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## 1 Introduction

The purpose of the **Validation report** is to summarize and document the found differences that require corrective actions from the validation activities performed.

The scope of the validation tasks performed are described in paragraph 2.1 in the Validation plan.

### 1.1 Notation and Notes

'US' followed by a number refers to a User Story in Azure DevOps.

'WI' followed by a number refers to a Work Item in Azure DevOps. May be Defect, User Story, Feature etc.

'VTC' followed by a number refers to a Test Case in Azure DevOps that has been written as a Validation Test Case, VTC. All files referenced here can be found in the New functionality folder in the validation package.

Note: Approving this document includes approval of all subdocuments and results referred to in this document.

## 2 Validation Report Summary

The Validation plan defines the validation tasks to perform. The results from the validation tasks are included in the validation package and all found differences requiring a corrective action are listed under paragraph 3.

The numerical validation of SIMCA-online Web Client 17.1 was done versus SIMCA-online Web Client 17 and specification using CompareSimcaData.

New functionality was validated versus specification.

### 2.1 Validation Package Content

The validation package includes files and folders as follows:

- SIMCA-online Web Client 17.1 validation documentation pdf, a compilation of validation documents including this document, SIMCA-online Web Client 17.1 Validation report.
- New functionality folder – New functionality and improvements have been validated and available in a folder named 'New functionality' in the validation package.
- Numerical validation folder – Holding the results to the numerical comparisons.
- Automatic regression folder – Holding the results from the automated workflow included in the validation

## 3 Validation Task Results

The validation of SIMCA-online Web Client 17.1 was done versus SIMCA-online Web Client 17 and specification, using TestComplete and CompareSimcaData under Windows 10. The outcome is included in the validation package. Differences due to rounding are not listed.

### 3.1 Data Analytics Correctness – Web API

In the verification of the Web API used in the SIMCA-online web client, no differences that require a corrective action were found.

### 3.2 Automated Regression

In the automated regression covering reset alarm in the web client, no differences requiring a corrective action were found.

### 3.3 New Functionality

New functionality described in features closed during the development of SIMCA-online Web Client 17.1 was validated and can be found in **Validation of new functionality summary** and New functionality folder.

The results from the VTCs run during the validation are documented in the files found in the New functionality folder.

No differences that require a corrective action were found when running the validation test cases.



## 4 Verification of Installed Software

To verify that your license of the software has been correctly installed follow the instruction here:

1. With the SIMCA-online server running, in the desktop client, click Web Client on the Home tab (or open it with the relevant url).
2. Using one of the supported browsers (Chrome, Edge, Safari), log in using your SIMCA-online user credentials.
3. Click the main menu, About, and verify that the version is SIMCA-online Web Client version 17.1.0 (build 336).
4. Assuming you have verified the installation of your desktop client, open any batch or continuous project and create a plot which produces content. The plot should content wise be identical between desktop and web client.
5. Alternatively: Open one of the .pdfs in the Graphical validation folder in the full validation of SIMCA-online 17. If the matching full validation of SIMCA is unavailable to you, please reach out and request the files from Sartorius Umetrics Suite support together with the corresponding project and DBMaker-files. Then open one of the plots. The plots should content wise be identical.

## 5 Source Code

All source code for the final version of a full release is transferred to electronic media and kept in a safe storage externally.

## 6 Routines

The relevant routines are stored in Azure DevOps in the QualityManual and QualityManagementSystem folders.

## 7 Defect Handling

Work items describing defects found are stored electronically in Azure DevOps. Defects that require a corrective action are listed in the tables in paragraph 3.

## 8 Validation Conclusion

All defects found during this development life cycle that remain unsolved were considered noncritical to the user of the system and therefore remain open.

All deviations compared to specifications that require a corrective action are stored in the defect database with details about the planned action.

None of the deviations found are serious. The performed quality activities throughout the life cycle of the software development, in accordance with the outlined testing and validation strategy in the Quality Management System (QMS), secures that the requirements perform according to specification and that SIMCA-online Web Client 17.1 gives correct results and is reliable.

