# **MOTIVE Client Manual**



What is MOTIVE Client	2
Installation	2
Brief overview of the MOTIVE database structure	3
Settings	4
MOTIVE database settings	4
MOTIVE database XML files	4
MOTIVE local SQLite database	4
MOTIVE remote database	5
Working dataset setting	6
Main panes	7
Simulation Run	7
Upload data to the MOTIVE remote database	10
Charts	12
Case Study Data	15
Scenarios	16
Scripts	16
Catalogs	18
Global	18
Catalogs	19
Messages	20
Tools	21
MOTIVE database Web interface	21
Export database structure to SQL	21
Help	22
MOTIVE wiki documentation	22
MOTIVE Client manual	22

## What is MOTIVE Client

The MOTIVE client software package is a central tool of the MOTIVE toolbox. Its current main task is to service modeling groups by handling and transfering model output data to the MOTIVE database.

Currently MOTIVE Client can

- Manage scripts (load, edit, save, execute)
- Browse data (case study data, scenarios, results, catalogs)
- Display charts
- Export database structure to sql
- Upload data to MOTIVE server

### Installation

MOTIVE client is distributed as a single zip file MotiveClient.zip together with the necessary libraries and ini files. It does not require installation.

Unzip the zip file anywhere to your computer. The following file structure will be created:

- Motive executable
   MotiveClient
- Database directory: template database and database metadata
- Sampledata directory: sample data (picus)



### Brief overview of the MOTIVE database structure

MOTIVE database is created as a relational database. Tables in this database can be logically organized into several groups:

- Case study data
- o SiteType
- o StandType
- Scenarios •

•

- o Management
- o ManagementActivity
- Simulation Run and Results .
  - o SimulationRun
  - o State
  - State\_Species
  - o State\_DBHClasses
  - o State Assortments
- Catalogs .
  - Global tables (Global tables are common to all case studies and models in the MOTIVE project.)
    - o CaseStudies
    - o Models
    - o Institutes
  - User catalogs (User catalogs represent lists of possible values for particular attributes; they are similar to enumeration types.)
    - o Species
    - o ScenarioType
    - o SoilTexture
    - o SoilType
    - o InithialPhase
    - o NutrientSupply
    - o RegenerationSystem

o Flow\_DBHClasses

o Flow\_Species

o Flow

- o Flow\_Assortments
- - o ContactPersons
  - ClimateScenarios

  - ThinningType
  - WaterInfluence
  - WindDirection
  - o SilviculturalSystem
  - o Cloudiness
  - o Country

See the MOTIVE\_Harmonized\_Model\_Outputs.doc for more details.

o SimulationEntity o ClimateDriver

## Settings

#### MOTIVE database settings

Use the MOTIVE database settings to set the working database.

MOTIVE database settings window pops up when running the client for the first time. Click File/ MOTIVE database settings to open the window manually.

	o structure VMI Fla	
	ie structure AME file	
C:/MotiveClient	:/database/Motive_Database_	Metadata.xml
MOTIVE classes	XML file	
C:/MotiveClient	:/database/Motive_Database_	Classes.xml
MOTIVE local SQ	Lite database	
C:/MotiveClien	:/database/motive_version1.d	Ь
Open e	existing database	Create a new database
10TIVE remote (	latabase	
Server address	141.244.189.157	
User name	EuropeanCase	7 Test connection
energe i		

#### **MOTIVE database XML files**

MOTIVE client uses xml files to load the database structure

(Motive\_Database\_Metadata.xml) and the catalogs (Motive\_Database\_Classes.xml). Default location for these files is the "//MotiveClient/database" directory. There is no need to change these files unless a new version of a central database is released.

#### **MOTIVE local SQLite database**

MOTIVE client uses local SQLite database to store data. A SQLite database is a single file with the "db" extension.

There is a template database called "motive.db" delivered together with the MOTIVE client, default location for the file is the "//MotiveClient/database" directory. Do not use this template as a working database; create your own database instead.



button to create a new

database. The new database has an empty data tables for case study data, scenarios and results; global tables and user catalogs are predefined.



button to open an existing

Click the "Open an existing database" database.

#### **MOTIVE remote database**

Click the "Create a new database"

MOTIVE remote database is the central MOTIVE database that stores outputs of models based on the "harmonized model output" defined by the Motive project.

