

What's New V8.0

Contents

- Preliminary note 2
- General..... 3
- Input collector 18
- Workstation settings..... 19
- Structure editor 21
- Object Inspector 22
- Scope Analysis 24
- Table editors in general..... 25
- Cover sheet 27
- FMEA forms editor..... 28
- AIAG/VDA form..... 29
- FFA editor 30
- Deadline editor & Statistics 31
- Management-Report 33
- Control Plan..... 37
- Functional Safety 40
- DVP&R..... 43
- Languages..... 44
- Filter 46
- IQ-Explorer 47
- Data Manager..... 49
- Data model 52
- Variants 56
- Classification..... 58
- Personal Information Manager (PIM) 59
- CARM-Server 60
- Template 62
- Import 63
- Export-Import..... 66
- Readme 67

Preliminary note

This document contains a description of new features that will be available with version 8.0 of the APIS IQ-Software. Some new features are self-explanatory and are not explicitly listed. Following are a few examples of self-explanatory innovations.

Example 1: Previously, the options “Copy notes” and “User defined attributes” were used at drag-and-drop with the right mouse button. This is now unified with “Copy notes” and “Copy user-defined attributes”.

Example 2: Previously, only the name of a form sheet was displayed in the object inspector. Now the identical information is shown as in the administration dialog for forms sheets.

Users with a tracking number may find related information in the readme file. Please contact us if the implementation is not in accordance with your requirements.

Conversion and data exchange

After installing the new version of the APIS IQ-Software, older documents need to be converted before they can be edited. The APIS IQ-Software executes this step automatically. When opening an IQ document with write access, the IQ-Software checks with which version the document was created and converts automatically if necessary. But it is also possible, to convert all documents of a directory automatically in one step.

Previous versions of the APIS IQ-Software cannot work with documents, which were already converted into the current format.

If it is necessary to provide other users, who do not have the current program version, with the document, we recommend to keep old documents for a certain period of time. The installation of the new version of the APIS IQ-Software requires a different program directory than the previous one.

Important: The documents created with the APIS IQ-Software may in no case be edited by any other program. This destroys the data and leads to software errors.

Use the existing interfaces for data exchange with other systems.

APIS CDM-Server | (V8-763)

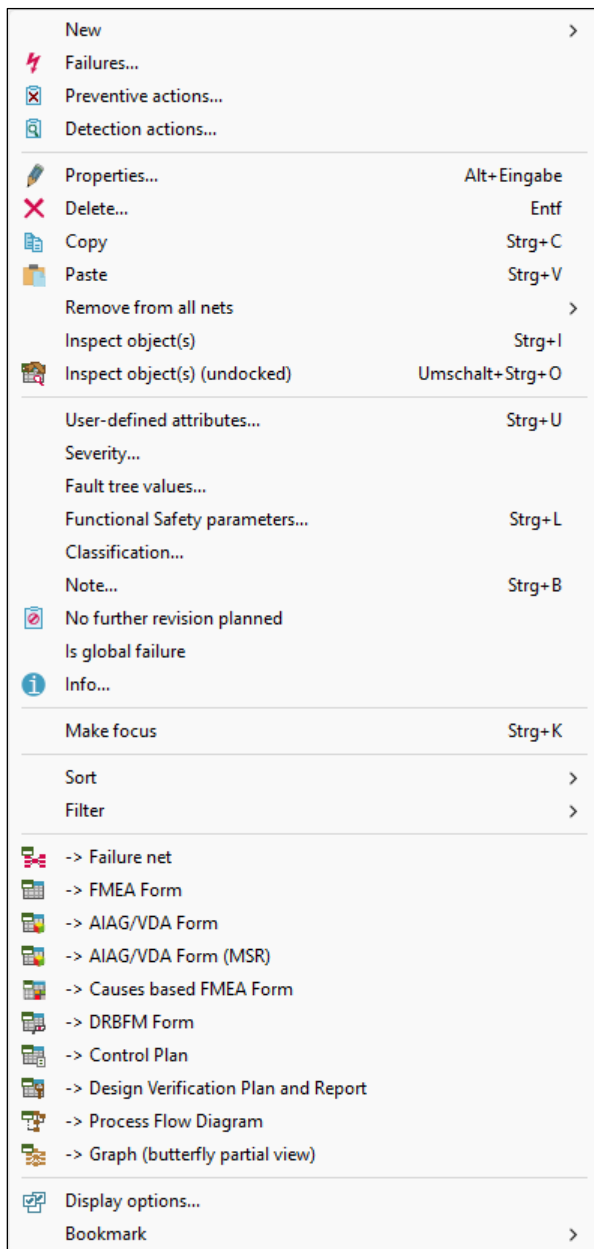
The CDM-Server will be available shortly. This document does not contain information about the CDM-Server and its administration. You will find these in a separate document, available with the CDM-Server release.

General

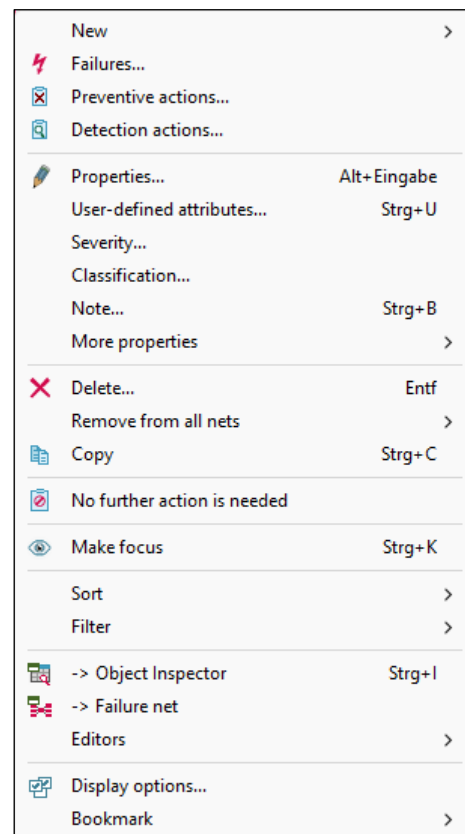
The context menus have been reorganized and streamlined | (V8-36, V8-1681)

Context menu of a failure compared:

V7.0



V8.0



Relocated options are now located in the sub-dialogs, e.g. "More properties" and "Editors >".

Outdated file formats have been removed from the import dialogs | (V8-807)

The following file formats are no longer supported:

- PROMIS files (.fea)
- GKN files (.dbf)
- FMEAPlus files (.f2f)

The history concept has been removed | (V8-54)

The previously available option to work with jump labels has been removed.



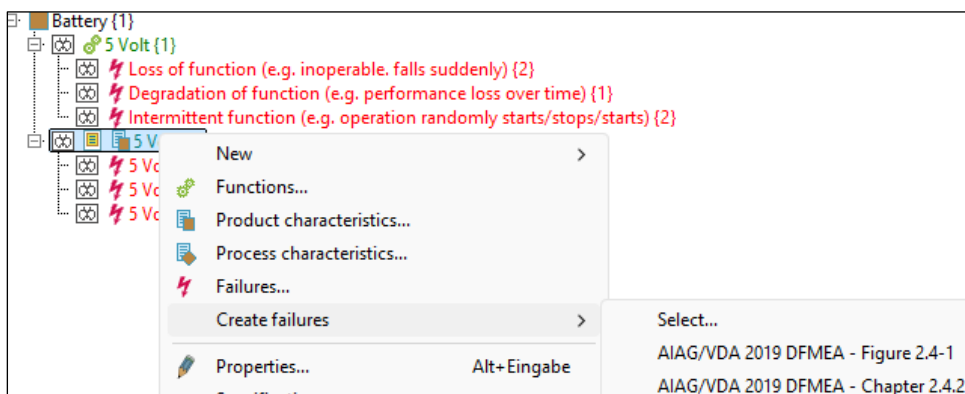
Note: Since some program versions, additional personal desktops can optionally provide a view for repeated access. This option has meant that jump labels have become less important.

Extension of the time-limited license now under Help | Expiry date | (V8-887)

The dialog for renewing a time-limited license has been relocated and is now accessible via the menu item Help | Expiration date.

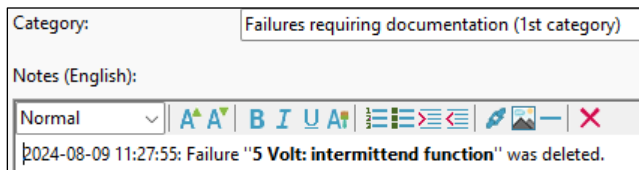
*Extension of the naming patterns | (V8-108)

The previously usable "Naming pattern for system elements" has been supplemented by a "Naming pattern for failures" based on the AIAG/VDA 2019 Handbook.



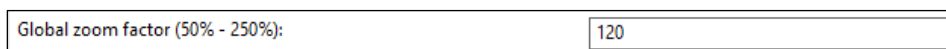
If the "Documentation required" option is set, a deletion is saved in a note. The entry is made in the comment category "Failures requiring documentation".

The entry for deletions in the case of failures with documentation obligation:



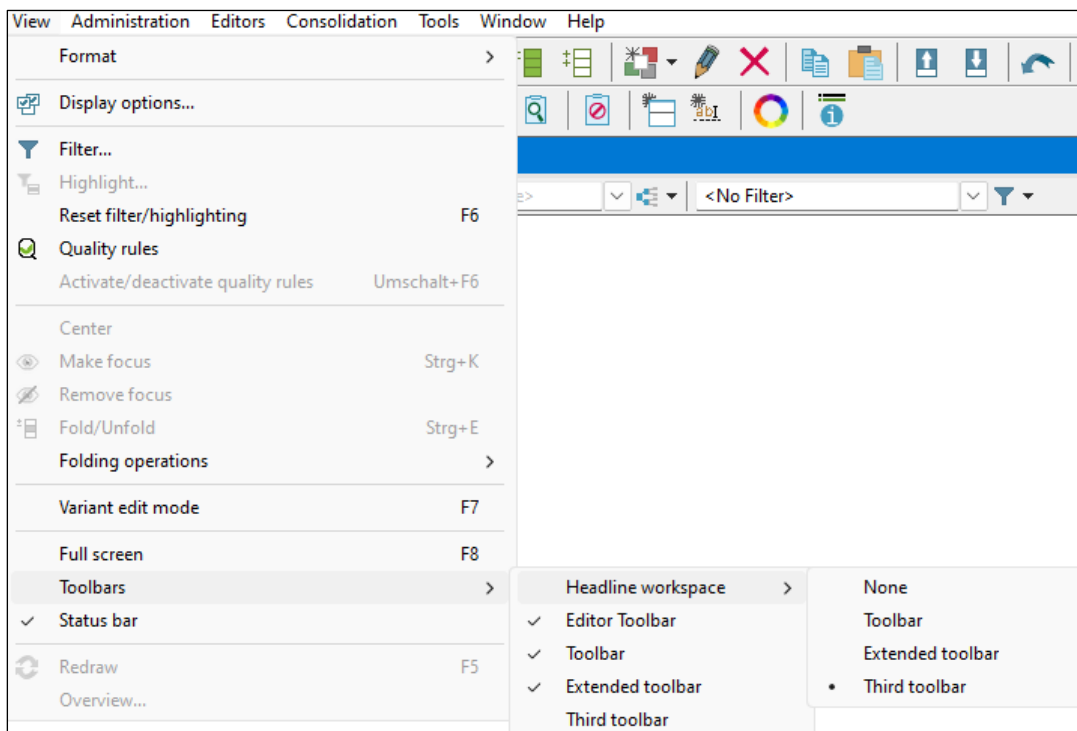
Zoom | (V8-1334)

A zoom factor can be used to change the visibility of project data in editors. The possible levels have been refined and there is now a global zoom factor that can be set as default via the workstation settings.



*New standard display: Headline Workspace now below the header | (V8-868)

The default display option has been changed so that the headline workspace is occupied by the third toolbar in the delivery status and this area is displayed below the header.



Advanced folding options | (V8-901)

With extended folding options in the workplace settings, it is now possible to activate folding when opening other table editors such as PFD and CP in addition to FMEA. There is also the option to fold in historical revision states for FMEA.

You can specify settings for the table editors (form, etc.).

General

- Fold all System elements when opening a table editor
- Fold all historical Revision states when opening a FMEA form

Note: For presentation printing, it is possible to activate unfolding independently of the folding status shown.

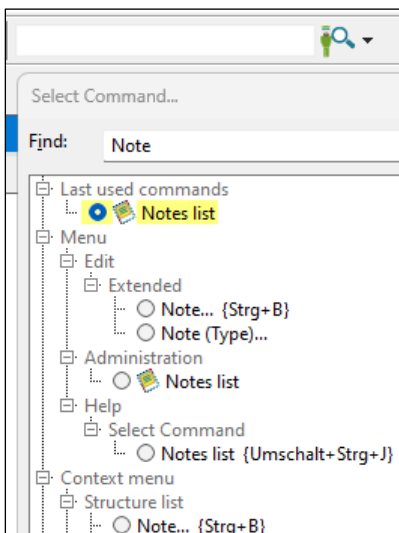
***New search field in the toolbar | (V8-163, V8-491, V8-496, V8-7178)**

A search field “<Find command/option>” has been added to the toolbar to access the Command Finder.

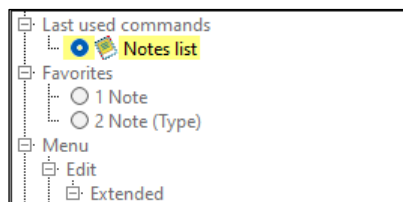
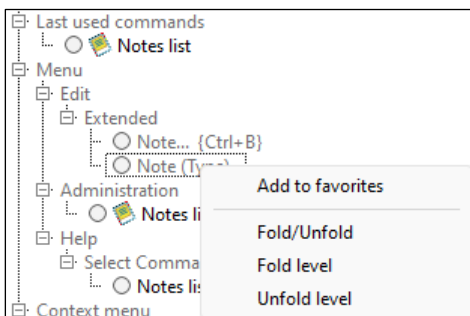


The entire user interface is searched with the Command Finder and a selected location can be used.

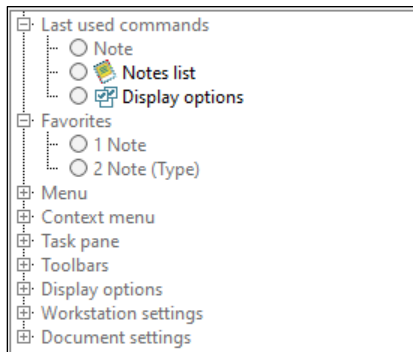
Example: Entering “Note”



It is possible to define up to 9 favorites via the context menu. Their quick selection is then possible using CTRL+ALT+<No>.

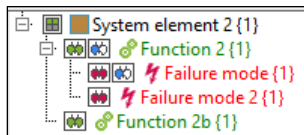


The “Last used commands” and “Favorites” options associated with the Command Finder can be accessed via the CTRL+J shortcut.



