



Altair[®] FluxMotor[®] 2022.1

Motor Catalog

General user information

Contents

1	Motor catalog overview	4
1.1	Main areas of Motor Catalog	4
1.1.1	Overview	4
1.1.2	CATALOG area of the Motor Catalog application	5
1.1.3	MOTORS area of the Motor Catalog application	5
1.2	How to get into Motor Catalog?	7
2	Management of catalogs	8
2.1	Overview	8
2.1.1	Main areas	8
2.1.2	Direct access to main functions	9
2.1.3	Expanding the menu in Motor Catalog	10
2.2	Reference commands	11
2.2.1	Create a new catalog	11
2.2.2	Load a catalog	12
2.2.2.1	Introduction	12
2.2.2.2	How to load a catalog?	12
2.2.3	Unload or Delete a catalog	13
2.2.3.1	Introduction	13
2.2.3.2	How to Unload or Delete a catalog?	13
2.2.4	Set catalog as favorite	14
2.2.4.1	Introduction	14
2.2.4.2	How to set a catalog as favorite?	14
2.3	General Data information	15
2.4	Attachments	16
2.4.1	Introduction	16
2.4.2	How to create an attachment?	16
2.4.3	Management of attachments	17
3	Management of motors	18
3.1	Overview	18
3.1.1	Main areas	18
3.2	Reference commands	19
3.2.1	Edit a motor	19
3.2.1.1	Motor from the reference catalogs	19
3.2.1.2	Motor from User's catalogs	19
3.2.2	Create a New motor	20
3.2.3	Duplicate	22
3.2.4	Import a motor from another catalog	24
3.2.5	Delete motor from a catalog	26
3.3	Compare motors	27
3.3.1	Overview	27
3.3.2	Content management	28
3.3.3	Compare	29
3.4	Attachments	30
3.4.1	Introduction	30
3.4.2	How to create an attachment?	30

3.4.3	Management of attachments	31
4	External links	32
4.1	Browse	32
4.1.1	Overview	32
4.1.2	Contents of folders	33
4.1.2.1	Overview	33
4.1.2.2	Folder organization	34

1 MOTOR CATALOG OVERVIEW

1.1 Main areas of Motor Catalog

1.1.1 Overview

Motor Catalog is a dedicated application to allow an effective management of machines.

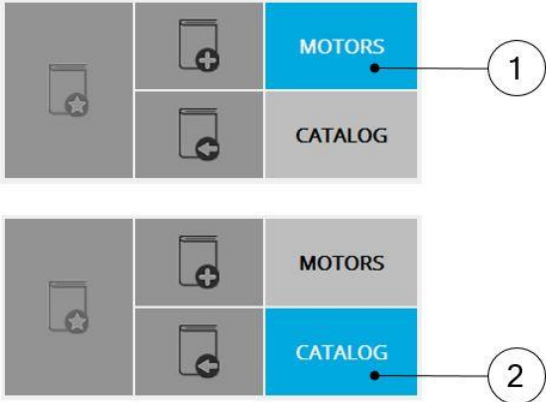
Reference catalogs are available:

- For instance, catalogs in which a few motors for automotive applications are stored. All these motors are characterized by general data and performance.
- There are also catalog like “Gallery” of motors characterized by their general data.

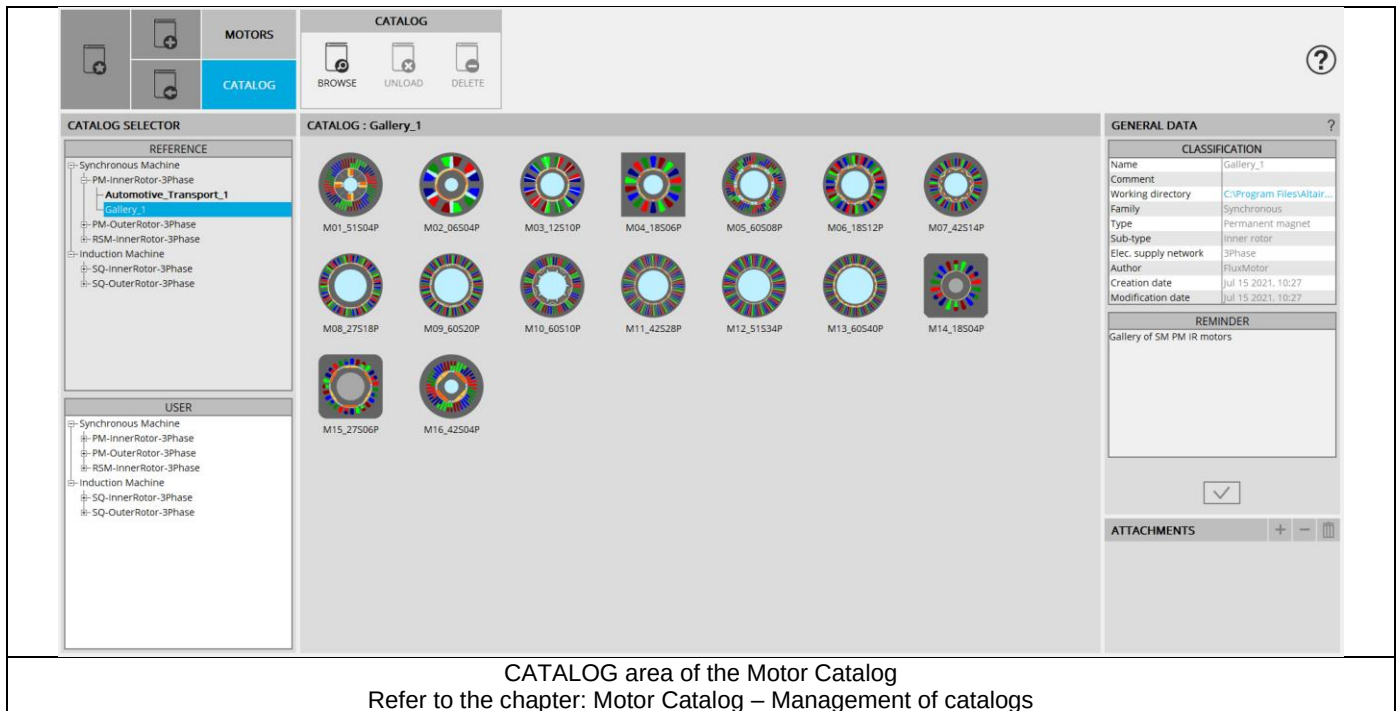
Motor Catalog consists of two main areas:

- The CATALOG area to manage the catalogs
- The MOTORS area to visualize and manage all the motors stored in the selected catalogs

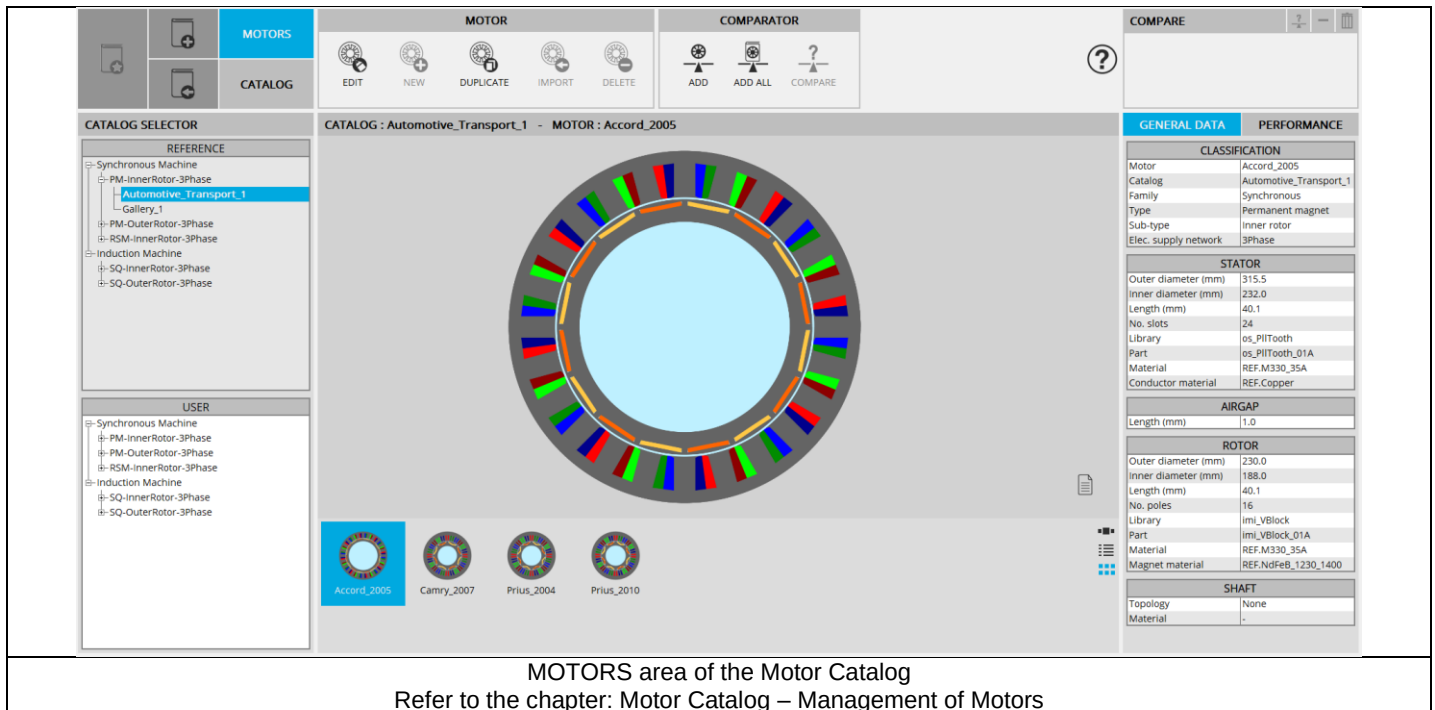
To reach one of these areas, just click on the corresponding button.

	1	Get into the MOTORS area.
	2	Get into the CATALOG area.

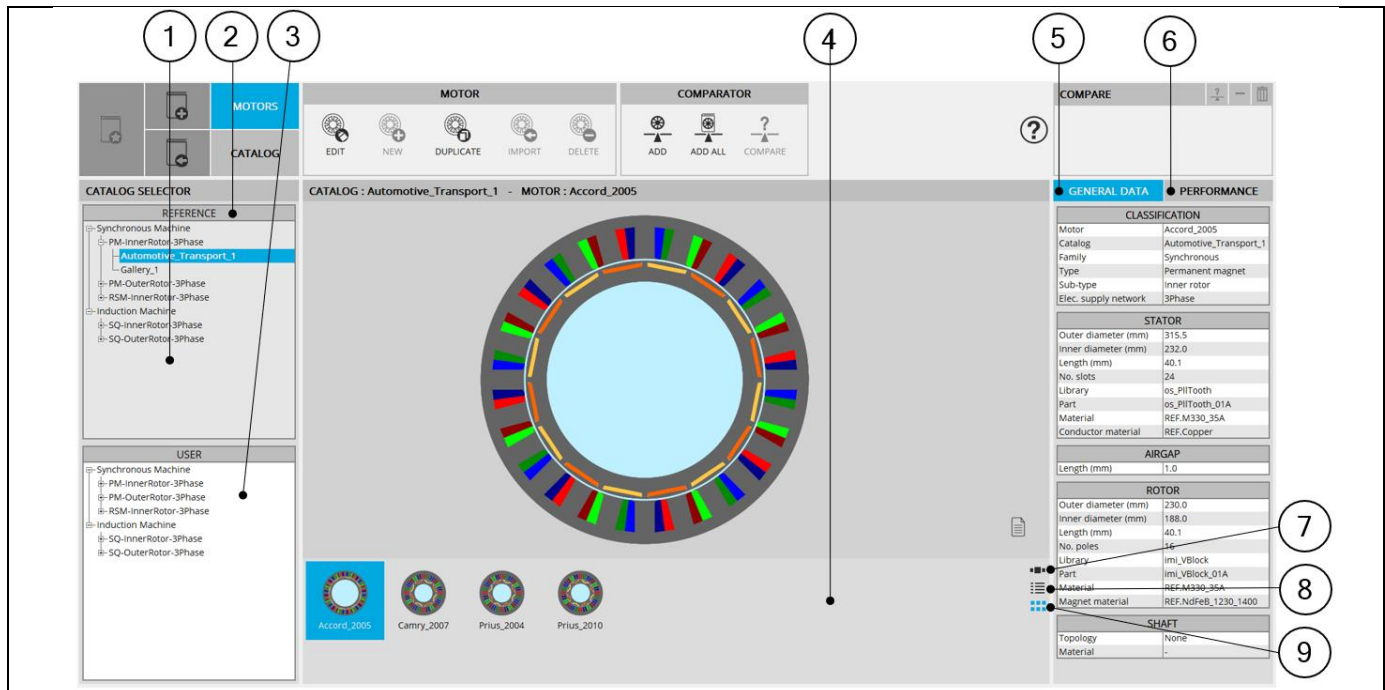
1.1.2 CATALOG area of the Motor Catalog application



