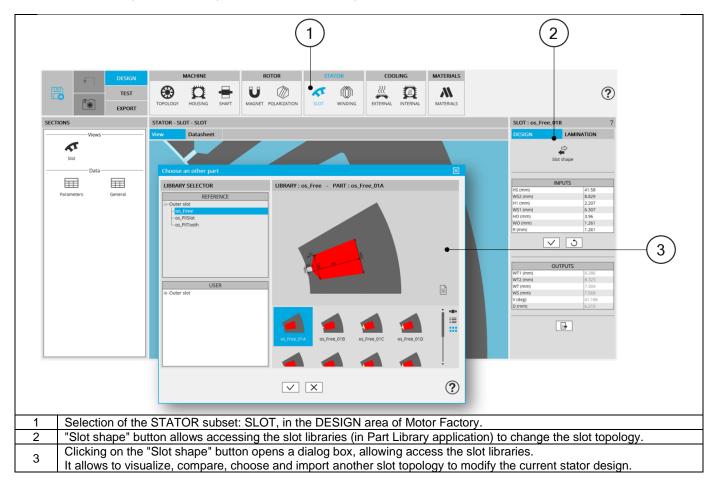
Two ways are possible:

- 1) From the supervisor, click on the button "Part Library"
- 2) From Motor Factory, in the Slot area, bar area or the Magnet area of the DESIGN environment it is possible to get into Part Library using a Read Only mode to visualize, compare, choose, and import part topology to modify the current stator design or the rotor design.
- 1.2.1 Access to Part Library is possible from the supervisor.



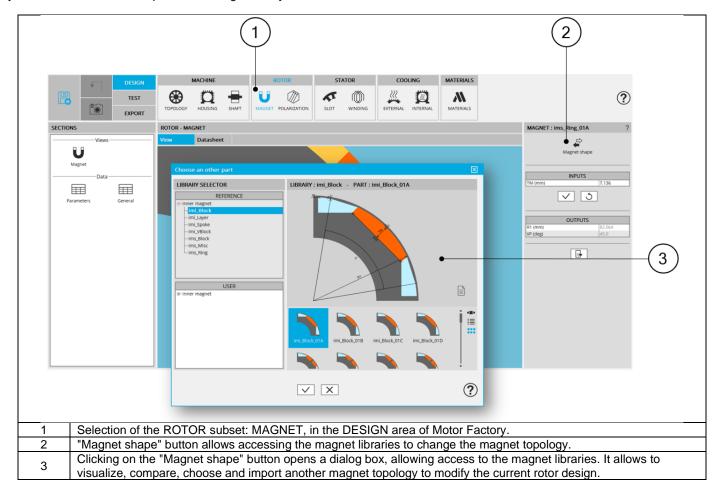
1.2.2 Access to Part Library is possible from Motor Factory – Slot area

In the slot area, modifying the slot topology is possible by accessing the Part Library (Read only mode).



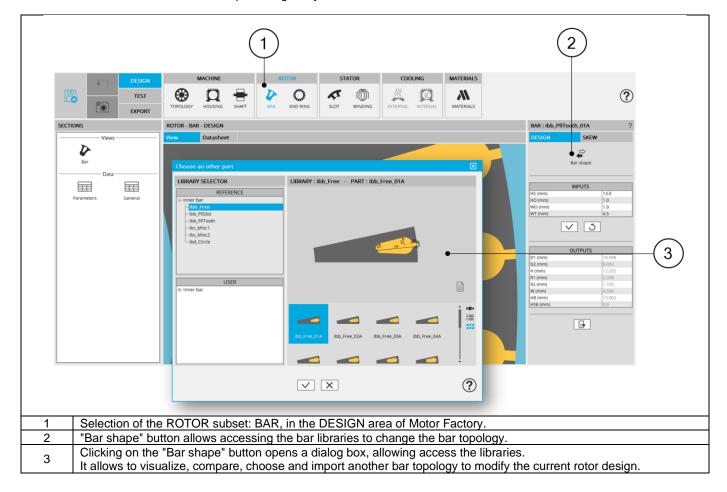
1.2.3 Access to Part Library is possible from Motor Factory – Magnet area

In the magnet area, modifying the magnet topology is possible by accessing the Part Library (Read only mode). It is available for synchronous machines with permanent magnets only.



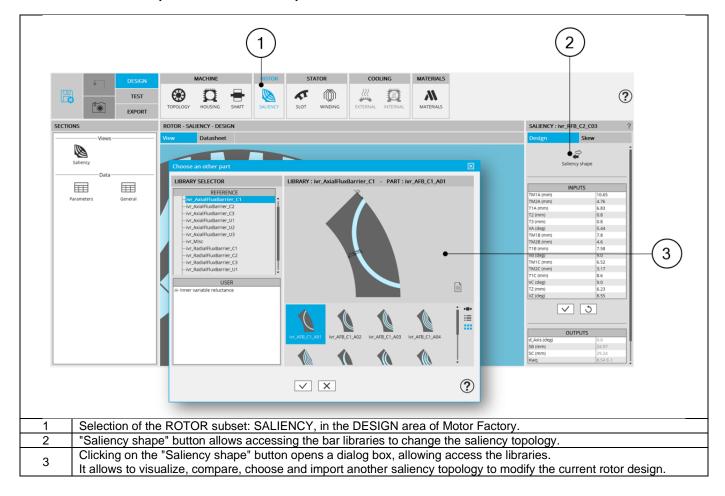
1.2.4 Access to Part Library is possible from Motor Factory – Bar area

In the bar area, modifying the bar topology is possible by accessing the Part Library (Read only mode). It is available for induction machines with squirrel cage only.



