Mechatronic Explorer User manual

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AUCOTEC AG

Oldenburger Allee 24 D-30659 Hannover

Phone: +49 (0)511 61 03-0 Fax: +49 (0)511 61 40 74

AUCOTEC, INC.

17177 North Laurel Park Drive Suite 437 Livonia, MI 48152

Phone: +1 630 485 5600 Fax: +1 248 655 7800

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1

1 Functions

1.1 Start Program

You can start the Mechatronic Explorer either by means of a desktop icon, which is created during the installation and linked in the installation directory to the program MechatronicExplorer.exe, or by directly starting the program.



If there is only one project in the project directory of the Mechatronic Explorer, it will open immediately. Otherwise the program offers a project list for a selection.

1.2 The window



Click on the window frames with the left mouse button and rag them in order to modify them. A click at the small black triangles hides or shows the respective frames. All modifications of the windows remain for the next session.

	•
I I	Device
•	Pinet

Lists and documents of the list area, of the detail area, and of the document area can be activated by the corresponding tabs

AUCOTEC - Mechatronic Explorer 0.0.0					
File View Find devices Bookmarks	Sho	oping Cart 🌐 Language ?			
	e)	🛛 🗢 🇭 📇 🖫 ★ 🗐	Project No project	Docume	nt No Sheet
□ 🕀	Proj	ects Usage list Bookmarks Sh	opping Cart		
Projects		M X 🖽			
Demo ELCAD		Name	Designation	Customer	Date
Demo Instrumentation Standard		•	-	•	•
Demo System Engineering	1	2D Harness Demo	Harness		02.06.2014 11:16:06
IEC Beispielprojekt	2	Demo ELCAD	Bandantrieb		05.04.2014 17:01:16
	3	Demo Instrumentation Standard	Demo Instrumentation		10.07.2014 11:46:01
1	4	Demo System Engineering	Demo System Engineering		10.07.2014 11:35:25
	5	IEC Beispielprojekt	Vorlageprojekt für IEC		07.11.2013 11:12:05
	6	Transportbahn-1	Transporteuranlagen HMI-09		03.01.2015 17:51:36
< III >					

1.3 **General functions**

1.3.1 Lists/details

List lines are selected with the usual mouse button combinations. The right mouse button activates a context menu corresponding to the selection. Print and Save as Excel are standard in all list context menus. With these functions you can output the whole list or a selection.

The corresponding buttons are activated on the toolbar, e.g. the button for *Back* and the button for opening the diagram menu 🗟.



A double click on a line of a list executes the first navigation from the context menu. In the example this is the navigation to the circuit diagram, i.e. the document is loaded and the device is highlighted there. If a photo exists, it will be displayed.

Input fields for filtering are on top of the list. Filters remain for the next session.

Column widths can be modified by clicking on the dividing lines with the left mouse button and by dragging them.

Columns can be moved by clicking on the column header with the left mouse button and by dragging them.

The right mouse button in a column header activates a context menu for adjusting the column width and for activating or deactivating columns

All modifications remain for the next session.



√

Type

↓ ✓ Layout Reference

Single-Line Reference

SDR_106DB-001 Signalgerät

Circuit Diagram Reference

✓ Hydraulic / Pneumatic Reference

digitale Eingabe

digitale Ausgabe

Hydraulikpumpe NOT-AUS

Betrieb

Störung

Hupe

Bandantrieb vorwärts

Bandantrieb rückwärts

3

Filtering directly under the column header is column specific. Click at the black arrow to open a selection list with possible values. You can also carry out an overall filtering of all columns by means of the input field over the column headers. The corresponding texts are then displayed in bold characters. \times cancels the filter and displays the complete list. \clubsuit shows the filtered list. \boxdot adjusts column width to the maximum length of a text within that column.

Ctrl-C copies field contents of a list into the clipboard and Ctrl-V pastes them into an entry field.

Click at the column header to change the sorting order. 1^{st} click alphanumerically, 2^{nd} click alphanumerically but inverse order, 3^{rd} click original order.

