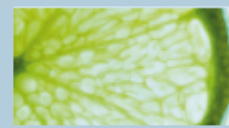
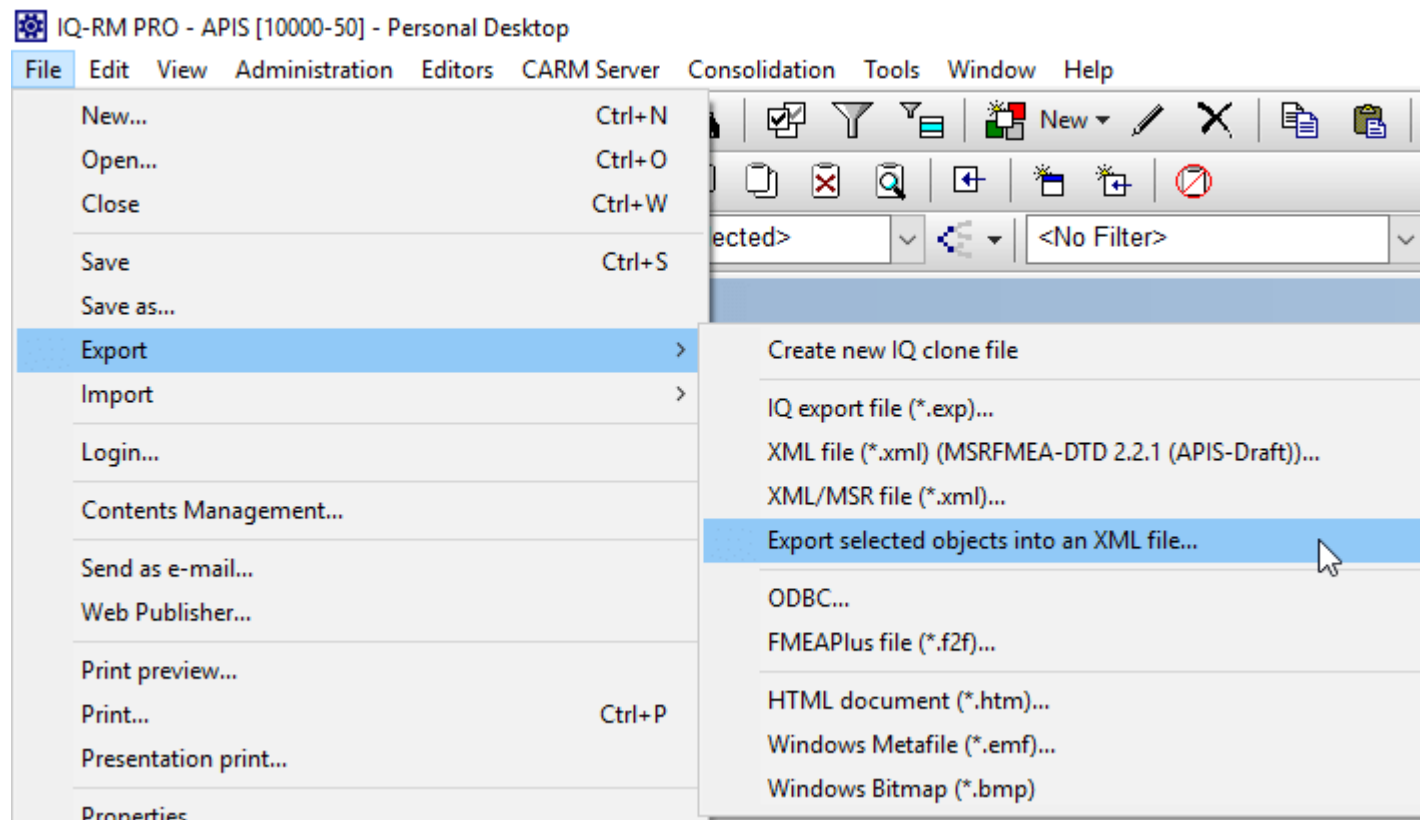