New hot-click icon for cross-structure nets | (V8-1028)

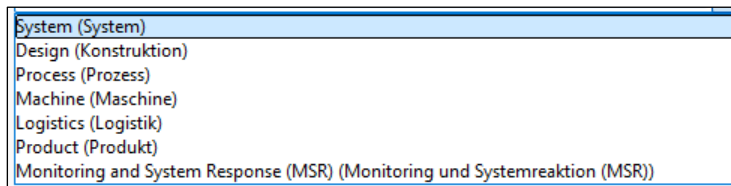
In addition to the familiar hot-click icons for function and failure nets, there is now an additional hot-click icon “Structure spanning nets” that can be activated via the display options.



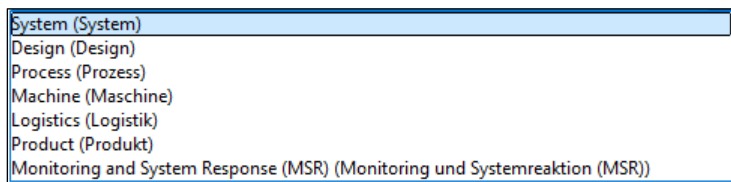
*Structure type 'Construction' now renamed to 'Design' | (V8-120)

The designation of the structure type ‘Construction’ has been replaced by ‘Design’; in accordance with AIAG/VDA 2019.

Version 7.0 – English (German):

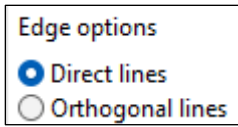


Version 8.0 – English (German):

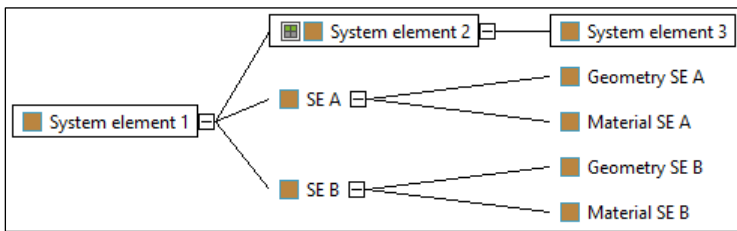


New display options in the Structure Editor | (V8-231)

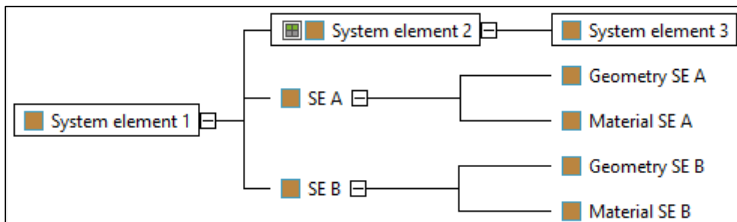
In the Structure Editor, you can now switch between the classic “Direct lines” and “Orthogonal lines” in the display options.



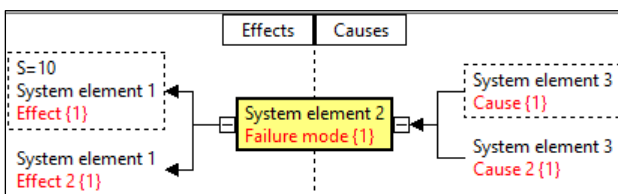
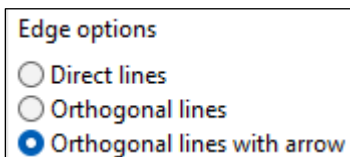
Classic view with direct lines:



View with activated orthogonal lines



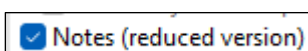
This option is also available for the function and failure net and additionally with the “Orthogonal lines with arrow” option.

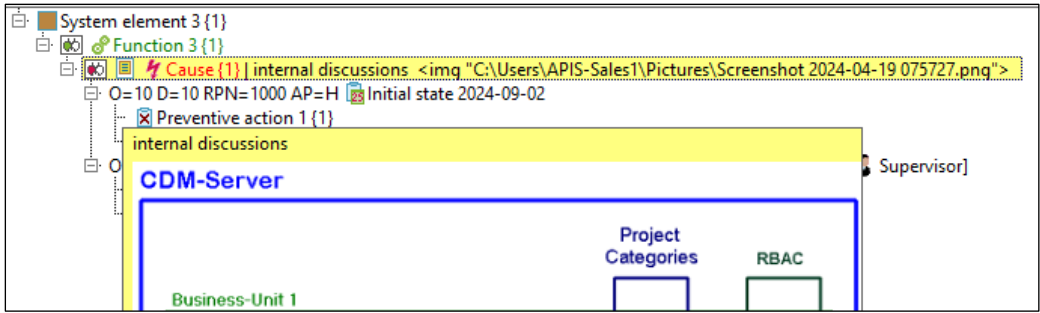


Compact presentation of the notes | (V8-325)

Notes can be shown - in an abbreviated form - in the list views.

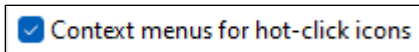
Display option:



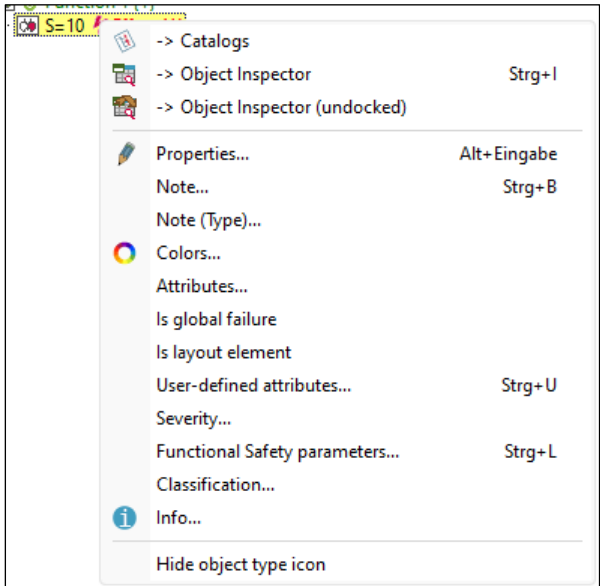


***Quick access to object attributes | (V8-830)**

Object attributes that are specific to an object type can be changed via the context menu of the type icon. The prerequisite is that the option has been activated in the workplace settings.



The following context menu is available for the type icon for failures:



Columns with notes | (V8-931)

Some form columns now show a shortened label and as a tool tip on mouse-over the previous long form, which is saved as a note in the label.

Representation V7.0:

FMEA Forms Editor VDA 2019 (AIAG/VDA): System element 2 (Structure [Process])			
Effect	S	Spec. Characteristic	Failure mode
System element: System element 2			
Function: Function 2			
[System element 1] Effect	10		Failure mode

Representation V8.0:

FMEA Forms Editor VDA 2019 (AIAG/VDA): System element 2 (Structure [Process])			
> 1.1 System element 2 [Stri] <No variants available> <No Filter>			
Effect	S	C	Failure mode
System element: System element 2			
Function: Function 2			
[System element 1]		10	Special Characteristic
Effect			Failure mode

New AP catalog available | (V8-521, V8-1485)

There is now the additional AP catalog “GM 2024 Risk Priority Level (RPL)”. This contains the additional priority class S (safety-relevant). There is also the priority class T (Top).

Priorities
<input type="checkbox"/> - (Ignored)
<input checked="" type="checkbox"/> L (Low)
<input checked="" type="checkbox"/> M (Medium)
<input checked="" type="checkbox"/> H (High)
<input checked="" type="checkbox"/> S (Safety-relevant)
<input type="checkbox"/> T (Top)

Effect	S	Prediction of Failure Cause Occurring	O	Ability to Detect	D	AP
GM 2024 Risk Priority Level (RPL) (6 items)						
Product or Plant Effect Very high	9 - 10	Low - Very high	3 - 10	Moderate - Very low	4 - 10	S
				Very high - High	1 - 3	M
		Low	2 - 2	Moderate - Very low	6 - 10	S
				Very high - High	1 - 5	M
		Very low	1 - 1	Moderate - Very low	6 - 10	M
				Very high - High	1 - 5	L

Improved classification calculation | (V8-100)

In the document settings for automatic classification calculation, the default has been changed so that information from several action groups is no longer mixed. This means that the option “Calculation based on maximum O/D valuations (can originate from different action groups)” is not active.

General settings for classification

- Calculate the classification of an FMEA form automatically
 - Calculation based on maximum of O/D valuation (can originate from different actions groups)
 - Calculate the classification of characteristics/functions automatically
 - Calculation based on maximum of S/O/D valuation (can originate from different failures)
 - Allow user overwrite over calculated classifications
 - Classification inheritance (assignment to dependent objects)
- Classification (C column) at the
- Cause
 - Failure mode
 - Effect

Optimized user instructions | (V8-1243)

The user information area has been revised and focuses on the changed entries saved there.

Manage user information ✕

The following table lists the user information dialogs that are not shown currently. For confirmations the stored answer is displayed.

You can activate these entries, i.e. the corresponding dialog is shown again. You can also change the stored user's choice.

Type	Context information	User information	User's choice
Confirmation	When opening a Control Plan	A control plan for the selected elements is not available. Do you want to create a new control plan?	Yes
Confirmation	When opening a Process Flow Diagram	A process flow for the selected elements is not available. Do you want to create a new process flow?	No

Object attributes are also transferred in a structure extract. | (V8-1155)

With “Extract branch into new structure”, attribute values are set in the newly created placeholder object in the source structure in the same way as in the relocated object.

Hot-Click-Icon 8D-Report | (V8-94)

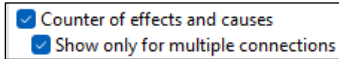
Objects from the structure that are used in the 8D report via drag & drop now also have a “8D report” hot-click icon at the source. The bidirectional allocation exists as long as the bookmark is present in the 8D report.

- System element 3 {1}
- Function 3 {1}
- Cause {1}
- O=10 D=10 RPN=1000 AP=H
- Preventive action 1 {1}
- Detection action 1 {1}
- O=(10) D=(10) RPN=(1000) AP=
- Preventive action 2 {1}

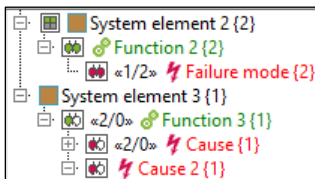
Immediate action(s)
Preventive action 2
Failure causes
Cause
Chosen Permanent Corrective Action(s)

*Fast recognition of links | (V8-803)

With the newly created option “Counter for effects and causes - Show only for multiple connections”, it is now easy to recognize whether there are multiple connections for hot-click icons for function and failure nets.

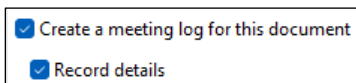


Missing or existing links are shown directly via the hot-click icon. By activating the option, you can now focus on multiple links.



Selection option for Meeting Logs | (V8-179)

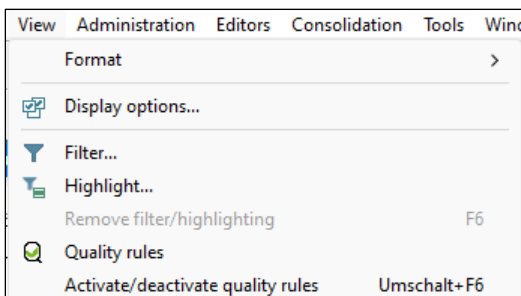
The previous document setting “Always create a detailed meeting log for this document” has been split into “Create a meeting log for this document” and the subordinate option “Record details”.

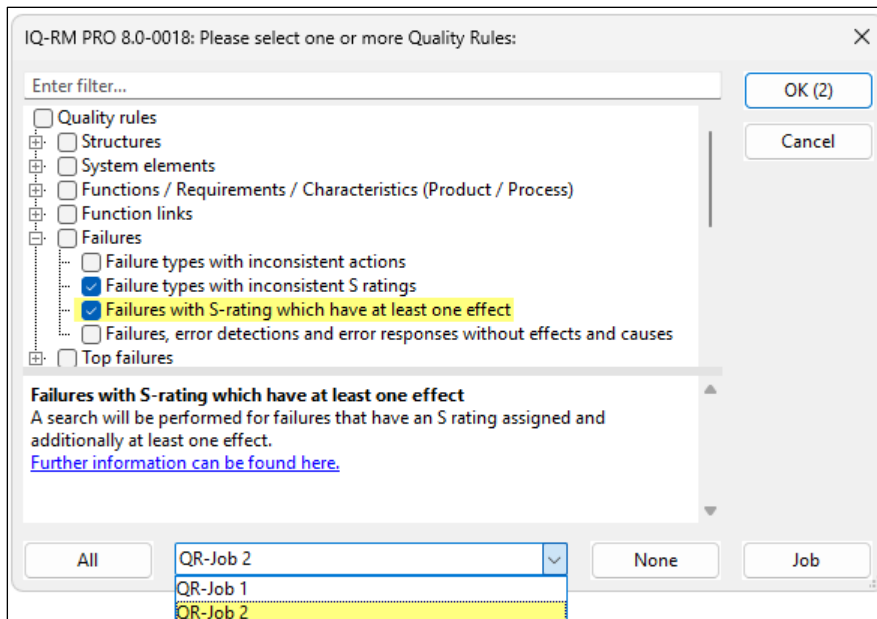


If the “Record details” option is not active, only the header data area is created with the comment field available there.

Quality rules easier to manage | (V8-195)

Quality rules can now be managed via QR jobs named by the user (menu: View | Quality rules). The marking is removed or reset using Shift+F6.



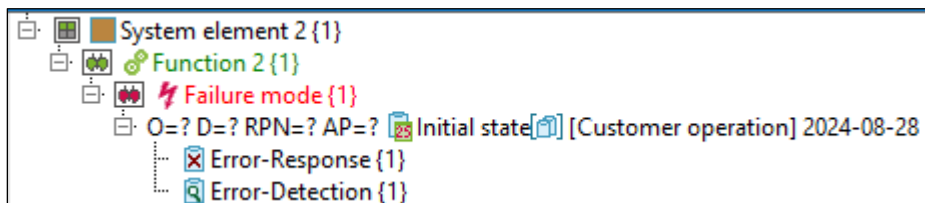


The display option “Calculate S and RPN from visible effects only” has been removed. Object attributes are also adopted during structure extraction. | (V8-71)

The previously available display option for FMEA forms “Calculate S and RPN from visible effects only” has been removed.

New settings for MSR-FMEA | (V8-184)

If Mechatronics FMEA is activated, it is possible to work with the object types “Error detection” and “Error response”. In the context of error detection, it is possible to derive actions that are directly assigned to an action group (status) with the attribute “Actions for customer operation”.



The “Monitoring and System Response (MSR)” structure type now has the option “Derive actions for customer operation: only for error detections” in the workstation settings area.