1.2.5 Access to Part Library is possible from Motor Factory – Saliency area

In the saliency area, modifying the saliency topology is possible by accessing the Part Library (Read only mode). It is available for reluctance synchronous machines only.

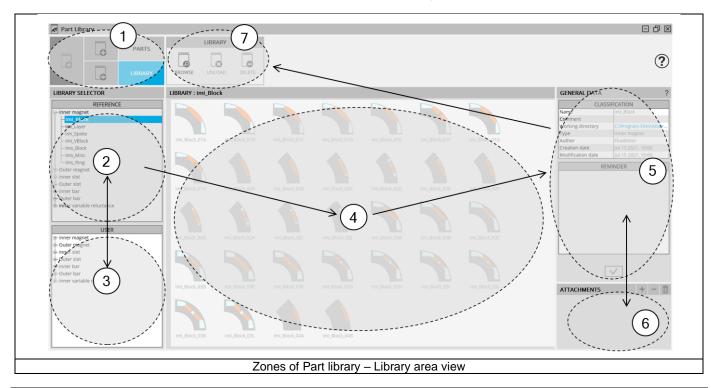


2 MANAGEMENT OF LIBRARIES

2.1 Overview

2.1.1 Main areas

Here are the main zones that compose "LIBRARY" environment of the Part Library:



Zone 1	Part Library has two main environments: LIBRARY and PARTS. When LIBRARY is selected = Blue color Library environment of Part library is displayed. Three main functions are available from the top of this panel: Create a new library, Load a library Set library as favorite
Zone 2	Reference libraries are available. Selections of libraries must be done in this field. Slots or Magnets of these libraries are read only. However, they can be copied and moved in user's libraries.
Zone 3	User's libraries. Selections of libraries must be done in this field. The users can create new libraries. See the process in the chapter "Reference commands".
Zone 4	Visualization of all the parts (thumbnails) stored in the selected library.
Zone 5	Information relative to the selected library. "Reminder" is an area in which a memo can be written if needed. Note: The working folder is accessible for all the libraries.
Zone 6	It is possible to attach documents to the selected library (pictures, pdf files, etc.)
Zone 7	Libraries can be managed from this area: UNLOAD library means to cut the link between the library files and the LIBRARY environment. DELETE library means destroy the links and all the associated files and folders BROWSE allows to reach directly to the folder in which are stored data of the corresponding library.



2.1.2 Direct access to main functions

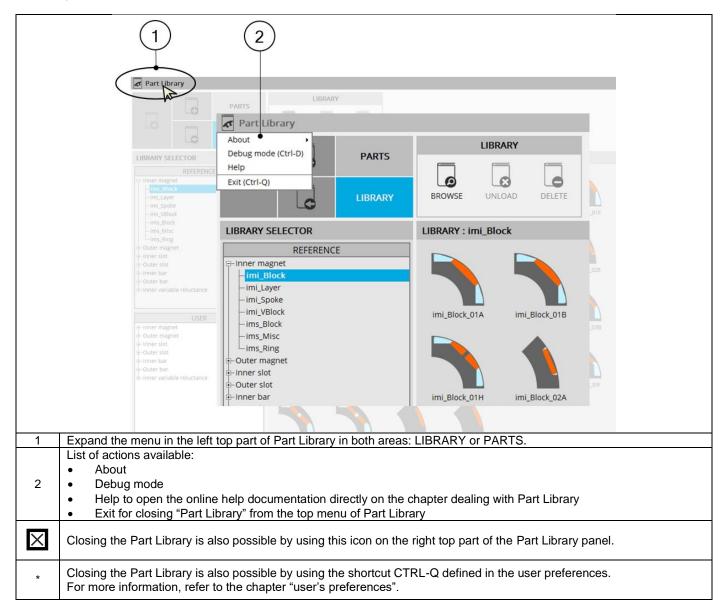
All the functions listed below are described in the section dedicated to reference commands. Note: These commands are available in LIBRARY environment as well as in PARTS environment.





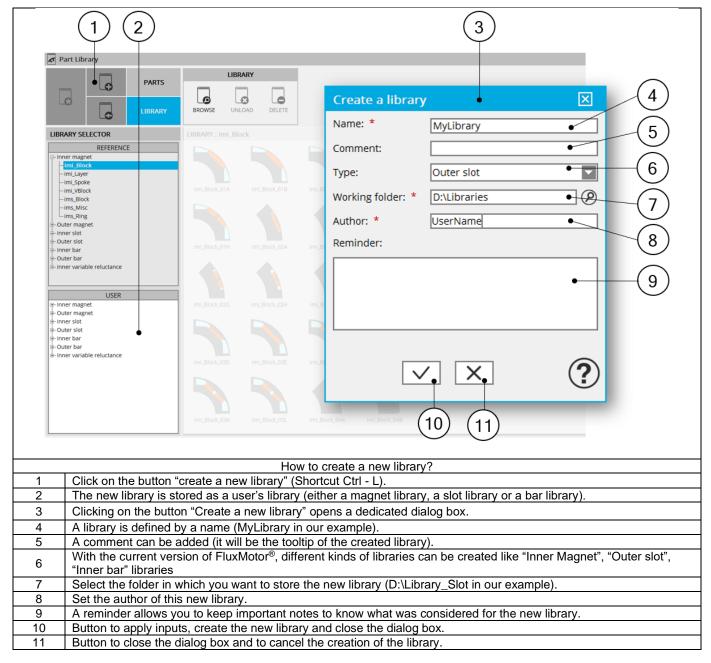
2.1.3 Expanding the menu in Part Library

This menu gives access to system functions like help and exit.



2.2 Reference commands

2.2.1 Create a new library



Note 1: Once created, the library "MyLibrary" corresponds to a folder where the name is "MyLibrary" in which are stored the parts. The library folder "MyLibrary" is stored in a parent folder, Library_Slot for example. Here is the corresponding path: D:\Library_Slot\MyLibrary.