The connection parameters are: Server address is 141.244.189.157 User name and password: generated for each case study.

The user name and password is also valid for the web-based browsing tool that makes accessible uploaded data of the uploading party at <u>http://motive.boku.ac.at/viewer</u>. (Or Click Tools / "MOTIVE database Web interface" to open the MOTIVE central database web-based browsing tool.)

#### Working dataset setting

Use the working dataset settings to set the case study for the current working session.

Working dataset settings window pops up when running the client for the first time. Click "File/ Working dataset settings" to open the window manually.

ase Study Centr	al Alpine case (3b1 and 3b2)	
Default values		
Model	PICUS	\$
Model variant		
Climate scenario	Climate change A1B	\$
Producer		\$
ript file automatic	ally loaded during startup	
		][

Case Study:

Set the case study which all data should be related to. When working with scripts or browsing data, only values for the selected case study will be available.

Default values:

Set default values for the scripting environment. All scripts in the current working session will use these settings.

You can set a script that will be automatically loaded during startup.

## Main panes

#### Simulation Run

Use the Simulation Run pane to handle the simulation runs and browse the results. As described in the "Harmonized model output" document, the "simulation run" is a connection point between the model outputs and the meta data.

	Simulation Run	1	Case St	udy Data	Scenarios	Scripts	Catalogs	Messag	ges	
imula	ation Runs	_						2		
-	C New		ID	IDCaseStu	udy DSimulationEn	tit IDStandType	IDSiteType	IDClimateSc	enario	IDClin
		1	1	AT01	108	1	2	ScenarioType A		1
	5 Import	2	2	AT01	108	1	2	Scenario Type A		1
-		3	3	AT01	108	1	2	Climate change A	LB	1
H.	Upload selected	4	4	AT01	108	1	2	Climate change A	LB	1
-		5	5	AT01	108	1	2	Scenario Type A		1
6		6	6	AT01	109	2	1	ScenarioType A		1
	Refresh	7	7	AT01	109	2	1	ScenarioType A		1
-		8	8	AT01	109	2	1	Climate change A	LB	1
esul	Its of active simulation		1			Select all	Select none	Set filter	) 🔀	Reset filte
esul Stat	Its of active simulation	1 rur	n	•		Select all	Select none	Set filter		Reset filte
esul Stat	Its of active simulation te_Species IDSimulationRun	1 FUI	n IDCaseStudy	¢) Year	Species	Select all	Select none	BranchBiomass	LeafBi	Reset filter
esul Stat	Its of active simulation te_Species IDSimulationRun 2	n rui	n IDCaseStudy T01	◆ Year 2000	Species silver fir	Select all srowingStockTota 208,208	StemBiomass	BranchBiomass	LeafBi	Reset filter
esul Stat 1 2	Its of active simulation te_Species IDSimulationRun 2 2	A A	n IDCaseStudy T01 T01	◆ Year 2000 2000	Species silver fir european beech	Select all SrowingStockTota 208,208 2,90774	StemBiomass 149043 2746,76	BranchBiomass 18000 319	LeafBi 1594,44 26,7681	Reset filter
esul Stat 1 2 3	Its of active simulation te_Species IDSimulationRun 2 2 2 2	A A A	n IDCaseStudy T01 T01 T01	◆ Year 2000 2000 2000	Species silver fir european beech norway spruce	Select all SrowingStockTota 208,208 2,90774 605,493	StemBiomass 149043 2746,76 345351	BranchBiomass 18000 319 41800	LeafBi 1594,44 26,7681 3177,84	Reset filter
esul Stat 1 2 3 4	Its of active simulation te_Species IDSimulationRun 2 2 2 2 2 2	A A A	n IDCaseStudy T01 T01 T01 T01		Species silver fir european beech norway spruce silver fir	Select all SrowingStockTota 208,208 2,90774 605,493 209,808	StemBiomass 149043 2746,76 345351 149905	BranchBiomass 18000 319 41800 18100	LeafBi 1594,44 26,7681 3177,84 1610,33	Reset filter