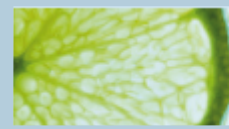
Step by Step

Partial XML Export/Import



When performing an FMEA, the situation can arise that you need to send a part of the FMEA to a customer or supplier in order for it to be assessed or evaluated more closely. The customer will then make their changes and send it back to you. In this case, it is not wise to send the whole FMEA to them. The IQ Software allows you to take a selected part of your FMEA file and export it. This exported file can be opened by a third party, edited and then re-imported back into the original FMEA document with the changes.





In order to show how this works, I will run through an example using the example.fme file

Example: Export the failure "geometrical fixation design may not allow increased soldering temperature" from the example.fme

1. Select the element to be exported. Here I have chosen a failure from the "Plug – constructive design" -> "Constructive design of plug body".

The screenshot shows the Structure Editor interface for a design named "Plug - constructive design". The top toolbar includes a search filter set to "Plug - constructive desi", a variant selector set to "<No variant selected>", and a filter selector set to "<No Filter>".

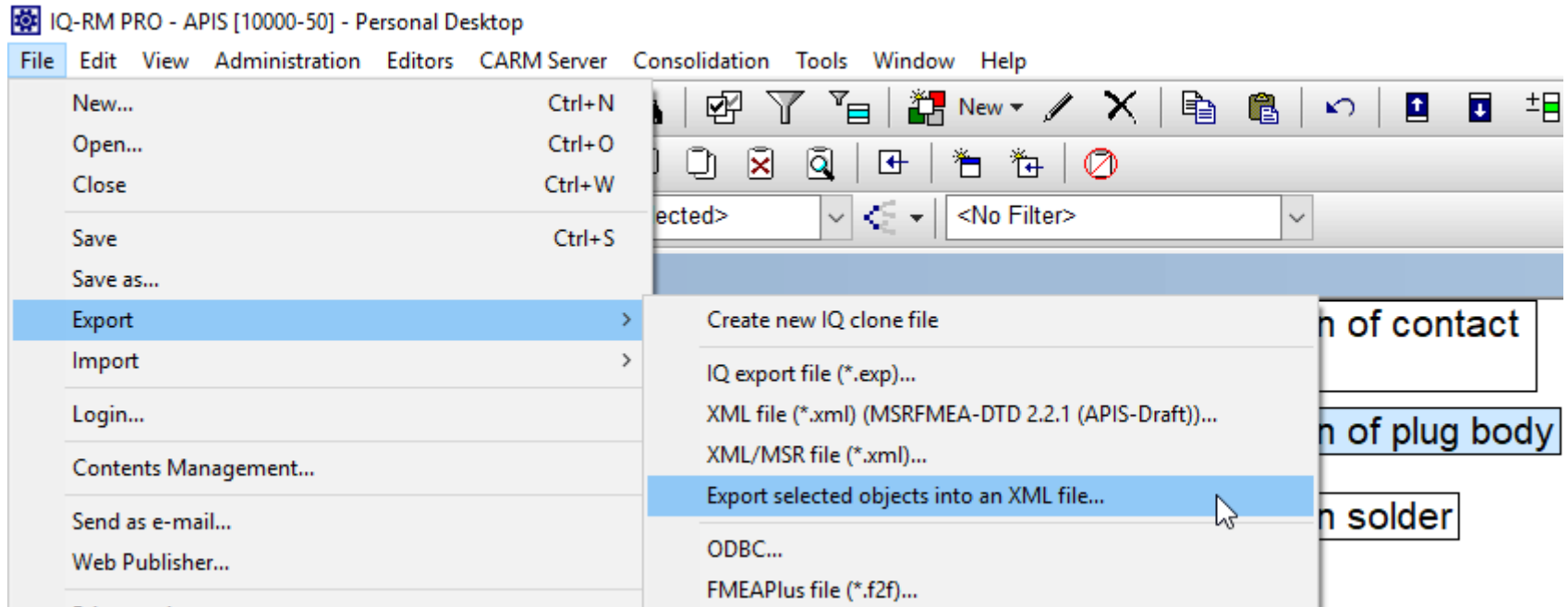
The main workspace displays a hierarchical tree of design elements:

- Plug
 - Contact pin
 - Constructive design of contact pin
 - Plug body
 - Constructive design of plug body
 - soldering connection between wire and pin
 - Constructive design solder

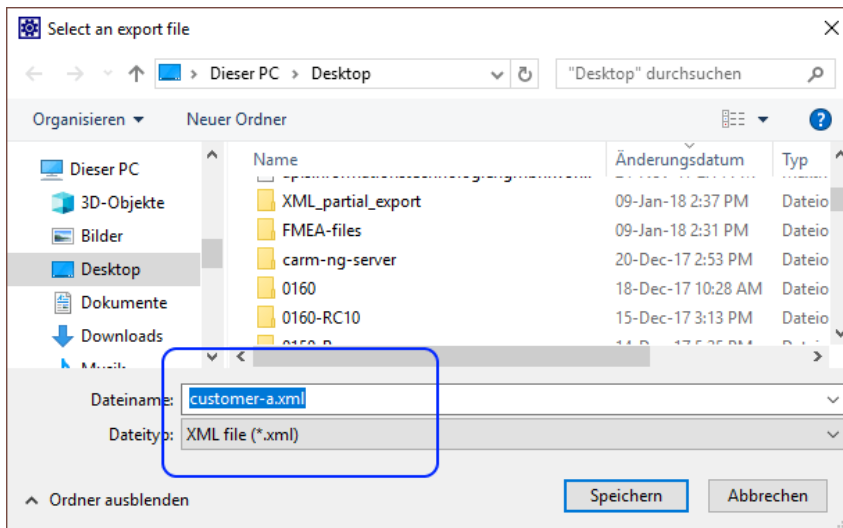
Below the main workspace, a detailed view of the "tests with prototypes {28}" is shown. The failure "geometrical fixation design may not allow increased soldering temperature {1}" is highlighted in red. Its details are as follows:

- Initial state 05-Mar-09
 - O=? D=? RPN=? Action group
 - NONE {27}
- Revision state 05-Mar-09
 - O=? D=? RPN=? Action group
 - change fixation geometry concerning soldering temperature [15-May-09 (in progress)]
 - life-time simulation with focus on effects of vibration after changing geometry [22-Sep-09 (in progress)]
 - soldering test to determine safe process parameters [22-Sep-09 (in progress)]
 - assembly tests after changing geometry [22-Sep-09 (in progress)]

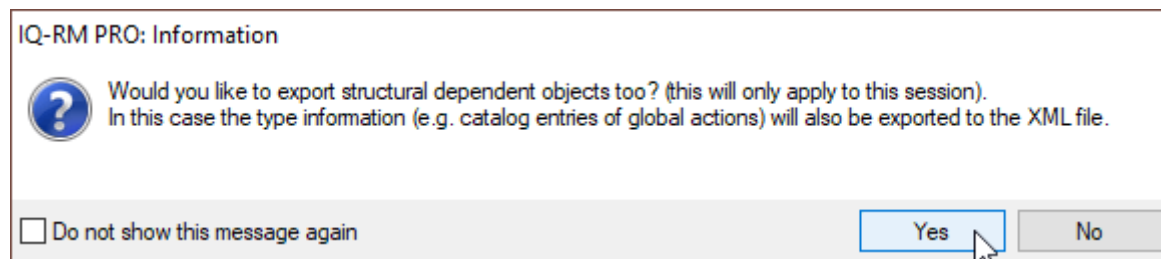
2. With the element selected, go to “File | Export | Export selected objects into an XML file...”



