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1. AUDIT TRAIL

Version	Change Description
Version 2.3.7	2.3.7 is an update of the 2.3.6 release with a few bug fixes / improvements

2. REMARKS

3. SIGNATURES

Signature Meaning	Name	Role	Date	Signature
Author	Tilman Schlenker	Project Manager		
Approver	Wolfgang Huber	CTO		
Approver	Yves Berquin	COO		

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4. PURPOSE

Documentation of verification and validation results of Matrix Requirements Release 2.3.7

5. SCOPE


This release with number 2.3.7 is a minor update of the 2.3.6 release. It contains the changes listed in the "Appendix: Changes" below.

6. REFERENCES AND APPLICABLE DOCUMENTS

- [SIGN-342](#) Verification and Validation Plan, Ver. D
- [SIGN-344](#) Software Development Plan, Ver.G
- [SIGN-427](#) Project Kickoff Form
- [SIGN-428](#) Risk Analysis
- [SIGN-429](#) Verification and Validation Report, Ver 2.3 Update 7
- [SIGN-430](#) Release Notes 2.3.7.1173-7eab44d
- [SIGN-433](#) Release 2.3.7.1173-7eab44d FDR / Release Form

7. RESPONSIBILITIES

Name	Responsibility
Alois Paulus	coding, code reviews, testing
François Chasseur	coding, code reviews, testing
Ignas Žakaitis	creating tests, testing
Rytis Blinkovas	test automation, testing
Tilman Schlenker	coding, code reviews, testing
Wolfgang Huber	coding, creating tests, testing
Yves Berquin	coding, creating tests, testing
Eric Horesnyi	testing
Yuri Nezdemkovski	testing

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8. VERIFICATION AND VALIDATION SUMMARY

8.1. VALIDATION SUMMARY

As this hotfix does not add new features, no validation was performed

8.2. VERIFICATION SUMMARY

A total of 21 manual tests were executed by 9 people. In a first test cycle 1 of 15 tests failed. The bug was a side effect of the speed performance improvement. The bug was fixed and another 6 tests were executed. In these 6 tests 3 previously existing minor issues were discovered in 2 test cases. It was decided not to fix those as they are minor and non-blocking. Besides the manual testing 26 automated tests have been executed. These all passed.

8.3. FINAL VERDICT

Three non blocking issues have been found. Despite that, the software software build 2.3.7 can be released.

9. VERIFICATION DETAILS

All changes have been reviewed and tests have been executed to ensure they are working. The traceability has been reviewed to make sure all changes have been implemented, reviewed and tested as planned. Three issues found existed already in previous versions and will not be fixed. The other issue found was fixed and the test was successfully repeated.



9.1. TESTED RELEASE BUILDS


The tests were executed using 2 builds.

Build	Test Cycle	Number of Tests	Passed Tests
2.3.7.1172-7ee79de	First Cycle	15	14
2.3.7.1173-7eab44d	Second Cycle	6	6 (2 with deviation)
2.3.7.1173-7eab44d	Automated Tests	26	26

9.2. TESTERS

The test were executed by 9 users

Tester	Number of executed tests
rytis	10
alois	1
yves	2
ignas	26

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wolfgang	1
yuri	1
tilman	2
francois	3
eric	1

9.3. TEST ENVIRONMENT

All tests were executed with the latest versions of the used browsers


Browser / OS	Number of Tests
MacOS Sonoma / Chrome: 117.0.5938.92 (Official Build) (arm64)	2
Linux / Brave / Version 1.58.127 Chromium: 117.0.5938.88 (Official Build) (64-bit)	2
Windows 11 / Brave Version 1.58.127 Chromium: 117.0.5938.88 (Official Build) (64-bit)	2
Windows 11 / Version 1.58.129 Chromium: 117.0.5938.88 (Official Build) (64-bit)	1
Windows 11 / Version 116.0.5845.188 (Official Build) (64-bit)	4
Mac / Chrome 117.0.5938.92	2
MacOs 13.4.1 - Chrome Version 117.0.5938.92 (Official Build) (arm64)	3
Mac / Chrome 116.0.5845.187	1
Windows 11 / Brave Version 1.58.131 Chromium: 117.0.5938.92 (Official Build) (64-bit)	4
Windows 11 / Chrome Version 117.0.5938.92 (Official Build) (64-bit)	26

Other Notes

- It was verified that above changes were all changes done to the source code (nothing else changed than the planned changes)
- Tests were executed after the last code change
- All FEAT have been tested (see Appendix: Test Results Changes)

10. VALIDATION DETAILS

No validation was done.