esul Stat 1 2 3 4 5	Its of active simulation te_Species IDSimulationRun 2 2 2 2 2 2 2 2 2 2		n IDCaseStudy T01 T01 T01 T01 T01 T01		Species silver fir european beech norway spruce silver fir european beech	Select all SrowingStockTota 208,208 2,90774 605,493 209,808 2,96426	StemBiomass 149043 2746,76 345351 149905 2776,56	BranchBiomass 18000 319 41800 18100 322	LeafBi 1594,44 26,7681 3177,84 1610,33 27,1686	omass
esul Stat 1 2 3 4 5 6	Its of active simulation te_Species IDSimulationRun 2 2 2 2 2 2 2 2 2 2 2 2 2 2		n IDCaseStudy T01 T01 T01 T01 T01 T01 T01		Species silver fir european beech norway spruce silver fir european beech norway spruce	Select all SrowingStockTota 208,208 2,90774 605,493 209,808 2,96426 611,322	StemBiomass 149043 2746,76 345351 149905 2776,56 347876	BranchBiomass 18000 319 41800 18100 322 42100	LeafBi 1594,44 26,7681 3177,84 1610,33 27,1686 3175,48	omass
esul Stat 1 2 3 4 5 6 7	Its of active simulation te_Species IDSimulationRun 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		n IDCaseStudy T01 T01 T01 T01 T01 T01 T01 T01	Year           2000           2000           2000           2000           2001           2001           2001           2001           2001           2002	Species silver fir european beech norway spruce silver fir european beech norway spruce silver fir	Select all SrowingStockTota 208,208 2,90774 605,493 209,808 2,96426 611,322 211,209	StemBiomass 149043 2746,76 345351 149905 2776,56 347876 150649	BranchBiomass 18000 319 41800 18100 322 42100 18200	LeafBii 1594,44 26,7681 3177,84 1610,33 27,1686 3175,48 1624,87	omass
esul Stat 1 2 3 4 5 6 7 8	Its of active simulation te_Species IDSimulationRun 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		n IDCaseStudy T01 T01 T01 T01 T01 T01 T01 T01 T01 T01	Year           2000           2000           2000           2001           2001           2001           2001           2002	Species silver fir european beech norway spruce silver fir european beech norway spruce silver fir european beech	Select all irowingStockTota 208,208 2,90774 605,493 209,808 2,96426 611,322 211,209 3,01629	StemBiomass 149043 2746,76 345351 149905 2776,56 347876 150649 2804	BranchBiomass 18000 319 41800 18100 322 42100 18200 326	LeafBii 1594,44 26,7681 3177,84 1610,33 27,1686 3175,48 1624,87 27,5336	omass
esul Stat 1 2 3 4 5 6 7 8 4	Its of active simulation te_Species IDSimulationRun 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		1DCaseStudy T01 T01 T01 T01 T01 T01 T01 T01 T01	Year           2000           2000           2000           2001           2001           2001           2001           2002	Species silver fir european beech norway spruce silver fir european beech norway spruce silver fir european beech silver fir european beech	Select all SrowingStockTota 208,208 2,90774 605,493 209,808 2,96426 611,322 211,209 3,01629	StemBiomass 149043 2746,76 345351 149905 2776,56 347876 150649 2804	BranchBiomass 18000 319 41800 18100 322 42100 18200 326	LeafBi 1594,44 26,7681 3177,84 1610,33 27,1686 3175,48 1624,87 27,5336	omass

Available simulation runs are listed in the upper part of the window, relevant results for selected simulation runs are listed below.

Click a single row or select multiple rows in the simulation runs table to select the simulation runs you are interested in; the result tables are filtered accordingly.

You can also use the "Set filter"

function to limit the displayed data.

ID IDSimulationEntity IDStandType IDSiteType IDClimateScenario IDClimateDriver IDManagement IDModel Date Producer ModelVariant	<ul> <li>✓ Picus 1.43</li> <li>✓ Picus 1.43 BB</li> </ul>
Reset all filters	Check all Check none

📀 Set filter

There is a list of available attributes on the left side of the window. There are available distinct values of the selected attribute listed on the right side of the window.