MSR status information | (V8-194)

In the “Monitoring and System Response (MSR)” structure type, the status information is shown for actions in accordance with the MSR specifications.

Example: DFMEA vs. MSR

Status <input type="radio"/> untouched <input type="radio"/> under consideration <input type="radio"/> in progress <input checked="" type="radio"/> completed 2024-08-28 <input type="radio"/> rejected Degree of progress 100% ▾	Status <input type="radio"/> open <input type="radio"/> decision pending <input type="radio"/> implementation pending <input checked="" type="radio"/> completed 2024-08-28 <input type="radio"/> not implemented Degree of progress 100% ▾
--	--

FMT template file has been added | (V8-85)

The FMT template file contains new default values. These are also filled with the corresponding new default values when converting an FMT file from version 7.0.

Focus icons in the toolbar | (V8-616)

There are additional icons in the toolbar: “Make focus” and “Remove focus”. If an existing focus has been removed, the functionality of the second icon changes to “Restore focus”.



Note: In the structure editor, focusing on the root element displays the complete structure. In the structure editor, it is possible to focus on several system elements. In the network editors, there is only one icon for focusing. The keyboard shortcut Ctrl + K can also be used to focus.

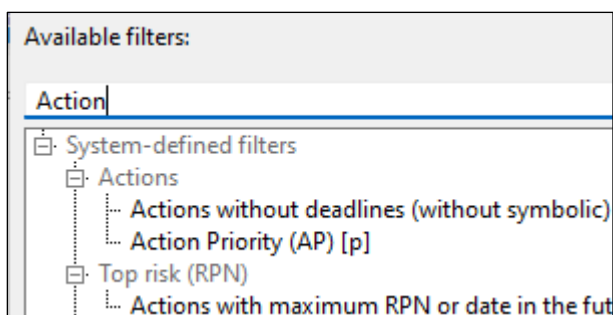
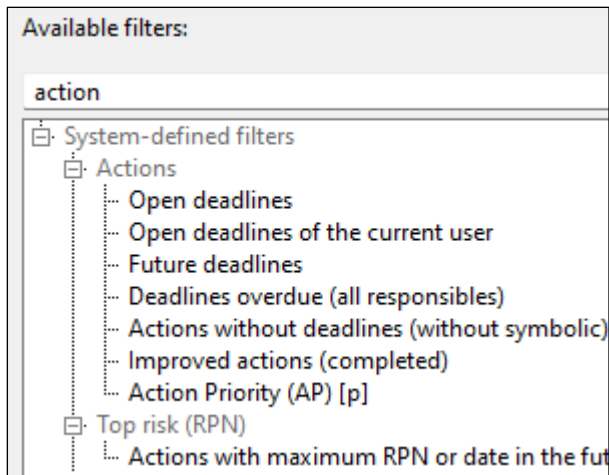
Support for search texts | (V8-954)

The search in lists should always use “SmartCase Matching”. There should be a standardized dialog on the topic of document languages.

Search text	finds (V8.0)	found (V7.0)
foo	foo, FOO, Foo	foo, FOO, Foo
Foo	Foo	foo, FOO, Foo
FO	FOO	foo, FOO, Foo

Note: This functionality has not yet been implemented across the board. The changed strategy is introduced when program components are revised.

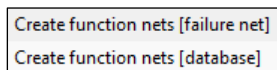
Example: Search in the filter dialog with “action” vs. „Action“



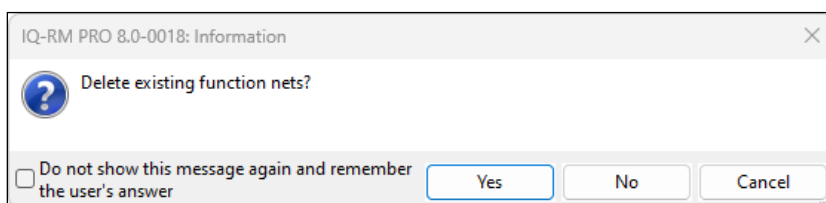
New query option when creating function nets | (V8-591)

If there are to be function nets that are identical to failure nets, there is now a query option when automatically creating function nets, in which function nets are deleted beforehand.

The options are available for an active failure net:

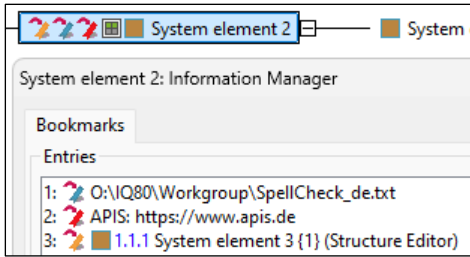


The option to delete function nets is offered under “Create function nets (database)”.



*New display of bookmarks | (V8-538)

For bookmarks, there is now an individually colored hot-click icon depending on the type of bookmark.



Requirements can now be sorted | (V8-317)

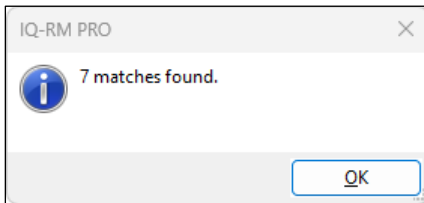
There is now a separate number column in the “Deadline Customer Requirements” editor. This can be used for sorting, for example, and is also exported accordingly when exporting the table.

No.	Customer requirement
1	CR1
2	CR2

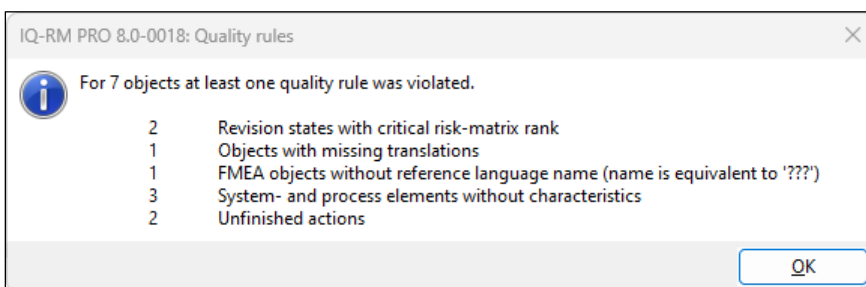
Working with quality rules has been optimized | (V8-160)

Working with quality rules has been optimized, e.g. more detailed information is provided on locations.

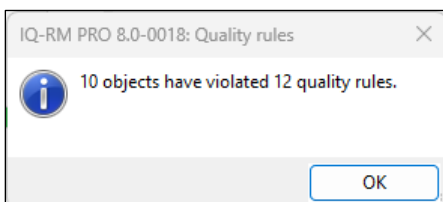
In V7.0:



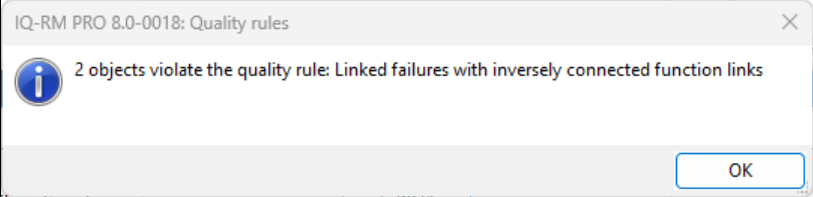
In V8.0:



If too many quality rules are violated, summary information is still provided



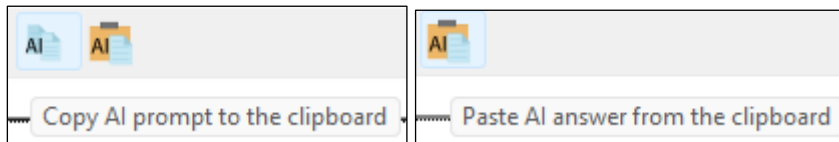
It also provides more detailed information when checking failure links, for example.



Input collector

*Support of inputs by Artificial Intelligence (AI) | (V8-1148)

As a supporting step towards AI integration, the option to create an AI prompt in which the context is summarized has been created in the collective input. The response from an AI tool can be pasted from the clipboard for use.



Prompt for system elements and functions:

Context:

- Project
- Structure
- System element

Prompt for failures:

Context:

- Project
- Structure
- System element
- Function

Prompt for actions:

Context:

- Project
- Structure
- System element
- Function
- Failure

Workstation settings

*Selection of various program components | (V8-447, V8-448, V8-449)

The program components that can be activated and deactivated have been revised; the screenshot shows the newly selectable program components.

Some IQ-Software functions can be activated or deactivated here.

If a function is deactivated, no data is lost in the fme files. Instead, only the corresponding editors etc. can no longer be opened.

- CDM Server
- CARM Server
 - CARM Server Administration
- Action-Tracking (CARM-NG-Server)
- Consolidation: clones / interfaces
- Mechatronics FMEA
- Functional Safety - ISO 26262 (2018) / IEC 61508
- Process flow diagram (PFD)
- Control Plan (CP)
- Causes based FMEA Form
- Design Verification Plan and Report (DVP&R)
- Customer Requirements Management
- Parts Functions Matrix
- Variants Transition Matrix
- Ishikawa Editors: Cause and Effect Diagrams (structure and failure net)
- Design Review Based on Failure Mode (DRBFM)
 - DRBFM
 - DRBFM II
 - Impact Analysis
- Fault Tree Analysis (FTA)
- Design for Six Sigma (DfSS): Pairwise Comparison Matrix and House of Quality 1-3

*New folding options support faster opening of large tables | (V8-670)

When opening forms, there are now workplace settings that support intelligent folding. There are two additional options that can be activated:

- Fold System elements when opening a table editor
- Fold historical revision states when opening a FMEA form

FMEA Forms Editor: VDA 2019 (AIAG/VDA): System element 2 (Structure [System])													
System element 2 [Str] <No variants available> <No Filter>													
Effect	S	C	Failure mode	C	Cause	Preventive action	O	Detection action	D	RPN	AP	Notes AP	R/D
System element: System element 2													
Function: Function 2													
[System element 1]	1		Failure mode		[System element 3]								
Effect	0				Cause								
Initial state: 2024-07-30													
Revision state: 2024-07-30													
Revision state: 2024-07-30													
Preventive action 2	10				Detection action 2	10	100	0	H				Supervisor 2024-09-10 completed
Revision state: 2024-07-30													
Preventive action 2	(1 0)				Detection action 2	(1 0)	(10 00)		(H)				Supervisor 2024-09-10 in progress
System element: System element 3													
System element: System element 4													

Both options mean that even large tables or FMEA forms can be opened more efficiently.

The workstation setting regarding folding also affects the following tables:

- FMEA form
- Control plan
- DRBFM worksheet
- Cause-centered form
- FMEDA form

Meeting log easier to find | (V8-347)

The option to create a meeting log was previously available in the workplace settings (= “Create meeting log”) and the document settings (= “Always create a detailed meeting log for this document”). Both options are now available in the document settings. The entry in the workplace settings has been removed.

Create a meeting log for this document
 Record details

CARM-Server can be hidden | (V8-306)

There is now an option to deactivate the CARM server via the workstation settings. This eliminates any options that are not required, e.g. in the menu and in the context menu.

Some IQ-Software functions can be activated or deactivated here.

If a function is deactivated, no data is lost in the fme files. Instead, only the corresponding editors etc. can no longer be opened.

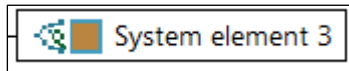
 CDM Server
 CARM Server
 CARM Server Administration
 Action-Tracking (CARM-NG-Server)

Structure editor

Additional hot-click icon for variants | (V8-1251)

There is an additional hot-click symbol for system elements in the Graphics window of the Structure Editor which shows whether there is a variant exclusion for dependent objects.

Display options „Contains variant exclusions“.

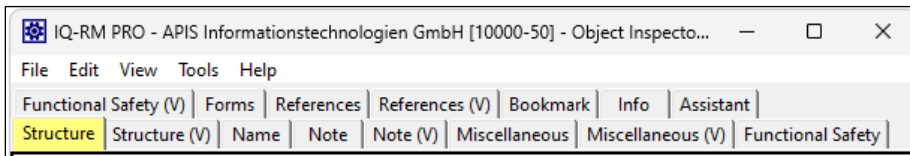


Object Inspector

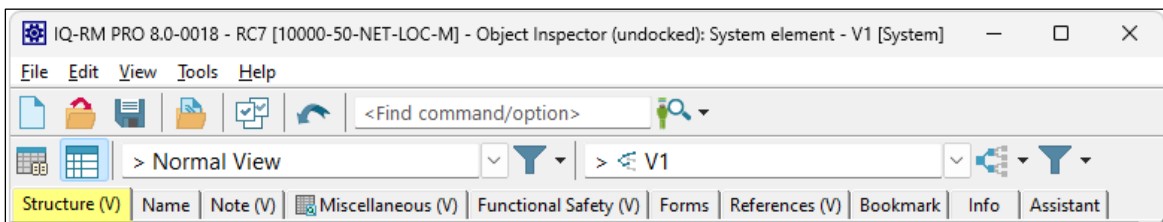
New display of the Object Inspector | (V8-68, V8-1202)

The interface in the Object Inspector has been optimized, especially in the context of variants.

Example V7.0:



Example V8.0:



Examples of the status in V8.0:

There are now toolbars and the usual combo boxes.

Variant-specific attribute cells | (V8-1198)

The display of variant-specific attribute cells has been optimized.

Example V7.0:

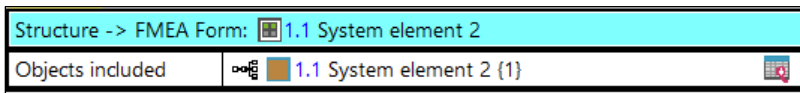
ID number	
ID number (V1)	V1-1234
ID number (V2)	<The inspected object is excluded from this variant>

Example V8.0:

ID number	
ID number (V1)	V1-1234
ID number (V2)	<The inspected object is excluded from this variant>

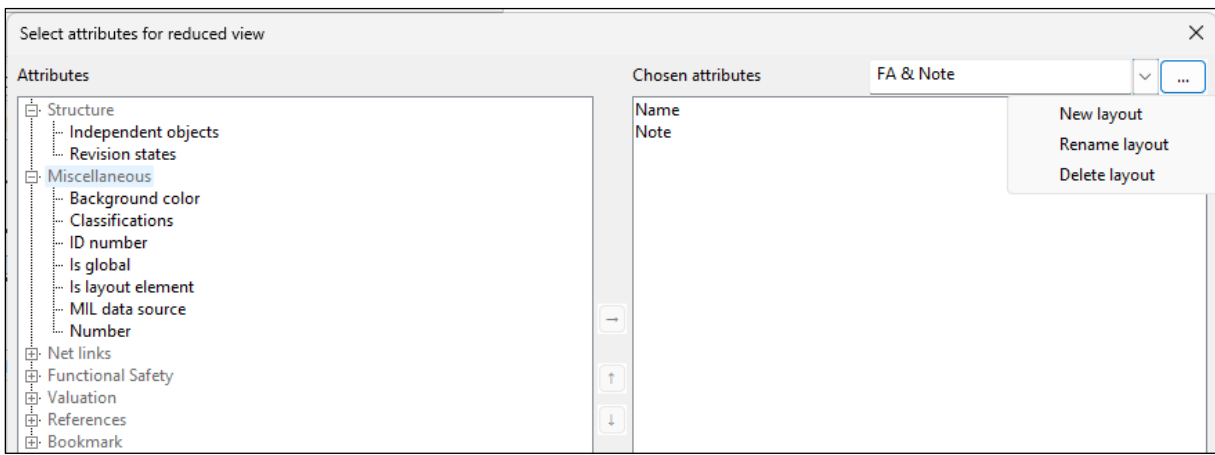
Review of the forms possible | (V8-544)

It is now also possible to inspect forms, e.g. to view their content.