Note 2: The "Parts" are stored in the library folder (folder "Parts").

All the data corresponding to a part, like the associated Excel file (see Part Factory section), are stored in a specific folder. There are also the "Attachments" (folder "Attachments") joined to the part by the user.

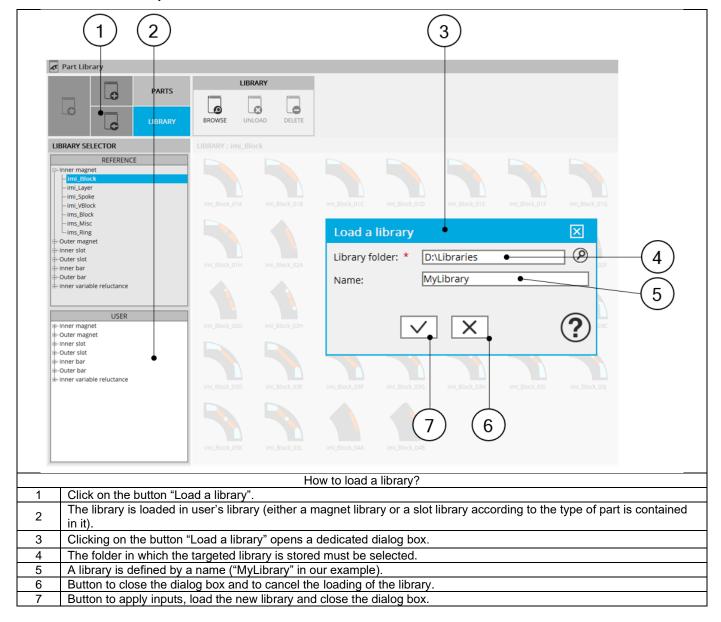
2.2.2 Load a Library

2.2.2.1 Introduction

As explained in the previous chapter "Create a new library", a library corresponds to a folder in which all the data relative to parts are stored.

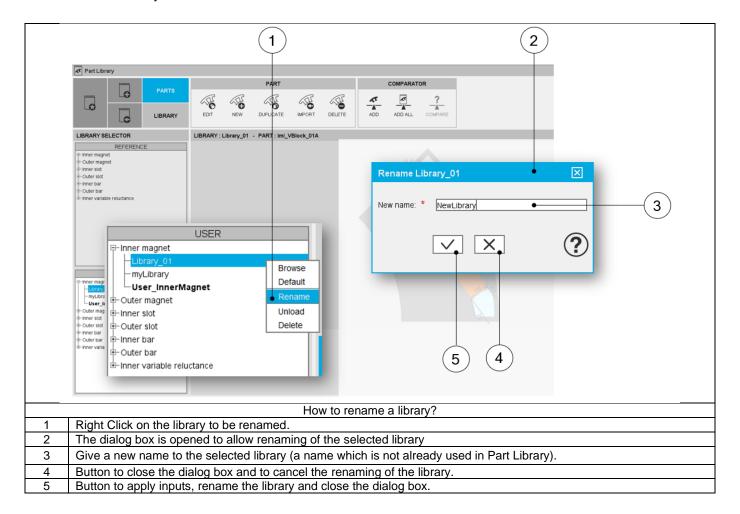
Load a library means to create a link between the folder corresponding to the library and Part Library application.

2.2.2.2 How to load a library?





2.2.3 Rename a library



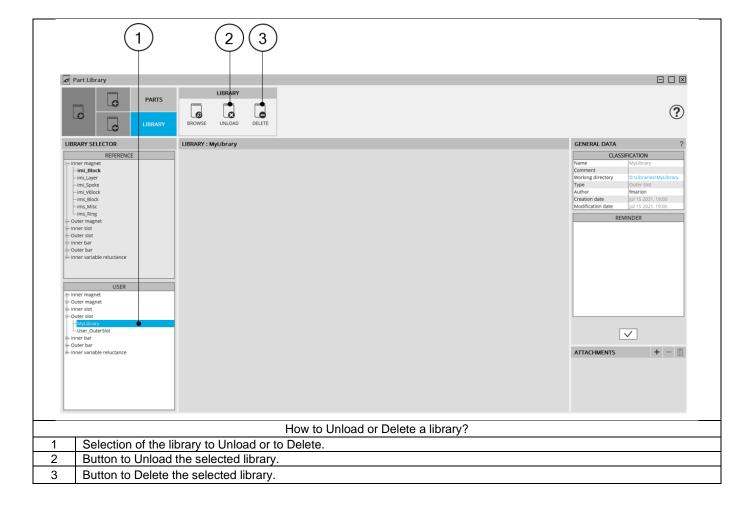
2.2.5 Unload or Delete a library

2.2.5.1 Introduction

Unload a library means to cut the link between the folder corresponding to the library and Part Library application. However, the folder is not removed. It still exists after having been unloaded and it can be reloaded if needed.

Delete a Library means to remove the folder corresponding to the library. In this case all its content will be deleted and can't be reloaded.

