Here you can find a comprehensive overview of ALL changes made in APIS IQ-Software Version 7.0 since the initial release in July 2019.

Service Pack IQ Version 7.0 – 0110

General:

- The text filter for the Input collector (already known in V.65), is now available again for V7.0 [V7-2302]
- Automatically generated copies of FME files can now be placed in an extra folder for each file or in a common folder. The common folder can be configured in the workstation settings "*Files and directories*". [V7-4996]
- The workstation settings "*Auto-save configuration*" and "*Confirm mouse operations*" are now saved and retrieved globally. [V7-5265]
- When importing translations, a more detailed error description is provided if an Excel file cannot be imported. [V7-5360]
- You can now choose to not import the contents of the Template file when opening an EXP file. [V7-5511]
- You can now change the "*structure type*" directly in the context menu of the Project Management dialog. This functionality is also available in the toolbar of the Structure Editor and the FFA via the drop-down menu next to the contents Combobox. [V7-5516]
- A new workstation setting (found in "*General*"), enables the user to choose whether the type catalogs are always collapsed upon opening the Administration or the Input collector. If expanded directly in e.g. Administration, all levels are collapsed (default). With the following setting active, only the first level will be displayed: "*Open catalogs always collapsed (Administration/Input collector)*". [V7-5593]
- When importing a catalog for product characteristics, the characteristics which have the same name but have different parent objects are no longer skipped as duplicates. [V7-5595]
- In the Valuation catalogs editor, column labels can now be renamed. [V7-5604]
- Under *Administration -> Terminology and translation* you can now limit the contents of the editor to sub structures or Fmea forms under *View->Limit contents* (formerly known as "*limit to projects/structures*").

Sub structures are selected system elements and all their dependent objects. [V7-5644]

- Variants: A summary is now displayed via the "*Details*" button within the Info tab (Properties dialog and Object Inspector), analogous to that of the summary of structures. [V7-5665]
- The Document setting "*Automatic classification calculation: Do not overwrite existing classifications.*" has been formulated more understandably: "*Allow user overwrite over calculated classifications*". Nothing has changed in terms of functionality. [V7-5794]
- Clicking on the "*All*" button in the "*Manage Variants*" dialog now only selects the variants in which the independent object is included (reverted to previous behavior). If you really want to select everything, click the "*All*" button a second time. [V7-5810]
- In the dialog "*Select Command...*" the contents of the Comboboxes from the toolbar (e.g. filter) are displayed. [V7-5887]
- Management report: key figures can now be inserted directly as a bar chart. To do this, simply select the desired table cells. The chart can be inserted by right-clicking. The first column of the selection is used as description. The selected columns next to the first are used as values for the height of the bars. [V7-5940]
- Filter/Highlighting: analogous to the action categories, it is now also possible to search and filter for the function categories. [V7-5971]
- Management-Report: if the option "*Show grid lines*" is active they will also be printed and exported to HTML. [V7-5983]
- XML Interface: The values for monitoringCheck (Check) and monitoringReaction (Reaction) are stored in the SDG container of the fm-task-set element and for the variants in the fm-variant-misc-data element. They will also be re-imported if present. The export is executed in the MSR format as well as in the draft version. [V7-5988]

Editors:

- In the Causes based FMEA Form the AP column can be shown via a display option. [V7-5312]
- Structure Editor: If the focus feature (Ctrl + K) is not active, the previously focused-on elements can be refocused by using the command "*Remove focus*" (same behaviour when using the filter). [V7-5335]
- Control Plan: With active document setting "*Display of process characteristics is based on characteristic/function net*" and active display option "*Show requirements*" the process characteristics connected to requirements are now shown as well.In the "*Working instructions and

process control" editor it is now possible to "*Show requirements*", too.
Note:
For versions, the process characteristics connected to requirements can only be displayed for control-plan versions created with Service Pack V7-0110 or later. [V7-5408]

- Opening and editing of nets in variants has been optimised. [V7-5908]

CSS Module:

- Under CSS Module Access Rights, a possibility has been created to store the owner of a certificate in the form of the Windows user name. If such a certificate is installed, a check will be made upon connection attempts to the CARM-Server whether the entry in the certificate matches the Windows user logged in. This functionality requires CARM-Server V5.7 – 0060 or newer. [V7-5680]
- The reference language for CSS modules and CSS catalogs can be set server-globally. It serves as an alternative language on the IQ-side, if a module or catalog object has no translation in the set document language. [V7-6003]

Printing/Web Publisher:

- With the new placeholder "*%A*", the current program version along with service pack number can be added to headers and footers. [V7-5705]
- The Functional Safety – failure table is obsolete with version 7.0 of the IQ-Software. Therefore this document is no longer available in the Presentation-Print and Web-Publisher jobs. [V7-5903]

Excel-Ex-/Import:

- When importing FMEA forms from an Excel file, the option "*Merge functions/characteristics/requirements/failure modes*" can be used to control whether these objects should be merged during import. [V7-636]
- For the Excel import of FMEA forms there is a new option "*Merge identical causes*".Causes can be merged if
  – they are anchored to the same function
  – they have the same number
  – they have the same name
  – all dependent objects (actions etc.) are the same [V7-1749]

- The Excel export of tables was reworked to better match the IQ layout in Excel. Only visible columns are now exported to Excel and sporadic bugs in the layout have been fixed.
  The "*AIAG/VDA Form (MSR)*" can now be exported to Excel. [V7-5477]

FMEA Forms Editor:

- Square and round brackets are now also displayed for AP, (same behaviour as RPN):
  – square brackets for the historical revision states
  – no brackets for the current revision state and
  – round brackets for the preview (proposed measures). [V7-5339]
- The table header name "*VDA 2019 (AIAG/VDA)*" has been changed to "*AIAG/VDA 2019*". The layout names remain unchanged. [V7-5344]
- In the following layouts, it is now possible to display (via Display options), the S-max of the failure mode: VDA 96/VDA 06, VDA 2019 (AIAG/VDA), AIAG (4th edition, D – Design), AIAG (4th edition, E – Process) [V7-5948]

AIAG/VDA Forms Editor:

- In the AIAG/VDA editor, the reference language is now also displayed for symbolic responsibles, if the display option is active. [V7-4657]
- In the AIAG/VDA-Editor and in the AIAG/VDA-MSR-Editor there are two new display options *Show Info-Icons*" and "*Show Note-Icons*" with which it is possible to activate or deactivate the additional information or note icons. [V7-5476]
- If the display option is active, the reference language is now also displayed for symbolic deadlines. [V7-5978]

IQ Explorer:

- IQ-Explorer: a new button is now available which opens the Quality Rules dialog. [V7-5507]
- Using the administration data it is now possible to search for content in the management reports. [V7-5952]

Only with Maintenance License:

- The dialog "*Select Command...*" now also lists the last commands used (list size can be changed via context menu). Furthermore, it is now possible to

define favourites (also via context menu). The favorites are saved when the software is closed and can be used across editors. [V7-4982]

- The background colour of objects can now be changed via the toolbar and context menu for hot-click icons (object type). [V7-5835]

The following bugs have been fixed with this service pack:
V7-5396, V7-5495, V7-5582, V7-5649, V7-5825, V7-5876

Service Pack IQ Version 7.0 – 0100

General:

- There are now two new Quality Rules:
  1. (Not rejected) action groups without O but with D ratings.
  2. (Not rejected) action groups without D but with O ratings. [V7-2505]
- The customization now allows you to show or hide the Variants Matrix editor and Variants Transition Matrix editor in the Editor toolbar. [V7-4427]
- You can now choose a decimal representation for displaying the "*IQ object ID*" (Workstation settings | System optimization | Other). [V7-4513]
- Auto complete can now be activated/deactivated specifically for the current application in the input menu of the Input collector. [V7-5338]
- If the input collector had larger lists, entered characters could get lost, while the suggestion list is being opened. This is fixed. [V7-5489]

Editors:

- In the header data of the FMEA form (FMEA form and AIAG/VDA Form), there is now an additional field for the description of the Scope of the FMEA. This field enables the user to add text in case no FMEA Scope has been created. [V7-1891, V7-5244]
- In the net editors as well as the structure tree, you can now target just the next level when unfolding. This is done by clicking on the plus icon while the Ctrl key is pressed. [V7-2074]
- Filtering in the user-defined view: if cause and effect columns are shown for failures, functions and characteristics, then these can now be modeled as a

separate filter level (see function and failure nets). This may change the results of existing filters. [V7-3296]

- Improvements to Management-Report:
    1. Reports/components can now be shown on the left or right hand side (*View | Format | Layout*).
    2. Double-clicking on a report opens its properties dialog.
    3. You can select the data for analyses for each report by clicking on the new "*Administration*" icon in the toolbar.

    [V7-3800]

- FMEDA Forms Editor: In the dialog to "*Determine component type and FIT value*", any values selected or entered will remain when changing to a different strategy or component, as long as the variable type and variable name correspond to each other. [V7-5232]
- In Deadline Editor columns for "*AP Initial State*" and "*AP Actual*" are now also displayed. [V7-5311]
- After entering an inspection equipment and subsequently entering e.g. a sample size, the selection in the table was lost. This is fixed. [V7-5353]

Analysis Desktop:

- Editor "*Project Status*": A direct export of the table in Excel format is now possible using the menu command "*File | Export | Excel file*". [V7-5425]

CARM Server:

- The CSS modules access rights have been extended to include "*Change module*" right: in the properties dialog all values can be changed. This functionality requires the CARM-Server V5.7 – 0050 or newer.Note: If this right is set, IQ versions before V7.0 – 0090 will interpret this as "*no rights*". [V7-5239]
- When comparing modules, the changes to the module itself (such as name or notes) are now determined and displayed as well. [V7-5276]

FMEA Forms Editor:

- When editing a deadline in the Form via the drop-down arrow, a calendar dialog appears. Selecting a date in this calendar immediately creates an entry. Previously this was only possible in the editing area. [V7-5185]

- Starting from Version *7.0 – 0090* onwards, the default layout in the FMEA Form Editor is the "*VDA 2019 (AIAG/VDA)*".
  <u>Note</u>:
  When opening older FME documents, it may happen that no AP catalogs are set. This may lead to the AP column being empty. AP catalogs can be imported into these documents from the template file via: "*Tools | Read template*". [V7-5217]

AIAG/VDA Forms Editor:

- The two fields "*Cross Functional Team*" and "*Process responsibility*" in the header data can be filled using the list of persons. [V7-4697]
- The number of '>' indicates whether it is a direct effect/cause (no '>' are shown) or a top effect/base cause ('>>'). All other effects/causes are shown with '>'. [V7-4989]

Consolidation:

- You can now "*Show column names*" via the display options in the view "*Full list of differences*". [V7-5189]

Only with Maintenance License:

- The *"hanging scrolling"* functionality found in the form editor can now also be found in the function and failure net editors (see view menu). [V7-4667]

The following bugs have been fixed with this service pack:
V7-4835, V7-5001, V7-5186, V7-5216, V7-5372, V7-5376, V7-5439, V7-5483, V7-5502, V7-5554

Service Pack IQ Version 7.0 – 0090

General:

- The *APIS IQ-Software 7.0* is now certified by *SGS-TÜV Saar GmbH* with regard to the requirements for functional safety according to ISO 26262, IEC 61508 und IEC 62304. [V7-5340]