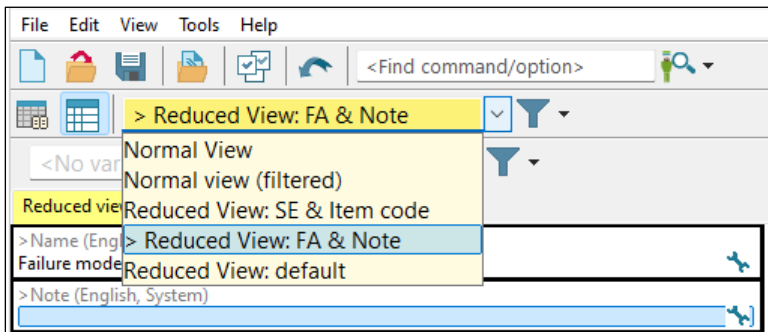


* Multiple layouts for the reduced view in the Object Inspector | (V8-165, V8-167)

It is now possible to create named layouts for the reduced view in the Object Inspector and access them via the selection box.



The selection is made via the selection box (screenshot of the undocked object inspector)






Working with modified reduced views is also possible in the normal object inspector.




Scope Analysis

***Variant-specific analysis now also possible | (V8-142)**

***Clearer table due to short designation | (V8-269)**

The criteria are shown in the table with a short description, if available. This makes it possible to make the table in which you are working clearer.

L	Name	Short label	Structure type
	New development of products & processes	New development	Process
	Process failures that may result in hazards	Hazards	Process
	Complexity of Design	Complexity	Design

System element	Reference product or process	Information source		
			New development	Hazards
 PS 100 {1}				
 PS 200 {1}				
 PS 300 {1}				

Note: The long name is shown as a tool tip on mouse-over.

For criteria that should not be automatically assigned via the structure type, it is now possible to select the structure type “<< Not assigned >>”. This is indicated in the administration with “-”.


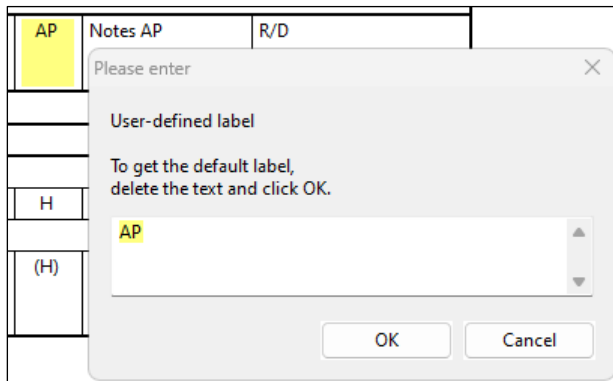
	Complexity of Design	Complexity	System
	Legal Compliance US	LC-US	-
	Legal Compliance JP	LC-JP	-

Table editors in general

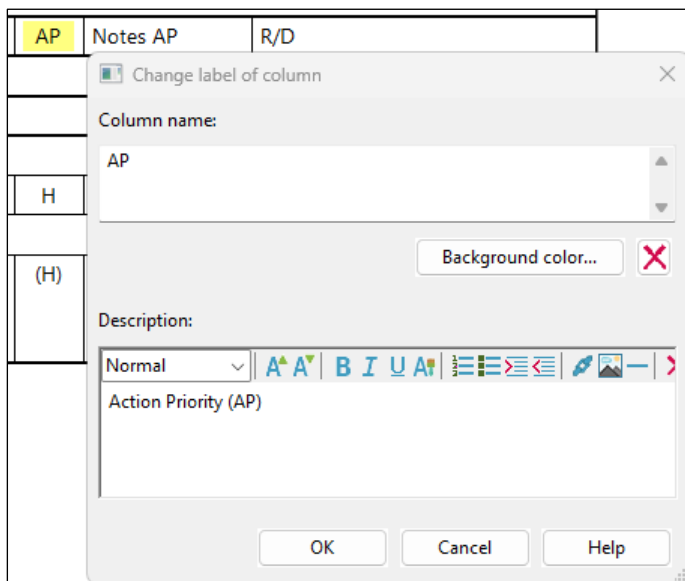
*Customize label | (V8-115, V8-860)

Column labels and labels in header data can now have additional notes and colors.

In V7.0:



In V8.0:



Information contained in the note is shown when the mouse pointer is over the label. Based on this possibility, the usual short form has been inserted as a label in some places and the previous long form has been moved to the note.

Example: The previous column label "Spec. Characteristic" now has the column label 'C' with the note 'Special Characteristic'.

Visual representation of cross-structure nets | (V8-1248)

Cells of a table can show content from different structures if, for example, there is a cross-structure function or failure net. If the authorization to edit the object does not exist in all structures, this was previously displayed in the status bar during selection and is now also displayed in color for selected cells.

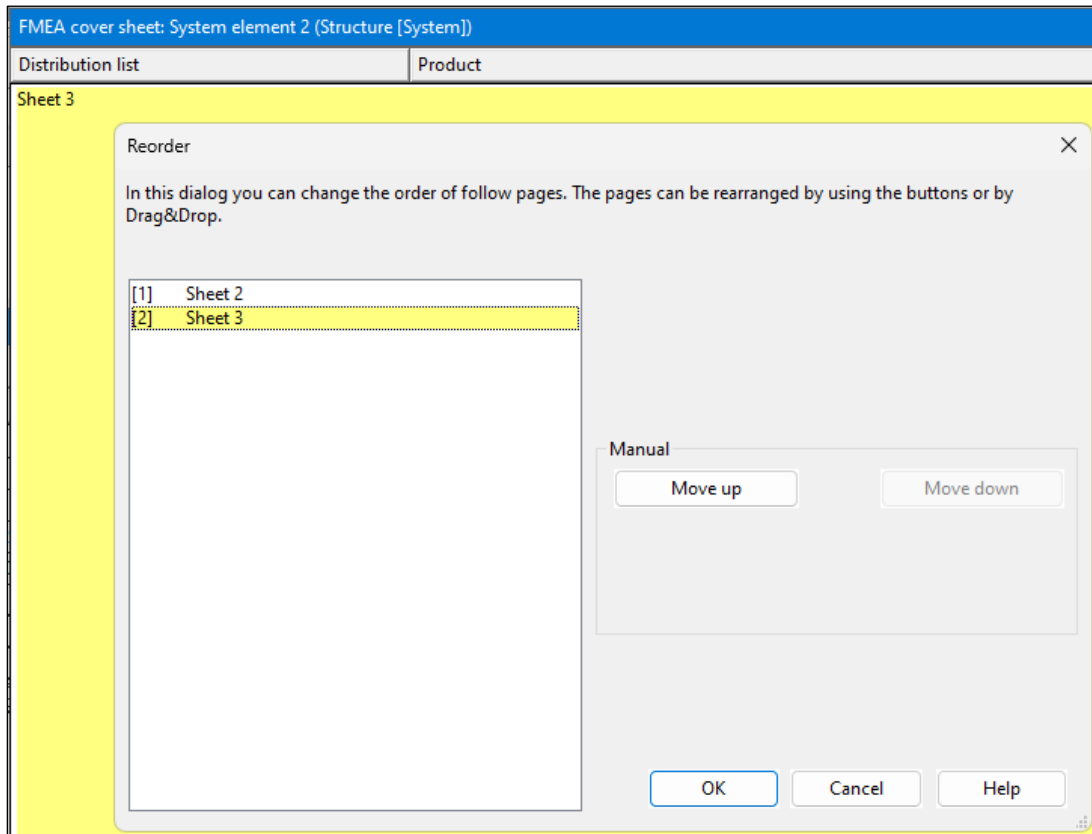
Example with failures “Effect 2” and “Effect 4” in a structure with read-only authorization.

Effect	S
System element: System element 2	
Function: Function 2	
[System element 1] Effect 1	10
[System element - Read-Only] Effect 2	9
[System element 1] Effect 3	8
[System element - Read-Only] Effect 4	7

Cover sheet

Rearrange function for cover sheets | (V8-171)

With the cover sheets, e.g. the FMEA cover sheet, you can work with continuation pages to document more extensive information. It is now possible to insert additional continuation pages and change the order if necessary.



Cover sheet for structures | (V8-111)

It is now also possible to create a cover sheet for structures.

FMEA forms editor

*Prompt for renaming in the properties dialog | (V8-332)

With "Split cause" it is possible to create a new cause with identical actions. Note: It is helpful to see the counter for effects/causes.

Previously, an identically named cause was created, which could then be renamed appropriately. Now the renaming can be done directly in the properties dialog.

Failure mode	C	Cause	C	Preventive action
Failure mode		[System element 3] «3/0» ! Cause		
Failure mode 2		[System element 3] «3/0» ! Cause		
Failure mode 3		[System element 3] «3/0» ! Cause		

Failure: Cause [en]

Note

Name	Valuation	Attributes	Use
Language: >English			
Name (English): Cause			

Fixed incorrect setting for appointment descriptions | (V8-1000)

Readme: Previously, it was incorrectly possible to assign a date description in the form with an active display option ("Deadline description") and deactivated document setting ("initial state must have a deadline") even for initial actions. This has now been fixed.

GKN no longer supported | (V8-808)

The "GKN" layout is no longer supported for the FMEA form.

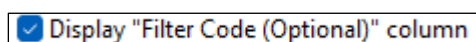
*Object type attribute adapted according to AIAG/VDA 2019 | (V8-1409)

The object attribute "No further actions needed" can be assigned for the revision state. In the FMEA form, the display has been brought into line with the AIAG/VDA 2019 document.

"No further revision planned" changed to "No further action is needed"

Filter code in the FMEA form | (V8-333)

There is a "Filter code" comment category for action groups. The content is now not only displayed in the AIAG/VDA form, but also optionally in the proven FMEA form, e.g. in the VDA 2019 layout (AIAG/VDA). The display is activated via a display option in the Table area.



AIAG/VDA form

Changes in the AIAG/VDA form

Versioned forms | (V8-78)

Versioned forms can now also be displayed in the AIAG/VDA Form editor.

*Color-coded cells | (V8-206)

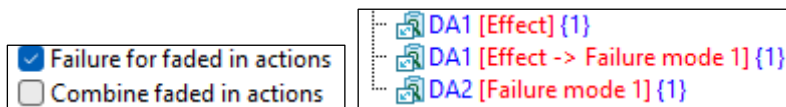
When selecting cells that belong to method steps, the relevant cells of the other method steps are highlighted in color.

STRUCTURE ANALYSIS (STEP 2)			FUNCTION ANALYSIS (STEP 3)			FAILURE ANALYSIS (STEP 4)					
1. Next Higher Level	2. Focus element	3. Next Lower Level or Characteristic Type	1. Next higher level Function and requirement	2. Focus element Function and requirement	3. Next lower level Function and requirement or characteristic	1. Failure Effects (FE) to the Next Higher Level Element and/or End User	S	SC	2. Failure Mode (FM) of the Focus Element	SC	3. Failure Cause (FC) of the Next Lower Element or Characteristic
System element 1 {1}	System element 2 {1}	System element 3 {1}	[System element 1] Function 1 {1}	[System element 2] Function 2 {1}	[System element 3] Function 3 {1}	[System element 1] <Function 1> Effect {1}	10	Classifications	[System element 2] <Function 2> Failure mode {1}	Classifications	[System element 3] <Function 3> Cause {1}

FFA editor

*Combination of actions possible | (V8-405)

Faded in actions are always in the context of a failure. If there are several identical faded in actions with different contexts for a action group, it is now possible to display them only once using “Combine faded in actions”.



Information on the number of contexts is then displayed.



Deadline editor & Statistics

New print option | (V8-696)

When printing directly from the deadline editor, it is now possible to activate the “Print per person” option.

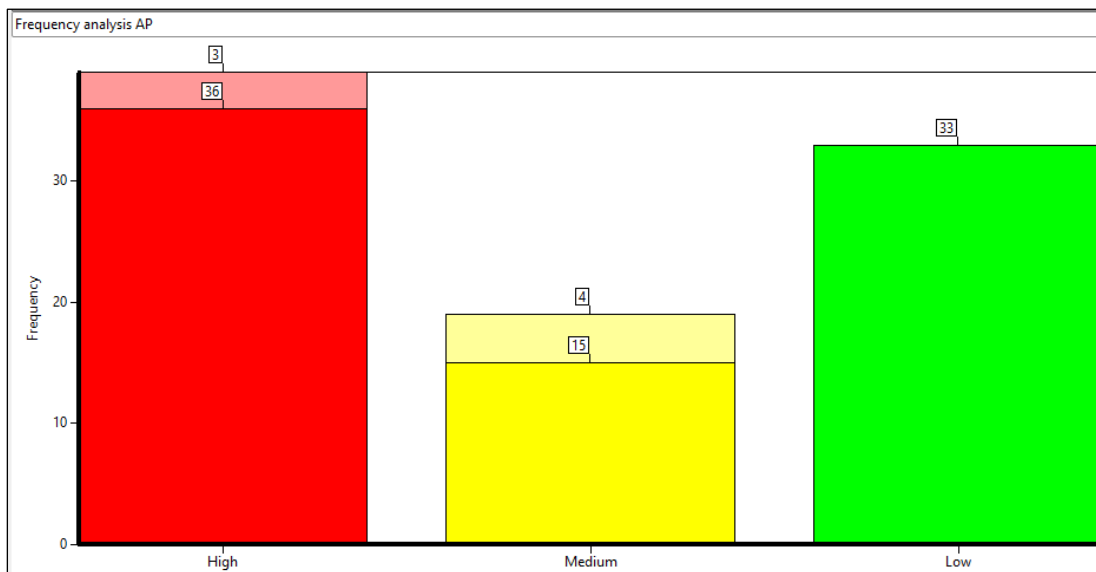
Remote time display | (V8-535)

For exported actions to XLSX, the data format has been changed so that only the date is visible in MS Excel and the time is no longer shown.

Note: The previous time: 23:59:59 has been changed to 00:00:00.

*New representation of statistics | (V8-174)

The frequency analysis AP now considers whether the “No further action needed” attribute is set. For bars with the classification High and Medium, the bar is divided into two sections with different colors.