1.3.2 Document

Zoom in or out with the corresponding toolbar buttons, by means of the context menu or with the mouse wheel.

An overview window can optionally be displayed in the lower left part of an enlarged document. Click at the red frame in the overview window and drag it to adapt the represented detail of the document.

When the cursor moves over objects on the page, they are highlighted by a red frame. A message box gives further information about this object.





A click with the left mouse button selects the object. It is highlighted with a red dashed rect. The right mouse button activates a context menu corresponding to the selected object. The corresponding buttons on the toolbar are activated, If a photo exists, it will be displayed.

кал	10.2 ITANT OF Bar Rat Rat			10.4 10.4 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9
	e,	Zc	om in	
-K4.8	e,	Zo	om out	
	Q,	Or	iginal	
	R	Sh	ow diagram	•
	1	Pri	int document	
	2	Sa	ve document as PDF	

A list with further information opens in the detail area, in the example a PLC list. The line relating to the object is highlighted.

ŝ											
F Rec.	káng	Datum 15:10.200 Drawit AUC Saprolit D Datum Name Secondmip	26 Transportbilhole Transportsizzanisgenäitel- Umpr.	DW nini Druate Kr		bei edierung Schollechnank speraling attabliet	Stroni T	iniĝion ransportalfinie	ars.	-C1 -C1	3
	1	2	Δ 3		* _ ^ *	3	8		7	8	_/
Geräte	Sub	assembly Informa	ation Represent	tations Relay	, Contactor, Time	Inputs and O	utputs Te	erminals	Connection	ns Ca	∢ ⊁
		Part of	Designation	Hardw	Symbolic A	Comment Li	ne 1 🛛 🤇	Commen	t Line 2	Comment L	
3		+C1 -K4.4	2	I 0.1	ES_CAB_OK	Emergency s	top				
4		+C1 -K4.4		I 0.2	START_OP						
5		+C1 -K4.4	4	I 0.3	ACKN	Acknowledge	ement				Ξ

If the active document is zoomed you may print or save as PDF only the rendered sheet section.

Save docum	ent as PDF	×
Full-scale		
Sheet section		
Show PDF		
Directory	ers\dwe.AUCOTEC\AppData\Roaming\Aucotec\Mechatronic Explorer 51\temp	
File	Transportbahn-1 Deckblatt 1	
Ok	Cancel	
<u>s</u>		

Full-scale output is possible for PDF. This option is available only if "One PDF file / sheet" is selected.

One PDF file / sheet	V
Full-scale	V
Show PDF	
Directory	ers\dwe.AUCOTEC\AppData\Roaming\Aucotec\Mechatronic Explorer 51\temp
File	Transportbahn-1
Ok	Cancel



1.3.3 Navigation window

The navigation panel displays the contents of a project in a tree structure. A single click with the left mouse button selects the object. The associated document opens, and the object is highlighted there. If a photo exists, it will be displayed.

If is active, the selected object occurs more than once in the tree. If you activate the button, the next occurrence will be shown. The symbol reduces the tree structure. The symbol selectivates the navigation from the lists and the active document to the navigation panel. The context menu (right mouse button) contains all functions corresponding to the selection.

1.3.4 Photo preview

If photos of a device or cable exist in the project, the selection of the device will display the first photo in the photo preview. Then the symbol
of the toolbar becomes active. A click at the symbol or at the photo preview gives you a full-scale representation of the photo. If there are several photos of the device, you can scroll them with the arrows.

1.3.5 View

The menu *View* of the menu bar switches the navigation window and the overview window on or off. You can also use the button 🖻 for the overview window. .

	View	Find devices Book	ma
,	85.	Navigator	
		Overview window	ß
1	1 1	m 🙈 avaa / Livov	T

1.3.6 Tool bar

A button is active when the underlying action can be executed.

- Open project list.
- Reckward navigation. Load last page.
- **Forward navigation after backward navigation.**
- B Show menu listing of all diagrams containing the highlighted object .
- Previous page.
- 💽 Next page.
- 🔍 Zoom in.
- a Zoom out.
- ⁹ Full-scale representation of the active page.
- \bigcirc Rotate page to the right by 90°.
- Switch on or off overview window.
- Show toolbar for redlining.
- Full-scale representation of the photo.
- Display external document.
- Print current page or list.
- Save current page as PDF.
- X Bookmark current object.
- Save current part in shopping cart.