2.2.5.2 How to Unload or Delete a library?





2.2.6 Set library as favorite

2.2.6.1 Introduction

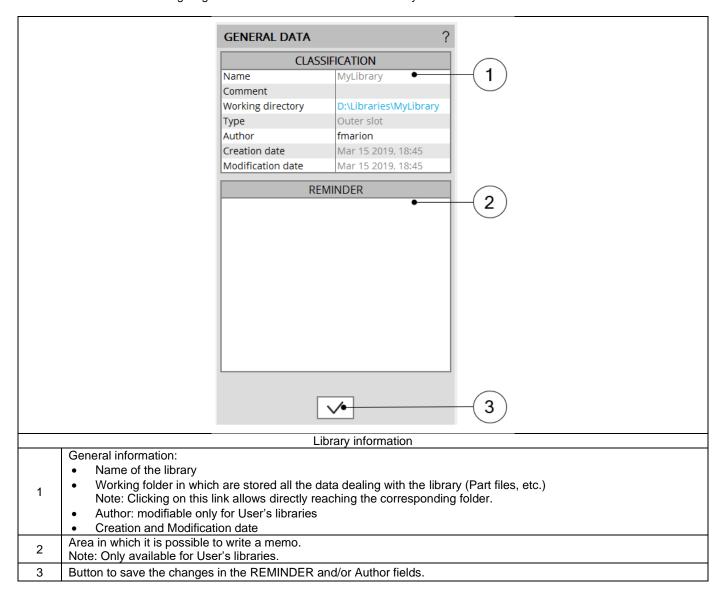
Setting a library as favorite allows opening this library as first, from the DESIGN area of Motor Factory when changing the topology of part (Slot, magnet, or bar)

2.2.6.2 How to set a library as favorite?



2.3 General Data information

General Data information allows giving some reference data for libraries. They are described below.



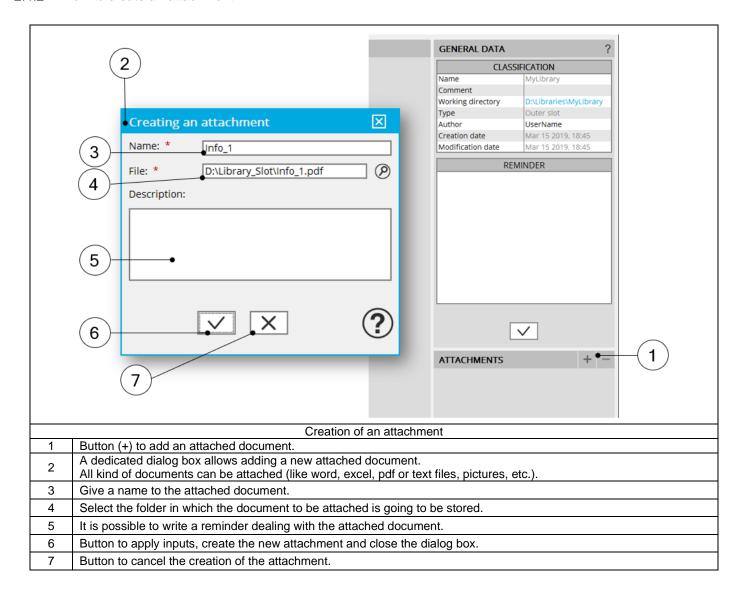
2.4 Attachments

2.4.1 Introduction

Documents can be attached to User's libraries. That allows quickly reaching the additional information to describe these libraries.

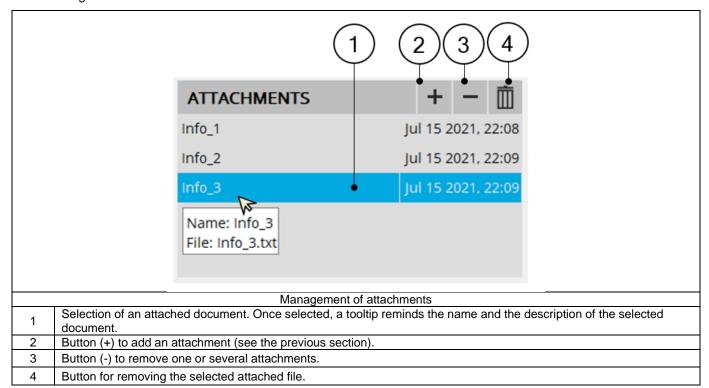
- Note 1: Documents can be attached only to user's libraries.
- Note 2: Documents can be linked to libraries as well as to parts. See chapter Management of parts.

2.4.2 How to create an attachment?





2.4.3 Management of attachments

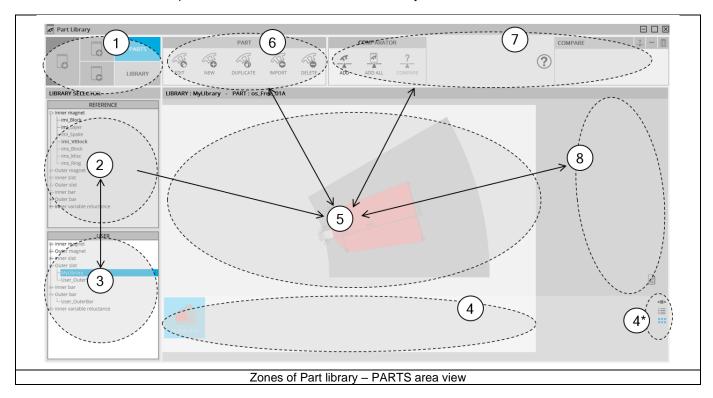


3 MANAGEMENT OF PARTS

3.1 Overview

3.1.1 Main areas

Here are the main zones that compose "PARTS" environment of the Part library.



	Part Library has two main environments: LIBRARY and PARTS	
Zone 1	When PARTS is selected = Blue color PARTS environment of Part Library is displayed.	
	Three main functions are available from the top of this panel:	
	Create a new library,	
	Load a library	
	Set library as favorite	
	See the section "management of libraries" for more information.	
Zone 2	Reference libraries are available. Selections of libraries must be done in this field. Slots, Magnets or Bars of	
	these libraries are read only.	
	However, they can be copied and moved in user's libraries.	
Zone 3	User's libraries. Selections of libraries must be done in this field.	
	The users can create new libraries. See the process in the chapter "Reference commands"	
Zone 4	Visualization of all the parts (thumbnails) stored in the selected library.	
	Clicking on one thumbnail allows displaying the corresponding part on the central area (5).	
Zone 4*	The parts can be displayed as a slide show, as a list or as a matrix view of pictures.	
Zone 5	Visualization of the selected part.	
Zone 6	Tools to manage the parts: Edit, New, Duplicate, Import or Delete part.	
Zone 7	Tools to manage the comparison between parts – Access to the comparator.	
Zone 8	It is possible to attach documents to the selected library (pictures, pdf files, etc.).	