Editors:

- The classification may have been displayed truncated or in an undesirable long form. This has been fixed. [V7-5195]
- Fixed an internal error in Statistics Editor that occurred when "*showing notes where available*". [V7-5204]

Service Pack IQ Version 7.0 – 0080

General:

- In the toolbars, the keyboard shortcut is now also displayed with the tooltip (if available). [V7-297]
- If you define an O/D-valuation for an actions group with faded-in actions in the FMEA form sheet, you create a "faded-in valuation". IQ-Software now has improved visualization for these faded-in valuations.
  The FMEA form sheet shows them in the text color of faded-in actions. In the Structure Editor (structure list) and the FFA Editor there is a new Hot-Click icon for "Faded-in valuations". Additionally, the faded-in valuation is displayed at the faded-in actions. If there are faded-in valuations present, the context menu contains a command, to remove them ("*Remove faded-in valuation*"). [V7-842]
- Project Management: The command "*Create export copy of the project based on variant transition matrix*" now also works for a multiple selection of variants of the main structure. The export file contains the structures with the required variants based on the variant transition matrix. [V7-3788]
- The command "*Tools | Workstation settings | Reactivate user information*" has been removed. You can now access this functionality in the "*Manage user information*" dialog via the button "*Activate all*". [V7-4205]
- Notes/PIM: A "*Checklist*" feature is now supported. This is a list whose entries are displayed with a checkbox. This can be selected and deselected

in the text via Ctrl+left mouse button. Note: this feature will not work correctly in older service packs of the IQ-Software. [V7-4501]

- For the sake of clarity, some setting options in "*Workstation settings | Settings | Personal Desktop*" have been moved to the new subsection "*Files and directories*". [V7-4603]
- <u>Drag&Drop</u>: The background color of single objects can now be applied to other objects by using Special Drag&Drop. [V7-4605]
- <u>Search/Filter:</u> Filter criteria for Functional Safety can now also be used for system elements. [V7-4647]
- File and web bookmarks can now be given a symbolic name (alias). FME documents containing bookmarks with aliases should <u>not</u> be opened in older service packs of the IQ-Software, as the bookmarks there do not work as expected. [V7-4733]

Editors:

- You can now use the keyboard shortcut Ctrl+U in many editors of the Personal Desktop to directly modify the user-defined attributes of the selected object(s). [V7-608]
- Revision states and action groups can now also be created and displayed in the Failure Net. [V7-2521]
- <u>Data Manager | Valuation catalogs</u>: In the right-click menu, the "Catalog" submenu now contains the command *"Translate and fill catalog from reference language*".
  This functionality utilizes the automatic translation facility using DeepL. [V7-3831]
- In the Structure Editor, there is now a tool in the extended toolbar with which you can get an overview of the objects contained in the structure (or partial structure). [V7-4304]
- The "AP" column in the Statistics Editor has been added to the list of results of the following analyses: pareto analysis, pareto compact, difference analysis, risk matrix and extended risk matrix. [V7-4439]
- In the AIAG/VDA Form, an info icon will show for failure effects whose *function* is not linked to the function of the corresponding failure mode. More details can be found [here.](here) [V7-4524]
- In the AIAG/VDA Form, failure causes whose *function* is not linked to the function of the corresponding failure mode will have an info icon displaying to indicate this. More details can be found [here.](here) [V7-4525]
- <u>Management Report:</u> It is now possible to select "white" as text color. [V7-4695]

- You can now "*Notify responsible persons...*" in Control Plan, Structure Editor and Function/Failure Analysis. This is the same functionality as e.g. in the FMEA Form and is available in the context menu of actions, inspections, control methods and reaction plans. [V7-4880, V7-4732, V7-4794]
- In the Object Inspector, the variant value icon now indicates that variant-specific values are available in a tab. [V7-4945]

Only with Maintenance License:

- A new dialog is now available to search for all possible commands and to execute them. This can be found in the menu "*Help | Select command*" (Ctrl+J). [V7-544]

The following bugs have been fixed with this service pack:
V7-2678, V7-4328, V7-4560, V7-4770, V7-4868, V7-4958, V7-4976, V7-4977

Service Pack IQ Version 7.0 – 0070

General:

- New functionality: Automatic save of a file copy with a predefined time interval ("*Workstation Settings | Personal Desktop*").In contrast to the existing "*Automatic Save*" option, the file itself is not saved, but instead a new file copy is written and a timestamp is appended to the original file name. You can also set how many file copies you want to keep. [V7-86]
- When opening a document, used modules are listed in the update dialog. Here, you can check the differences between the used module and that of the most recent version of the module. This dialog will appear if you have the following setting active: *Check updates to modules when opening a file (CARM Server).* [V7-2673]
- There is now a possibility to reset the supervisor password without sending the FME file to APIS support. [V7-2757]
- A new option "*Display revision states in separate table entry*" under "*Additional details*" controls if revision states should be shown in separate

rows in Steps 5 (Risk Analysis) and 6 (Optimization). This is similar to the layout used in the VDA form but it differs from that specified in the AIAG/VDA brochure. As such, this option is turned off in the default settings. [V7-3335]