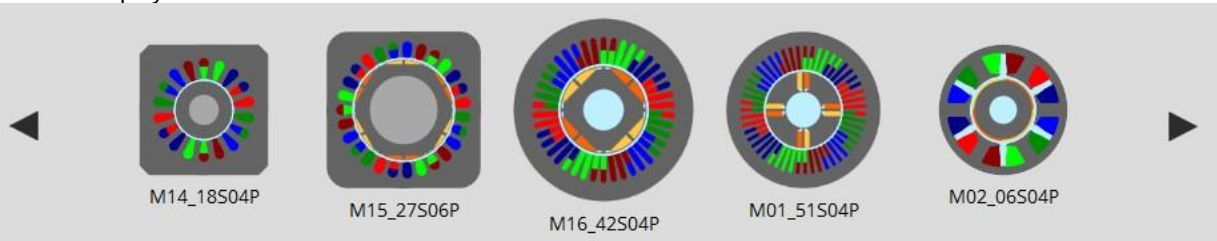
1.1.3 MOTORS area of the Motor Catalog application



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



How to visualize motors?

1	Selections of catalog for motors are displayed.																
2	Reference catalogs available with FluxMotor®.																
3	User's catalogs.																
4	All the motors of the selected catalog are displayed in this area. Three ways are proposed to display and visualize the motors.																
5	General data of the selected motor is displayed.																
6	Performance of the selected motor is displayed. Note: Performance are displayed only if the datasheet test has been performed. See information on the Motor Factory user guide (TEST environment).																
7	Button to display thumbnails as a slide show: 																
8	Button to display thumbnails as a list: <table><tr><td>M01_51S04P</td><td>M02_06S04P</td><td>M03_12S10P</td><td>M04_18S06P</td></tr><tr><td>M05_60S08P</td><td>M06_18S12P</td><td>M07_42S14P</td><td>M08_27S18P</td></tr><tr><td>M09_60S20P</td><td>M10_60S10P</td><td>M11_42S28P</td><td>M12_51S34P</td></tr><tr><td>M13_60S40P</td><td>M14_18S04P</td><td>M15_27S06P</td><td>M16_42S04P</td></tr></table>	M01_51S04P	M02_06S04P	M03_12S10P	M04_18S06P	M05_60S08P	M06_18S12P	M07_42S14P	M08_27S18P	M09_60S20P	M10_60S10P	M11_42S28P	M12_51S34P	M13_60S40P	M14_18S04P	M15_27S06P	M16_42S04P
M01_51S04P	M02_06S04P	M03_12S10P	M04_18S06P														
M05_60S08P	M06_18S12P	M07_42S14P	M08_27S18P														
M09_60S20P	M10_60S10P	M11_42S28P	M12_51S34P														
M13_60S40P	M14_18S04P	M15_27S06P	M16_42S04P														
9	Button to display thumbnails as a matrix view of pictures is illustrated in our example.																

1.2 How to get into Motor Catalog?

Access to Motor Catalog is possible from the supervisor.
From the supervisor, click on the button “Motor Catalog”.

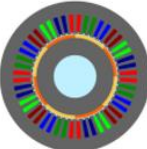
1

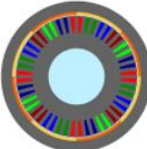
 Motor Catalog
 Part Library
 Materials
 Script Factory
 Units
 Preferences
 Resource
 Help

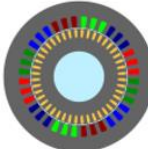
Open Altair Flux™

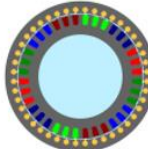
Altair FluxMotor™

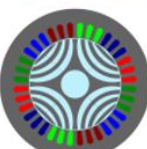
New motor


SM_PM_IR_3Ph


SM_PM_OR_3Ph


IM_SQ_IR_3Ph


IM_SQ_OR_3Ph


SM_RSM_IR_3Ph

Recent motors


S4804P


NewMotor1


M2_48S4P40B


Prius2010_1

1

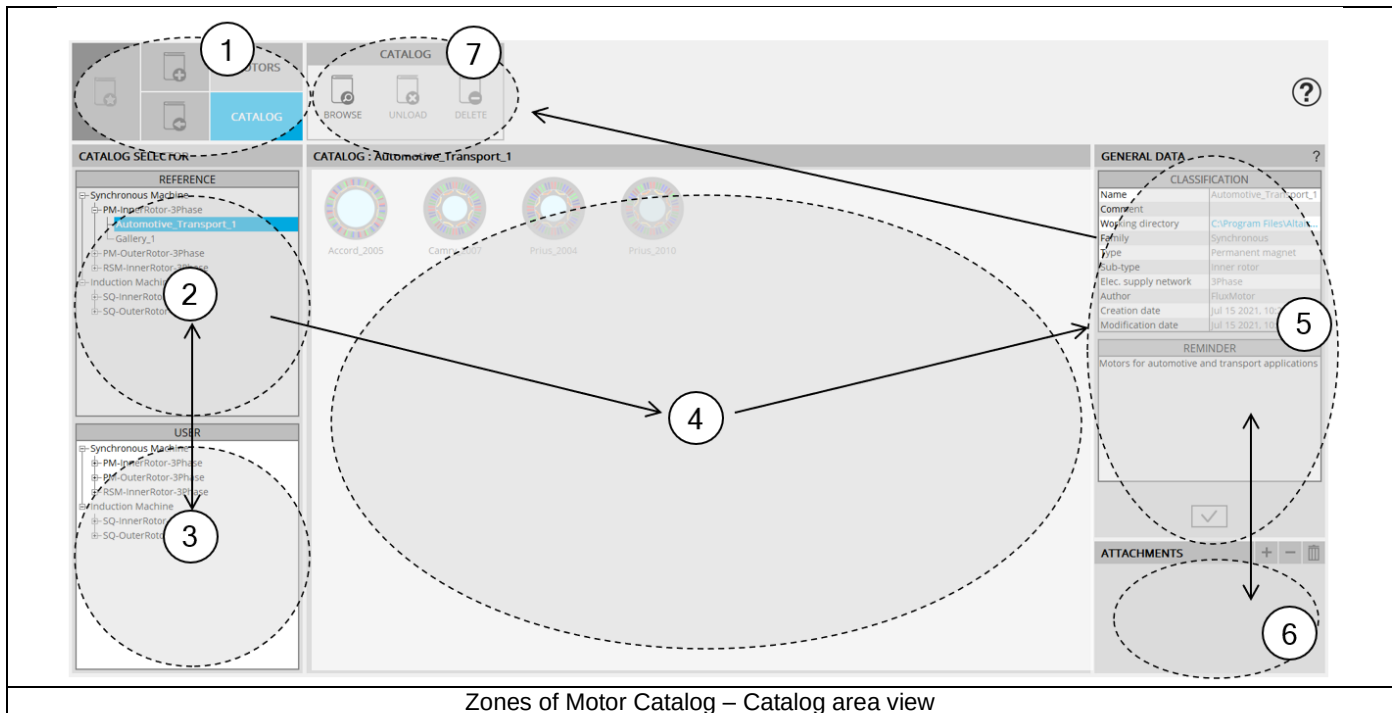
Get into Motor Catalog from the supervisor by clicking on Motor Catalog button and directly get into the motor manager.

2 MANAGEMENT OF CATALOGS

2.1 Overview

2.1.1 Main areas

Here are the main zones that compose “CATALOG” environment of the Motor Catalog.



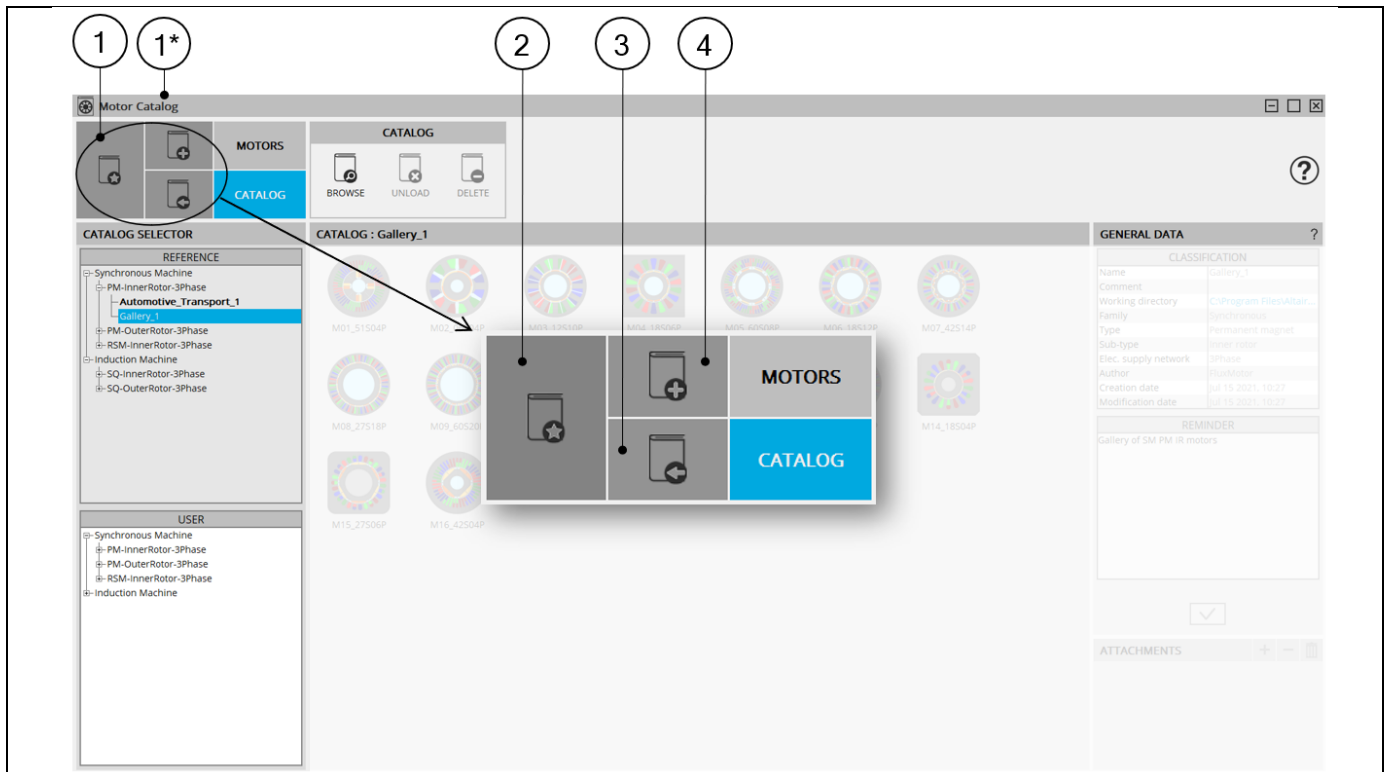
Zones of Motor Catalog – Catalog area view

Zone 1	Motor Catalog has two main environments: CATALOG and MOTORS. When CATALOG is selected = Blue color Catalog environment of Motor Catalog is displayed. Moreover, three main functions are available from the top of this panel: • Create a new catalog, • Load a catalog • Set catalog as favorite
Zone 2	Reference catalogs are available. Selections of catalogs must be done in this field. Motors of these catalogs are read only. However, they can be copied and moved into user's catalogs.
Zone 3	User's catalogs. Selections of catalogs must be done in this field. The users can create new catalogs. See the process in the chapter “Reference commands”.
Zone 4	Visualization of all the motors (thumbnails) are stored in the selected catalog.
Zone 5	Information relative to the selected catalog. “Reminder” is an area in which a memo can be written if needed. Note: The working folder is accessible for all the catalogs.
Zone 6	It is possible to attach documents to the selected catalog (pictures, pdf files etc.).
Zone 7	Catalogs can be managed from this area: UNLOAD catalog means to cut the link between the catalog files and the CATALOG environment. DELETE catalog means destroy the links and all the associated files and folders. BROWSE allows reaching directly the folder in which stored data of the selected catalog are available.