1.4 Overall functions

1.4.1 Project selection

If several projects are recorded in the Mechatronic Explorer, the project list for the project selection will already be displayed during the start. The list can also be activated by means of the menu or symbol bar **u**. The project is selected by a double click at the project in the projects navigation panel at the project in the project list. Then the Mechatronic Explorer switches to the project view.

1.4.2 Device search / usage list

This function searches all projects for parts with a particular material number. It is activated by means of the menu bar. The projects that are selected in the project list (cf. project selection) are searched.

A dialog for the input of material number opens. Input may contain wildcards. Ok looks for this material number in the selected projects.

You can navigate from the usage list to the project by means of a double click. This displays a device list containing all devices with the corresponding material number.

Ok		Cancel	
•			
Projects Usage	list Bookmarks	Shopping Cart	
	MA ×	< 🕀	

Material number

RIT_1812-001

If there is r	no matching material number in the project, the column <i>Material Number</i>
is marked	

Project

Transportbahn-1

IEC Beispielprojekt RIT_1812-001

File View Find devices						
	Open project					
A	Print B					
<u> = .</u>	Save as Excel					
3	Create CD					
	Reset					
×	Exit					
2	IEC Beispielprojekt					



Supplier

RITTAL

RITTAL

Technic

Einzelso

Einzelso

Usage list					
Material number	RIT_18				
Ok		Cancel			

8

1.4.3 Bookmarks

You can bookmark selected objects with remarks while editing them. Start the corresponding function via the menu bar or with the toolbar symbol \aleph .

s	Book	marks	Shopping	C
	\bigstar	Add B	ookmark	2
	Ħ	Show	list	

Enter your remark in the adjacent entry mask.

Bookmark						
Project	Transportbahn-1					
Designation	Fransporteuranlagen HMI-DW					
Туре	Circuit Breaker					
Specification	+C1-F5.1					
Remark	Check Label					
Ok Cancel						

The bookmark list is opened via the menu bar.

F	ile	View	Find devices	Book	marks	Shopping	Cart	Lan	guag	je A	Admii	nistrat	tion	?						
L	1	7		*	Add B	Bookmark	Q		ſ	•	9	4	*	Ø	Proje	ct	Transportbahn-1	Do	cument	Ci
1	Proj	ects	Usage list B	■	Show	rlist	rt													
				<i>i</i> Å	XE	Ð														
Γ		Proje	ct		De	esignation							Т	уре		Sp	pecification		Remark	
					•							•			•			•		
1		Trans	portbahn-1		Tr	ansporteu	ranla	gen H	MI-D	WC			Ci	ircuit	Breaker	+0	C1 -F5.1		Check Lab	be

The context menu contains the following functions:



Show Navigate directly into the project to the associated document.

Edit Open the mask for bookmark entries to modify the remark.

Remove Delete the selected datasets.

Remove All Delete all datasets after a confirmation prompt.

1.4.4 Shopping cart

While editing projects you can store parts with their material numbers in the shopping cart. This function is started either by means of the menu bar or with the symbol button \Im .

Sho	oping Cart Language Adm	inis
9	Put part into shopping cart	
\blacksquare	Showlist	i

Remarks and quantities are entered in the entry mask as illustrated.

Device	+C1-F5.1			
Designation	Conveyor drive			
Material number	SIE_QS00-005			
Supplier	SIEMENS			
Technical Data	Circuit Breaker			
Technical Data	echnical Data Motor Protection switch 2,2-3,2A			
Amount				
Remark				

The shopping cart is started via the menu bar.