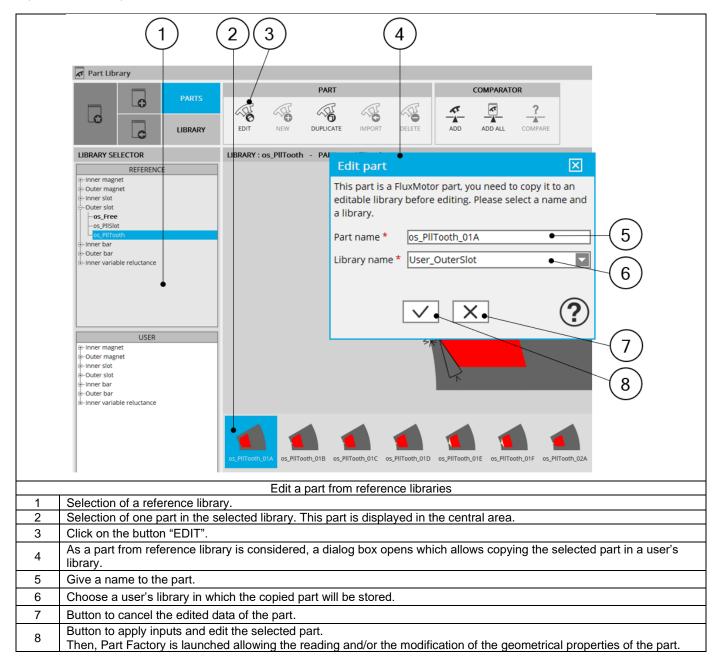
3.2 Reference commands

3.2.1 Edit a part

3.2.1.1 Part from the reference libraries

Edit part allows modifying the part geometrical properties by using the functions of Part Factory.

As all the parts from reference libraries are in Read only mode, before editing a part the user must copy it in a User's library. A dedicated dialog box allows doing that quickly as it is shown below.



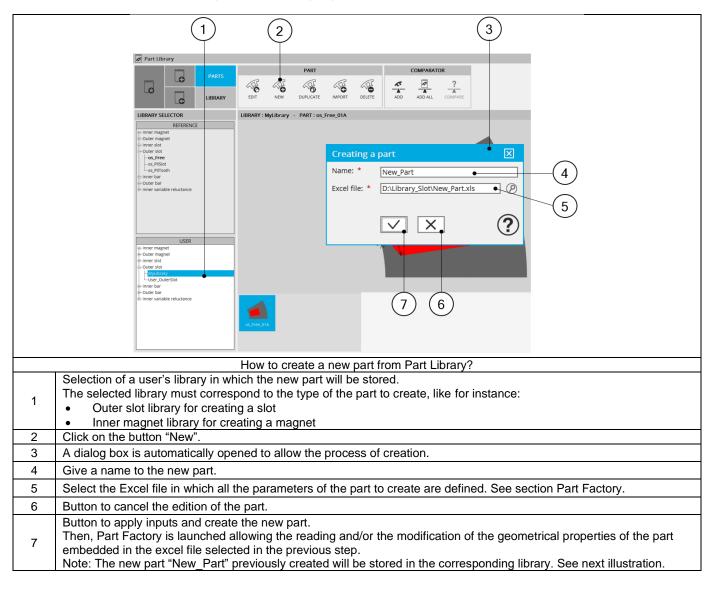
3.2.1.2 Part from User's libraries

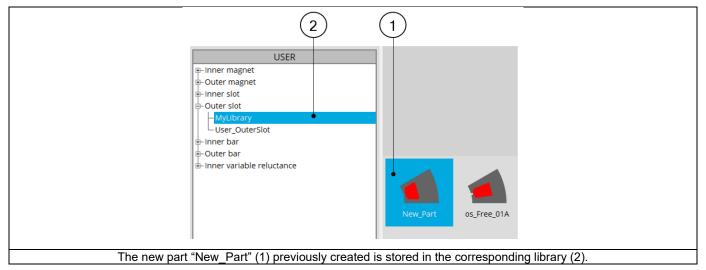
In this case, as the part is not in a Read only mode, its editing allows opening the part directly with Part Factory application through which read or/and modifying its geometrical characteristics is done.



3.2.2 Create a New part

The creation of a new part is possible only in a user's library. If you select a Reference library, the icon "New" is disabled.