2.1.2 Direct access to main functions

All the functions listed below are described in the section dedicated to reference commands.

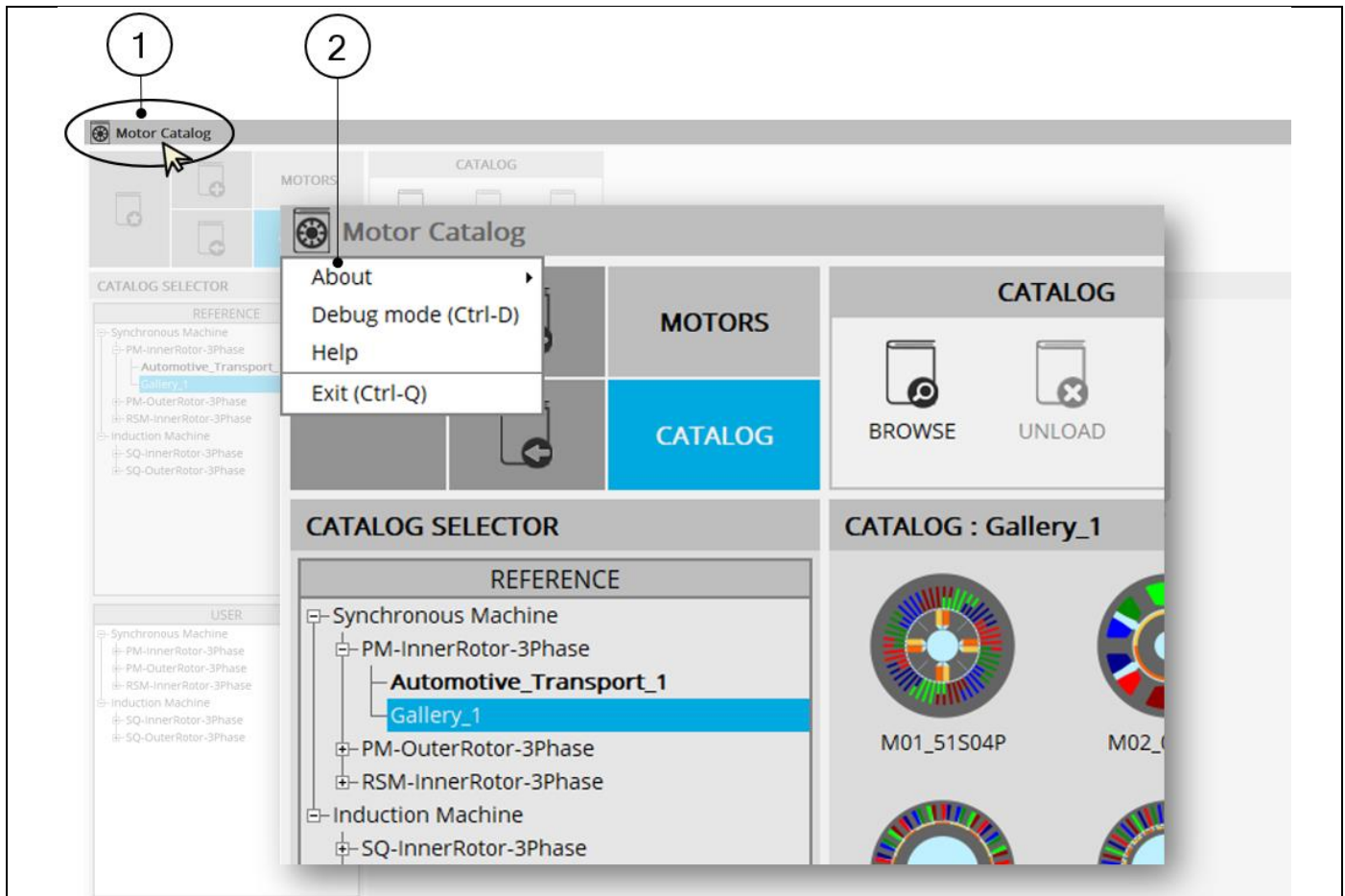
Note: These commands are available in CATALOG environment as well as in MOTORS environment.



1	Click on one of the three main buttons to use some main system functions. - Book with a star = Set catalog as favorite - Book with sign + = Create a new catalog - Book with arrow = Load a catalog Note: These three functions are available in the CATALOG and MOTORS areas.
1*	Clicking on this zone allows access to the main menu.
2	Set catalog as favorite. The selected catalog (bold characters) is opened. See the process in the chapter "Reference commands".
3	Load a catalog from a folder. See the process in the chapter "Reference commands".
4	Create a new catalog. See the process in the chapter "Reference commands".

2.1.3 Expanding the menu in Motor Catalog

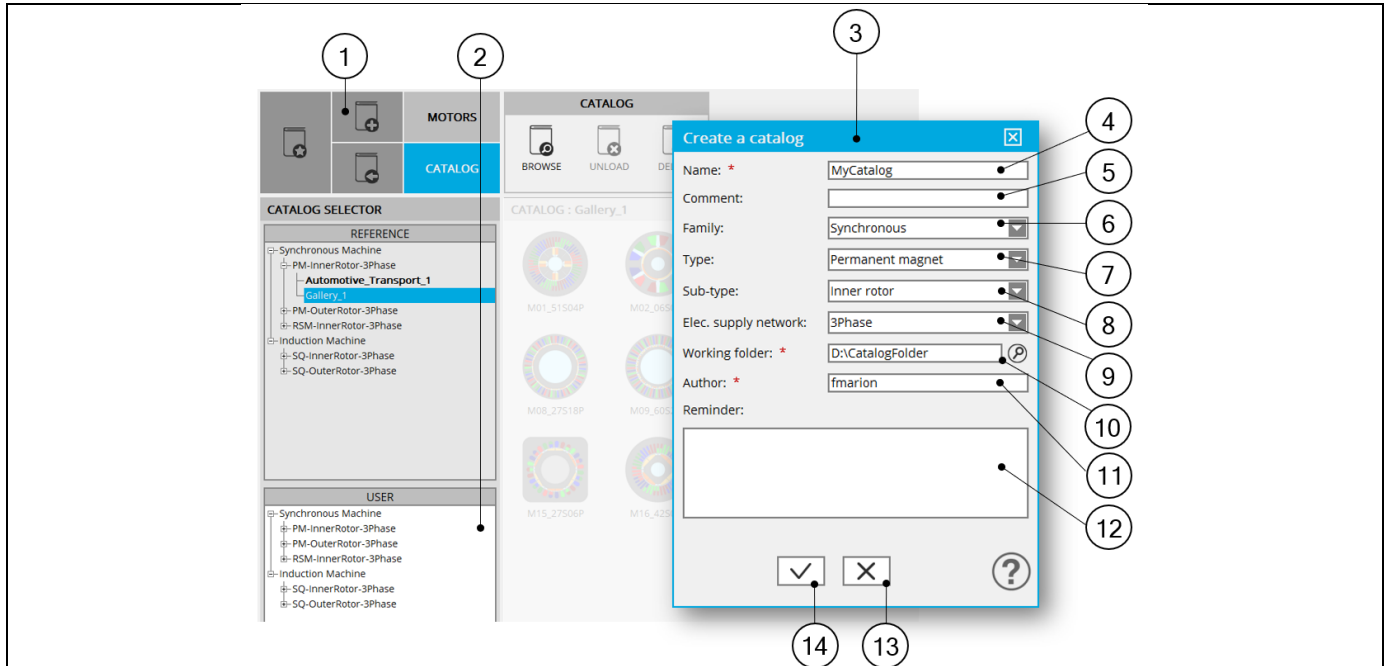
This menu gives access to system functions related to help and exit.



1	Expand the menu on the left top part of Motor Catalog in both areas: CATALOG or MOTORS.
2	List of actions available: - About - Debug mode - Help to open the online help documentation directly on the chapter dealing with Motor Catalog - Exit for closing Motor Catalog from the top menu of Motor Catalog
	Close Motor Catalog is also possible by using this icon on the right top part of the Motor Catalog panel.
*	Close Motor Catalog is also possible by using the shortcut CTRL-Q defined in the user preferences. For more information, refer to the chapter "user's preferences".

2.2 Reference commands

2.2.1 Create a new catalog



How to create a new catalog?

1	Click on the button "create a new catalog" (Shortcut Ctrl - C).
2	The new catalog will be stored in user's catalog.
3	Clicking on the button "Create a new catalog" opens a dedicated dialog box.
4	A catalog is defined by a name.
5	A comment can be added if needed (it will be the tooltip of the created catalog).
6	Select the family of machines to be considered (Synchronous / Induction)
7	Select the type of machine to be considered
8	Select the sub-type of machine to be considered
9	Select the electrical supply network number of phases to be considered
10	Select the folder in which you want to store the new Catalog
11	Set the author of this new catalog.
12	A reminder allows you for keeping important notes to know what was considered in the new catalog.
13	Button to apply inputs, create the new catalog and close the dialog box.
14	Button to close the dialog box and to cancel the creation of the catalog.

Note 1: Once created, the catalog corresponds to a folder ("MyCatalog" in our example) in which data are stored about the motors. The catalog folder is stored in a parent folder ("CatalogFolder" in our example).

Note 2: The "Motors" are stored in the catalog folder (folder "Motors").