Proj	Projects Usage list Bookmarks Shopping Cart						
		M 🗙 🖽					
	Project	Material number	Supplier	Technical Data	Technical Data	Name	
		-	-	-	-		
1	Transportbahn-1	SIE_QS00-005	SIEMENS	Circuit Breaker	Motor Protection switch 2,2-3,2A	+C1 -I	

The context menu contains the following functions:

Show	Direct Navigation into the project showing the associated document.
Add	Enter parts without references to a project via the order entry mask.
Edit	The order entry mask opens for a modification of quantity and re- mark.
Remove	Delete the selected datasets.
Remove All	Delete all datasets after a confirmation prompt.
Order Order All	Initiate the order of the selected parts or of all parts of the list.

An entry mask is opened to enter data of service, sender and order remark. When you have completed the entry, a PDF document is generated, which can be sent to the service address. If an e-mail server entry exists for the Mechatronic Explorer (cf. System manual), this PDF-document can automatically be sent to the e-mail address indicated in the service address. Date and time of the order, as well as remarks are entered in the shopping cart.

		X
99		
pany	FullSystemService GmbH	
Iress	Im Industriepark 68	
юк	64321	
de	D-00234	
v	Überdingen	
ountry	D	
elephone	01-1234-6543	
x	01-1234-6533	
fail	info@FullSystemService.com	
put required		
ny address		
me	Winfried User	
ompany	Erichinger Wasser	
ddress	Am Wasserfall 1	
tbox	12345	
Code	D-2400	
ly .	Erichingen	
suntry	D	
slephone	01-4321-3456	
x	01-4321-3433	
fail	user@erichinger.de	
t required		

1.4.5 Language

The language of headlines, i.e. the language of column headers, tabs, prompts etc., and the language of list data, device message boxes, and of the navigation window can be set independently.

The languages shown here are available for the interface.

The data language can be selected from the languages defined in the project.

€L	Language ?					
Connect State State State State	Titles	•	Deutsch			
CE Serverse L. Records and Records and Rec	Data	•	English			
			Español			
			Français			
			Italiano			
			Русский			
			中文			

1.4.6 Info

The info button shows the current version of the Mechatronic Explorer. The company logo of the plant manufacturer can be entered by the system administrator (cf. System manual).



1.4.7 Create CD

The item Generate CD is in the context menu of the project list. A directory with the name of the project is created in the CD domain set by the administrator. The project and the Mechatronic Explorer are pasted there.

The actual settings are inherited. The may be changed in administrator mode (start in the created directory) before delivery.



The contents of this directory are burned on CD by means of an appropriate tool. The Mechatronic Explorer can then be started directly from the CD without any installation.

If the Mechatronic Explorer is started via internet, this function will not be available.

1.5 **Project lists and functions**

1.5.1 Devices

The device list is divided in two parts. The upper part contains the list of all devices. The lower part shows details of the device highlighted in the upper part. The detail lists will be shown, if the corresponding worksheets exist in Engineering Base when you export a project. The tab label has the name of the worksheet as label. You can find more information in the system manual.

Subassembly Information

All parts and components are listed with their part numbers.

Representations

Symbolic representations in drawings of the device highlighted in the upper part are listed here.

Relay, Contactor, Timer

The contacts of a device, e.g. of a relay, are displayed.

Inputs and Outputs

The bits of a PLC-card are listed.

Included files

A list of documents (PDF, DOC, JPG, ...) associated with the device is displayed.

Connections

The connection tab offers a list with the connections of the device. By selecting a connection you activate the tab Line routing. A double click (in the context menu Signal trace) switches to the connection that is leading on from the connected device. If such a connection does not exist, you will get the message "signal end". Signal trace can also be carried out backwards.

Line routing

The line routing shows the whole lineage of the connection highlighted in Connections.

1.5.2 Document

The upper part shows the current page, the lower part shows detailed information relating to this page.

When the cursor passes an object on the page, it is highlighted by a red frame, and further information about this object is given in a message box. A click with the left mouse button selects the object. It is then highlighted by a yellow background colour, and the related list opens in the detail window. The corresponding line is highlighted in the list.

Parts

This tab offers a list of all parts represented on the current page, possibly only in part. Selection of an object in this list highlights all symbols belonging to this part in the page.