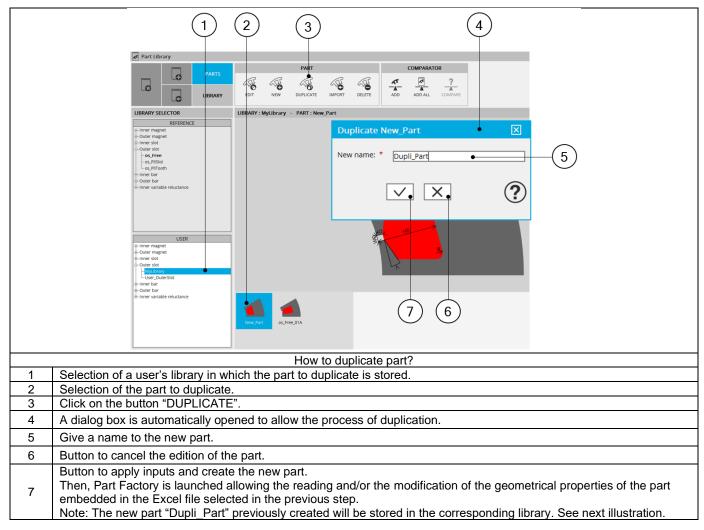


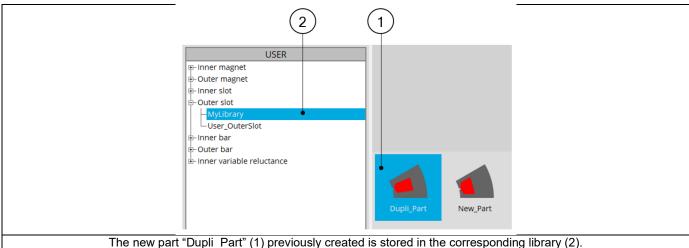




3.2.3 Duplicate

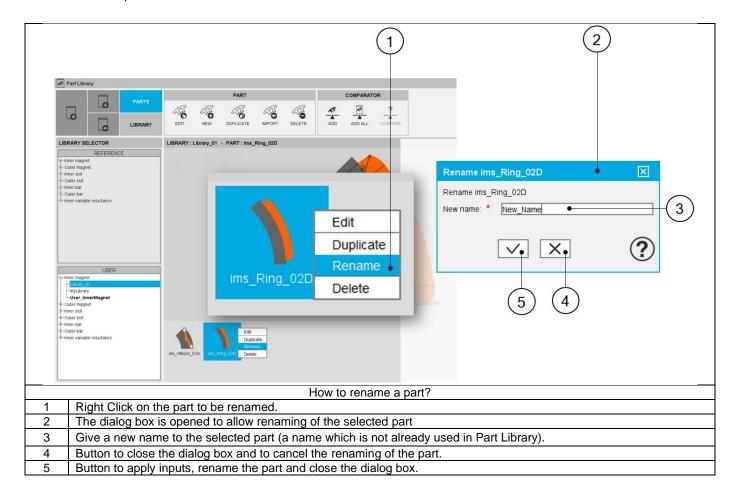
The duplication of a part is possible only in a user's library. If you select a Reference library, the icon "DUPLICATE" is disabled. Note: If the selected library is empty, the icon "DUPLICATE" is disabled.





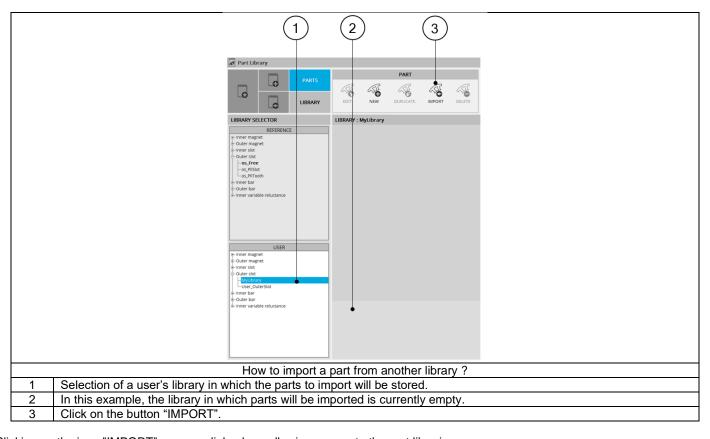


3.2.4 Rename a part



3.2.5 Import a part from another library

Importation of parts is possible only in a user's library. If you select a Reference library, the icon "Duplicate" is disabled.

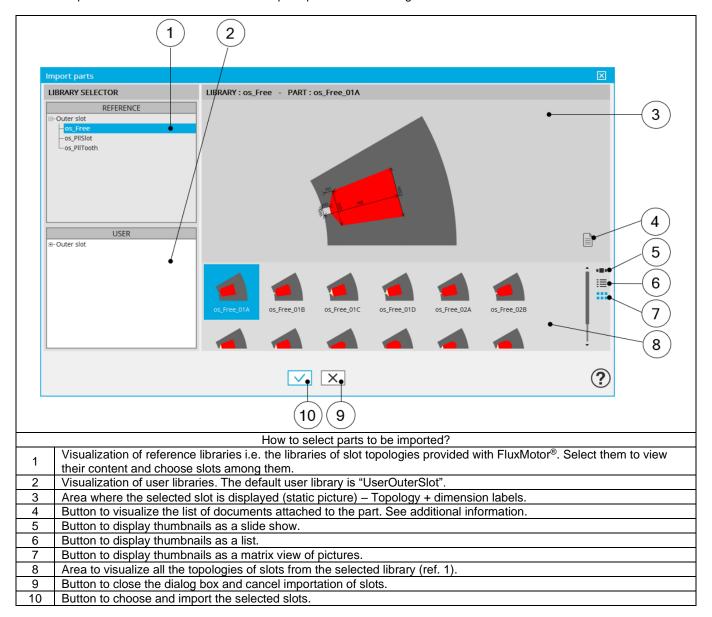


Clicking on the icon "IMPORT" opens a dialog box, allowing access to the part libraries.