3. Name the XML file.



4. To make sure that the anchored objects (i.e. the actions etc.) are also exported with the failure, select “Yes” in the following dialog. Then send it to the desired recipient.

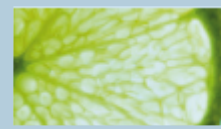


Recipient now makes some changes

5. The recipient opens the XML file

The screenshot shows the IQ-RM PRO application interface. The 'File' menu is open, with 'Open...' selected. Below it, a 'Select document' dialog box is displayed, showing the Desktop folder. The file list in the dialog includes 'customer-a.xml', 'example.xml', 'foo.xml', 'Kunde A Response.xml', and 'Kunde A.xml'. The 'Dateiname' field contains 'customer-a.xml' and the file type dropdown is set to 'XML file (*.xml)'. The application title bar reads 'IQ-RM PRO - APIS [10000-50] - Personal Desktop'.

Name	Änderungsdatum	Typ
customer-a.xml	09-Jan-18 2:49 PM	Maxth
example.xml	09-Jan-18 2:30 PM	Maxth
foo.xml	09-Jan-18 2:26 PM	Maxth
Kunde A Response.xml	09-Jan-18 1:23 PM	Maxth
Kunde A.xml	09-Jan-18 1:21 PM	Maxth



6. The failure chosen has both an initial state and a revision state. The revision state has an action group which contains four actions. No Occurrence- or Detection rating has yet been assigned to this action group. (Note: O and D ratings should only be applied to the action group and not to individual actions).

Structure Editor: Structure: ??? (created by Xml-Import) [System]

System element: ??? (created by Xml-Import)

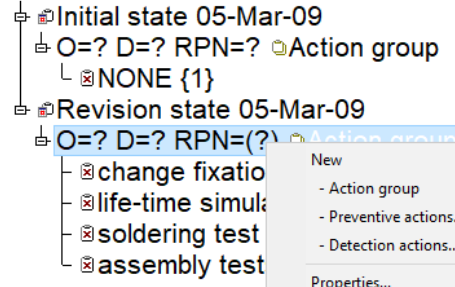
- System element: ??? (created by Xml-Import) {1}
 - Function: ??? (created by Xml-Import) {1}
 - geometrical fixation design may not allow increased soldering temperature {1}
 - Initial state 05-Mar-09
 - O=? D=? RPN=? Action group
 - NONE {1}
 - Revision state 05-Mar-09
 - O=? D=? RPN=? Action group
 - change fixation geometry concerning soldering temperature [15-May-09 (i
 - life-time simulation with focus on effects of vibration after changing geometr
 - soldering test to determine safe process parameters [22-Sep-09 (in progr
 - assembly tests after changing geometry [22-Sep-09 (in progress) Proc

No O or D ratings have been assigned yet

7. The recipient now assigns ratings for the Occurrence – and the Detection actions of the Action group.



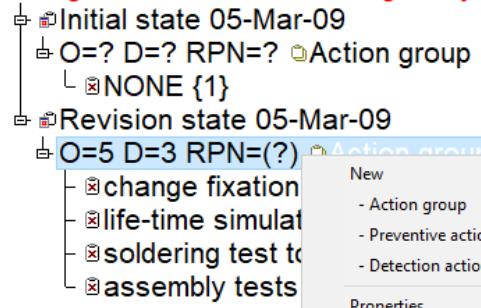
✖ **geometrical fixation design may not allow increased soldering temperature {1}**



New	
- Action group	
- Preventive actions...	
- Detection actions...	
Properties... Alt+Enter	
Delete...	Delete
Copy	Ctrl+C
Paste	Ctrl+V
Inspect object	Ctrl+I
User-defined attributes...	
Occurrence...	
Detection...	
Responsibility...	
Deadline/Status...	
Edit notes...	Ctrl+B

ing temperature [15-May-09 (i
vibration after changing geometr
rameters [22-Sep-09 (in progr
22-Sep-09 (in progress) Proc