In addition to the number, the results list also shows the number for the respective sub-area.

Category	Number
M	15(19)
	4(19)

Note: Tables with summary information can be generated using the Management Report. In a sub-table, for example, each cell can show the information based on a filter. Example:

B	AP-L		AP-M		AP-H	
	i.O.	n.i.O.	i.O.	n.i.O.	i.O.	n.i.O.
				2		3
10						
9	2	2				
8					4	1
7						
6	2		3	1		
5			2	1		
4			2		2	
3					1	1
2					2	1
1						

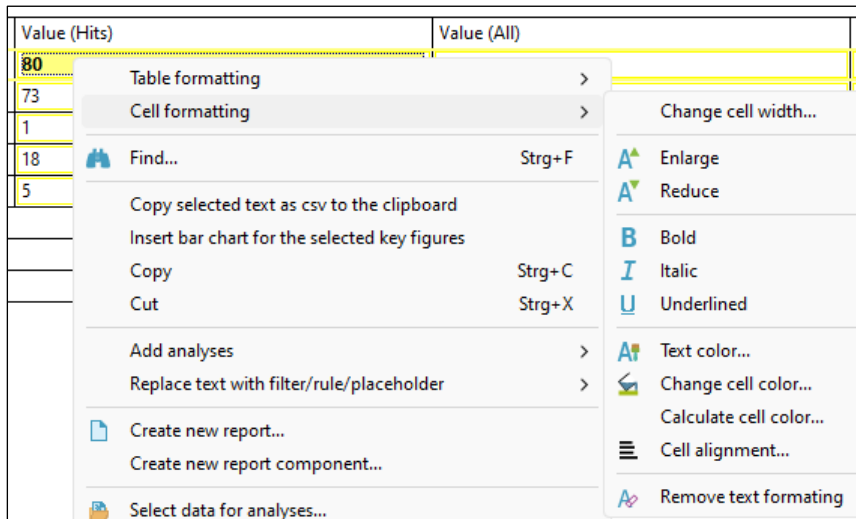
Entry in a cell based on a filter:

0	Failure by... AND has Revision state with... AND - Is last rated revision state equals true - No further action is needed equals true has Action group with... - Action Priority (AP) equals H - S max equals 10

Management-Report

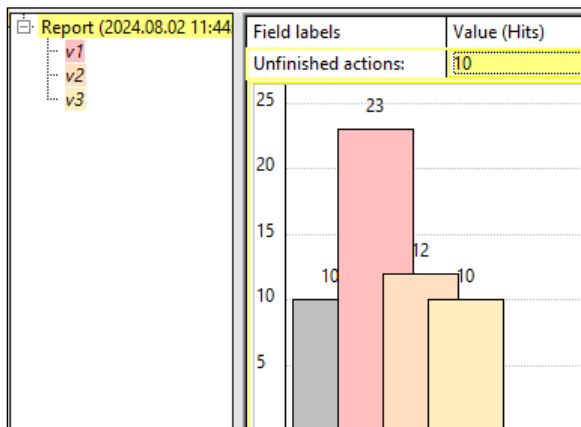
Optimized Management Report | (V8-1292)

The concept for formatting table cells in the Management Report has been optimized. Previous formatting based on the previous concept is applied. The “Remove text formatting” option can be used to return the formatting to its basic state.



*Trend bar chart | (V8-275)

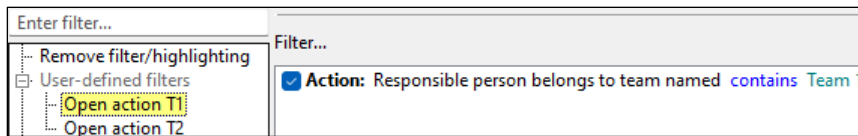
In the Management Report, it is now possible to insert the trend over time as a trend bar chart for the same key figures. The basis is either a report with associated versioned reports or several selected reports.



A bar chart can be inserted via the context menu for a selected key figure “Insert bar chart for the selected key figures...”. The colors of the columns correspond to the colors of the reports or versions. On mouse-over, an info bubble with the selected data basis is displayed.

Evaluation options in the Management Report | (V8-606)

The evaluation can now also take into account the affiliation of persons to teams. A corresponding filter is required, e.g. a structure filter.



Calculation options | (V8-580)

Cells with figures in the Management Report can be drag&dropped onto an empty cell using the right mouse button. This leads to calculation options such as "Total".

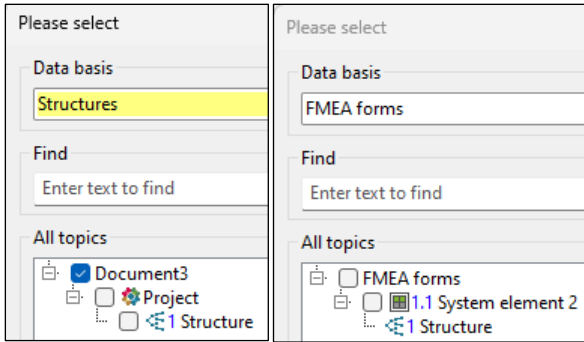
Field labels	Value
Open action: under consieration	0
Open action: untouched	5
Open action: in progress	75
Open action: completed	232
Open action: rejected	0
Total	312

Default report | (V8-529)

If there is no Management Report yet, a default report is created when the “Management Report” editor is opened. The date-time information in the name corresponds to the creation date of the report. Renaming is possible.

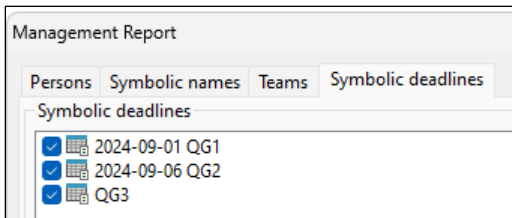
The content is updated via “Recalculate values” and there should be date-time information with the update time.

Report to present results			
To calculate the values please execute the menu command Edit Recalculate values			
Basis of data: Document2			
Date: 2024-08-12 Time: 13:24:30			
Field label:	Value (Hits)	Value (All)	Value (%)
Unfinished actions	-	-	-
Actions with overdue deadlines	-	-	-
Actions without a responsible and deadline	-	-	-
Action groups with unrated measures	-	-	-
Top failures with missing S rating:	-	-	-
Frequency analysis AP			
To show the analysis results please execute the menu command Edit Recalculate values			
Risk matrix			
To show the analysis results please execute the menu command Edit Recalculate values			



Create legend possible | (V8-582)

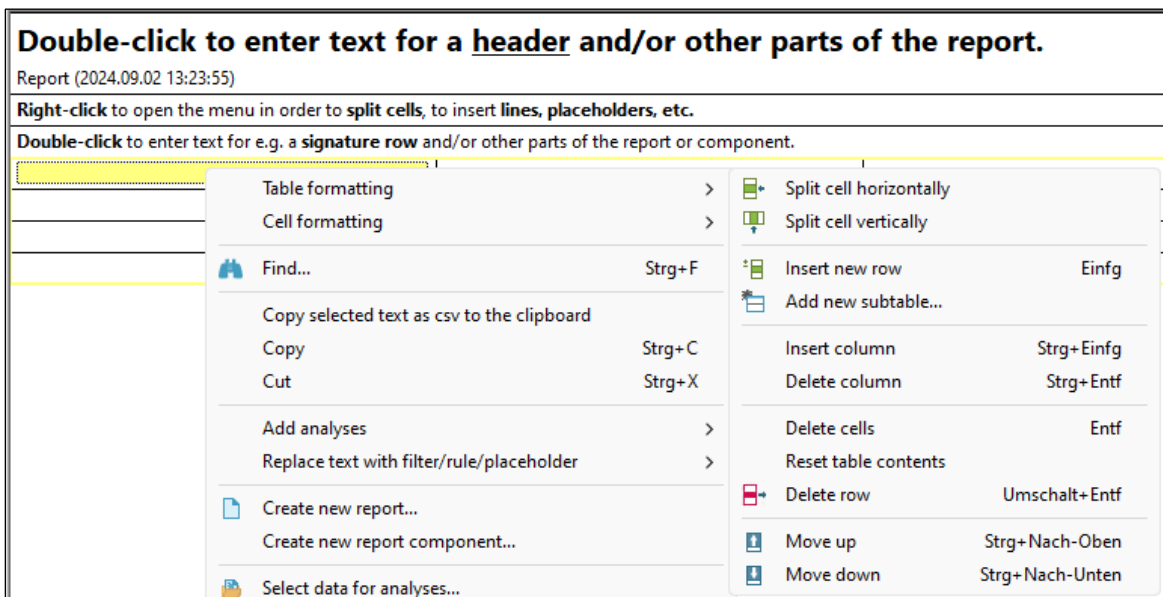
It is now possible to make a selection from the Administrative Data area in the Management Report to create a legend. Example “Symbolic deadlines”:



Symbolic deadline	Value
QG1	2024-09-01
QG2	2024-09-06
QG3	

Sub-tables with additional functionalities | (V8-599)

In the Management Report, there are additional functionalities in the table area in the area of sub-tables via “Table formatting”.



Control Plan

*Error-proofing as objects | (V8-105)

There are now “error proofing” objects in connection with inspections. These are catalogue-based, i.e. typed objects, and can be added during inspections.

It is possible to display a corresponding column in all control plan layouts (“Show column Error Proofing”).

Methods		
Inspection equipment	Error proofing	Responsible
Inspection		
Measure device 1	Error proofing 1	Responsible?
	Error proofing 2	
System element 2 {1}		
Diameter = 10 mm {1}		
Inspection: Measure device 1 [Responsible?]		
Error proofing 1 {1}		
Error proofing 2 {1}		

Process characteristics from all structure levels | (V8-525)

It is now possible to include the process characteristics from all structure levels in the control plan (menu: Document settings | Control plan).

General settings for control plan

Control Plan (CP) and Process Flow Diagram (PFD): Display of process characteristics

is based on characteristic/function net

is based on the structure (next level)

is based on the structure (all levels)

Note: Previously, this was only possible if function nets were created.

Note: When versioning a control plan, the currently set option is used. Subsequently changing the option has no effect on control plan versions.

Control Plan 1st edition (March 2024) | (V8-1308)

The following additions have been integrated:

- There is an additional option to select “Safe launch” in the header data area.

- For the reaction plan, there is the option to enter and show the responsible person.







(Menu: Display options | Additional details)

Note: There is also an option to show the responsible person for the control method.


***Test categories according to IATF 16949 | (V8-44)**

In IATF 16949, there are several inspections for different purposes in the control plan for characteristics, e.g. first part approval, approval after planned/unplanned system stop, series release.

Corresponding inspection categories are now available and further inspection categories can be created in the “Attributes and categories” administration dialog.

L	Name
	 First part approval
	 Series release
	 Approval after planned/unplanned system stop

The display in the control plan is provided by additional lines above Inspection equipment.

Inspection equipment	Error proofing
Inspection <First part approval>	
check by shift supervisor	
Inspection <First part approval, Series release>	
 test appliance: pull-off strength	

***Drag&Drop from FMEA to CP | (V8-900)**

If the control method and reaction plan are managed as separate objects, a drag & drop to prevention and detection actions is now supported and vice versa.

Example after drag&drop from FMEA to CP:

Initial state: 2024-08-22							
Preventive action 1	10	Detection action 1	10	H			
Revision state: 2024-08-22							
Preventive action 2	(10)	Detection action 2	(10)	(H)		Supervisor 2024-10-03 untouched	
< x							
Methods							
	Inspection equipment	Error proofing	Responsible	Samples		Control method	Reaction plan
				Size	Frequen- cy		
Inspection			Responsible?			Preventive action 2	Detection action 2 R: Supervisor

Example after drag&drop from CP to FMEA:

Initial state: 2024-08-22							
Preventive action 1	10	Detection action 1	10	H			
Revision state: 2024-08-22							
Control method		Reaction plan				Supervisor Deadline? in progress	
Responsible?		Supervisor					
< x							
Methods							
	Inspection equipment	Error proofing	Responsible	Samples		Control method	Reaction plan
				Size	Frequen- cy		
Inspection			Responsible?			Control method	Reaction plan R: Supervisor

Functional Safety

The functionalities associated with functional safety are included in the APIS IQ-FMEA PRO and APIS IQ-RM PRO expansion stages.

Calculation strategies | (V8-462)

The calculation strategies for calculating the FIT value are now saved in the "safetyNorms.ice" file.

Example when the SN29500 calculation strategies are available:

Functional Safety - Calculation strategies:		
Standard	Calculation formula	
SN29500 Edition 2008-02	Calculation formula	
	$\text{lamdaRef} \left(\frac{(A \cdot \exp(Ea1 \cdot 11605 \cdot (1/TUref - 1/T2))) + (1 - A) \cdot \exp(Ea2 \cdot 11605 \cdot (1/TUref - 1/T2))}{(A \cdot \exp(Ea1 \cdot 11605 \cdot (1/TUref - 1/T1))) + (1 - A) \cdot \exp(Ea2 \cdot 11605 \cdot (1/TUref - 1/T1))} \right)$	
Calculation strategy	Partial formula	
SN29500-02: Expected values for integrated circuits (Edition 2004-)	Parameter	Condition
SN29500-03: Expected values for discrete semiconductors (Edition 2004-)		Partial formula
SN29500-04: Expected values for passive components (Edition 2004-)	Material constant definition	
SN29500-05: Expected values for electrical connections, electrical	Constant	Description
	A	0.873
	Ea1	0.16
	Ea2	0.44
	TUref	313.0
	Variable definition	
	Variable	Description
	T2	Average actual surface temperature
	Definition of selection variable	
Component		
Passive Components		
Inductor		
Capacitor		
Other passive components		
Resistor		
Wire-wound		
Carbon film		
<= 100 kOhm		
> 100 kOhm		
Metal-oxide		
Metal film		

Note: The safetyNorms.ice does not contain any calculation strategies in the delivery status.

Variant-specific parameters | (V8-151, V8-153, V8-693, V8-1661)

It is now possible to assign functional safety parameters on a variant-specific basis.