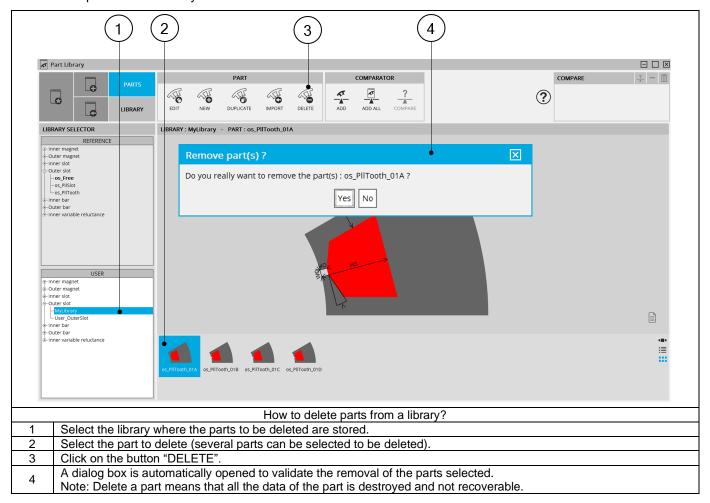
It allows to visualize, compare, choose, and import another part topology in the selected library. Note: If the selected library corresponds to slots, then only slot libraries will be available. On the contrary, if the selected library corresponds to magnets, then only magnet libraries will be available.



Note: the example below shows "slots" but the same principle is used for "magnets" or "Bars".

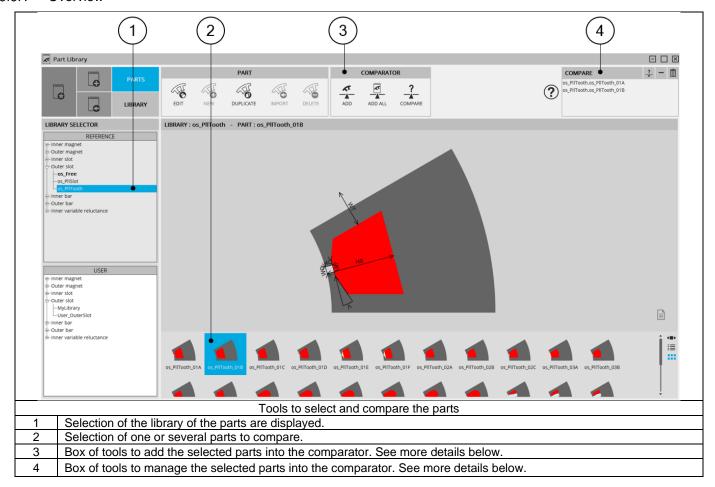


3.2.6 Delete parts from a library

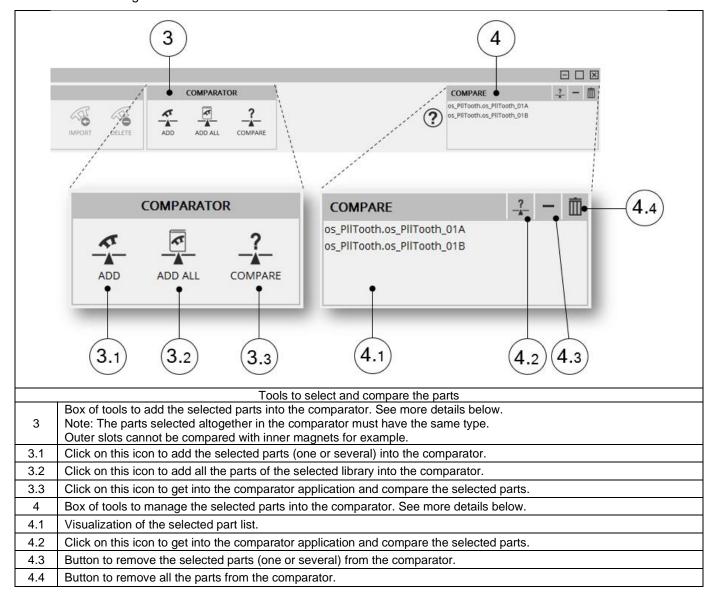


3.3 Compare parts

3.3.1 Overview



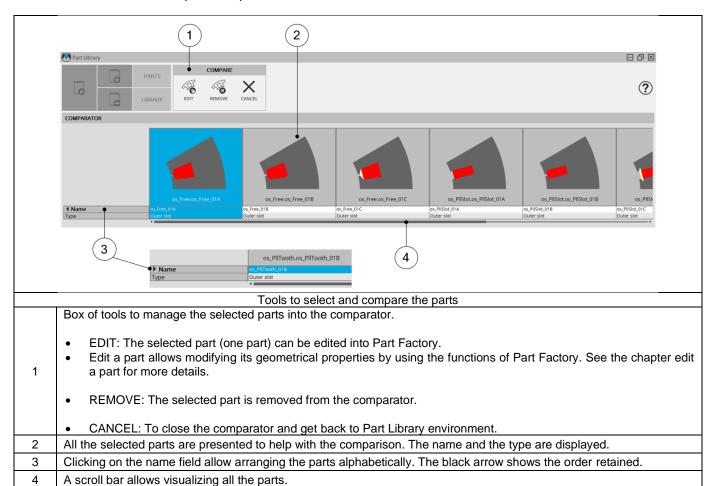
3.3.2 Content management





3.3.3 Compare

Here is the environment of the comparator of parts.



3.4 Attachments

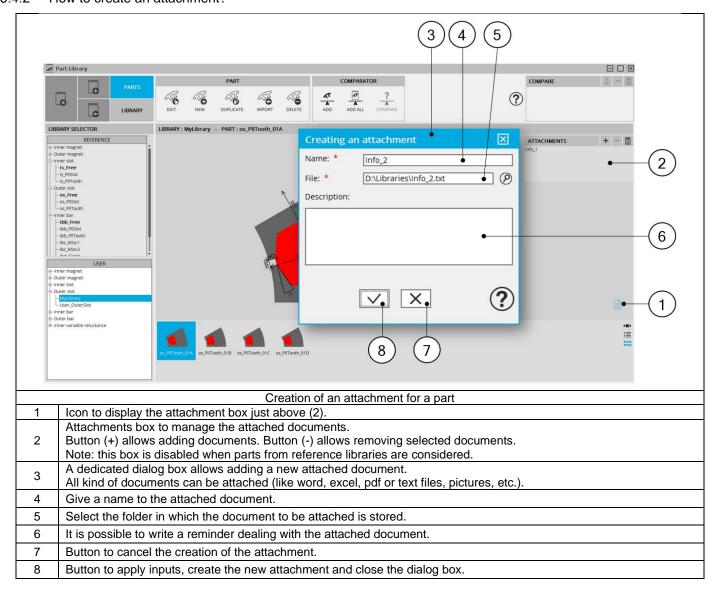
3.4.1 Introduction

Documents can be attached to User's parts. It allows quickly reaching to additional information which describe these parts.