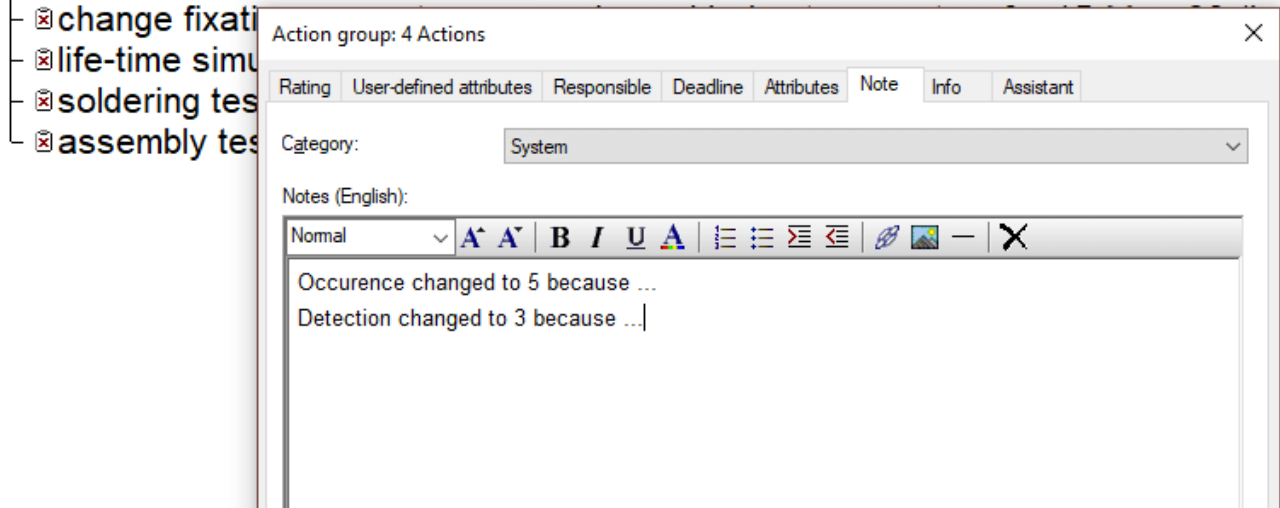
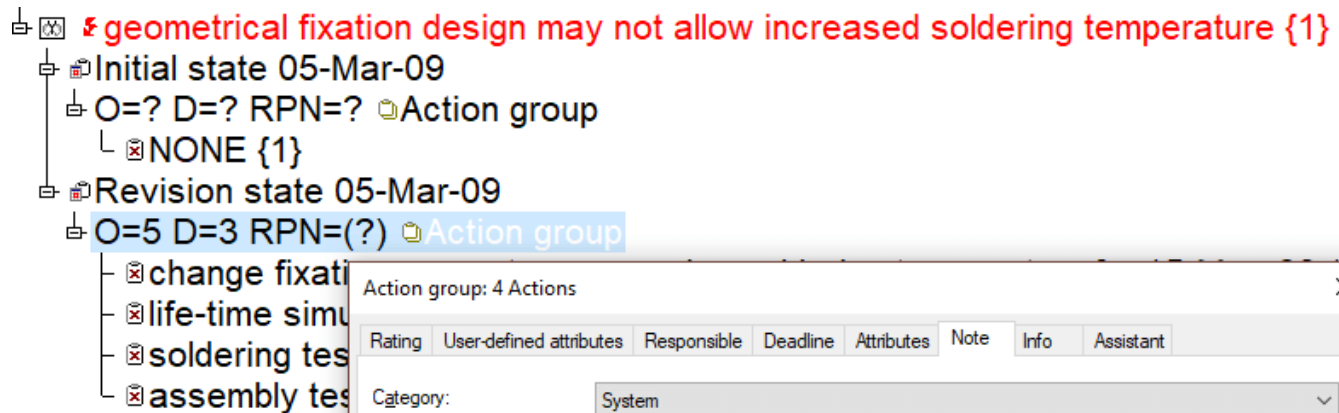
✖ **geometrical fixation design may not allow increased soldering temperature {1}**