There are several results tables depending on the level of aggregation:

Results of active simulation run						
State						
State_Species State_DBHClasses State_Assortments Flow Flow_Species Flow_DBHClasses Flow_Assortments Activities	irowingStockTota	StemBiomass	BranchBiomass	LeafBiomass	irowingStockValu	νοnInBε
	Select all	Select n	ione Set fil	ter Kes	et filter	) Charts

C New

Click the "New" button to create a new simulation run. Read the "Harmonized model output" document to understand how to prepare the simulation run.

simulation ent	ity	
108		
ite/Stand/Clin	nate	
Climate Scena	rio	
		÷
Use spatia	bi la	
Additional info	rmation	
Stand type	Picea abies with Abies alba and admixed Fagus sylvatio	a 🗢
Site type	rich cambisol on siliceous sandstone	•
Use stand	l/site type from simulation entity	
Management	Business as usual management 1 (no management)	( <b>†</b> )
Model	PICUS	<b>(</b>
Modelvariant		
Overwrite ru	un if already exists	
	New York	incel
		incer

working database. You can either import data or import values to the catalogs. You can decide how to handle existing values.

Click the "Delete button" Click the selected button run.

Click the "Refresh button" Click the "Refresh button" to refresh all table views. This might be helpful after executing some scripts.

#### Upload data to the MOTIVE remote database

Use the "File / Motive database settings" function to set the MOTIVE remote database settings (see the MOTIVE remote database chapter for more details).

Click a single row or select multiple rows in the simulation runs table to select the simulation runs you want to upload; the result tables are filtered accordingly. You can also use the "Set

filter"	

💎 Set filter

function to limit the uploaded data.

Click the "Upload selected" button [Solution of the Upload selected] to upload your simulation data to the MOTIVE server. The "Data upload" window appears.

Starting data upload of simu	lation run(s): 5			
onnecting remote database ransfering data of table Sit ransfering data of table Sta ransfering data of table Sin ransfering data of table Sin ransfering data of table Sta	esucceeded! eType 1 record(s) pro- andType 1 record(s) p nulationEntity 1 record nulationRun 1 record(s ate_Species	cessed in 0.013 s rocessed in 0.010 s I(s) processed in 0.01 s) processed in 0.038	1s s	

You can use the "Abort" button to abort the upload; the whole upload procedure is then aborted and no data is uploaded.

In case of a successful upload you get a "Data upload successfuly finished!" message and "Upload time" attribute is set.

	ID	IDCaseStudy	UploadTime	Replication	ModelVariant
1	1	AT01		1	Picus 1.43
2	2	AT01		1	Picus 1.43 BB
3	3	AT01		1	Picus 1.43
4	4	AT01		1	Picus 1.43 BB
5	5	AT01	2011-07-26 20:13:26	1	Picus 1.43
6	6	AT01		1	Picus 1.43
7	7	AT01		1	Picus 1.43 BB
8	8	AT01		1	Picus 1.43
٩	q	ΔT01		1	Picus 1 43 RR
•					

You can check the uploaded data at <u>http://motive.boku.ac.at/viewer</u>. (Or Click Tools / "MOTIVE database Web interface" to open the MOTIVE central database web-based browsing tool.)

MOTIVE	A	A IN	1 (1/1, 1)				
	user: CentralAlpi	ne			Logout	Change	password
Home	simulation run						
Catalogs	ID Case Stu	idy Replicati	on M	Model var	ant Stand Type	Sit	te Type
Global tables	5 Central Alpine case (3b) and 3b2)	1	P	icus 1.43	Picea abies wi Abies alba and admixed Fagu sylvatica	th I AC s san	soil on sili idstone
Case studies	results: state (s	m pecies)					•
Scenarios	-			Start P	revious Next <mark>E</mark> nd		
Results	IDSimulationRun	IDCaseStudy	Year	Species	GrowingStockTotal	StemBiomass	BranchB
•••	5	A101	2000	tasy	2.79	2.64	0.31
Simulation run	5	AT01	2000	piab	607.96	346.71	42.02
State	5	AT01	2001	abal	210.97	150.70	18.16
State (species)	5	AT01	2001	fasy	2.85	2.67	0.31
State (DBH classes)		A101	2001	(05)	2.00	2.07	0.01
State (Assortments)	5	AT01	2003	abal	213.16	151.81	18.28
Flow	•						*
Flow (species)					воки 🐽	IFER	I-
Flow (DBH classes)					~		

#### Charts

Click the "Charts button" Charts to open the "Charts settings dialog".

Species	\$
ndependent variable	
Year	\$
ependent variable(s)	
GrowingStockTotal	<i>e</i> o

Choose the variable the chart will be grouped for (similar to series in MS Excel).