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11. APPENDIX: CHANGES

FEAT-918 Performance improvement - Project Load and Print

Loading the initial tree was very slow for big projects.

Now loading the tree is up to 10 x faster. The tree load speed improvements are mainly visible in projects with many categories and items.

The performance fix also impacts creation of documents which contain only custom print sections.

FEAT-921 Allow to push modified items after initial exclusion

If new items were not pushed into a branch in a first push, it was not possible to push them after modifications.

Now items will show as modified in the mainline and not existing in branch and they can be pushed over.

FEAT-930 Support headings in LiveQms

Now html headings can be used inside processes.

<h1>, <h2> and <h3> style formatting can now be used in published procedures.

FEAT-932 Performance improvement - Printing of Custom Sections

In large projects the print process can take a long time

Optimize print for static and Custom sections to improve performance. When printing **only** static text and Custom sections then the print data will be optimized for performance.

NOTE: The document has to be modified and saved once after the upgrade for this to take effect.

FEAT-919 Merging moved items might delete details

With some branch types, merging items which moved in the tree loose content.

Now all fields are correctly copied when merging moved items.

FEAT-920 Published procedures don't use full width of screen


Some (very small) procedures only used part of the available width of the browser.

Now the procedures use the full width available when they are published.

FEAT-923 PRINT Item selection of filtered issues causes error message

When printing, some incorrect error messages where shown.

When an item is referencing items that are not in the "other items", the renderer is trying to render the item but does not have the data needed.

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FEAT-912 Print Processor - Column merging and deletion did not work with tables containing tables


If a table cell included a whole table, the post processing scripts to merge and delete columns did not work correctly.

Now the merging and column deletion only operates on the outer (main) table.

FEAT-931 Annotations in review were not working

Text annotations were not working when doing design reviews.

Now the annotations work as expected.

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12. APPENDIX: TEST RESULTS CHANGES

Item	Tested By	Execution Date	Last Modification	Test Result
FEAT-918 Performance improvement - Project Load and Print	XTC-2990 Tree, Search and Filter (TC-5)	2023/09/27	2023/09/27 12:51:09	passed
	XTC-2976 Tree and MRQL Scalability (TC-334)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-2977 Cross Project Links Tests (TC-30)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-2979 Items tree for the List of items reference (TC-153)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-2994 QMS Editor test (TC-76)	2023/09/27	2023/09/28 09:35:31	passed with deviation
	XTC-2981 Redlining Dashboard and Timewarp (TC-88)	2023/09/27	2023/09/27 09:29:11	passed
	XTC-2986 Edges cases for deferred tree loading. (TC-343)	2023/09/22	2023/09/25 15:38:47	passed
FEAT-921 Allow to push modified items after initial exclusion	XTC-2974 Merging and Branching (UC-38)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-2988 Push to branch modified item detection (TC-397)	2023/09/22	2023/09/25 15:38:47	passed
FEAT-930 Support headings in LiveQms	XTC-2993 QMS Viewer Test (TC-74)	2023/09/27	2023/09/28 09:47:55	passed with deviation
FEAT-932 Performance improvement - Printing of Custom Sections	XTC-2978 Downlink count optimization (TC-401)	2023/09/22	2023/09/25 15:38:47	passed