- New document setting "*Fade-in of actions without strict checks*" in category "*Actions*". If you activate this setting you can fade-in actions for a failure mode context that is not part of the cause net of the original anchored position of the action to be faded-in. [V7-3952]
- You can now delete multiple document languages in one work step with "*Tools | Delete document language...*". [V7-4246]
- The following Quality Rules are available in program versions that support functional safety:- Base failures that cause more than one safety goal failure.- Base failures that cause safety goal failures of at least two different safety goal functions.- Base failures that cause safety goal failures of at least two different system elements.- Base failures that cause more than one safety goal failure without safety mechanisms.- Single or multiple point failures without causes. [V7-4253]
- Action groups in structures with structure type "*MSR*" are now treated in the structure and failure net as MSR action groups, i.e. they have an F/M valuation and an AP value based on their respective valuation/AP catalogs that are defined as standard for MSR.
  By activating the new document setting "*Enable MSR functionality for action groups with category 'Customer operation'*" you enable the above behavior for all action groups with the category "*customer operation*" irrespective of which structure they are in. Thus it is possible to perform an MSR analysis as part of e.g. a system structure. [V7-4306]
- When copying a structure the "*FMEA scope analysis*" is now copied as well. [V7-4379]

Editors:

- Structure Editor: It is now possible to activate a filter and a highlighting filter at the same time. [V7-2254]
- The default value for sorting option "*Sort empty fields to the end*" was changed to "*true*". [V7-3519]
- Deadline Editor: In the export options you can now select whether the AP (Action Priority) column should be exported to the list of deadlines. [V7-4228]
- Management Report: the dialog "*select data for analysis*" now offers a second list containing details of the selected data. [V7-4377]

- In the "*FMEA scope analysis*" Editor, the display options settings are now applied in the dialog for selecting components. In this way you can see attributes like item code in the dialog, too. [V7-4378]

CARM Server:

- If a search is done for newer modules in an FME document (e.g. option: "*Check for modules up-to-date when opening a file*"), an exclamation mark can be seen on the icon of all used modules which have a newer version. This will remain so until a module is updated or the document is closed. [V7-504]

Printing/Web Publisher:

- FMEA scope analysis: The display options now allow you to define the layout "*Complex*" or "*Standard*" used in the Web Publisher or Presentation print output.Note: You can also add multiple FMEA scope analyses, each with different settings. [V7-4056]
- Web Publisher: The (now obsolete) framesets used so far have been replaced by iFrames by default. This behavior can be configured in the Web Publisher job settings. [V7-4291]

Failure Net Editor:

- For failures that were declared as a *safety goal violation* in version 6.5, a corresponding *safety goal* (new object class in version 7.0) can now be created using the command "*Convert to | Derive safety goal...*". For this safety goal, the target values for Functional Safety are taken over. Furthermore, the failure nets for the *Dangerous Single Point Fault* and the *Dangerous Multiple Point Fault* will be connected.
Note: The user can decide whether the Functional Safety parameters of the failure should be deleted or not. [V7-3911]
- Functional Safety: Commands in the context menu for automated correction are available for failures with a DC value assigned. [V7-4414]

Only with Maintenance License:

- A new reduced view of the AIAG/VDA form is available for maintenance customers: the Failure Cause Centered View. This view focuses on failure causes, their failure effects, and their revision states. It does not include

information from the function net and the structure tree to minimize space requirements.To open this view, the following can be done:- Right-click with the mouse on a failure cause in the AIAG/VDA-Form in section 4 (Failure analysis) and select the command "*Open failure cause centered view*"- Right-click on the object type or butterfly icon of a failure, function or structure element in the structure list of the Structure Editor or the Function/Failure Analysis and select the command " *Failure cause centered view*"The view has a sub table for every failure cause. In the upper half of this sub table, the failure cause and its effects are shown. In the lower half, the revision states are shown side by side: Risk Analysis (Step 5) followed by Risk Optimization (Step 6).The layout of the failure effects in the upper half can be changed between "*left to right*" (failure cause to the left, affects to the right) and "*right to left*" (failure cause to the right and effects to the left) in the Display Options. Use the option "*Order/sequence in stacked area*" under "*Table*". [V7-1529]

- Web Publisher: via Settings "*CSS Stylesheet | Edit*" a dialog is provided for defining the fonts and background settings of the individual areas of the HTML page. [V7-3974]
- The following Quality Rules are available for maintenance customers in the MSR form:- Mechatronic paths with missing safety mechanisms.- Mechatronic paths without reliable error detections.- Mechatronic paths with inconsistent error detection information.- Mechatronic paths with inverted safety mechanisms.- Mechatronic paths with multiple safety mechanisms of the same type. [V7-3998]
- The "*Hanging Scroll*" functionality known from the FMEA Form can now be activated in the Structure Editor (View menu). [V7-4157]
- Command line processing: now the parameter -s (stands for silent) is supported, so that the command line commands are processed completely without user interface. [V7-4282]
- IQ Explorer: Users can now specify which files in a directory should be used by default when searching for files using the right-click menu above the file list. Alternatively, the directory can be ignored for the search in general. For recursion via subdirectories, existing defaults (file IQExplorerWebDocuments.txt) are also considered. [V7-4307]
- Consolidation: With the new menu command "Consolidation | Create multiple new IQ clone files" you can create multiple clones for different persons in a single work step. [V7-4316]
- Web-Publisher: if the company logo is displayed in the header line, the name of the job is displayed without the redundant fixed term "Web Publisher". [V7-4403]

The following bugs have been fixed with this service pack:
V7-4238, V7-4371, V7-4388, V7-4389, V7-4393, V7-4399, V7-4447, V7-4448, V7-4492, V7-4634, V7-4670

Service Pack IQ Version 7.0 – 0060

General:

- When creating a new file, all relevant data can be entered in a single dialog. This includes the reference language as well as the project- and structure name. [V7-817]
- You can now merge function categories, noise factor categories and categories for action groups in the administration editor "*Attributes and Categories*". [V7-825]
- In *"File | Reorganize document"* the tab *"Options"* now has a new option: *"Remove leading and trailing blanks from catalog entries"* [V7-1377]
- The Document and Workstation settings are now combined in one dialog. If no document is open and the workstation settings are opened, only the workstation settings are visible. The behavior can be controlled via the check box "*Workstation settings -> Other -> Combine document and workstation settings*". [V7-2001]
- In the properties dialog (tab Valuation) separators between the individual description fields are now displayed in the description area. [V7-2459]
- Translation of valuation catalogs: it is now possible to select the displayed description category from a combo box. [V7-2784]
- The document setting "*Enable assignment of multiple classifications*" is now set by default for new documents. When you activate this document setting manually, you are prompted if you want to convert your existing classifications. [V7-3435]
- Web bookmarks can now be given a symbolic name by opening the bookmark management of any object, selecting the web bookmark and pressing the "*Change*" button.**Note:** Web bookmarks named this way do not work in older versions of V7 and should only be used in conjunction with at least SP0060. [V7-3655]

- Mechatronics FMEA: If there are several secured paths (paths with safety mechanisms) for a failure, the partial path with the smallest S-Max is now used for the calculation of S-Max. [V7-3731]
- Throughout the IQ software, user-defined attributes are now rendered in their configured text font and color. An individually assigned background color can also be applied. [V7-3874]
- The management dialog for meeting logs now shows the note of each meeting log entry in an additional column. The contents of this column are searchable. [V7-3882]

Block Diagram Editor:

- The Block Diagram Editor can now display the ID number instead of the name as "*Text in areas*" (display options). [V7-337]
- You can now print your block diagrams, optionally including a legend. [V7-1053]

Printing/Web Publisher:

- Web Publisher/Presentation print: in the P-diagrams section, individual P-diagrams can now also be included into print jobs. [V7-3547]
- Web Publisher/Presentation print: via the "*Misc*" option, block diagrams can now also be included in the print/export job. [V7-3608]
- Web Publisher/Presentation print: Using the "*Export*" and "*Import*" buttons, jobs can now be exported and re-imported into other fme files. Existing jobs with the same name will not be overwritten but added during the import. [V7-3804]

Excel-Ex-/Import:

- A new ex-/import format XLS(X) for valuation catalogs has been introduced. This new format is now the default. [V7-3771]

FMEA Forms Editor:

- In FMEA form sheets for MSR structures, instead of O (Occurence) and D (Detection) the column labels F (Frequency) and M (Monitoring) are used. [V7-2929]
- The background color of valuation entries within the FMEA form now updates automatically after a valuation has been changed. [V7-3486]

AIAG/VDA Forms Editor:

- If an element from an MSR structure is set as a focus element in the AIAG/VDA form, the columns for the ratings occurrence (O) and detection (D) are automatically changed to frequency (F) and monitoring (M). [V7-1397]
- It is now possible to activate a filter and a highlighting filter at the same time in the AIAG/VDA Editor. [V7-2928]
- The column *"Filter code (optional)"* defined in the AIAG/VDA standard has been added and can be activated via the display options (*AIAG/VDA Form* and *AIAG/VDA Form (MSR)*). [V7-2956, V7-4086]
- The G-Layout is now available in the Process FMEA. This can be selected in the display options under *"Table"*, as long as a process structure is used. [V7-3428]

Only with Maintenance License:

- It is now possible to reduce a list of user-defined attributes to *"known only"* in the Object Inspector and the Properties dialog. You can assign object types to user-defined attributes in Administration (column *"categories"*).User-defined attributes that have **no** object types assigned are generally considered to be "known". [V7-226]
- It is now possible to compare two tables using the command *"View | Format | Differences"*. [V7-824]
- Web Publisher: the company logo is now displayed in the header. Additionally, the file WebPublisher.css can be stored in the workgroup directory as a template for a central and user-defined HTML style sheet. This is used for all newly created Web Publisher jobs. [V7-3956]

The following bugs have been fixed with this service pack:
V7-2241, V7-2536, V7-2537, V7-2754, V7-3010, V7-3193, V7-3242, V7-3419, V7-3438, V7-3458, V7-3513, V7-3540, V7-3594, V7-3677, V7-3687, V7-3693, V7-3697, V7-3701, V7-3738, V7-3741, V7-3884, V7-3994

Service Pack IQ Version 7.0 – 0050

General:

- The "FMEA Errata Sheet" from the AIAG/VDA FMEA handbook was adapted into relevant parts of the IQ-Software. [V7-3427]

FMEA Forms Editor:

- When entering the FMEA number, a check will be made if this number is unique for the entire fme file. [V7-3424]

AIAG/VDA Form (MSR):

- The FMEA-MSR Formsheet is now available. This form can be used to analyze the causes that may occur in the category "customer operation" regarding their effects on the system, taking into account safety mechanisms and operating conditions. Safety mechanisms contained in the failure net are displayed in the FMEA-MSR Form. Furthermore, safety mechanisms can be derived from actions that were entered in Section 6 of the MSR form. These safety mechanisms are displayed in the MSR form and integrated into the failure network. Similar to the FMEA Formsheet, various scenarios can also be displayed and evaluated in Section 6 of the MSR Formsheet. [V7-3638]

Functional Safety:

- In the Failure Net Editor, the settings for decimal places have been reinstated. ("*Display options | Functional Safety*").
  "*Tools | Workstation Settings | Settings*" now also offers a "Functional Safety" page. There, the displayed decimal places for values according to IEC 61508 / ISO 26262 can be set. By default, the names according to the ISO standard are used unless the document is set to IEC standard (*Document Settings | Functional Safety*). The decimal places for DC(SPF) and DC(LF) are now equal and can be set in the "DC" edit field. [V7-114]
- Adaptations of "Functional Safety" functionality according to "ISO 26262 Second edition 2018-12": New objects were introduced for the definition of Safety Goals. Safety Goals can be defined for Structure Elements. The ASIL classification and the assignment of target values can be defined for a Safety Goal. For the violation of a Safety Goal, single faults and multiple faults can be linked via two predefined anchors in the failure net. [V7-128]