Functional Safety (V) -> System element: 1.1.1 System element 3 {1}	
Failure rate (FR) in FIT	
Failure rate (FR) in FIT (V1)	10
Failure rate (FR) in FIT (V2)	
Self-heating of system element	
Self-heating of system element (V1)	100
Self-heating of system element (V2)	
> Source for % value of failure (English)	
> Source for % value of failure (English) (V1)	V1-Source %
> Source for % value of failure (English) (V2)	
> Source FIT (English)	
> Source FIT (English) (V1)	V1-Source FIT
> Source FIT (English) (V2)	

Variant-specific attributes for the safety goal:

- ASIL/SIL SafetyIntegrityLevel
- SPFM in % requiredSafeFailureFraction
- LFM in % requiredSafeFailureFractionLatent
- PMHF in FIT requiredPartsFailurePerHour
- FTTI (SPF) in ms faultTolerantTimeIntervalSpf
- FTTI (MPF) in ms faultTolerantTimeIntervalMpf

Variant-specific attributes for failure detections and reactions:

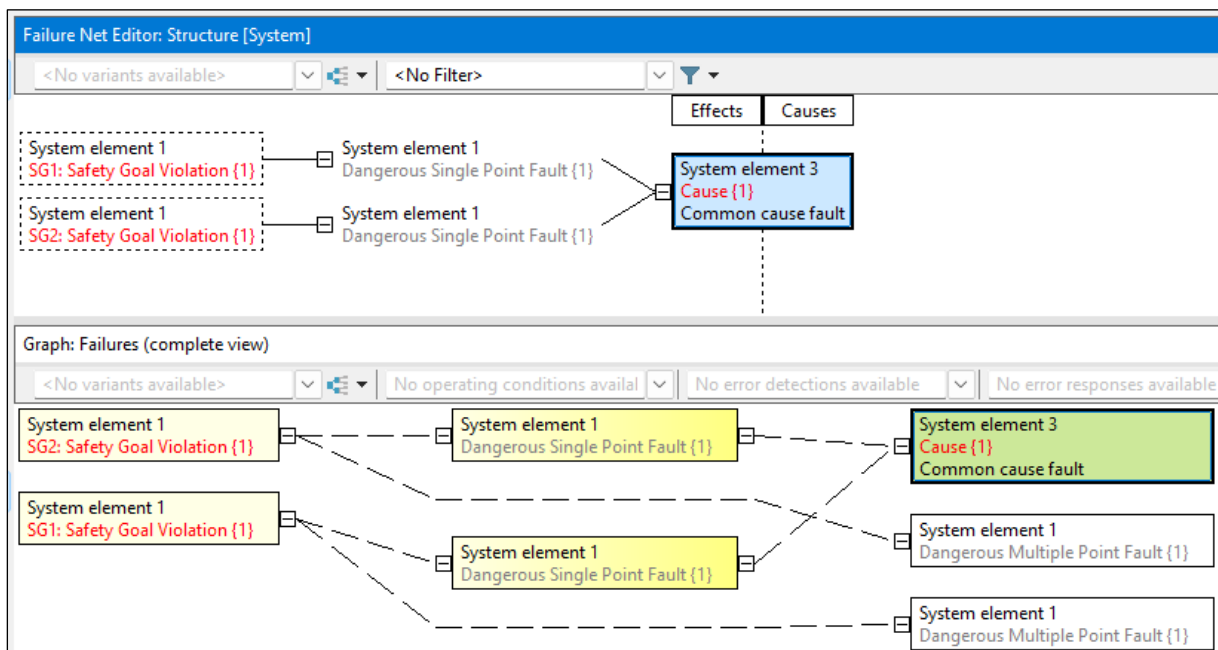
- DC-(SPF) DiagnosticCoverage
- DC (LF) DiagnosticCoverageLatent
- FDTI in ms DetectionTime
- FRTI in ms FaultReactionTime

Parameters | (V8-196)

There is the functional safety parameter “Common cause fault”. This is present if a failure leads to several safety goals being violated. It can be displayed in the failure net and graph editor.

Functional Safety

- Functional Safety parameters
 - SIL/ASIL (Automotive / Safety Integrity Level)
 - SIL/ASIL (maximum)
 - Failure rates (actual value, required value, detected fraction, undetected fraction)
 - Total of FIT values
 - Processing times (actual value, required value)
 - Fault Tolerance Time Interval (minimum)
 - Common cause fault



***Calculation strategies saved separately | (V8-1170)**

Calculation strategies previously available on the APIS CARM-NG server with CSS Functional Safety will in future be saved in a "safetyNorms.ice" file.

A description of the migration of calculation strategies is available separately.

***Import and update of parameters | (V8-503)**

When the FMEDA form is activated, there are now options for importing and updating parameters that are available in the FMEDA form.

Import FMEDA form sheet...
Update FMEDA form sheet...

The following objects and object attributes can be imported and updated:

- System element
- FIT System element
- Source FIT
- Self heating of system element
- Source for % value of failure
- Function
- Failure mode
- % value of failure
- Base fault [FIT]

DVP&R

Design Verification Plan & Report

Easier to understand thanks to grouping labels | (V8-880)

The “Test method” and “Test report” grouping labels provide support when working in the DVP&R form. These show the associated table areas and therefore make it easier to understand data modeling and the consequences, e.g. when adding or deleting. Both objects can also now have notes.

System element	Test name	Test number	Test method							Test report							
			Test method	Acceptance criteria	Test location	Sample size	Start	End	Responsible	Report number	Status	Start	End	Sample size	Test results	Completed by	Notes (results)
1.1 System element 2 (1)	Test A (1)	1	Test A1							A1-1							
		2	Test A2							A1-2							
		3	Test A3							A1-3							
Test B (1)																	

Display options for notes | (V8-186)

Notes for test method and test report now have the usual display options.

System element	Test name	Test number	Test method	Acceptance criteria
			Test-Nr.	Test method
1.1 Systemelement {1}	Test name {1} Note Test name	Test-Nr.	Test method Note Test method	Acceptance criteria

Languages

Improvements in the management of content languages

No automatic adoption of document languages when copying/pasting | (V8-432)

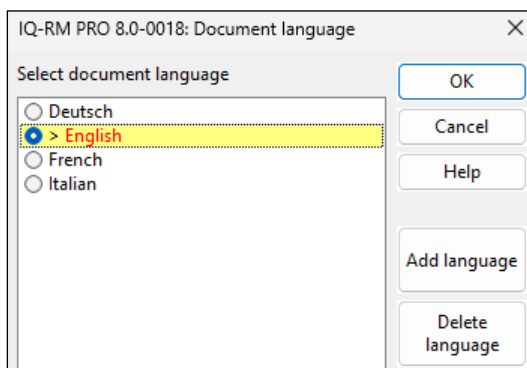
When copying/pasting, the existing document languages are no longer added automatically.

Reorganization of languages | (V8-903)

In the dialog for reorganizing, languages that are not visible can be removed.

Optimized dialogue | (V8-431)

There is an optimized dialog for managing document languages (menu: Tools | Change document languages).



Machine translation | (V8-296)

In File | Extended, there is the option "Translate document automatically". This translates the entire document automatically.

Machine translation options | (V8-955)

For machine translation, there are now additional options such as "British English" or "Brazilian Portuguese".

***"Machine translated" as an attribute** | (V8-326)

After machine translation, object names have the additional attribute "Machine translated". This can be used for highlighting, filtering, searching, etc., e.g. in terminology control, and can also be changed if necessary.

Simplified terminology check | (V8-536)

In "Terminology and translation", the texts of the reference language are no longer displayed for objects that have not yet been translated.

Note 1: In the editors, the text of the reference language is displayed if there is no translation yet.

Note 2: Cover sheets and the Management Report are not offered for translation in the terminology check. Translation in this area is possible directly in the cover sheets and in the Management Report.

Filter names are now translatable | (V8-579)

Thai as a document language | (V8-1471)

It is possible to select "Thai" as the document language.

*Column/field name machine translated | (V8-205)

In the table label area, there is now the option "Automatic translate column/entry label" in the context menu.

Direct call of Object Inspector from Data Manager | (V8-91)

It is now possible to call up the Object Inspector directly from various editors in the Data Manager (e.g. Terminology and Translation). In addition to the assignment of variant-specific values, it is also possible to translate automatically.

Machine translation in the Management Report | (V8-578)

The fields in the Management Report can be translated either manually or automatically. To do this, "Translate contents..." can be called up in the context menu and machine-based translation can be carried out in the "Translate contents" dialog using "Translate".



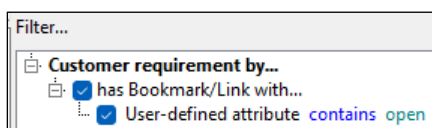
Filter

Filter for "site" | (V8-898)

The "Site" for persons is now available as a filter criterion. This makes it possible to filter for actions with the criterion "Has responsible person named at the location ...". If a symbolic person is responsible, then their specific person responsible is used for the comparison.

Customer requirements: Extension of filter into linked objects | (V8-308)

In the editors for managing customer requirements, there are now filter options that extend into the area of linked objects.



IQ-Explorer

Differentiated search | (V8-80)

A differentiated search in the administrative data is now possible.

Search	Options	Search in administration data	Search in document	Search in files	Search on server
<input checked="" type="checkbox"/> FMEA forms		<input checked="" type="checkbox"/> Structure variants		<input checked="" type="checkbox"/> Meeting Logs	
<input checked="" type="checkbox"/> Causes based FMEA Forms		<input checked="" type="checkbox"/> Inspection equipment		<input checked="" type="checkbox"/> PIM bookmarks	
<input checked="" type="checkbox"/> Control Plans		<input checked="" type="checkbox"/> Machines		<input checked="" type="checkbox"/> Management Reports	
<input checked="" type="checkbox"/> Process Flow Diagrams		<input checked="" type="checkbox"/> User-defined attributes		<input type="checkbox"/> System element types	
<input checked="" type="checkbox"/> DRBFM projects		<input checked="" type="checkbox"/> Function categories		<input type="checkbox"/> Function types	
<input checked="" type="checkbox"/> 8D reports		<input checked="" type="checkbox"/> Categories for action groups		<input type="checkbox"/> Characteristic types	
<input checked="" type="checkbox"/> FMEA Scopes		<input type="checkbox"/> Noise factor categories		<input type="checkbox"/> Action types	
<input type="checkbox"/> Design verification plans		<input checked="" type="checkbox"/> Notes categories		<input checked="" type="checkbox"/> Persons	
<input checked="" type="checkbox"/> Header		<input type="checkbox"/> Valuation Criteria (FMEA Scope)		<input checked="" type="checkbox"/> Teams	
<input checked="" type="checkbox"/> FMEA Cover sheets					

Extended system filter 1 | (V8-1184)

The system filter “Variant-specific assigned object attributes” has been extended. For example, safety targets, their violations, reaction plans, control methods and test methods are now also taken into account.

Extended system filter 2 | (V8-1084)

The system filter “Variant-specific assigned object attributes” has been extended. Variant exclusions (nets) are now also taken into account, for example.

Variant-specific assigned object attributes (Search filters - Systemfilter) ✕

Define search criteria

Name

Appears in variant with name









- System element
- Function
- Characteristic
- Inspection
- Failure mode
- Cause
- Effect
- Revision state
- Action group
- Action
- Error detection
- Error response
- Safety Goal
- Safety Goal Violation
- Control method
- Reaction plan

- Use variant-specific values as a search criterion
- Use variant exclusions (structure) as search criterion
- Use variant exclusions (nets) as search criterion

Data Manager

*New classification options | (V8-567)

In the assistant rules, the possibility of the classification “priority” has been created with a corresponding effect on the symbols. The possible classes are: Must, Should, Can with colors red, yellow and grey.

	Remove structurally inconsistent effects
	SE Can 1
	SE Must 1
	SE Must 2
	SE Must 3
	SE Must 4
	SE Should 1
	Specify test details for the characteristic

Additional information during export | (V8-511)

Actions in the catalog can be provided with additional information, e.g. “Responsible” and “Deadline”. These are used to initialize new instance and are also relevant if it is a global action.

When exporting from the catalog to TXT or XLSX, “Responsible” and “Deadline” are also exported. Note: Additional information is ignored during import.

Sorting | (V8-1098)

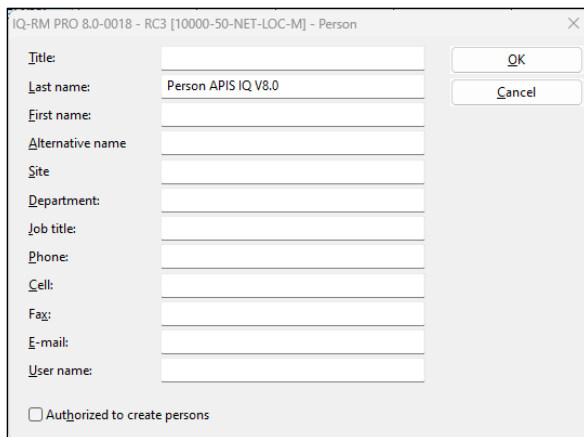
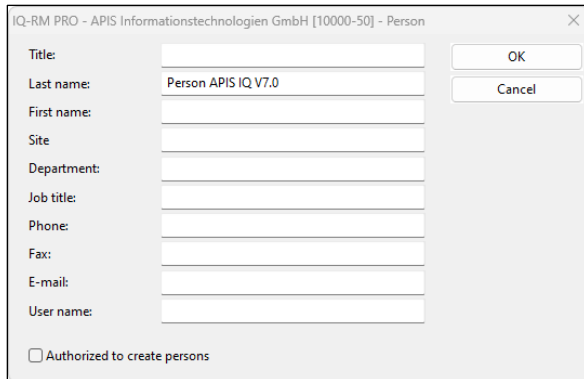
Symbolic responsibilities can now be restructured in the usual way, e.g. Ctrl + Up Arrow Key

Note: Normal sorting is still possible.

Importable site | (V8-597)

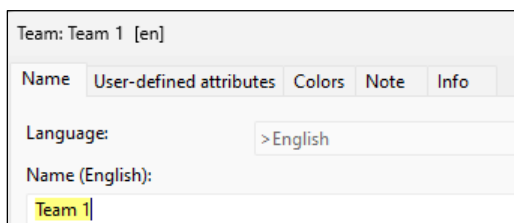
For persons, the value for “site” contained in the associated table can now be imported.

Comparison V7.0 to V8.0:



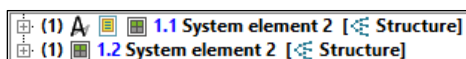
Team with attribute values | (V8-655)

It is now possible to add the attribute values “Custom attribute, color, note” to a team.



Icons in the administration dialog | (V8-89)

In the administration dialog for SE containers (= PFD, FMEA, CP, ...), icons for user-defined attributes and notes are now displayed there.



Remarks list supplemented with new columns | (V8-114)

The remarks list now also shows the columns “Link” and “Reference”.

Column widths	
Name	Width in cm:
Type	1.00
Name	6.00
Note	15.00
Link	5.00
Reference	3.00

There you can see whether the information used has been changed or is no longer available.

Link	Reference
O:\test\test2.txt	File 'O:\test\test2.txt' not found! -> GlobalRefPath: O:\IQ80\Environment\ -> LocalRefPath: -> Path Database: O:\IQ80\Environment; Time stamp upon creation/update: 2024-09-01 12:12:21, Size: 0.00 KB
O:\test\test.txt	O:\test\test.txt; The embedded/linked document has been changed since creation/update; Time stamp upon creation/update: 2024-09-01 12:09:11, Size: 0.00 KB
O:\test\test.txt	O:\test\test.txt

In the context menu, there are options for deleting and updating.