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Item	Tested By	Execution Date	Last Modification	Test Result
FEAT-919 Merging moved items might delete details	XTC-2978 Downlink count optimization (TC-401)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-2992 Trace Matrix Section (TC-54)	2023/09/26	2023/09/27 14:47:12	passed
	XTC-3002 DOC - List of Items Test (TC-60)	2023/09/27	2023/09/27 18:33:28	passed
	XTC-3008 Folders ID in documents (TC-148)	2023/09/28	2023/09/28 09:27:28	passed
	XTC-3009 Cache signed SIGN documents (TC-151)	2023/09/27	2023/09/27 18:23:01	passed
	XTC-2979 Items tree for the List of items reference (TC-153)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-3012 Sub section rendering of packages in SIGN (TC-316)	2023/09/28	2023/09/28 08:58:57	passed
	XTC-2982 Branch Item Move History Test (TC-399)	2023/09/22	2023/09/25 15:38:47	passed
	XTC-2983 Branch Item Move Export/Import History Test (TC-400)	2023/09/22	2023/09/25 15:38:47	passed
FEAT-920 Published procedures don't use full width of screen	XTC-2989 Small PROC and WI are displayed correctly (TC-398)	2023/09/22	2023/09/25 15:38:47	passed
FEAT-923 PRINT Item selection of filtered issues causes error message	XTC-2987 Test that filtered items don't cause errors in PRINT (TC-396)	2023/09/22	2023/09/25 15:38:47	passed
FEAT-912 Print Processor - Column merging and deletion did not work with tables containing tables	XTC-2985 Pre Post Processing of Custom Section (TC-301)	2023/09/22	2023/09/25 15:38:47	passed
FEAT-931 Annotations in review were not working	XTC-2984 Annotations for Review (TC-122)	2023/09/22	2023/09/25 15:38:47	passed

13. APPENDIX: TEST RESULTS REGRESSION TESTS

Executed Test Case	Execution Date	Last Modification	Test Result
XTC-2996 Required fields (TC-142)	2023/09/27	2023/09/27 18:14:49	passed
XTC-2997 Explanation Field Test (TC-266)	2023/09/27	2023/09/27 18:15:01	passed
XTC-3000 Redlining Label Test (TC-285)	2023/09/27	2023/09/27 18:15:19	passed
XTC-2991 Print-Sequential (TC-248)	2023/09/26	2023/09/26 22:27:46	passed
XTC-3001 PRINT - smart text test (TC-288)	2023/09/28	2023/09/28 09:50:57	passed
XTC-3004 Copy Dashboard to DOC (TC-97)	2023/09/27	2023/09/27 18:16:07	passed
XTC-3005 Check creating new traces (TC-132)	2023/09/27	2023/09/27 18:18:09	passed
XTC-3034 MRQL risk search (TC-99)	2023/09/28	2023/09/28 08:57:58	passed
XTC-3015 Tabbing Search Results Test (TC-221)	2023/09/27	2023/09/27 18:25:38	passed
XTC-3016 Cascading Searches (TC-223)	2023/09/27	2023/09/27 18:28:14	passed
XTC-3018 Move main save button to left (TC-106)	2023/09/27	2023/09/27 18:28:28	passed
XTC-3019 Traceability Overview dashboard (TC-165)	2023/09/27	2023/09/27 18:28:44	passed
XTC-3020 Count per day graph in TEO (TC-323)	2023/09/27	2023/09/27 18:28:53	passed
XTC-3021 Merge Access Right Test (TC-293)	2023/09/28	2023/09/28 09:33:00	passed
XTC-3022 Push History Test (TC-309)	2023/09/28	2023/09/28 08:34:34	passed
XTC-3024 Empty selection in review (TC-327)	2023/09/28	2023/09/28 09:39:31	passed
XTC-3025 Administration passwords, user access, logos (TC-108)	2023/09/27	2023/09/27 18:31:49	passed

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Executed Test Case	Execution Date	Last Modification	Test Result
XTC-3027 Category Group Test (TC-65)	2023/09/27	2023/09/27 18:31:31	passed
XTC-3028 Verify version number display (TC-332)	2023/09/27	2023/09/27 18:14:18	passed
XTC-3029 DOC History Test (TC-289)	2023/09/28	2023/09/28 09:36:55	passed with deviation
XTC-3030 Shift ENTER in a table cell (TC-295)	2023/09/28	2023/09/28 09:38:57	passed
XTC-3031 Uplink with risk control (TC-303)	2023/09/27	2023/09/27 18:01:06	passed
XTC-3032 Macro in test steps (TC-346)	2023/09/27	2023/09/27 18:08:21	passed