FMEDA Forms Editor:

- The FMEDA Form for ISO 26262 has been revised: The "Functional Safety Table" (Version 6.5) has been integrated into the new layout. Content of a FMEDA Form is now a Safety Goal (New object in V7.0). Based on a Safety Goal and the information available about the failure net, the FMEDA Form is filled in and the corresponding Functional Safety calculations are performed. [V7-209]
- In the FMEDA Form Layout ISO-26262 two columns "Source FIT" and "Source for % value of failure" have been added. [V7-294]

The following bugs have been fixed with this service pack:
V7-2861, V7-3445, V7-3505, V7-3550

Service Pack IQ Version 7.0 – 0040

General:

- When importing characteristics from Excel (*File | Import characteristics*), it is now possible to include both "sample frequency" as well as "sample size" with the attributes' value. [V7-644]
- You can now filter textually and there are extended choices for cause selection in the dialog to *"Fade-in actions at linked causes..."*. This functionality is available in the context menu of the Structure Editor and Function/Failure Analysis Editor. [V7-787]
- Autofilter (Structure tree/FFA): analogous to the filter "Failure context", there is now an auto-filter for functions/characteristics. A renaming here occurs in "Function net context" or "Failure net context".This auto-filter filters parts of the structure tree, whereby a context in the Function/Failure net has a dependency to the selected function/characteristic/failure. The name of the selected object is used for comparison. [V7-1646]
- New available is the parameterizable system filter *"Action Priority (AP)"*, which filters actions according to their AP and in the context of their revision state. The parameters can be defined via the properties dialog. [V7-2511]

- In the Excel import dialog the data range to be imported now can be easyly defined by using context menu commands *"First data row"* and *"Last data row"*. [V7-2550]
- When creating FMX bookmark files, the active variant – if any – is now saved. After opening the FMX bookmark file, the variant is activated immediately. [V7-2585]
- If User-defined Attributes and also the Hot-Click icon for User-defined Attributes are displayed in the structure list, the type icon for User-defined Attributes is only displayed once. [V7-2744]
- The Workstation setting *"Auto-complete"* is extended by *"Do not use Auto Complete technique when editing existing data objects"*.When active, the Auto-complete technique no longer affects renaming FMEA objects, but only the creation of new objects (e.g., entry in empty table field for functions).Fields that do not represent any FMEA objects, such as deadlines, responsible persons, priorities, status (for customer requirements) continue to support the Auto-complete technique. [V7-2975]
- Search and Filter: the new filter criterion *"Newer module version is available"* can be used for Systemelements and Structures. Thus, Systemelements or Structures can be found in the Structure-Editor or in the IQ-Explorer that are associated with a module or with a module variant but for which newer versions are available. [V7-2986]
- The Document setting *"Classification inheritance"* now also works together with the Document setting *"Enable assignment of multiple classifications"*. [V7-3000]
- Filter/Highlighting: the current document language is now used as the language default for the filter in all editors (except the IQ-Explorer). Changes to the filter language are only retained for the session. [V7-3052]
- In the Workstation settings, the options for LDAP, Carm- and CarmNG-Server, program update and DeepL as well as the corresponding proxy settings can now be tested directly via button. [V7-3103, V7-3371]
- In contrast to V6.5, the symbolic responsible persons were not included with their concrete responsible person in the notification via HTML and the autofiltering. This has been fixed. [V7-3182]

Editors:

- When adding new failures in the Fault Tree Editor, a new query dialog displays with the question of whether the failure net should also be extended. This can be deactivated (*"Do not show this message again and remember user's choice"*). This dialog replaces the previous one and the workstation setting has been removed. [V7-729]

- In the table editors, it is now it is possible to activate the options *"Show reference language"* and *"Show notes (where available)"* simultaneously. [V7-996]
- Management Report: via a second toolbar, cells with text formats can now be "overwritten". This also applies to cells with fixed content. Where possible, this overwriting also applies to translations. [V7-1523]
- Management Report:-Drag&Drop in the table is now activated by default.-Drag&Drop of table cells is now by default a "move". To copy table cells the Ctrl key must be used.-Drag&Drop of table cells is now also possible for multi-selection. To do this, use the Ctrl key.-When the grid lines are displayed, the parent sub-table of the current selection is now framed in blue. In addition, cells with non-changeable content are now additionally framed in yellow. [V7-2177]
- In the Deadline Editor (related to structure), the document setting *"Use Severity-Max based on cause when calculating AP/RPN (in FMEA forms)"* is taken into account when filling the *"S"* column. [V7-2183]
- In the FMEA scope analysis editor fields with valuations can now be deleted using the delete key. [V7-2848]

User View Editor:

- In the User-defined view, individual views can be imported into or from a file using the management dialog. [V7-197]
- In the User-defined view, the three factors (S, E, C) of the ASIL value are also displayed in the ASIL column. [V7-471]

Block Diagram Editor:

- You can now copy and paste areas (Ctrl+C/V). Linked objects are kept where it is possible. Ctrl+C adds the graphic to the Windows clipboard.It is also possible to copy areas within a diagram by using Ctrl+Drag&Drop. [V7-1926, V7-2868]
- New commands for zooming so that the whole picture or the full height/width of the picture is visible. These commands are availabe via *"View | Zoom"*, the (third) toolbar or the context menu *"Zoom"*. [V7-2865]
- It is now possible to create a new block diagram directly from the Windows clipboard. This requires either a picture or a path to a picture in the Windows clipboard. [V7-2869]