Subassembly Information

All parts and components are listed with their part numbers.

Representations

Symbolic representations in drawings of the device highlighted in the upper part are listed here.

Relay, Contactor, Timer

The contacts of a device, e.g. of a relay, are displayed.

Inputs and Outputs

The bits of a PLC-card are listed.

Included files

A list of documents (PDF, DOC, JPG, ...) associated with the device is displayed.

Connections

The connection tab offers a list with the connections of the current device. By selecting a connection you activate the tab Line routing. A double click (in the context menu Signal trace) switches to the connection that leading on from the connected device. If such a connection does not exist, you will get the message "signal end". Signal tracing can also be carried out backwards.

Line routing

The line routing shows the whole lineage of the connection highlighted in Connections.

Cables

This tab offers a list of all cables represented on the current page, possibly only in part.

Wires

The allocation of the selected cable is displayed.

Potentials

This tab offers a list of all potentials represented on the current page, possibly only in part.

Modules

This tab offers a list of all modules, module families and variants represented on the current page, possibly only in part.

With the context menu you can select or deselect modules for highlighting when a sheet is displayed.

1	Highlight select
	Highlight deselect

Controls

This tab offers a list of control criteria represented on the current page, possibly only in part.

With the context menu you can select or deselect control criteria for highlighting when a sheet is displayed.

-	Highlight select
	Highlight deselect

1.5.3 Document list

This list contains all pages of a project. Here you can select pages for display, for printing or saving as PDF.

1.5.4 Included files

This list contains all documents of a project which were not created with the E-CAD system (pdf, doc, jpg, ...). The selection starts the program linked with the document start (e.g. Acrobat Reader, Word, Excel, Irfan View.).

1.5.5 Cables

The cable list is divided in two parts. The upper part shows a list of all cables of the current project. The lower part displays the allocation of the cable highlighted above.

1.5.6 Modules

The module list is divided in two parts. The upper part shows a list of all modules, module families and variants of the current project. The lower part displays the devices and wires of the module highlighted above.

With the context menu or by clicking directly in the list you can select or deselect modules for highlighting when a sheet is displayed. The selection remains for the next session.

1	Highlight select
	Highlight deselect

m 1.5 - m 0.5 - m vi 0.5 m sw 1 w ge 0 br 2.5 - t 2.5 - t 2.5 -		22 J	- 	8
-76036 (-70002 t -70003 r -70003 r -76019 (-76019 (-16003 - -16003 - -16003 r	76026 gn 1.5 70002 br 0.5 70003 rt 0.5	-70000 or vi 0.3 -76019 gn sw 1	-16030 ws ge (-16002 rt 2.5 - -70001 or br 0.

1.5.7 Controls

The controls list is divided in two parts. The upper part shows a list of all control criterions and vehicle codes of the current project. The lower part displays the devices and modules of the control criterions highlighted above.

With the context menu menu or by clicking directly in the list you can select or deselect controls for highlighting when a sheet is displayed. The selection remains for the next session.



You can highlight selected controls in two ways: Selected controls are displayed with a blue background. The button 🖻 is activated. Pressing switches highlighting mode to the mode described below.



If you print a document or if you save it in PDF you may omit all objects which do not belong to the filtered scope (marked or displayed with increased transparency).

💐 Save document a	IS PDF	x
Filtered scope only		
Sheet section	V	
Show PDF		
Directory	ers\dwe.AUCOTEC\AppData\Roaming\Aucotec\Mechatronic Explorer 51\temp	
File	01_2011_02_25 SYS_5Q0.900.039.A_1,8I-2,0I Benziner_DV01_2010.10.29 1	
Ok	Cancel	





1.5.8 Redlining/Redlining data

Loading a page activates the symbol button \blacksquare . It shows the tool bar for redlining on the current page.



Functions of the redlining buttons

- Copy current page. Its complete contents are redlined.
- Bave current page in the user domain. Entry of a remark possible.
- Draw line. Press left mouse button. Draw. To end the line, release the left mouse button.