Delete unused documents/graphics
Embed referenced documents/graphics
Extract referenced documents/graphics
Update embedded documents/graphic

Data model

*New command in the FMEA form | (V8-375)

Shown actions in forms at the causes are displayed in the context of the failure mode. If actions are displayed outside the form, e.g. in the structure editor, there may be a different context.

The screenshot shows a tree view of system elements. Under 'System element 3 {1}', there is 'Function 3 {1}', which contains 'Cause {1}'. The 'Cause {1}' has two entries: one with 'O=10 D=10 RPN=1000 AP=H' and 'Initial state 2024-07-26', and another with 'O=10 D=10 RPN=1000 AP=H' and 'Revision state 2024-07-26'. The first entry has 'Preventive action 1 {1}' and 'Detection action 1 {1}'. The second entry has 'detect [Effect] {1}'.

Cause	Preventive action	O	Detection action	D
[System element 3]				
Initial state: 2024-07-26				
Cause	Preventive action 1	10	Detection action 1	10
Revision state: 2024-07-26				
		(10)		(10)

The new “Tools | Change faded-in actions...” command can be used in the FMEA form. In the simplest case, selecting “All” ensures that all faded-in actions are also visible in the FMEA form.

The screenshot shows the same tree view as above, but with an additional 'detect [Effect -> Failure mode] {1}' action visible in the table. This action is highlighted in red in the tree view.

Cause	Preventive action	O	Detection action	D
[System element 3]				
Initial state: 2024-07-26				
Cause	Preventive action 1	10	Detection action 1	10
Revision state: 2024-07-26				
		10	(Effect) detect	10

Note: An action in the structure list that is not visible in the form can also be shown in the form by drag & drop with the right mouse button.

Status of faded-in actions is now also considered in status of the action group | (V8-241)

If there are only faded-in actions in an action group, their status is considered in statistical evaluations, filters, etc. at the location of the display in the same way as an existing action there.

Meeting log: Changes in action groups and revision states are now logged | (V8-178)

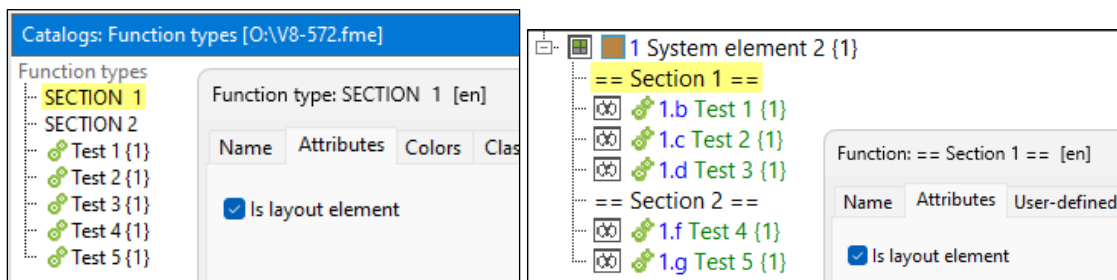
The meeting log now considers changes to the revision state and action groups.

“Rejected” revision state & next revision state | (V8-614)

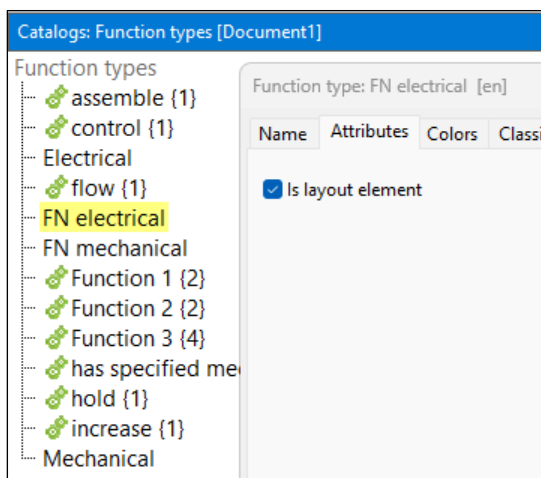
If the revision state has the status “rejected”, it is ignored with regard to the evaluation figures for new revision states. The evaluation number from the previous revision states are used for initialization.

New object attribute | (V8-572, V8-649)

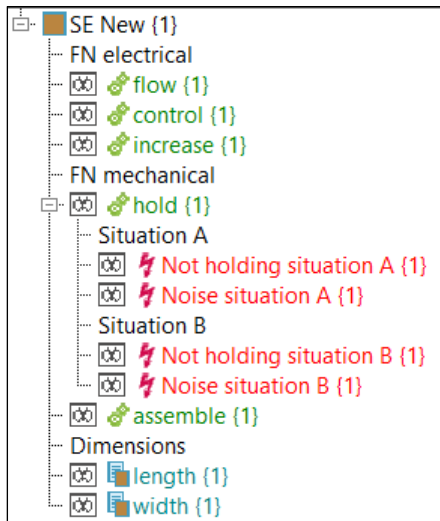
It is now possible to assign the object attribute “Is layout element” in the catalog. This makes it possible to define layout elements.



The object type icon and the display of some attribute values, such as the number, are no longer displayed for catalog entries with an attribute. The counter for the number of occurrences is also no longer visible. Layout elements can be found according to the attribute value when filtering, etc.



When filtering, it is possible to search for functions with the criterion “Is layout element false”, for example, and thus remove the layout objects from the results list.



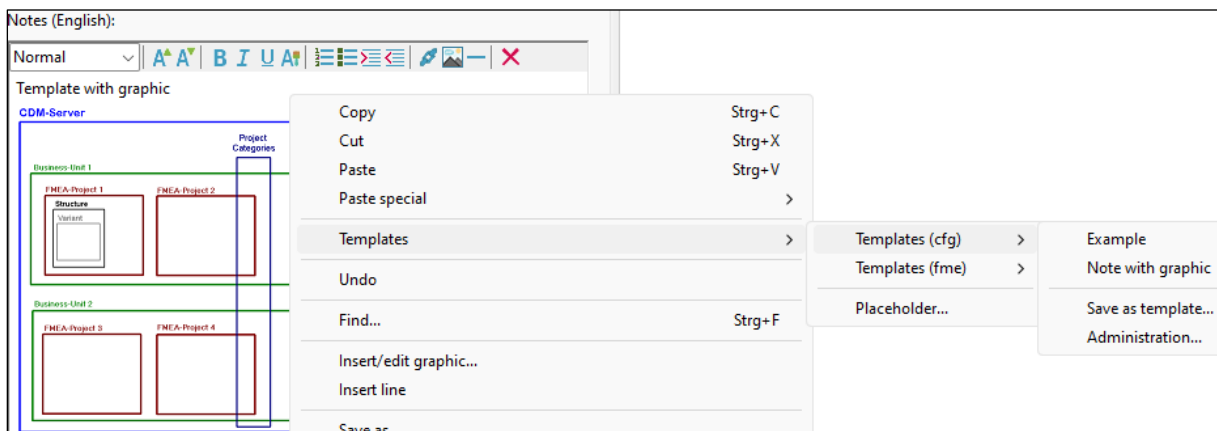
Software support for the revision state | (V8-568)

If O=1 is entered for the preventive action of a revision state and there is no detection action yet, then “none” is set as the detection action.

Initial state: 2024-09-02			
PA 1	5	DA 1	5
Revision state: 2024-09-02			
PA 2	(1)	none	5

*Templates for notes | (V8-608)

Note templates can now also contain graphics.






Conversion in the Java area | (V8-790)

The Java area has been converted to OpenJDK. The interaction with setting options in the Windows operating system, e.g. in the area of date-time formats, can lead to changes (improvements) in the display, e.g. for XLSX export formats.

Content of the notes is filtered | (V8-472)

The user-defined attributes can be provided with categories and notes.

Attributes and categories: User-defined attributes			
Drag a column here to group by this column			
L	Categories	Name	Note
	Function	 fu 1	electric function
	Function, Failure	fu 2	
	Failure	 fa A	electric failure
	Function, Failure	fa B	
		 Global 10	electric component
		Global 20	



There is an option to filter in the selection dialog for the object. The content contained in the note is now also taken into account when filtering.

Function: Function 2 [en]

Name Attributes User-defined attributes Colors Classification

Show all User-defined attributes independent from categorization

Enter filter...



-  fu 1
- fu 2
- fa B
-  Global 10
- Global 20

Function: Function 2 [en]

Name Attributes User-defined attributes Colors Classification

Show all User-defined attributes independent from categorization

electric

-  fu 1
-  Global 10

Variants

*Authorizations for variants | (V8-566)

The restrictions on authorizations previously available for structures are now also possible for variants. This prevents unintentional changes to variant-specific attribute values in variants. The user is only supported in adding something in the variants in which he has the authorization to do so.

The authorization for the structure is higher-level and determines whether changes relevant to other variants are also possible, such as deletions, moves and changes to non-variant-specific attribute values such as the name.

Variant-specific background color | (V8-192)

The background color of objects can now be assigned on a variant-specific basis.

Further hot-click icons in the variant matrix | (V8-441)

In the variants matrix editor, there are now additional hot-click icons with toggle functionality in the status bar, e.g. to change display options.

Consideration when copying variant-specific attribute values | (V8-164)

An additional option in the workplace settings in the "Copy" area can be used to control whether variant-specific attribute values should be copied. This has an effect on the different possible copy actions, copying using drag & drop, special drag & drop and "normal" copy & paste.

Example with two variants in which a failure with variant-specific severity has been copied.

Valuation (V)	Failure: S=10 1.a.1 Effect M {3}	Failure: S=10 1.a.2 Effect M {3}
Severity	10	10
Severity (v1)	9	9
Severity (v2)	8	8

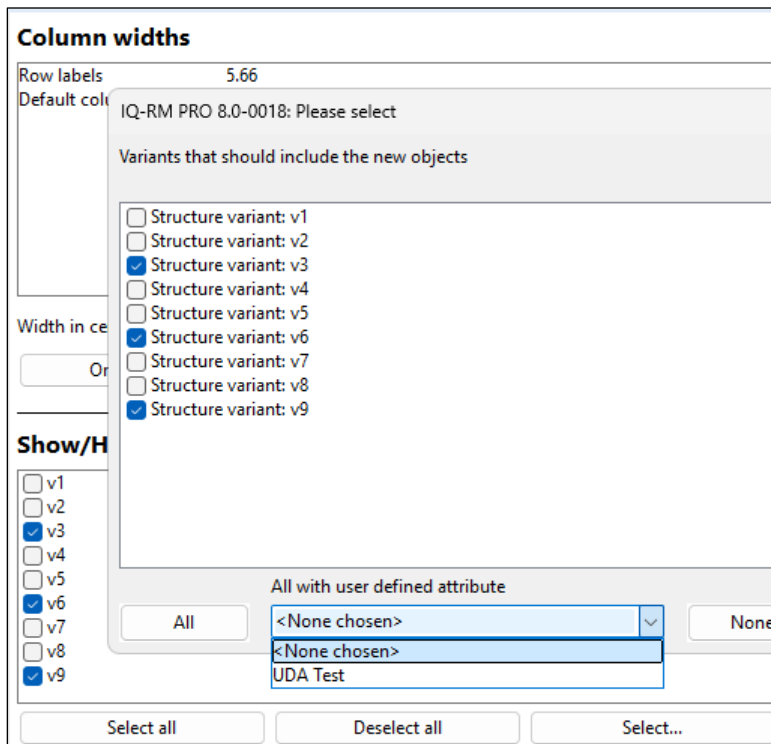
Better overview of variants | (V8-226)

In the variant matrix, it is now possible to select the variants to be displayed there, e.g. by making the selection via a user-defined attribute.

Example with a structure with 9 variants:

Variants Matrix: Structure [System]									
> Structure	<No variant selected>	<No Filter>							
	v1	v2	v3	v4	v5	v6	v7	v8	v9
1 System element 1 {1}	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.1 System element 2 {1}	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.1.1 System element 3 {1}	✓	✓	✓	✓	✓	✓	✓	✓	✓

When selecting in the Columns display options area and there "Select"



there is the following view:

Variants Matrix: Structure [System] (There are hidden columns)			
	v3	v6	v9
1 System element 1 {1}	✓	✓	✓
1.1 System element 2 {1}	✓	✓	✓
1.1.1 System element 3 {1}	✓	✓	✓

Classification

Menu: Classification | Document settings

Single classification has been abolished | (V8-2, V8-370)

Single classification has been abolished in favor of multiple classification. The corresponding option in the document settings has been removed.

Classification calculation with additional option | (V8-593)

In the automatic classification calculation for functions/characteristics based on S/O/D, there is now the additional option "Calculation based on maximum S/O/D valuation (can originate from different failures)" in the document settings. This option is available for compatibility reasons with earlier versions of the APIS IQ-Software and is not recommended.

General settings for classification

- Calculate the classification of an FMEA form automatically
 - Calculation based on maximum of O/D valuation (can originate from different actions groups)
- Calculate the classification of characteristics/functions automatically
 - Calculation based on maximum of S/O/D valuation (can originate from different failures)
 - Allow user overwrite over calculated classifications

Classification possible in the catalog | (V8-137)

For some object types, e.g. product characteristics, it is now possible to specify a classification in the catalog. If a new occurrence is created, this attribute value is used for initialization.

Personal Information Manager (PIM)

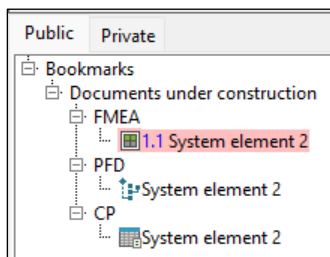
PIM entry for versioned data | (V8-427)

If information is to be added to versioned data at a later date, this is not possible as versioned data cannot be changed. The option has now been created to work with an associated PIM entry, e.g. to save approval information.

A PIM entry can be created either directly during versioning or for data that has already been versioned. The versioned data must be opened and then the root element of a versioned structure, for example, can be drag&dropped into the PIM.

Adding of PIM bookmarks for forms is now possible via administration dialog | (V8-540)

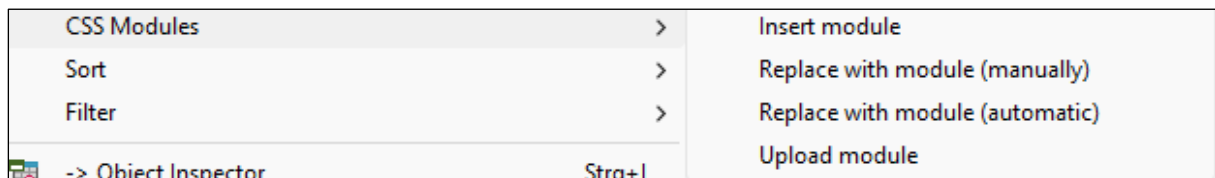
In the administration dialog of forms (FMEA forms, Process Flow, Control Plan, ...) it is now possible to create PIM bookmarks via the context menu. This enables management with additional information.