Data Manager:

- When globalizing an action or failure (*Data Manager | Catalogs*), it is now possible to determine which of its instances should also be made global from a selection dialog. By selecting the type in Catalogs yourself, no values of the instance are transferred (old behavior). [V7-673]
- In the Data Manager, you can now enter notes for types in the *"Notes list"* and translate those notes in *"Terminology and translation"*. [V7-812]
- In the "*Data Manager | Palettes*", it is now possible to determine the order of the columns using the menu command "*Edit | Change display order*". [V7-863]
- In the "*Data Manager | Inspection equipment*", two new columns for sample size and sample frequency have been added. [V7-2336]

Properties Dialog:

- When adding a new inspection, the Properties-Dialog now asks for which variants the inspection should be available. [V7-2830]

AIAG/VDA Forms Editor:

- Similar to other FMEA Editors, the AIAG/VDA Forms can now be exported to Excel or HTML. [V7-2292]
- If a temporary view is used in the AIAG/VDA Forms Editor, this is displayed in text and color in the combo box in the upper left corner. The color is controlled by the background color *"Catalog label"* under *"Tools | Workstation settings | Fonts and colors | Colors"*. In addition, the last temporary view used can be restored using the combo box. [V7-2738]
- When displaying the header data, not only the column headers but also their section headers are now displayed. [V7-2803]

IQ Explorer:

- The Quality Rules table "*Table with degree of completion*" is now available as a table in the IQ-Explorer. [V7-1412]

Object Inspector:

- If there is at least one structure version in which the inspected object exists, a new command is offered in the context menu: *"Show version history"*. Here, in a subsequent dialog, all those versions can be selected for which you want to see the version history of the inspected object. Any differences are highlighted in color. [V7-2802]
- It is now also possible to create or activate variants in the Object Inspector. [V7-2815]
- If an editor does not provide any attribute information when synchronizing to the Object Inspector, the synchronization is performed on the tab that was last selected for the synchronized object type. [V7-2884]

Structure Editor:

- Two new hot-click icons for Systemelements, which indicate whether or not an FMEA consideration is required for the respective System elements. [V7-1483]

Customer Specific Changes:

- Bosch: In the properties dialog page for choosing persons now there is a button for *"LDAP search…"* which opens a dialog for searching persons in the LDAP directory. A person selected in this dialog will be added to the list of persons in the document. Note: parameters for LDAP search must have been configured in the Data Manager for person management before. [V7-2783]

The following bugs have been fixed with this service pack:
V7-2515, V7-2648, V7-2679, V7-2728, V7-2759, V7-2772, V7-2787, V7-2806, V7-2808, V7-2833, V7-2907, V7-2916, V7-2927, V7-2941, V7-2952, V7-2995, V7-3023, V7-3037, V7-3051, V7-3053, V7-3054, V7-3056, V7-3062, V7-3144, V7-3313

Service Pack IQ Version 7.0 – 0030

General:

- In the management dialog 8D reports can now be copied and reordered. [V7-204]
- Symbolic deadlines and responsibles can now be exported and imported as CSV text files. [V7-368]
- If you have opened multiple personal desktop windows and perform an ALT+double click on a Hot-click icon that opens another workspace (e.g. failure net), a dialog opens so that you can choose a destination workspace and personal desktop window.
  When you synchronize while holding the ALT key (i.e. STRG+ALT+Q or STRG+Shift+ALT+Q), the same dialog is opened to choose the destination for the synchronization. These commands are also available in the *"Window"* menu: *"Synchronize from upper/lower workspace"*.
  This feature simplifies working with multiple personal desktop windows. [V7-463]
- When an action is faded in, the valuation of the action to be faded in is assigned to the fade in location, if no valuation exists there. [V7-470]
- The deadline description field can now be marked in color in the FMEA form. [V7-995]
- Filter: the level "Function" now offers to filter by "has requirement with…". [V7-1072]
- The variant-specific creation date for an action state now can be deleted in the properties dialog and the Object Inspector. [V7-1554, V7-2598]
- When synchronizing into the AIAG/VDA Form a dialog giving multiple options is now shown (if necessary). [V7-1888]
- Presentation Printing/Web Publisher: the control plan layout "N2018" is now also available in Presentation print and Web Publisher. [V7-2356]
- There is a new document setting in tab *"Administration": "Always create a meeting log for this document"*. If this option is set (by default inactive), a meeting log is written irrespective of the workstation setting *"Create meeting log"*. If this document setting is inactive the workstation setting is used as before. [V7-2448]
- In the status bar at the bottom, the "Actions" icon can now be more easily distinguished between active and inactive. [V7-2466]
- Notes/Management Report: The degree of progess of a structure/variant can now be added using placeholders. Hint: The value can only be determined if the database is unique, i.e. if the data is a structure or a variant. [V7-2518]
- Bookmark: UNC notation will will be stored alongside the filename using Windows convention. Therefore, if the path is not available in the local Windows file system, the UNC path will be used to open the file. [V7-2530]

Editors:

- FMEA forms can now be selected as content for the user-defined view. [V7-415]
- In the Process Flow Diagram you can now define a color for lines via the dialog for defining the line style (*"Line style..."* in the right-click menu). [V7-914]
- New hot-click icons for fault trees are now available. The icon can signal four different states:1. the failure is the root of a fault tree2. the failure is a basic event of a fault tree3. the failure is located on an intermediate level of a fault tree4. the failure is not part of fault tree.The hot-click icon can be enabled via the display options of an editor (area "*Hot-click symbols*") [V7-2096]
- Filter/Highlight: analogous to the criterion "Fmea form is existing" it is now possible to filter by Block- and P-Diagrams. [V7-2415]
- The right-click menu above the bookmark list no longer contains the commands "Text" or "Paragraph Properties" because the assignment to the relevant text passages is not clear. [V7-2449]
- When deleting links, a query dialog now appears again. [V7-2465]
- A new display option (Options > Colored visualization of differences during multi-inspection) allows the user to see whether differences in values exist both in color and the tab header when using multi-inspection. [V7-2503]
- The global AP color values are now also applied to statistics. [V7-2516]