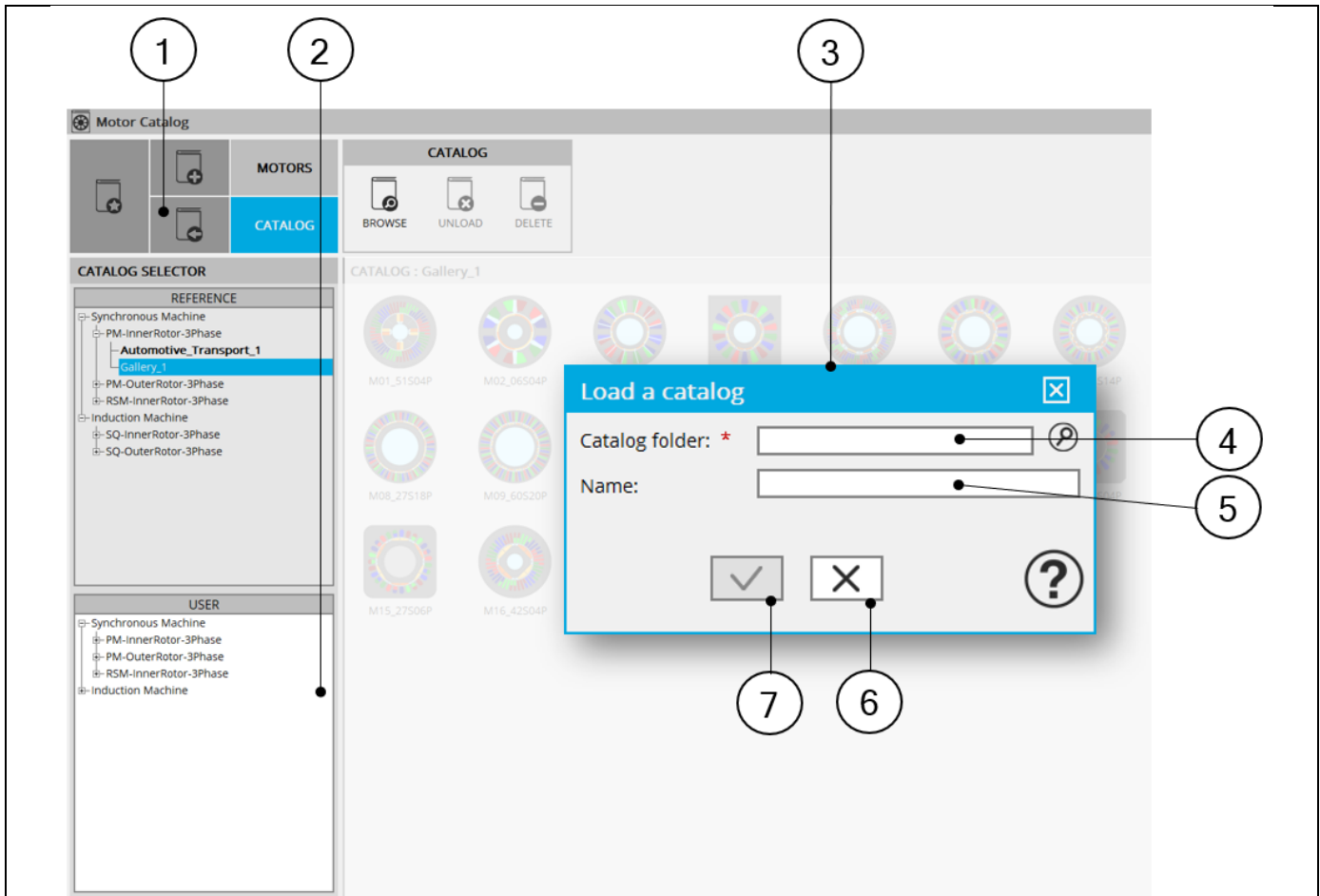
All the data corresponding to a motor, like the associated materials, parts, are stored in a specific folder. There are also the "Attachments" (folder "Attachments") joined to the motor by the user.

2.2.2 Load a catalog

2.2.2.1 Introduction

As explained in the previous chapter, a catalog corresponds to a folder in which data are stored about the motors. Load a catalog allows to create a link between the folder corresponding to the catalog and the Motor Catalog application.

2.2.2.2 How to load a catalog?



How to load a catalog?

1	Click on the button "Load a catalog".
2	The catalog is loaded in user's catalog.
3	Clicking on the button "Load a catalog" opens a dedicated dialog box.
4	The folder in which the targeted catalog is stored must be selected.
5	The name which will be assigned to the loaded catalog.
6	Button to close the dialog box and to cancel the loading of the catalog.
7	Button to apply inputs, load the new catalog and close the dialog box.

2.2.3 Unload or Delete a catalog

2.2.3.1 Introduction

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

Delete a catalog means to remove the folder corresponding to the catalog. In that case all its content will be deleted and can't be loaded.

2.2.3.2 How to Unload or Delete a catalog?

1 2 3

CATALOG SELECTOR

REFERENCE

- Synchronous Machine
 - PM-InnerRotor-3Phase
 - PM-OuterRotor-3Phase
 - RSM-InnerRotor-3Phase
- Induction Machine
 - SQ-InnerRotor-3Phase
 - SQ-OuterRotor-3Phase

USER

- Synchronous Machine
 - PM-InnerRotor-3Phase
 - User_SM_PM_IR_3Ph
 - PM-OuterRotor-3Phase
 - RSM-InnerRotor-3Phase
- Induction Machine
 - SQ-InnerRotor-3Phase
 - SQ-OuterRotor-3Phase

CATALOG : MyCatalog

GENERAL DATA

CLASSIFICATION

Name	MyCatalog
Comment	
Working directory	D:\Catalogs\MyCatalog
Family	Synchronous
Type	Permanent magnet
Sub-type	Inner rotor
Elec. supply network	3Phase
Author	fmarion
Creation date	jul 15 2021, 16:42
Modification date	jul 15 2021, 16:42

REMINDER

ATTACHMENTS + -

How to Unload or Delete a catalog?

1	Selection of the catalog to Unload or to Delete.
2	Button to Unload the selected catalog.
3	Button to Delete the selected catalog.

2.2.4 Set catalog as favorite

2.2.4.1 Introduction

Setting a catalog as favorite allows opening this catalog in first, when opening Motor Catalog.

2.2.4.2 How to set a catalog as favorite?

2

MOTORS

CATALOG

CATALOG SELECTOR

REFERENCE

Synchronous Machine

PM-InnerRotor-3Phase

Automotive_Transport_1

Gallery_1

PM-OuterRotor-3Phase

RSM-InnerRotor-3Phase

Induction Machine

SQ-InnerRotor-3Phase

SQ-OuterRotor-3Phase

USER

Synchronous Machine

PM-InnerRotor-3Phase

MyCatalog

User_SM_PM_IR_3Ph

PM-OuterRotor-3Phase

RSM-InnerRotor-3Phase

Induction Machine

SQ-InnerRotor-3Phase

SQ-OuterRotor-3Phase

CATALOG

BROWSE

UNLOAD

DELETE

CATALOG : Gallery_1

MSL_5150AP

MSL_0050AP

MSL_2751AP

MSL_0052AP

MSL_2750AP

MSL_0050AP

3

MOTORS

CATALOG

CATALOG SELECTOR

REFERENCE

Synchronous Machine

PM-InnerRotor-3Phase

Automotive_Transport_1

Gallery_1

PM-OuterRotor-3Phase

RSM-InnerRotor-3Phase

Induction Machine

SQ-InnerRotor-3Phase

SQ-OuterRotor-3Phase

USER

Synchronous Machine

PM-InnerRotor-3Phase

MyCatalog

User_SM_PM_IR_3Ph

PM-OuterRotor-3Phase

RSM-InnerRotor-3Phase

Induction Machine

SQ-InnerRotor-3Phase

SQ-OuterRotor-3Phase

CATALOG

BROWSE

UNLOAD

DELETE

CATALOG : Gallery_1

MSL_5150AP

MSL_0050AP

MSL_2751AP

MSL_0052AP

MSL_2750AP

MSL_0050AP

How to set catalog as favorite?

1

Selection of the catalog to set as favorite.

2

Click on the button to set the selected catalog as favorite.

3

The name of the favorite catalog is written in bold text.
Note: There is one favorite catalog.

Proprietary Information of Altair Engineering



2.3 General Data information

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

GENERAL DATA?

CLASSIFICATION

Name	Gallery_1
Comment	
Working directory	C:\Program Files\Altair...
Family	Synchronous
Type	Permanent magnet
Sub-type	Inner rotor
Elec. supply network	3Phase
Author	FluxMotor
Creation date	Mar 12 2019, 20:03
Modification date	Mar 12 2019, 20:03

REMINDER

Gallery of inner rotor motor samples

☒

1

2

3

Catalog information

1	General information: - Name of the catalog - Working folder in which all the data dealing with the catalog are stored. Note: Clicking on this link allows directly reaching the corresponding folder. - Author: Modifiable only for User's catalogs - Creation and Modification date
2	Area in which it is possible to write a memo. Note: Only available for User's catalogs.
3	Button to save the changes in the REMINDER and/or Author fields.

2.4 Attachments

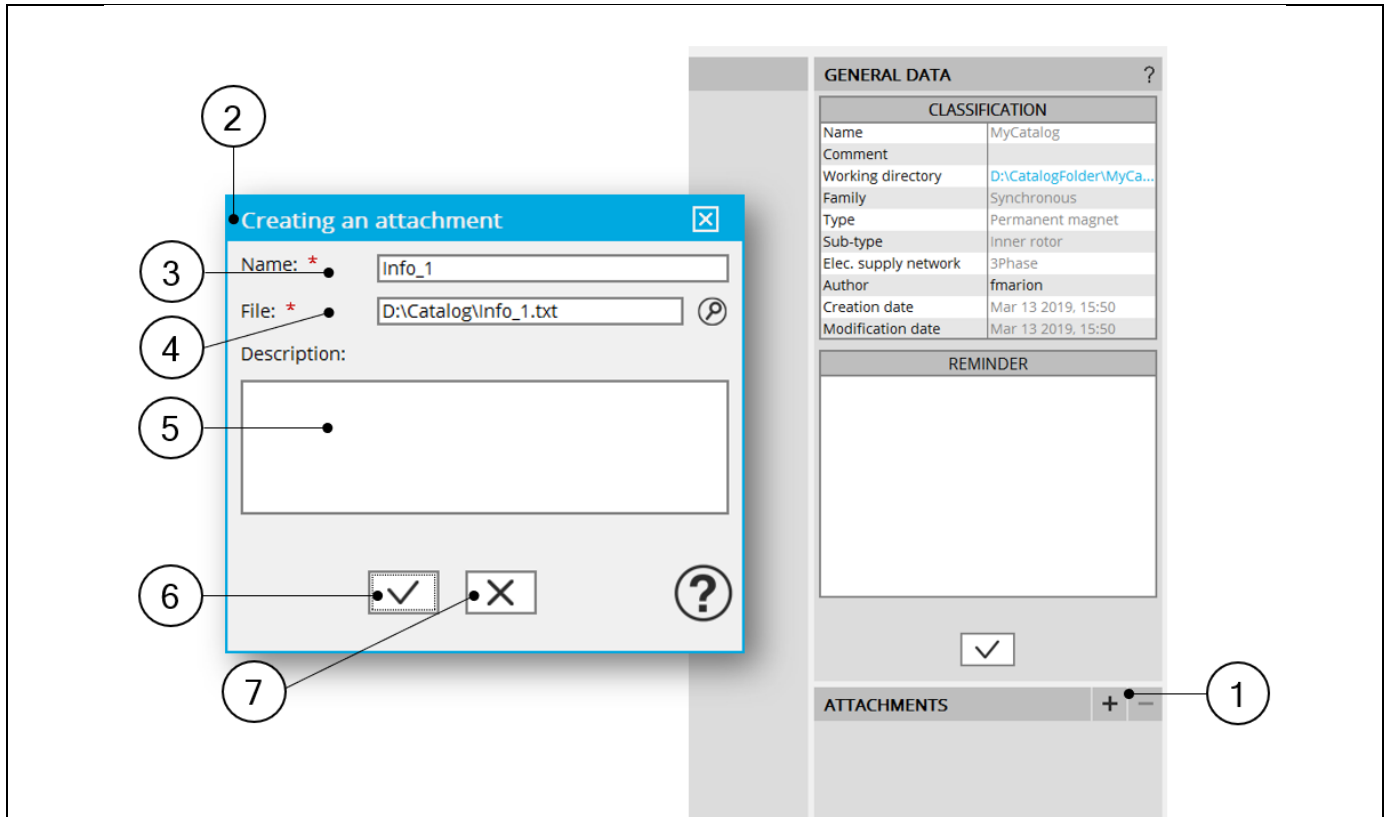
2.4.1 Introduction

Documents can be attached to User's catalogs. This allows quickly reaching for additional information to describe these catalogs.

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

Note 2: Documents can be linked to catalogs as well as to motors. See chapter Management of motors.