Group rest	ults by	
Species		<b>+</b>

Choose the independent variable (y axis).

Independent variable	
Year	\$

Choose the dependent variable(s) (x axis).



Use the arrows to move the variables from the list of available variables on the right side of the window to the list of selected variables on the left side of the window and vice versa.

Use the "Up" up and "Down" buttons to move the selected variables up and down within the list.

Click the "OK" button. The chart might then look like this:



filter" Set filter function

**Note:** Set proper filter to your results tables using the "Set filter" prior to creating charts.

E.g. to display charts for one simulation run wit ID=1 and for two species "silver fir" and "norway spruce", set the filter as follows:



#### **Case Study Data**

Use the Case Study data pane to browse the case study related data tables SiteType, StandType, SimulationEntity or ClimateDriver.

Sir	ulation Run Case Study Da	ta Scenarios 🧕	Scripts	Catalogs	Messag	jes
iteType		•				
ID	IDCaseStudy	IDCaseStudy Title SoilTy		SoilTexture	VaterInfluenc	Depth
. 1	Central Alpine case (3b1 and 3b2)	rich cambisol on siliceous sandstone	acidic	Loamy	No	40 30
2	Central Alpine case (3b1 and 3b2)	AC soil on siliceous sandstone	acidic	Loamy	No	15 30

ou can use filter	to limit the displayed data.
ID Title SoilType SoilTexture WaterInfluence Depth Stoniness WHC NutrientSupply	v good v medium
Reset all filters	Check all Check none

There is a list of available attributes on the left side of the window. There are available distinct values of the selected attribute listed on the right side of the window.

#### Scenarios

Use the Scenarios data pane to browse the scenarios related data tables Management and Management Activity.

lanag	gement		*		
	ID	<b>IDCaseStudy</b>	Title	RegenerationSystem	ThinningTyp
BA	VU1	Central Alpine case (3b1 and 3b2)	Business as usual management 1 (no management)	No management	ment No thinning crane No thinning
BA	LU2	Central Alpine case (3b1 and 3b2)	Business as usual management 2 (sky crane slit cuts)	Slit cut / sky crane	
í					
				Set filter	X Reset filter

#### Scripts

Use the Scripts pane to load, edit and execute scripts.

lools Help			-			
Simulation Run	Case Study Data	Scenarios	Scripts	Catalogs	Messages	
ommand						• Execute
ript editor		No	active simulation r	un.		
				Apply change	is Doad script	Save scrip
				Apply change	s Load script	Save scrip
ipt messages			njenjednejnejnejnejnejnejnejnejnejnejnejnejnejn	Apply change	s Load script	Save scrip
ript messages		3	nononantono :	Apply change	s Load script	Save scrip
ript messages				Apply change	s Load script	Save scrip
ript messages			nanananany.	Apply change	s Load script	Save scrip
ript messages		1		Apply change	s Load script	Save scrip
ript messages			nongangangan	Apply change	s Load script	Save scrip
ipt messages		7	цананана .	Apply change	s Load script	Save scrip

Use the command line to execute a single command in the script environment.

Click the "Load script" button Load script to load an existing script. Click the "Apply changes" button Apply changes to apply changes made in the script. Click the "Save script" button Save script to save the script. Click the "Clear" button to clear the script messages window.

Some scripts can create a user toolbar:

Tools Help				
Simulation Run	ase Study Data	Scripts Cata	logs Messages	
import Meta data 👘 Import d	limate data 🛛 🏐 Load picus data 🔹	ioad a test file		
ommand			•	Execute
cript editor	N	active simulation run.		
<pre>1 to demonstrates. 1 + how to register fi + how to register fi + how to handle som 5*/ 6// include the standar 7// see http://motive.or 8 include('library.js'); 9 include('picus.js'); /, 10 // GUI 11 function publishAPI() 12 // this 13 // name: the short 14 // desc: (optional 15 // command: the jar on the button. 16 // Special strings 17 // SFILE: opens a 1 18 // SDATA: opens a 1 19 // SDATA: opens a 1 10 // SDATA: opens a 1 10</pre>	<pre>unctionality within the G e example data of the dem d library prporate-wiki.net/index.pl / this is the picus specie t command name : more detailed descript. rascript function in *this file select dialog input box to let the user</pre>	UI of the MOTIVE client o case hp/Javascript_library fic interface ion of the function (used s* file which should be ex directly enter text	for tooltips) secuted when the user	clicks
		Apply of	hanges hanges	🖄 Save script
cript messages				🍾 Clear
loaded key-transformation for speciesnar "Import Meta data" "loadExampleData()" "Import dimate data" "loadCimateFile()"" Load picus data "loadRuns(\$DATA)" "loa Toad a test file" "loadTestFile(\$FILE)" "loa centefile".". Methuc dimet forespilotato from	ne - d a picus run (provide the run - id, see do d a test file (open an file open dialog) and	cumentation), or provide -1 to load all avai l print the contents"	lable runs."	