Note 1: Documents can be attached only to user's parts.

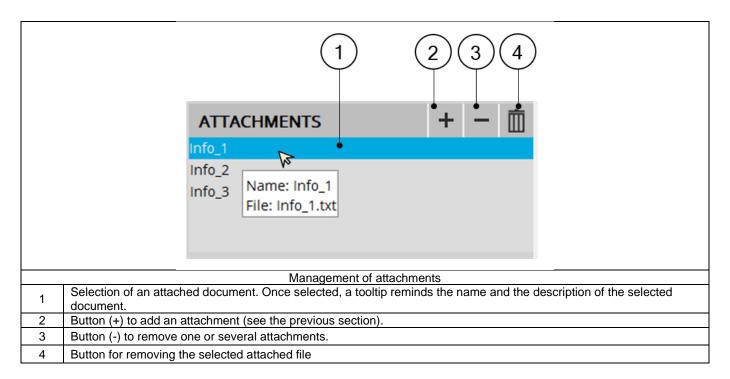
Note 2: Documents can be linked to parts as well as to libraries. See chapter Management of libraries.

3.4.2 How to create an attachment?





3.4.3 Management of attachments

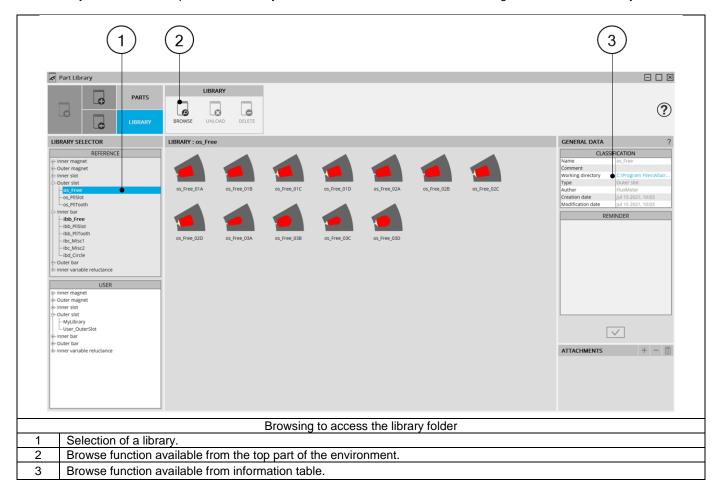


4 EXTERNAL LINKS

4.1 Browse

4.1.1 Overview

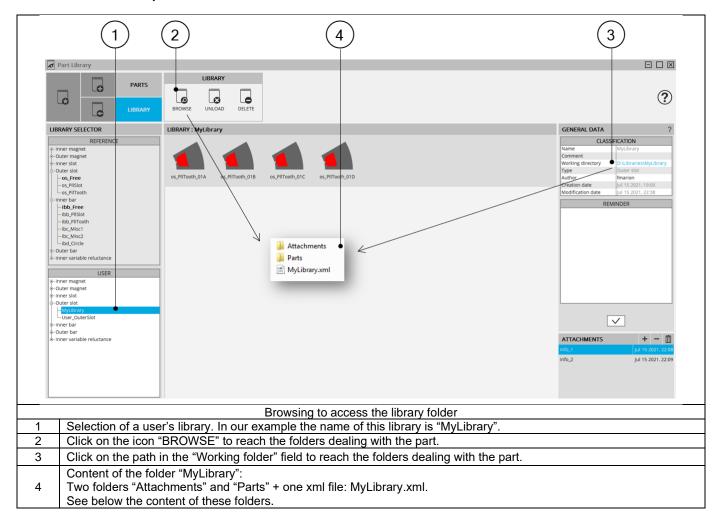
From the library environment it is possible to directly access the folder in which the data dealing with the selected library are stored.



4.1.2 Contents of folders

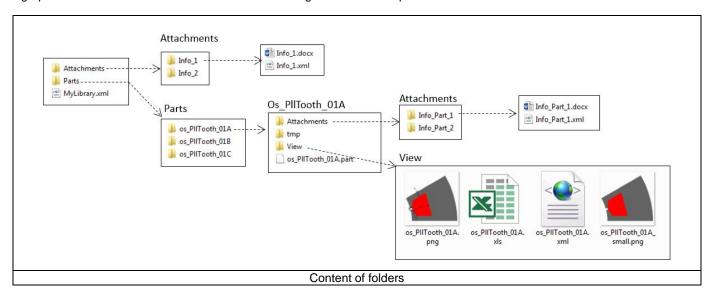
4.1.2.1 Overview

The contents of folder directly reachable from the LIBRARY interface are described below.



4.1.2.2 Folder organization

The graph below shows how to reach the main files dealing with libraries or parts.



Folder "Attachments":

All the documents associated to the considered library (or Part).

Folder "Parts":

All the parts stored in the considered library.

Note: In the folder associated to each part (like os_PIITooth_01A in the example above) the Excel file, contains all the part's properties. It is stored in a folder with the name as "View".