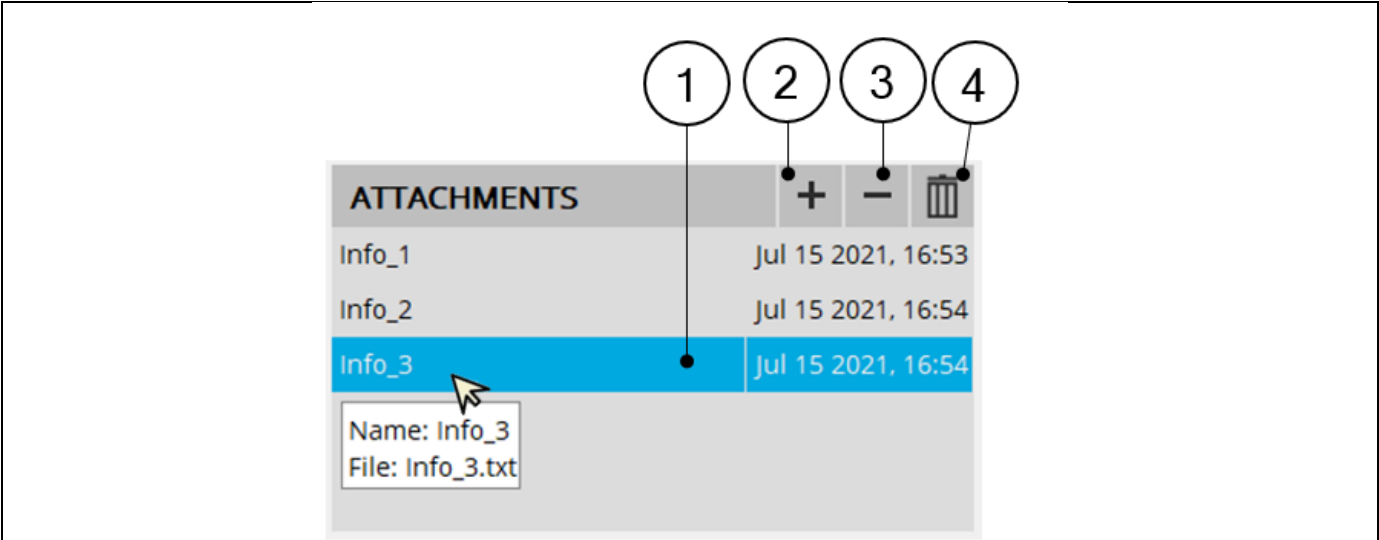
2.4.2 How to create an attachment?



Creation of an attachment

1	Button (+) to add an attached document.
2	A dedicated dialog box allows adding a new attached document. All kind of documents can be attached (like word, excel, pdf or text files, pictures etc.).
3	Give a name to the attached document.
4	Select the folder in which is stored the document to be attached.
5	It is possible to write a reminder dealing with the attached document.
6	Button to apply inputs, create the new attachment and close the dialog box.
7	Button to cancel the creation of the attachment.

2.4.3 Management of attachments



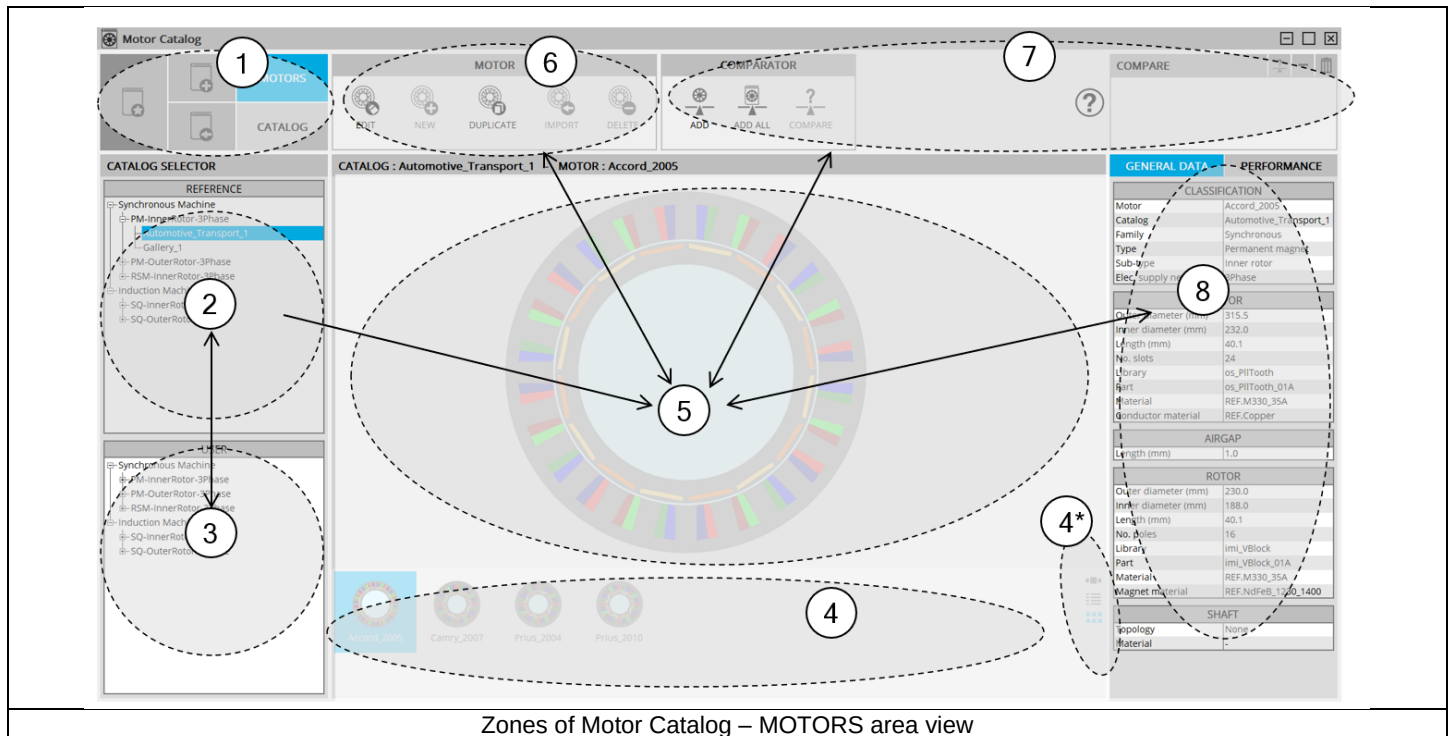
Management of attachments	
1	Selection of an attached document. Once selected, a tooltip reminds the name and the description of the selected document.
2	Button (+) to add an attachment (see the previous section).
3	Button (-) to remove one or several attachments.
4	Button for removing the selected attached file.

3 MANAGEMENT OF MOTORS

3.1 Overview

3.1.1 Main areas

Here are the main zones that compose “MOTORS” environment of the Motor Catalog.



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

3.2 Reference commands

3.2.1 Edit a motor

3.2.1.1 Motor from the reference catalogs

Edit a motor allows modifying its general data and properties by using Motor Factory.

As all the motors from reference catalogs are in read only mode, before editing such motor user must copy it in a user's catalog. A dedicated dialog box allows doing that quickly as it is shown below.

The screenshot shows the 'Motor Catalog' window with the 'REFERENCE' tab selected. A tree view on the left lists motor types like 'Synchronous Machine', 'PM-InnerRotor-3Phase', 'PM-OuterRotor-3Phase', 'RSM-InnerRotor-3Phase', 'Induction Machine', 'SQ-InnerRotor-3Phase', and 'SQ-OuterRotor-3Phase'. The 'Automotive_Transport_1' catalog is selected. The 'EDIT' button is clicked, opening the 'Edit motor' dialog box. The dialog box contains the following elements:

- Motor name ***: A text field with 'Accord_2005' entered.
- Catalog name ***: A dropdown menu with 'User_SM_PM_IR_3Ph' selected.
- Buttons**: 'OK' (checkmark), 'Cancel' (X), and a help icon (question mark).

Below the dialog box, a row of motor icons is visible, including 'Accord_2005', 'Camry_2007', 'Prius_2004', and 'Prius_2010'.

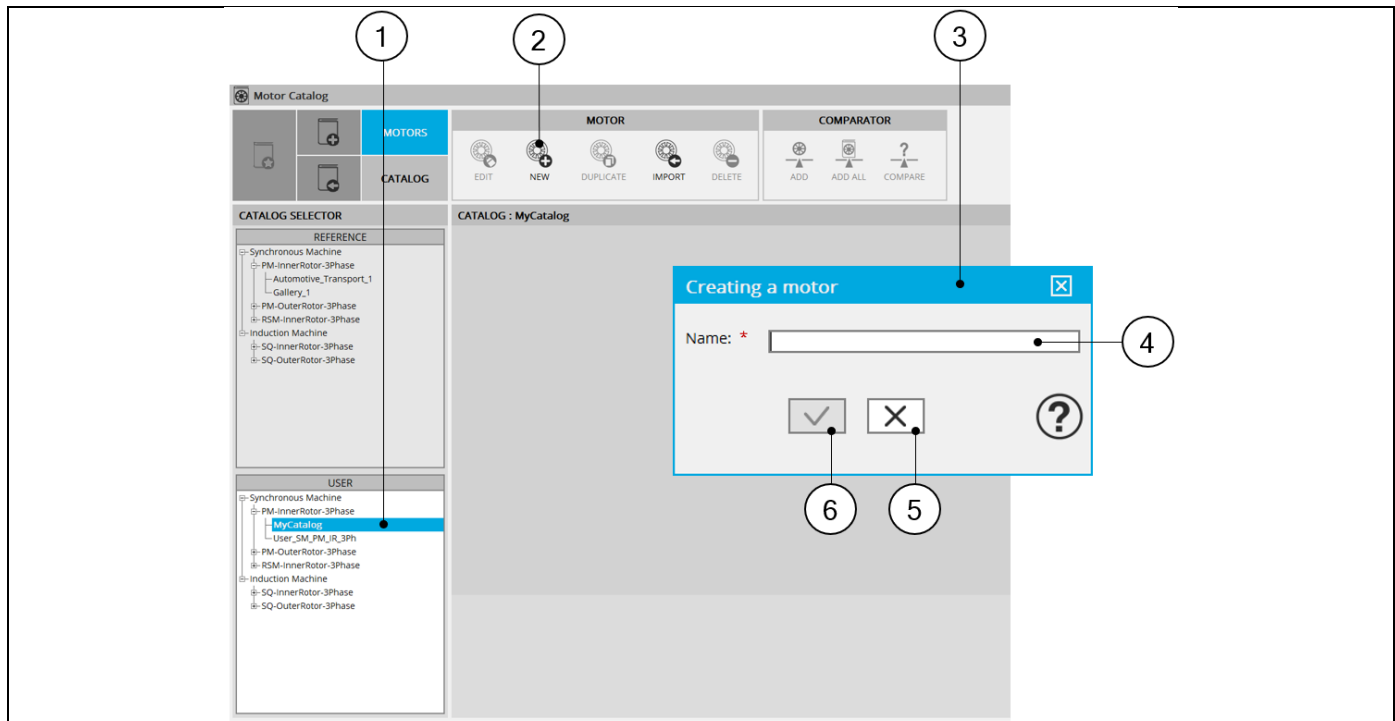
Edit a motor from reference catalogs	
1	Selection of a reference catalog.
2	Selection of one motor in the selected catalog. This motor is displayed in the central area.
3	Click on the button "EDIT".
4	As a motor from reference catalog is considered, a dialog box allows copying the selected motor in a user's catalog.
5	Give a name to the motor.
6	Choose a user's catalog in which the copied motor will be stored.
7	Button to cancel the edition of the motor.
8	Button to apply inputs and edit the selected motor. Then, Motor Factory is launched allowing the reading and/or the modification of the properties of the motor.

3.2.1.2 Motor from User's catalogs

In this case, as the motor is not in a Read only mode, it allows opening the motor directly with Motor Factory application which can be used to read or/and modify its characteristics.

3.2.2 Create a New motor

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



How to create a new motor from Motor Catalog?

1	Selection of a user's catalog in which the new motor will be stored. The selected catalog must correspond to the type of the motor to be created.
2	Click on the button "New".
3	A dialog box is automatically opened to allow the process of creation.
4	A name must be given to the new motor. It will be stored in the selected catalog. Then, Motor Factory environment is opened to design the new motor. Note: If the new motor is not saved in Motor Factory, its name doesn't appear in Motor Catalog.
5	Cancel the creation of a new motor from Motor Catalog.
6	Button to apply inputs and create the new motor. Then, Motor Factory is launched which allows to read and/or the modification of the characteristics of the motor. Note: The new motor "NewMotor1" previously created will be stored in the corresponding catalog. See next illustration.