### Catalogs

Catalogs are common to all case studies and models in the MOTIVE project. Catalogs ensure harmonization of the simulation data from different case studies and models. Therefore it is not possible to make changes to the catalogs in the MOTIVE Client. In case a new catalog value is necessary, please contact Werner Rammer (<u>werner.rammer@boku.ac.at</u>) or Martina Roubalová (<u>martina.roubalova@IFER.cz</u>).

#### Global

Use the Catalogs/Global pane to browse the global tables.

Simulation Run	P	Case Study	Data Scenarios Scripts	Catalogs Messages
Global 🚺 Ca	talogs			
Available tables		ID	Name	Description
Models	1	FI01	N Boreal case (1a)	The Finnish case study area is situated
ContactPersons	2	SE01	S Boreal case (1b)	Kronoberg County is located in southe
ClimateScenario	3	UK01	Atlantic Wales case (2a)	The forest is Atlantic/temperate with c
CaseStudies	4	NL01	Atlantic Veluwe case (2b)	The research area, the South-East-Velu
	5	DE01	Central Black forest case (3a1 and 3a2)	Urban district Baden-Baden and rural d.
	6	AT01	Central Alpine case (3b1 and 3b2)	The central alpine case study comprise.
	7	ES01	Mediterranean Catalonia case (4a)	The study area (26000 ha) is located in
	8	PT01	Mediterranean Portugal case (4b)	Forest represents almost many of Cha
	9	BG01	Continental Bulgaria case (5a)	Study area "Panagiurishte" is located in.
	10	RO01	Continental Romania case (5b)	The study area will consist of two fores.
	11	EU01	European case (6)	European forests cover some 175 Mha
	•		jji.	
				Set filter 🕅 🔆 Reset filter

### Catalogs

Catalogs represent lists of possible values for particular attributes; they are similar to enumeration types.

Simulation Run	P	Case Study Dat	a Scena	rios Scripts	Catalogs	Messages
Global Catalo	igs	ID	Value			
- xCloudiness	1	10	calcareous			
	2	20	acidic			
xNutrientSupply	3	30	peat			
x Scenario Type x Scil Texture x Soil Texture x Species x Thinning Type x WaterInfluence x WindDirection x Silvicultural System x YesNo	4	40	otner	Add item	item(s)	· Keset filter

#### Messages

Use the Messages pane to view the system log.



Click the "Clear button"

Clear

to clear the window

### Tools

#### MOTIVE database Web interface



Click Tools / "MOTIVE database Web interface"

open the MOTIVE central database web-based browsing tool. !!!

#### Export database structure to SQL

Click "Tools / Export database structure to SQL" generate a sql file.



## Help

#### **MOTIVE** wiki documentation



Click "Help/MOTIVE wiki documentation" the MOTIVE wiki:

- Documentation of the Harmonized model ouputs: PDF document
- Documentation of the demo case and how to get started with writing interfaces
- Documentation of the Client software itself

Page Discussion View source History
Documentation
1 The documentation is split into several documents / web pages.
<ul> <li>Documentation of the Harmonized model ouputs: PDF document </li> <li>Documentation of the demo case and how to get started with writing interfaces </li> </ul>
Documentation of the Client software itself
2 Additional resources
<ul> <li>Slides of the training session in Wageningen (April 2011)</li> <li>the motive project  website</li> </ul>
Categories: (keine)
Kategorie hinzufügen

#### **MOTIVE Client manual**



Click "Help/MOTIVE client manual" MOTIVE client manual.

to open the