CARM Server:

- You can now compare module versions on the CARM Server directly from their insert/built location. Use the new menu command "Compare modules..." in the "CSS Modules" submenu for this. [V7-545]

Excel-Ex-/Import:

- When importing Excel files, you can now also import number and notes for requirements. [V7-2562]

Properties Dialog:

- A "Filter" input field is now available for selecting user-defined attributes, which can be used to reduce the list of attributes dynamically. [V7-2450]

FMEA Forms Editor:

- In the FMEA form there is a new display option "Show empty revision states". This allows you to control whether revision states that do not contain actions are displayed in the form. [V7-854]
- If the display option "Highlight rejected/overdue actions with color" is active, then each deadline of an overdue action will be drawn with overdue color. [V7-2391]
- The use of colors for risk matrix evaluations can now be controlled separately using the new "Use background color for risk matrix calculations" display option. [V7-2435]

Consolidation:

- In the dialog for selecting a secondary file in the Consolidation desktop, you can now select the option "Use file system location of original secondary document". The complete file name assigned when the secondary document was created is then used as the secondary document. [V7-117]

The following bugs have been fixed with this service pack:
V7-2193, V7-2507, V7-2421, V7-2680, V7-2411, V7-2469, V7-2306, V7-2637, V7-2540, V7-2187, V7-2402, V7-2661, V7-2403, V7-2484, V7-2419, V7-2486, V7-2512, V7-2451, V7-2513, V7-2393, V7-2488, V7-2655

Service Pack IQ Version 7.0 – 0020

Due to technical reasons, it is not possible to install service pack *V7.0 – 0020* as an MSP (update patch) on top of the initial delivery of IQ-Software *V7.0 – 0010*. Updating the IQ-Software via "*Help | Update program version*" does not work for *V7.0 – 0010* either. In order to install *V7.0 – 0020* you need to uninstall the current IQ-Software first, then reinstall *V7.0 – 0020.*

Starting from service pack *V7.0 – 0030* installing an update via MSP will be possible again.

All customers who received their delivery of version 7.0 by download (email) can reuse their existing download link to receive an installation archive for a fresh *V7.0 – 0020* install.

All customers who received a CD delivery will automatically receive a new CD containing the installation media for *V7.0 – 0020*.

Note: Customers who have installed *V7.0 – 0012* or higher (see "*Help | Info*") may alternatively install the MSP directly (e.g. via "*Help | Update program version*").

Please contact customerservice@apis.de in case of any questions or problems.

General:

- Global failures and actions can now also get bookmarks. These are "inherited" by their occurrences and are displayed at the end of the bookmarks list with the icon of their global type. Changes to the "global" bookmarks are only possible in the catalogs administration for the global types. [V7-576]
- When deleting the last detection action from an actions group, the detection of this actions group is reset.
  When deleting the last preventive action from an actions group, the occurrence of this actions group is reset.
  Depending on the workstation setting "*Set initial O/D values to 10*", the valuation will be removed or initialized with 10. [V7-615]
- It is now again possible to read/write inspection equipments from/to the template file. [V7-2182]

Editors:

- Requirements can now also be displayed in the User-defined view. [V7-176]
- When synchronizing to an FMEA form, the system now checks whether the object is already displayed in the open form. If this is the case, the selection only jumps to the object and no other changes are made. [V7-496]
- In the display options of Object Inspector you can now choose whether newly entered variant-specific values should be copied to other variants by automatically opening a choose variant dialog (*"Manage variants for variant-specific value assignment"*).
  This option can be quickly enabled/disabled by double-clicking the variant edit mode icon in the status pane. [V7-574]

- AIAG/VDA Form now has additional filter functionalities which are also available in FMEA Form. [V7-949]
- Noise factor categories for characteristics (from P-Diagram) can now be shown in net and form editors (new display option). [V7-1729, V7-2378, V7-2122]

CARM Server:

- When updating a module, changed attributes of objects of the installed module can be retained.
  This behavior depends on the document setting "*When updating a module at the installation location keep modified object attributes*" (in the area "*CARM-Server CSS / CSA*"). [V7-424]
- When updating a module, deleted objects of the installed module can be retained.
  This behavior depends on the document setting "*When updating a module at the installation location keep deleted objects*" (in the area "*CARM-Server CSS / CSA*"). [V7-2225]
- When updating a module, new objects that have been added to the installed module can be retained.
  This behavior depends on the document setting "*When updating a module at the installation location keep newly added objects*" (in the area "*CARM-Server CSS / CSA*"). [V7-2226]

Drag&Drop:

- Option "Insert: Copy with net connections" is added to the Special Drag menu:
    - if the object is a failure, function or requirement
    - if there are effects or causes
    - if source and destination are in the same fme file (causes and effects are NOT copied but only linked)

  [V7-789]

IQ Explorer:

- You can now choose the notes categories directly in the filter dialog. Consequently, the choice in the display options is now obsolete and has been removed.

The language selection in the filter dialog is now directly coupled with the language selection in IQ Explorer. Changes in one place are taken over to the other so that a uniform behavior is promoted. [V7-1307]

- The new column "action priority" can now be displayed via the display options. This column is filled for actions, action groups and revision states. [V7-2313]

The following bugs have been fixed with this service pack:
V7-2198, V7-2145, V7-2129