The screenshot displays the Altair FluxMotor 2022.1 Motor Catalog interface. The central area shows a motor model. The left sidebar contains a 'CATALOG SELECTOR' with a tree view. The right sidebar shows the 'COMPARE' window with tabs for 'GENERAL DATA' and 'PERFORMANCE'.

Callout 1 points to the 'NewMotor_1' icon in the 'USER' section of the catalog tree. Callout 2 points to the 'MyCatalog' entry in the 'REFERENCE' section of the catalog tree. Callout 3 points to the 'GENERAL DATA' tab in the 'COMPARE' window.

The 'GENERAL DATA' tab displays the following information:

CLASSIFICATION	
Motor	NewMotor_1
Catalog	MyCatalog
Family	Synchronous
Type	Permanent magnet
Sub-type	inner rotor
Elec. supply network	3Phase

STATOR	
Outer diameter (mm)	320.0
Inner diameter (mm)	180.0
Length (mm)	80.0
No. slots	48
Library	os_Free
Part	os_Free_01B
Material	REF.M330_35A
Conductor material	REF.Copper

AIRGAP	
Length (mm)	8.0 E-1

ROTOR	
Outer diameter (mm)	178.4
Inner diameter (mm)	90.0
Length (mm)	80.0
No. poles	8
Library	ims_Ring
Part	ims_Ring_01A
Material	REF.M330_35A
Magnet material	REF.SmCo_1040_1800

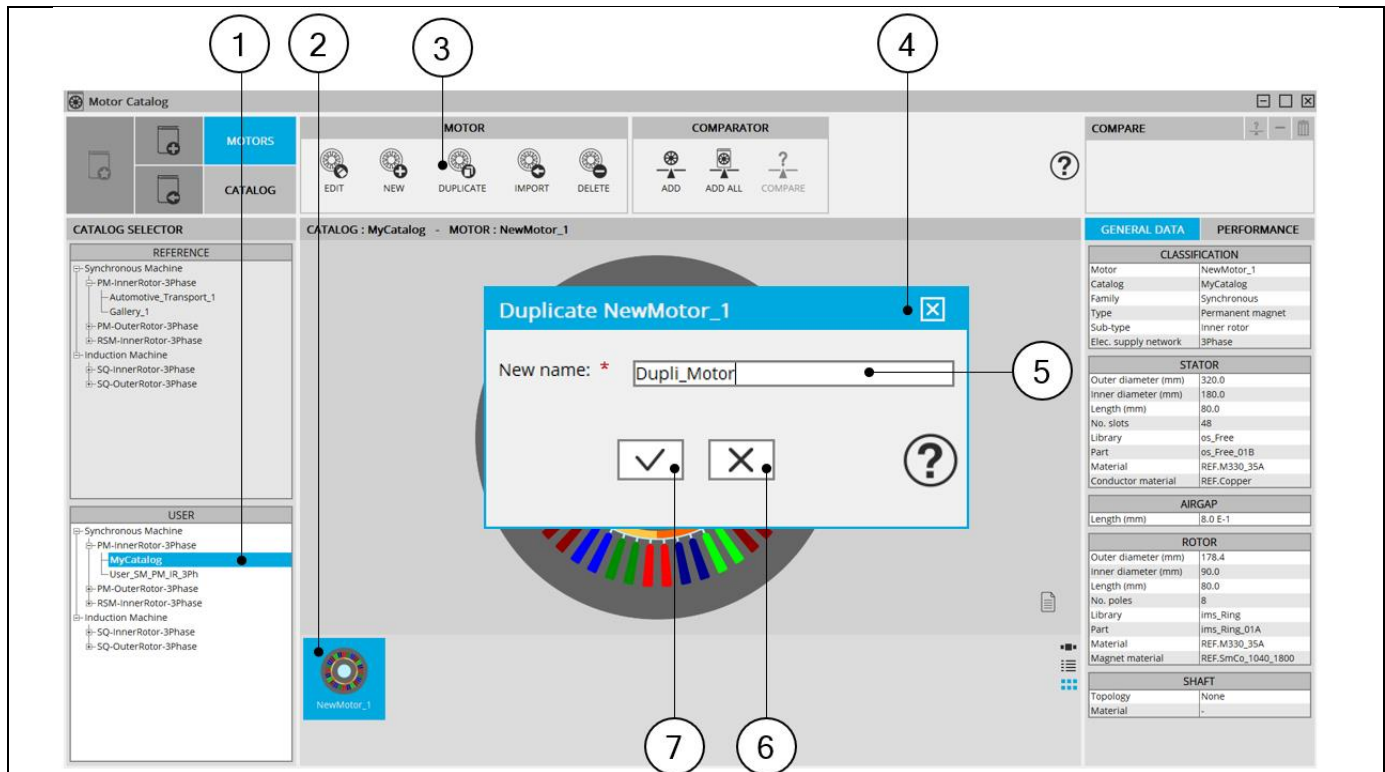
SHAFT	
Topology	None
Material	-

The new motor "NewMotor1" (1) previously created is stored in the corresponding catalog (2).
 Its general data are displayed in the corresponding tab (3).
 Performance will be added only when the datasheet test will be performed (3).

3.2.3 Duplicate

The duplication of a motor is possible only in a user's catalog. If you select a Reference catalog, the icon "DUPLICATE" is disabled.

Note: If the selected catalog is empty, the icon "DUPLICATE" is disabled.



How to duplicate motor?

1	Selection of a user's catalog in which the motor to be duplicated is stored.
2	Selection of the motor to duplicate.
3	Click on the button "DUPLICATE".
4	A dialog box is automatically opened to allow the process of duplication.
5	Give a name to the new motor.
6	Button to cancel the editing of the motor.
7	Button to apply inputs and create the new motor.
Note: The new motor "Dupli_Motor" previously created will be stored in the corresponding catalog. See next illustration.	

The new motor “Dupli_Motor” (1) previously created is stored in the corresponding catalog (2).
 Its general data are displayed in the corresponding tab (3).
 Performance are available only if the datasheet test has been performed (3).

3.2.4 Import a motor from another catalog

Import of motors is possible only in a user's catalog. If you select a Reference catalog, the icon "Import" is disabled.

1

2

3

Motor Catalog

MOTORS

CATALOG

CATALOG SELECTOR

REFERENCE

Synchronous Machine

PM-InnerRotor-3Phase

Automotive_Transport_1

Gallery_1

PM-OuterRotor-3Phase

RSM-InnerRotor-3Phase

Induction Machine

SQ-InnerRotor-3Phase

SQ-OuterRotor-3Phase

USER

Synchronous Machine

PM-InnerRotor-3Phase

MyCatalog

User_SM_PM_IR_3Ph

PM-OuterRotor-3Phase

RSM-InnerRotor-3Phase

Induction Machine

SQ-InnerRotor-3Phase

SQ-OuterRotor-3Phase

CATALOG : MyCatalog

EDIT

NEW

Duplicate

IMPORT

DELETE

How to import a motor from another catalog ?

1

Selection of a user's catalog in which the motors to import will be stored.

2

In this example, the catalog in which motors will be imported is currently empty.

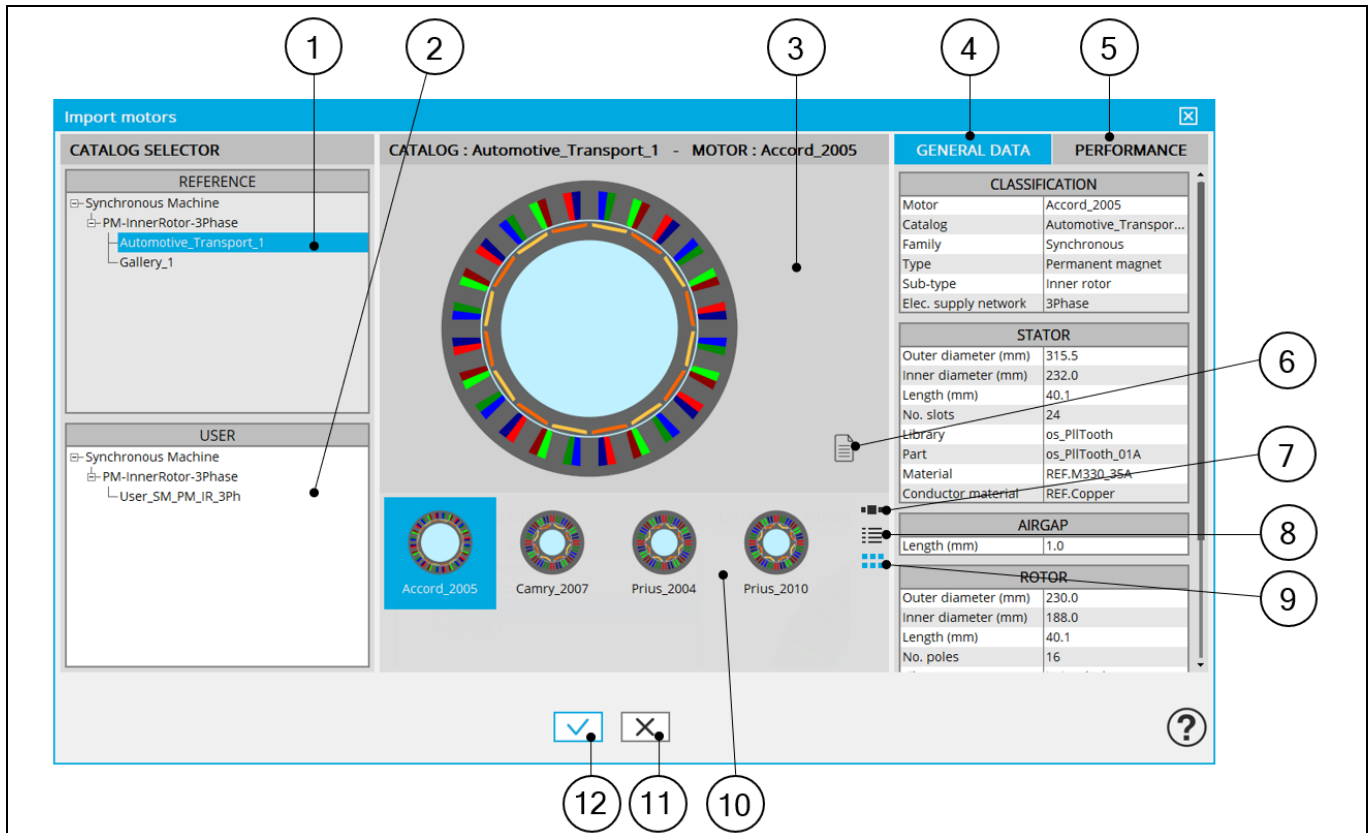
3

Click on the button "IMPORT".