CARM-Server

Manual replacement has been added | (V8-561)

For the installation of CARM-Server modules, there is now the option of manual replacement (“Replace with module (manually)”) in addition to the previous automatic replacement. The previous “Replace with module” has been renamed “Replace with module (automatic)”.



Easy access to notes | (V8-139)

In the module, helpful additional information can be documented in the note. The content of the note is now easier to access. When creating a successor module, the note of the predecessor is adopted and can be adjusted as usual in the properties dialog before transferring it to the server.

Note: The notes for modules are always in the system category. There are no other categories. The notes are adopted in all languages. When modules are uploaded, the note is taken from the last module.

When module variants are uploaded, the note of any existing generation is adopted. If no such generation exists, the note from the last module variant is adopted.

With the “Upload structure with variants as a module” command, the notes of the module are transferred (and are visible in the properties dialog that opens), but the notes of the module variants are not! Reminder: The note is applied to the object for which the properties dialog is displayed!

Extended authorization categories | (V8-1)

The authorization categories for module certificates have been expanded. There are now the following categories:

- Read module
- Download module
- Upload module
- Delete module
- Change module
- Certificate administrator

Previously, there was the combined authorization level “Delete module / Certificate administrator”.

New backup settings | (V8-267)

The backup can now be started not only at the defined time interval, but also immediately when the dialog in which the settings are configured on the CARM-Server is closed.

Backup

The CARM server data backup is performed at the configured interval. During the data backup, all open connections to the server are disconnected no new ones cannot be established.

Backup directory

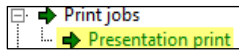
Status: Rerun disabled Start data backup after dialog is closed
(Open connections will be closed without user notification)

Template

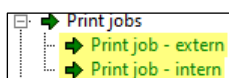
The Data Manager associated with a project is saved in an FMT file, e.g. NORMAL.FMT.

Print jobs in the FMT file | (V8-246)

Previously, all existing print jobs were combined in a group called "Presentation print".

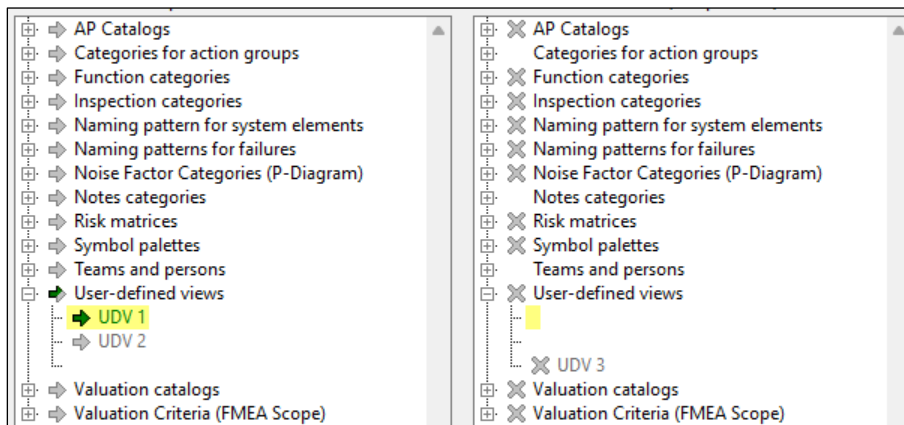


It is now possible to write individual print jobs to or read them from the template file.



More user-friendly template | (V8-758)

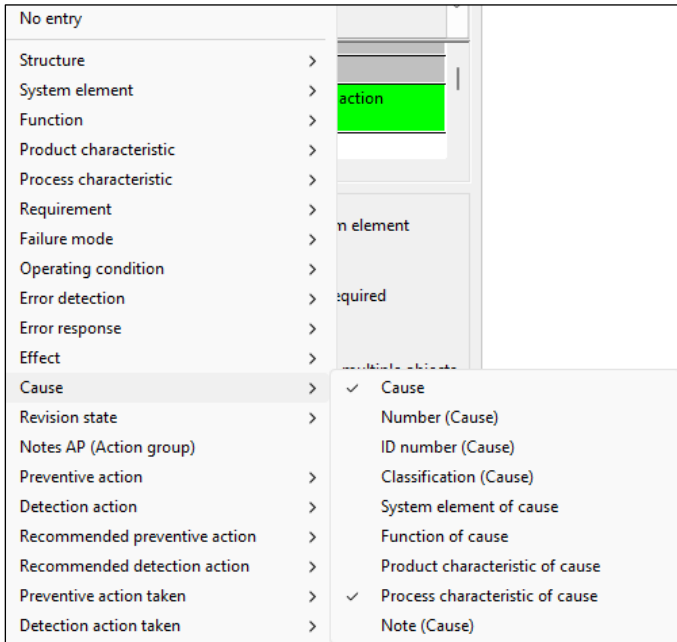
Previously, all existing user-defined views were exchanged with the template without a detailed breakdown. It is now possible to exchange specific user-defined views with the template.



Import

Assignment of process characteristics | (V8-1162)

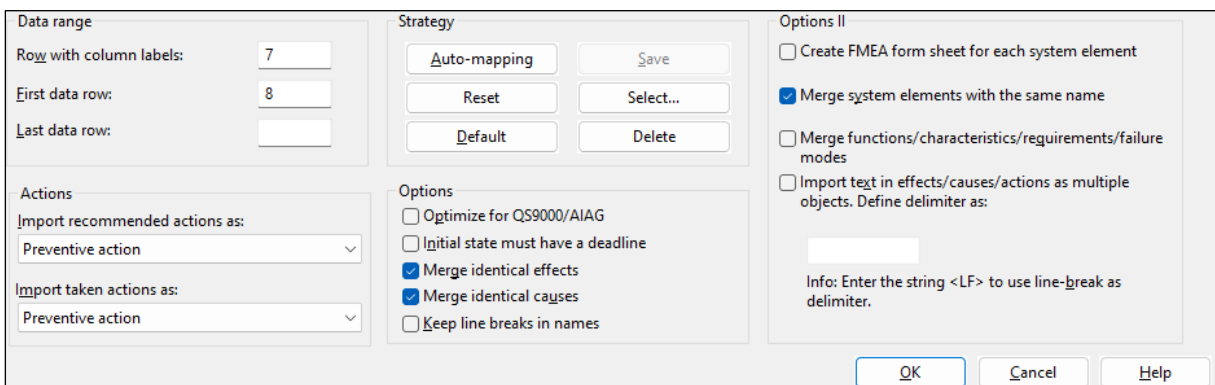
When importing XLSX, it is now also possible to assign process characteristics.



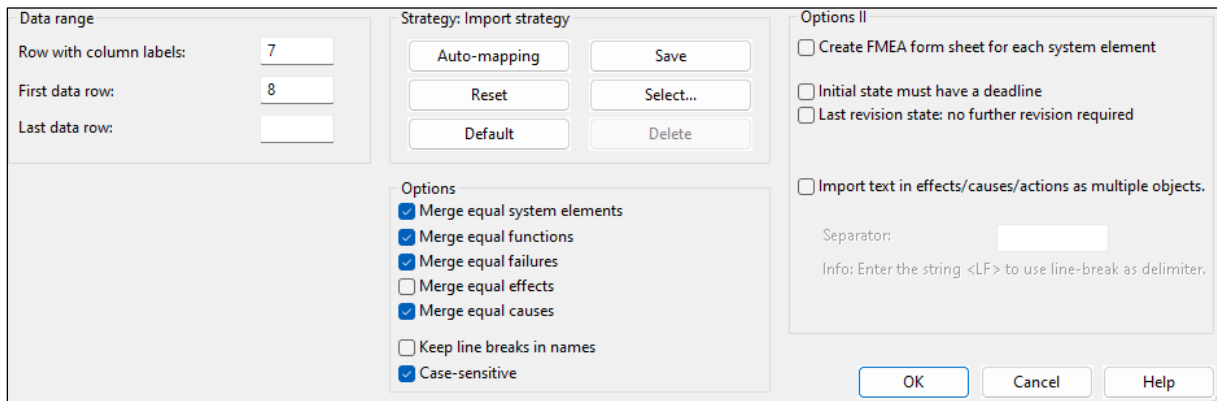
Optimized XLSX import strategies | (V8-613)

In the XLSX import strategies, additional settings are now saved that are related to a specially created import strategy ("FMEA", "Control Plan", etc.).

Extract from the import dialog V7.0:

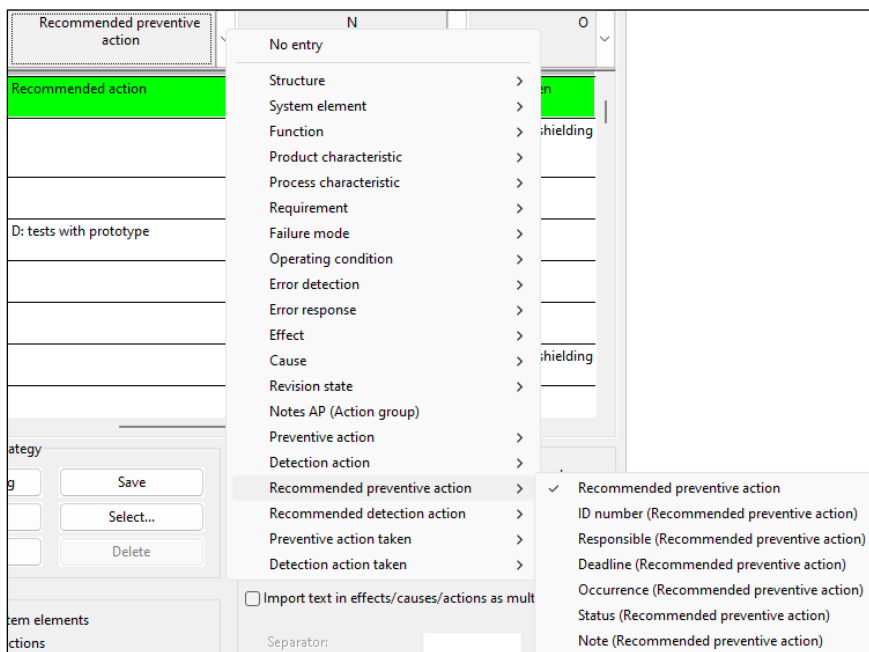


Extract from the import dialog V8.0:



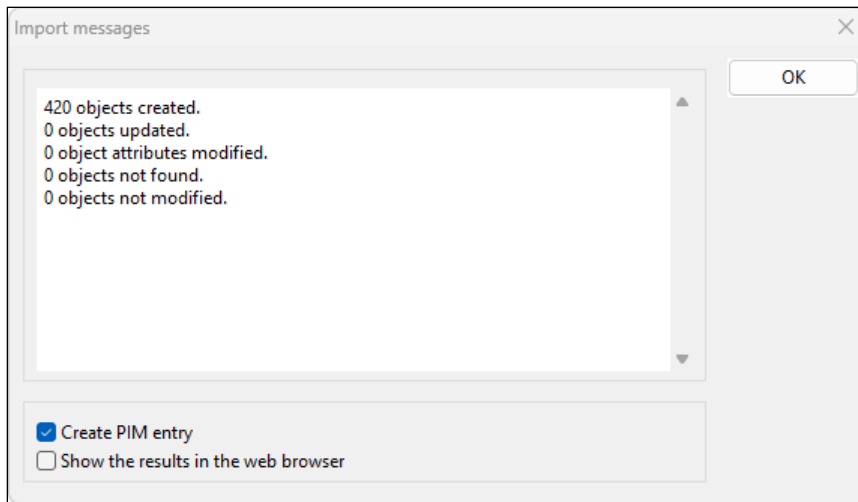
Better assignment during import | (V8-458)

With the XLSX import, it is now possible to import recommended actions either as detection or preventive actions.



Notification of the import result | (V8-328)

There are now import messages when importing data from XLSX and XML files with information on the import result and any errors.

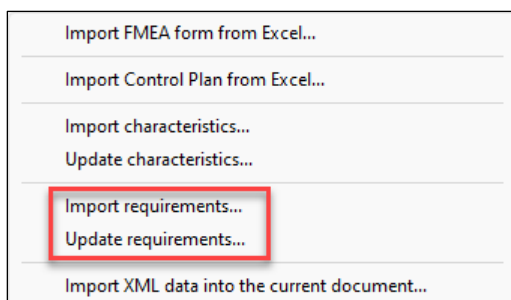


Formulas in XLSX files are no longer ignored | (V8-476)

Note: Previously, the import result may have been incomplete if formulas were present. In these cases, it was previously necessary to clean up beforehand by removing the formulas.

Import and update of requirements | (V8-131)

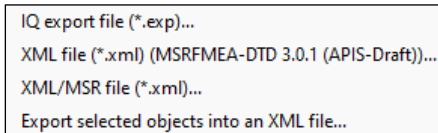
Based on XLSX files (= MS Excel), product characteristics and their associated specifications can be imported and updated. This option is now also available for requirements.



Export-Import

XML interface has been improved | (V8-410)

The XML interface now supports the DTD with version 3.0.1.



Storage of an XML file has been optimized | (V8-423)

The storage of variant-specific attribute values in an XML file has been optimized. This leads to performance improvements during export and import.

***No unnecessary attachments by sending e-mails | (V8-1618)**

When sending HTML e-mails, e.g. "Notify responsible persons (HTML)", unnecessary attachments are avoided by integrating them into HTML.

Revised XML interface | (V8-743)

The XML interface was revised with a view to the additional variant-specific properties in the area of functional safety.

When filters are exported/imported, their UDA is retained. | (V8-581)

Custom filters are displayed in groups after a user-defined attribute (UDA) has been assigned; the UDA is the grouping criterion. The UDA is retained when exporting and importing filters.

This supports users who want to manage a large number of their own filters.



Readme

The basis for the compilation of the new features are the issues marked with Readme or Readme relevant. Information with the associated tracking number is published in the readme file. Some of these are not included in detail in this document.

The readme for the release version (Version 8.0, Service Pack 0020) is divided into the following sections:

- General:
- Editors:
- CARM-Server:
- Control Plan:
- Data Manager:
- DVP&R:
- Excel export/import:
- FMEA form editor:
- AIAG-VDA Form Editor:
- Functional safety:
- Functional and Failure Analysis (FFA):
- IQ-Explorer:
- Quality rules:
- Management Report:
- Object Inspector:
- Structure Editor:
- Tools and dialogs:

Here is an excerpt from the readme:

to features that are not described in detail in the document:

#V8-258 On the start page of the display options, it is now possible to reset the display options for an editor using a button.

#V8-487 *Some default settings have been revised in the workstation and document settings as well as in the display options of all editors.*

#V8-624 Filters: these can now also have background color, user-defined attributes and ID numbers.

#V8-988 When importing FMEA data from Excel that only contains 3 levels of system elements and 3 levels of functions (e.g. effect, failure mode and cause levels), the structure and functions are now imported correctly, even if there are no failures in the Excel file.