 Draw polyline. Press the left mouse button. Draw. Release left mouse button.
 Press left mouse button. Draw.
 Release left mouse button.
 Press left mouse button. Draw

To end the polyline, press right mouse button.

- Freehand lines. Press the left mouse button in the drawing. Draw. To end the line, release left mouse button.
- Draw rectangle. Press the left mouse button in the drawing. Draw rectangle. Then release left mouse button.
- Draw ellipse. Press the left mouse button. Draw rectangle enclosing the ellipse. Then release left mouse button.
- **T** Enter text. Press the left mouse button at the position where you want to enter the text. Make an entry on the page or in the edit field on the right of the symbol bar.
- Menu for colour selection red/green/blue/yellow. The currently selected colour is displayed. Redline objects are represented in this colour.
- Line weight thin/normal/heavy. The currently selected line weight is displayed. Picked redlines are represented with this line weight.
- A Font selection small/normal/big. The currently selected font is displayed. This font is attributed to picked redline texts.
- ¹⁰⁰ Switch on navigation. Switch off redlining. Redlining tools remain visible.
- Switch on objects for picking. Switch off navigation. Picked elements have a dashed perimeter line. Pick is additive. Pick with the left mouse button or by drawing a frame.
- Move picked redline objects. Press left mouse button. Draw. Release left mouse button.
- K Cut out picked redline objects and store them in copy buffer.
- Store picked objects in copy buffer.
- Insert objects of the copy buffer at the last position in the drawing.
- X Delete picked redline objects.
- Pick redline text for editing. The text is represented in the edit field on the right of the tool bar and it can be modified there or on the page.
- Ctrl-X, Ctrl-C, Ctrl-V work with picked objects as usual.

Ctrl-X works only with redline objects.

When opening a page, the user always gets the redline version produced by himself.

When selecting the project, the user is informed that redline pages exist for the project.

The tab Redlining data offers a list of all pages that were modified or copied with redlining. List entries can be edited as usual.

The context menu of the relining list has the following functions:

Show	The selected page is loaded.				
Edit	This button opens the order entry mask for a modification of the remark.				
Remove	The selected datasets are deleted.				
Remove All	All datasets are deleted after a confirmation prompt.				
Mail Mail All	This function generates a PDF document with a list of the selected pages or of all pages. Upon a query for sender or addressee, it is sent by e-mail if possible, or it is displayed by the Acrobat-Reader for further editing. If the 'Transfer folder for Engineering Base' is defined (see the System manual), data are stored to this folder for further processing in Engineering Base (see chapter Project transfer – Engineering Base – Import markup data).				

2 Project transfer

2.1 Engineering Base

2.1.1 Export

Activate the macro Mechatronic Explorer - Export on a selection of projects in order to generate Mechatronic Explorer projects on the basis of the Engineering Base projects. The object data to export are defined by special worksheets in Engineering Base (see the System Manual).

In Engineering Base you may exclude drawings, sheets and documents form export with the dialog attribute 'Exclude from output' respectively 'Exclude from printing'. If a drawing is excluded all sheets beneath the drawing are excluded too.

If there is no valid Mechatronic Explorer installation folder found you are prompted for one.

Mechatronic Explorer installation folder		X
Mechatronic Explorer installation folder		
C:\Program Files\Aucotec\Mechatronic Explorer 51		
	OK	Cancel

Otherwise respectively after a valid input the following dialog will be shown.

	ation folder	Map Languages
C:\Program Files\Aucotec\I	EN en English	
		DE de German
ptions		
Resolve Black Boxes		
rojects		
Project	Destination Folder	
IEC Sample Project	Projects ►	
NFPA 79_2	Projects ►	
NFPA Sample	Projects ►	
Transportbahn-1	Projects •	

To reduce data volume it is possible not to resolve black boxes with references to other projects.

With 'Map Languages' you are able to define a mapping of special language codes used in Engineering Base to ISO 639-1 language codes.

In the 'Projects' area you see all selected projects with their destination folder in the Mechatronic Explorer projects administration. You may change this destination folder by selecting one or more projects in the project list and by pressing the button 'Selection Destination Folder'. The structure of Mechatronic Explorer projects administration will be shown. There you can choose another destination folder for the selected projects.