Proprietary Information of Altair Engineering



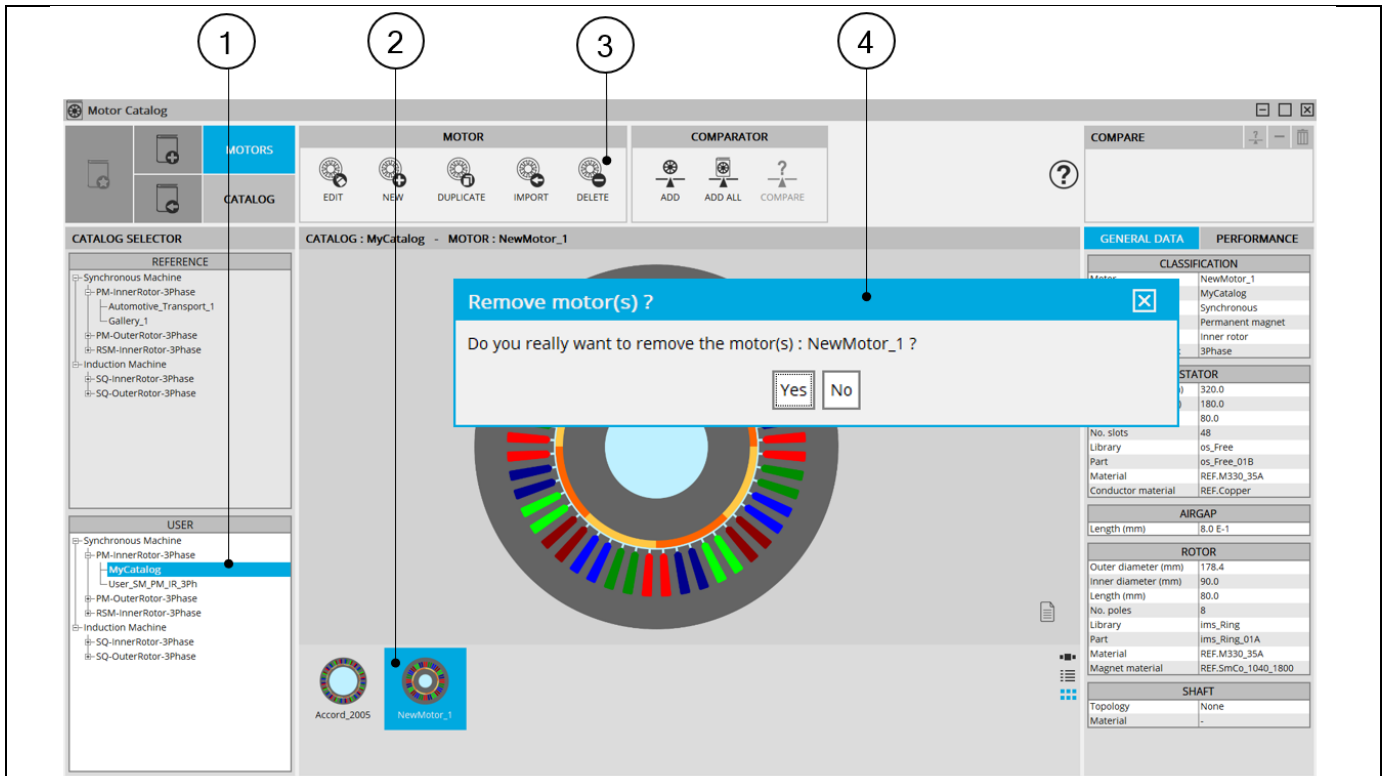
Clicking on the icon "IMPORT" opens a dialog box, allowing access to the motor catalog. It allows to visualize, compare, choose, and import another motor topology in the selected catalog.



How to select motors to import?

1	Visualization of reference catalog i.e. the catalogs of motor topologies provided with FluxMotor®. Select them to view their contents and choose motors among them.
2	Visualization of user catalogs. The default user catalog is "UserSynchronous".
3	Area where the selected motor is displayed (static picture).
4	General data of the selected motor.
5	Performance of the selected motor (available when the datasheet test has been performed. See Motor Factory user guide (TEST environment)).
6	Button to visualize the list of documents attached to the motor. See additional information.
7	Button to display thumbnails as a slide show.
8	Button to display thumbnails as a list.
9	Button to display thumbnails as a matrix view of pictures.
10	Area to visualize all the topologies of motors from the selected catalog.
11	Button to close the dialog box and cancel import of motors.
12	Button to choose and import the selected motors.

3.2.5 Delete motor from a catalog

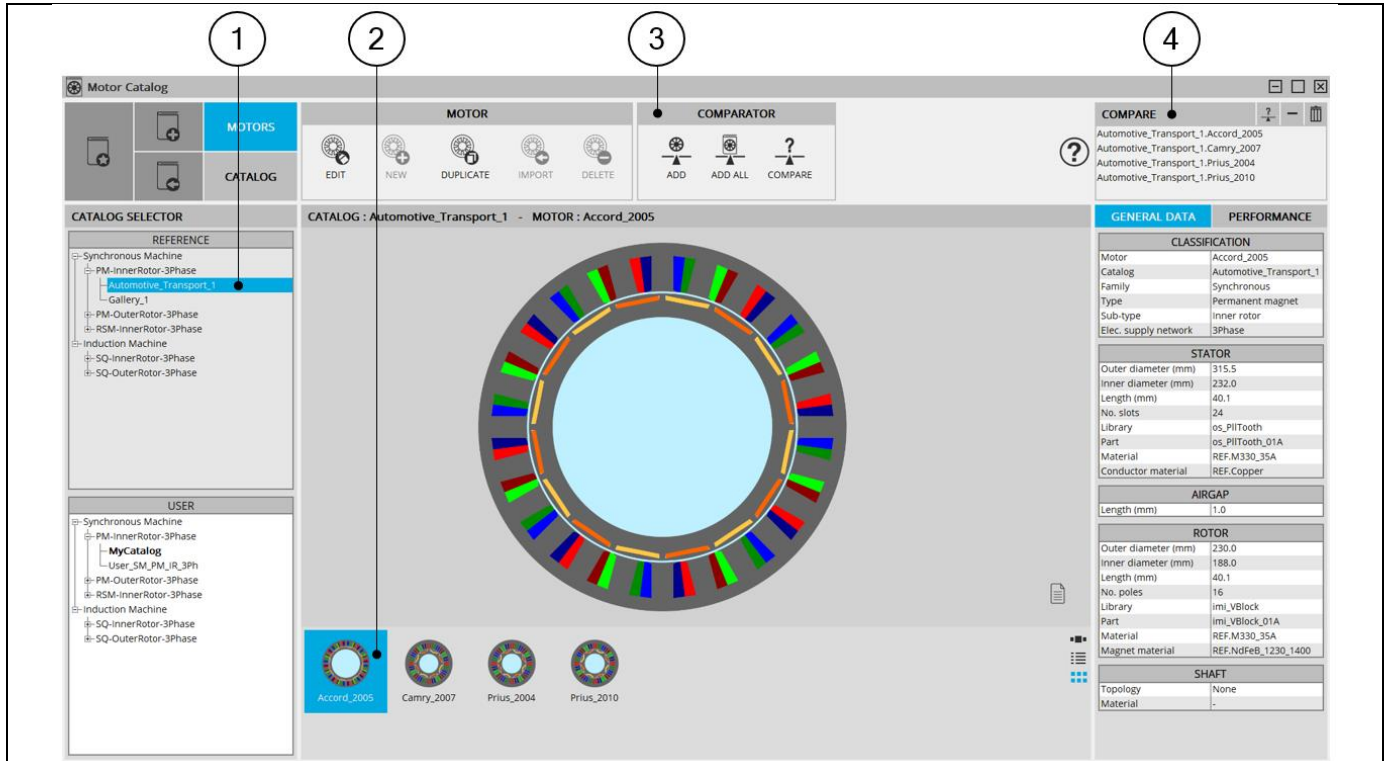


How to delete motors from a catalog?

1	Select the catalog where the motors to delete are stored.
2	Select the motor to delete (several motors can be selected to be deleted).
3	Click on the button "DELETE".
4	A dialog box is automatically opened to validate the removal of the selected motors. Note: Delete a motor means that all the data of the motor are destroyed and not recoverable.

3.3 Compare motors

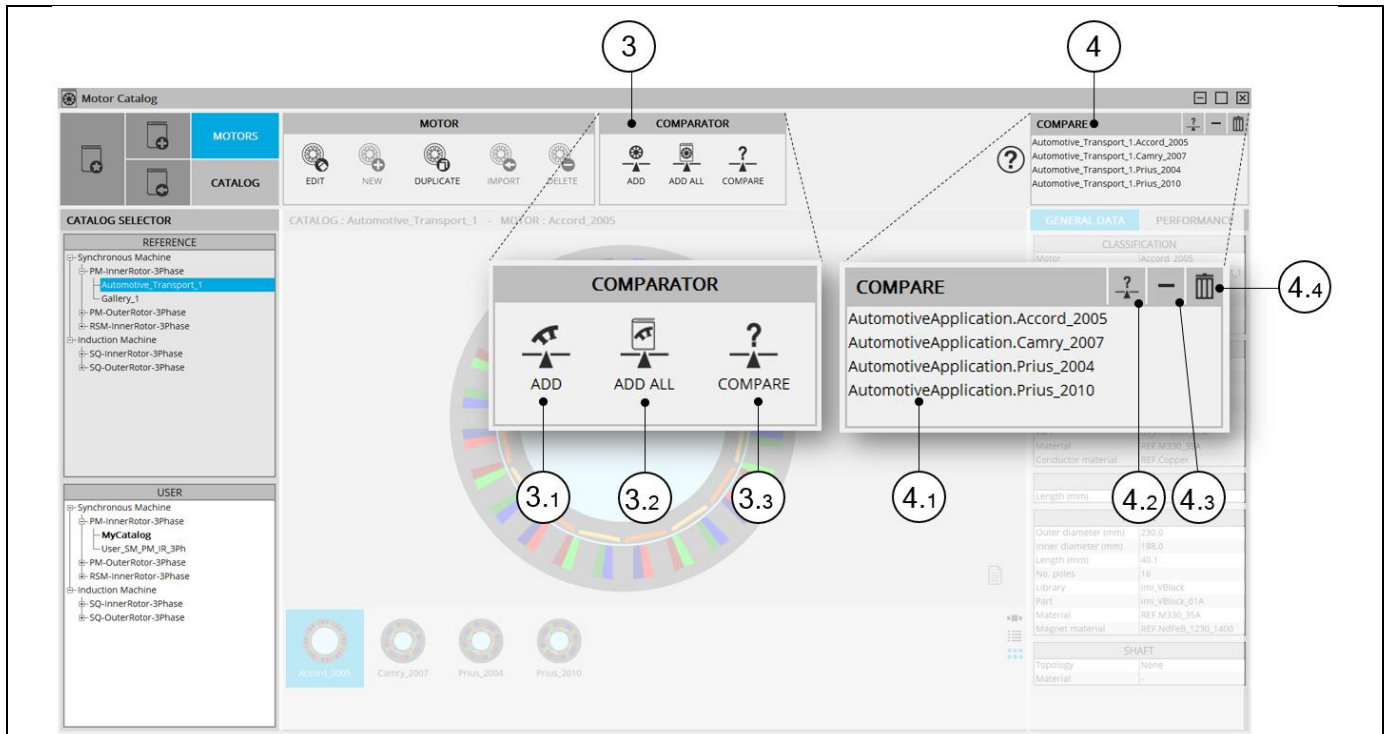
3.3.1 Overview



Tools to select and compare the motors

1	Selection of the catalog of the motors are displayed.
2	Select one or several motors to compare.
3	Box of tools to add the selected motors into the comparator. See more details below.
4	Box of tools to manage the selected motors into the comparator. See more details below.

3.3.2 Content management



Tools to select and compare the motors

3	Box of tools to add the selected motors into the comparator. See more details below.
3.1	Click on this icon to add the selected motors (one or several) into the comparator.
3.2	Click on this icon to add all the motors of the selected catalog into the comparator.
3.3	Click on this icon to get into the comparator application and compare the selected motors.
4	Box of tools to manage the selected motors into the comparator. See more details below.
4.1	Visualization of the selected motor list.
4.2	Click on this icon to get into the comparator application and compare the selected motors.
4.3	Button to remove the selected motors (one or several) from the comparator.
4.4	Button to remove all the motors from the comparator.

3.3.3 Compare

Here is, the environment for the comparator of motors.