New	
- Action group	
- Preventive actions...	
- Detection actions...	
Properties... Alt+Enter	
Delete...	Delete
Copy	Ctrl+C
Paste	Ctrl+V
Inspect object	Ctrl+I
User-defined attributes...	
Occurrence...	
Detection...	
Responsibility...	
Deadline/Status...	
Edit notes...	Ctrl+B
No revision planned	
Info...	

ing temperature [15-May-09 (i
vibration after changing geometr
rameters [22-Sep-09 (in progr
22-Sep-09 (in progress) Proc

8. And then edits the notes of the action group.



9. Once the changes have been made, the file can be exported again into XML Format (once the failure has been selected), renamed if necessary, and again include all anchored objects of the failure.

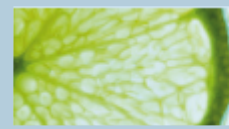
Now it is time to re-import the edited XML file

10. Open the original fme file (in this case the example.fme file) and go to where the failure is (“Plug -> constructive design -> Constructive design of plug body”).

The screenshot shows the APIS software interface with a 'Project Management' dialog box open. The dialog box title is 'Project Management' and the file path is 'C:\Users\daadam10\Desktop\FMEA-files\EXAMPLE.fme'. The tree view shows the following structure:

- Cruise Control Unit CC 2042 [Owner: Supervisor]
 - [1] CC 2042 - system [Owner: Supervisor]
 - [2] CC 2042 - signal cable constructive design
 - [3] Plug - constructive design [Owner: Supervisor]
 - Plug - constructive design with clamp connection
 - Plug - constructive design with soldering connection
 - [4] CC 2042 - manufacture signal cable [Owner: S]
 - Signal cable complete - with rework
 - Signal cable complete - without rework

The 'Open' button is highlighted, indicating the next step in the process.



11. Before importing the XML file, it can be useful to compare the two files by using the split screen feature and opening the XML file below. Here it is also recommended to make sure the “Object ID” is ticked in the Display options, in order to recognize objects more clearly:

Structure Editor: Plug - constructive design [Design]

- Constructive design of contact pin
- Constructive design of plug body
- Constructive design solder