Press the 'Cancel' – button to terminate the export for the current and the following projects in the export list.

After the export has finished, a log file with the export status for each project will be shown. From there you can navigate to the messages folder of the project.

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2.1.2 Import Mechatronic Explorer Redlining Data

If the 'Transfer folder for Engineering Base' is defined (see the System manual) mailing redlining data stores these data in this folder.

In Engineering Base activate the macro 'Mechatronic Explorer – Import Markup Data' in a project. There will be a message if no data for the current project are in the transfer folder. The redlining PDF-documents are automatically associated to their original sheets as a markup document. In the tree the sheet icon is changed. In our example it's Circuit Diagram 1.

-	ŝ	Transportbahn-1
	÷	🜃 Equipment
	+	🎁 Functions
	-	🔞 Documents
		🗉 🗐 Bill of Material
		🗄 國 Cable Connection Report
		🗉 🚮 Cable List
		🖃 🗿 Circuit Diagram
		🖽 🛃 1 (.PS)
		🗉 🛃 2 (.ES)
		🗉 🛃 3 (.OP)
		🗉 🛃 4 (.PLC)
		🗉 🛃 5 (.DRV)
		⊞ 🛃 6 (.DRV)
		🗉 🛃 7 (.HYD)
		🗉 🛃 8 (.HYD)
		🗉 🗐 Cover Sheet
		🗉 🗿 General Diagram
		🗄 🗐 Hydraulic diagram

In the sheet worksheet you can see in the column 'Markup Sheet', whether a sheet has markup data.

AUCOTEC Engineering Base Workbook 6.5.2 - Sheets [Transportbahn-1:Documents]								x	
1 •	¹ ⊂ ⊕ ⊒ ⊉ 8, 3, 8, 8 8 8 7, 7, 7, 2, 2 ⊞ ≅ 97 9 ⊂ 0, 0, 44 3 ⁶ 8 Σ ₁ Σ ₁ Σ ₂ Σ ₃ Β Ζ Ξ Φ []								
25 Record(s)	Part of	Designation	Comment	Туре	Associated Function	Associ	Markup Sheet		
Filter	*	*	*	*	*	*	*		Ξ
1	Bill of Material	1	Bill of Material	Report					
2	Cable Connec	1	Cable Connec	Report					
3	Cable List	1	Cable List	Report					
4	Circuit Diagram	1	Power supply	Unspecified	.PS	+C1	Image: A start of the start		
5	Circuit Diagram	2	Emergency st	Unspecified	.ES	+C1			
6	Circuit Diagram	3	Operating at c	Unspecified	.OP	+C1			
7	Circuit Diagram	4	PLC	Unspecified	.PLC	+C1			
8	Circuit Diagram	5	Conveyor drive	Unspecified	.DRV	+C1			
9	Circuit Diagram	6	Conveyor run I	Unspecified	.DRV	+C1			Ŧ
	I (I) N Sheets								

The visualization of the markup sheet is activated via the sheet's context menu -> Markup -> Open.

2.2 ELCAD

Data from ELCAD are transferred in two steps:

- 1. Execute AUCOTECview export in ELCAD.
- Start the Mechatronic Explorer as Administrator. The item Import lies in the Administration menu. It opens a file selection window. Select the directory with PDF export data from ELCAD there. OK starts the import of the project in the Mechatronic Explorer. If the project exists already, it will be overwritten by the new import.

Administration ?		
Mailserver		r 💖 Project No project
Company data		
Logos	۲	
Customize		ate
Importation	Þ	ELCAD
	1	RUPLAN
	1	Mechatronic Explorer

2.3 RUPLAN

Not yet implemented in Mechatronic Explorer 5.1.1

Data are transferred in an analogue way as from ELCAD.

2.4 Mechatronic Explorer

Not yet implemented in Mechatronic Explorer 5.1.1 for projects exported with earlier versions.

With this function Mechatronic Explorer projects which already exist as directories are imported into the Mechatronic Explorer projects administration.