Motor Catalog

COMPARATOR

EDIT REMOVE REFRESH CANCEL

COMPARATOR

	Automotive_Transport_1.Camry_2...	Automotive_Transport_1.Accord_2...	Automotive_Transport_1.Prius_2010	Automotive_Transport_1.Prius_2004	Gallery_1.M04_18506P	Galle
Magnet temperature Tmag (°C)	80.0	90.0	100.0	90.0		
Operating mode	Motor	Motor	Motor	Motor		
Speed (rpm)	4 005.789	1 512.658	3 295.343	1 620.33		
Max. Line-Line voltage, rms (V)	468.16	103.7	468.16	360.1		
Phase current, rms (A)	219.2	159.1	125.16	176.5		
Electrical frequency (Hz)	267.053	201.688	219.69	108.022		
Performance						
Machine electrical power (W)	1.195 E5	22 216.911				
Reactive power (VAR)	1.316 E5	17 975.375				
Apparent power (VA)	1.777 E5	28 576.529				
Mechanical power (W)	1.13 E5	20 861.002				
Machine efficiency (%)	94.563	92.572				
Power factor	6.723 E-1	7.774 E-1				
Mechanical torque (N.m)	269.354	131.694				
Ripple mech. torque, pk	25.797	15.241				
Machine characteristics						
Max. current dens., rms	11.758	10.54				
Electrical loading, rms (A/mm)	1.448 E5	68 106.242				
Power density (W/kg)	3 807.525	1 414.944				
kT (N.m/A)	8.689 E-1	5.853 E-1				
kE (V.s/rad)	8.464 E-1	6.236 E-1				
Phase resistance (Ω)	3.993 E-2	1.509 E-2				
Phase inductance L (mH)	2.721 E-3	5.15 E-3				

Tools to select and compare the motors

1	Box of tools to manage the selected motors into the comparator. - EDIT: The selected motor (one motor) can be edited into Motor Factory. Edit a motor allows modifying its properties by using the functions of Motor Factory. See the chapter edit a motor for more details. - REMOVE: The selected motor is removed from the comparator. - REFRESH: For updating data by considering new results got in Motor Factory – Test environment. - CANCEL: To close the comparator and get back to Motor Catalog environment.
2	All the selected motors are aligned to help the comparison. The general data and performance are displayed.
3	Clicking on one field allows arranging the motors by considering ascending or decreasing order of the selected data. The black arrow shows the order retained.
4	A scroll bar allows visualizing all the motors.

3.4 Attachments

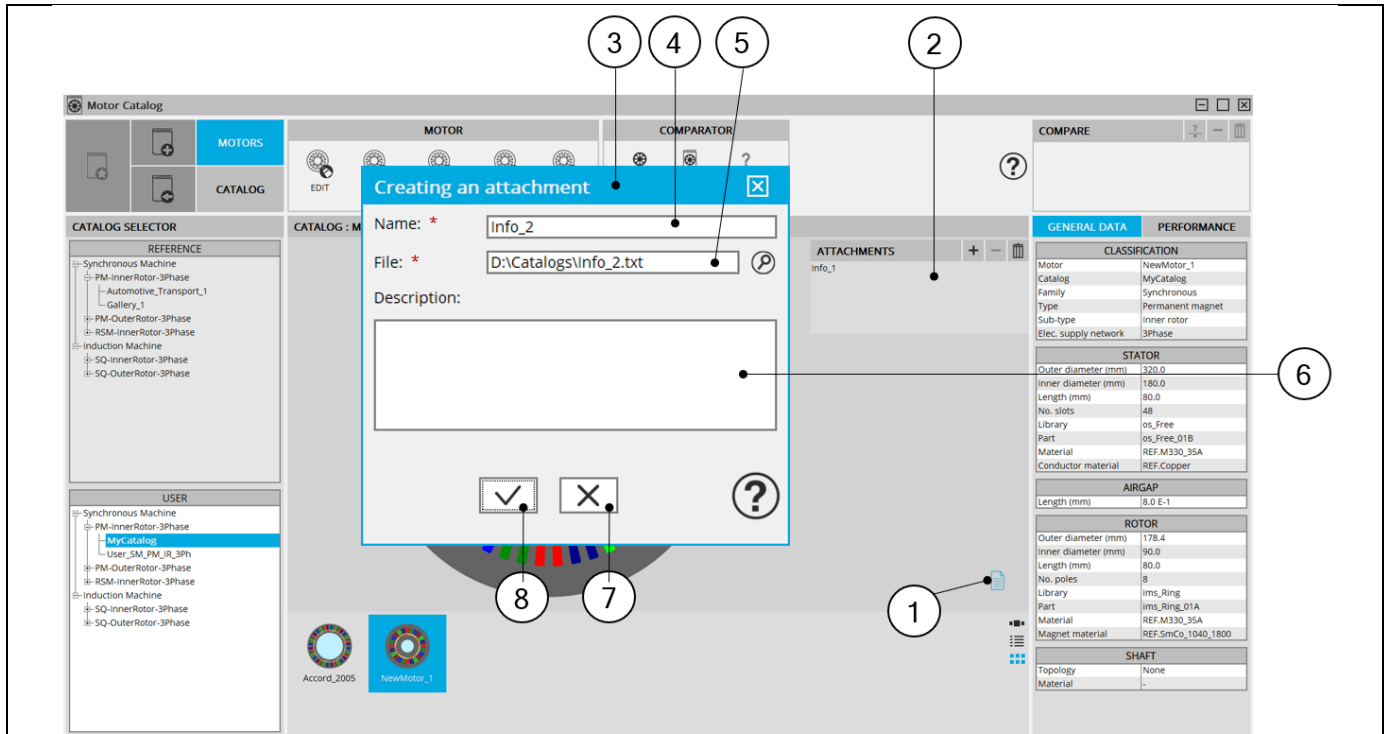
3.4.1 Introduction

Documents can be attached to user's motors. It allows quickly reaching to the available additional information for describing these motors.

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

Note 2: Documents can be linked to motors as well as to catalogs. See chapter Management of catalogs.

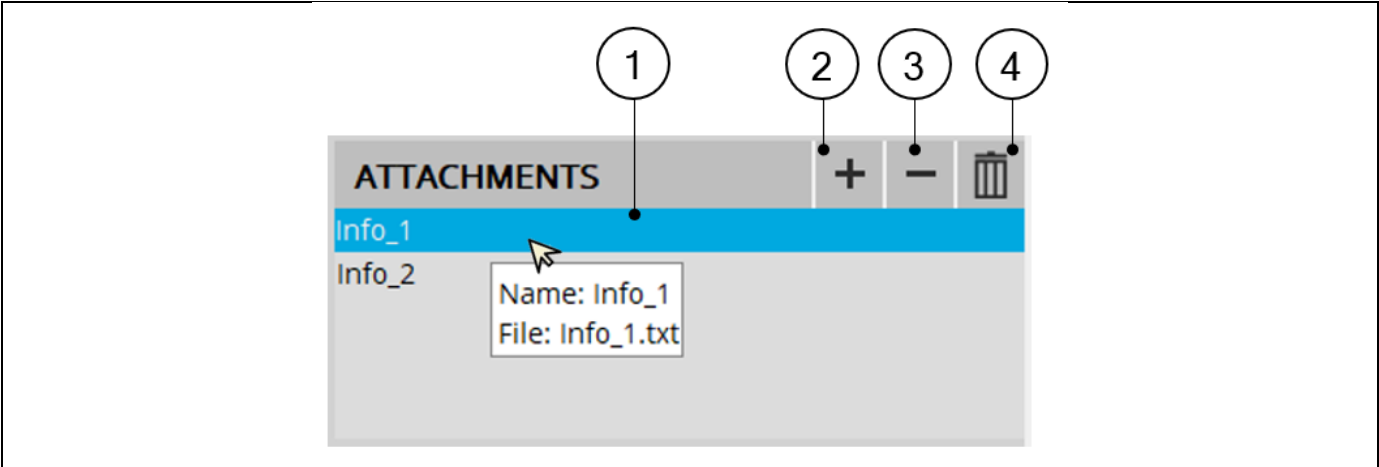
3.4.2 How to create an attachment?



Creation of an attachment for a motor

1	Icon to display the attachment box just above (2).
2	Attachments box to manage the attached documents. Button (+) allows adding documents. Button (-) allows removing selected documents. Note: This box is disabled when motors from reference catalogs are considered.
3	A dedicated dialog box allows adding a new attached document. All kind of documents can be attached (like word, excel, pdf or text files, pictures, etc.).
4	Give a name to the attached document.
5	Select the folder in which the document to be attached is stored.
6	It is possible to write a reminder dealing with the attached document.
7	Button to cancel the creation of the attachment.
8	Button to apply inputs, create the new attachment and close the dialog box.

3.4.3 Management of attachments



Management of attachments	
1	Selection of an attached document. Once selected, a tooltip reminds the name and the description of the selected document.
2	Button (+) to add an attachment (see the previous section).
3	Button (-) to remove one or several attachments.
4	Button for removing selected attached file.

4 EXTERNAL LINKS

4.1 Browse

4.1.1 Overview

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

The screenshot shows the 'Motor Catalog' application window. On the left is a 'CATALOG SELECTOR' with 'REFERENCE' and 'USER' tree views. The top has a 'CATALOG' toolbar with 'BROWSE', 'UNLOAD', and 'DELETE' buttons. The main area displays 'MyCatalog' with four motor icons labeled 'Accord_2005', 'Camry_2007', 'Prius_2004', and 'Prius_2010'. On the right, the 'GENERAL DATA' panel shows classification details for 'MyCatalog', including 'Working directory' set to 'D:\Catalogs\MyCatalog'. Below this is a 'REMINDER' section and an 'ATTACHMENTS' list.

Browsing to access the catalog folder	
1	Selection of a catalog.
2	Browse function available from the top part of the environment.
3	Browse function available from information table.

4.1.2 Contents of folders

4.1.2.1 Overview

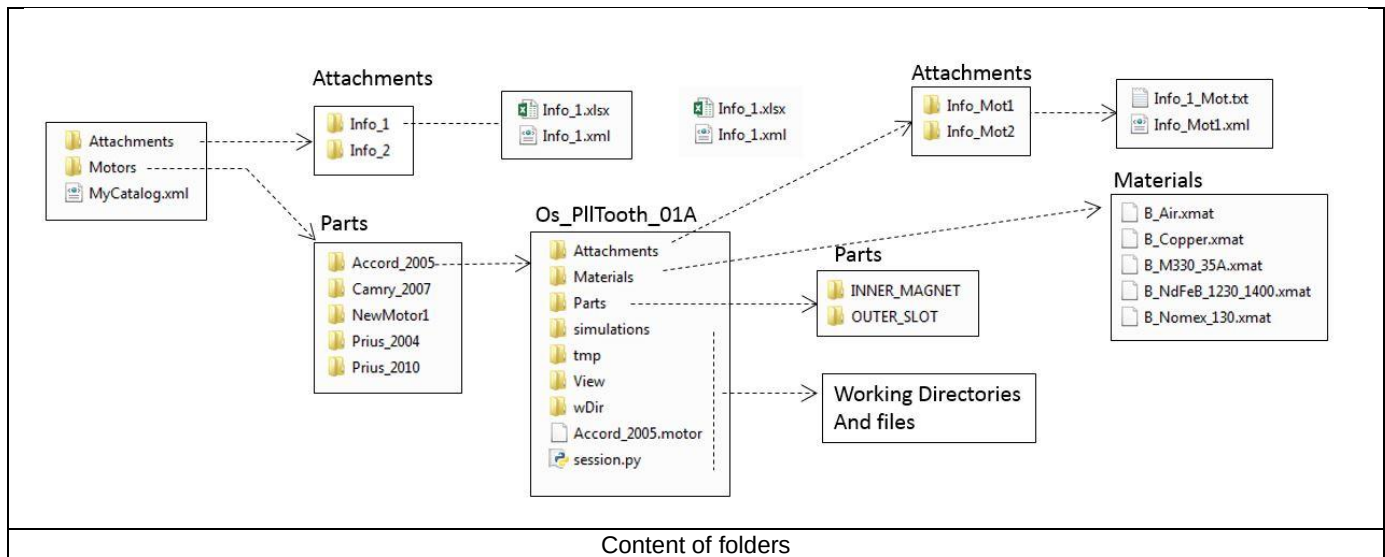
The contents of folder directly reachable from the CATALOG interface are described below.

Browsing to access the catalog folder

1	Selection of a user's catalog. In our example the name of this catalog is "MyCatalog".
2	Click on the icon "BROWSE" to reach the folders dealing with the motor.
3	Click on the path in the "Working folder" field to reach the folders dealing with the motor.
4	Content of the folder "MyCatalog": Two folders "Attachments" and "Motors" + one xml file: MyCatalog.xml. See below the content of these folders.

4.1.2.2 Folder organization

The graph below shows how to reach the main files dealing with catalogs or motors.



Folder “Attachments”:

All the documents associated to the considered catalog (or Motor).

Folder “Motors”:

All the motors stored in the considered catalog.