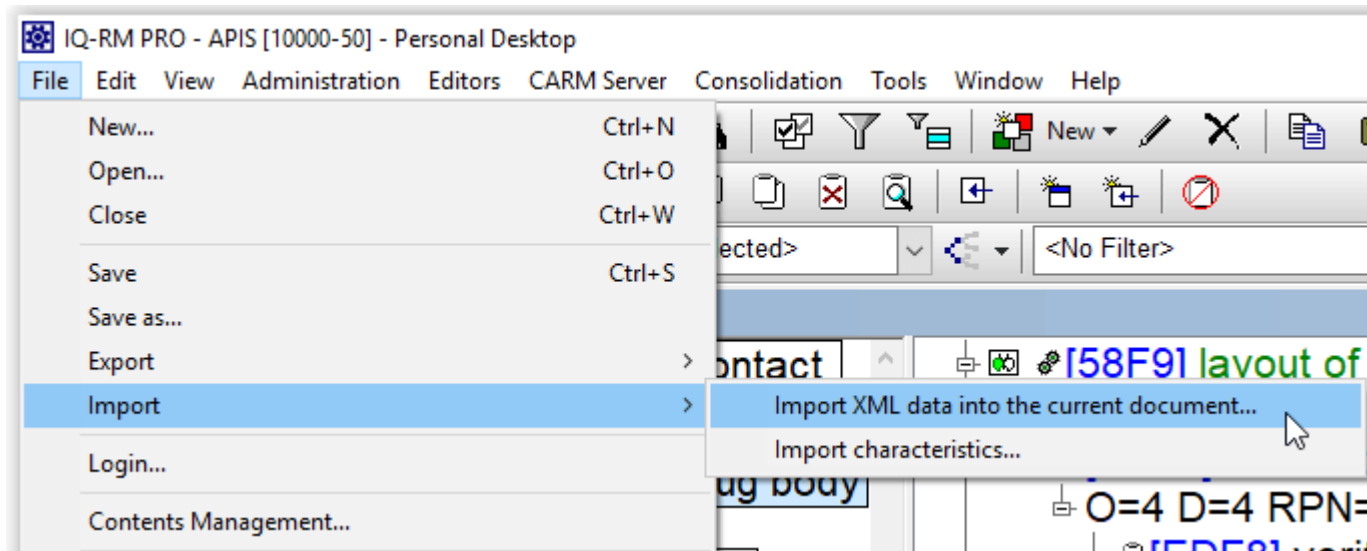
- [0EED] tests with prototypes {28}
- [9ECB] geometrical fixation design may not allow increased soldering temperature {1}**
- [3ABD] Initial state 05-Mar-09
 - O=? D=? RPN=? [7723] Action group
 - [C761] NONE {27}
 - [B825] Revision state 05-Mar-09
 - O=? D=? RPN=(?) [8633] Action group
 - [1F5F] change fixation geometry concerning soldering temperature [15-May-09 (in progress)]
 - [7813] life-time simulation with focus on effects of vibration after changing geometry [22-Sep-09 (in progress)]
 - [27E0] soldering test to determine safe process parameters [22-Sep-09 (in progress)]
 - [19F8] assembly tests after changing geometry [22-Sep-09 (in progress)]

Structure Editor: Structure: ??? (created by Xml-Import) [System]

- System element: ??? (created by Xml-Import)

- [028A] System element: ??? (created by Xml-Import) {1}**
- [0449] Function: ??? (created by Xml-Import) {1}
- [9ECB] geometrical fixation design may not allow increased soldering temperature {1}**
- [3ABD] Initial state 05-Mar-09
 - O=? D=? RPN=? [7723] Action group
 - [C761] NONE {1}
 - [B825] Revision state 05-Mar-09
 - O=5 D=3 RPN=(?) [8633] Action group
 - [1F5F] change fixation geometry concerning soldering temperature [15-May-09 (in progress)]
 - [7813] life-time simulation with focus on effects of vibration after changing geometry [22-Sep-09 (in progress)]
 - [27E0] soldering test to determine safe process parameters [22-Sep-09 (in progress)]
 - [19F8] assembly tests after changing geometry [22-Sep-09 (in progress)]

12. Now import the XML file into the original fme document,



13. and tick the necessary boxes relevant to the import.

XML: Import options

Options

Replace the following attributes of existing objects during XML-Import (if available):

- Name
- Item code
- Numbering
- ID number
- Notes/Description
- User-defined attributes
- Bookmark
- Header data/Cover sheets
- Action category
- Valuation
- Deadlines
- Status
- Responsible
- Supplementary text
- Classification
- Specification/Tolerance/Size/Frequency
- Parameters Functional Safety
- DRBFM attributes
- Valuation catalogs/Valuation catalog entry
- Symbol palettes/Palette entries
- Rules for classification assignment
- User-defined strings
- Recording methods

- Create new objects during import but do not overwrite existing object attributes
- Import using a detailed differences view
Note: The database will be saved beforehand!
- Create PIM entries for all imported objects



Finished

14. This is now finished. The changes made by the customer are now imported into the original FMEA file.

Structure Editor: Plug - constructive design [Design]

Constructive design of contact pin

Constructive design of plug body

Constructive design solder

New O & D ratings implemented, along with the notes.

