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Operating Instructions
KERN Equipment Qualification System

Version 1.0
2023-12



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1. Introduction

The Equipment qualification system (EQS) solves the issue of logbook document handling by hand by bringing in an equipment qualification process digitally which generates the logbook in PDF format. This qualification must be only carried out by trained personnel (qualification officers) inside / outside KERN. The implementation of EQS is mainly to degrade filling out the documents in hand every time owing to the time-consuming and inefficient process.

In summary, the Equipment Qualification System (EQS) is a digital solution that replaces the manual handling of logbook documents for equipment qualification. It involves qualified personnel (qualification officers) conducting the qualification process on-site, with the result being logbook documents generated in PDF format.

The key motivation behind implementing EQS is to improve the efficiency of the qualification process by eliminating the time-consuming nature of manual document handling.

1.1 Intended audience

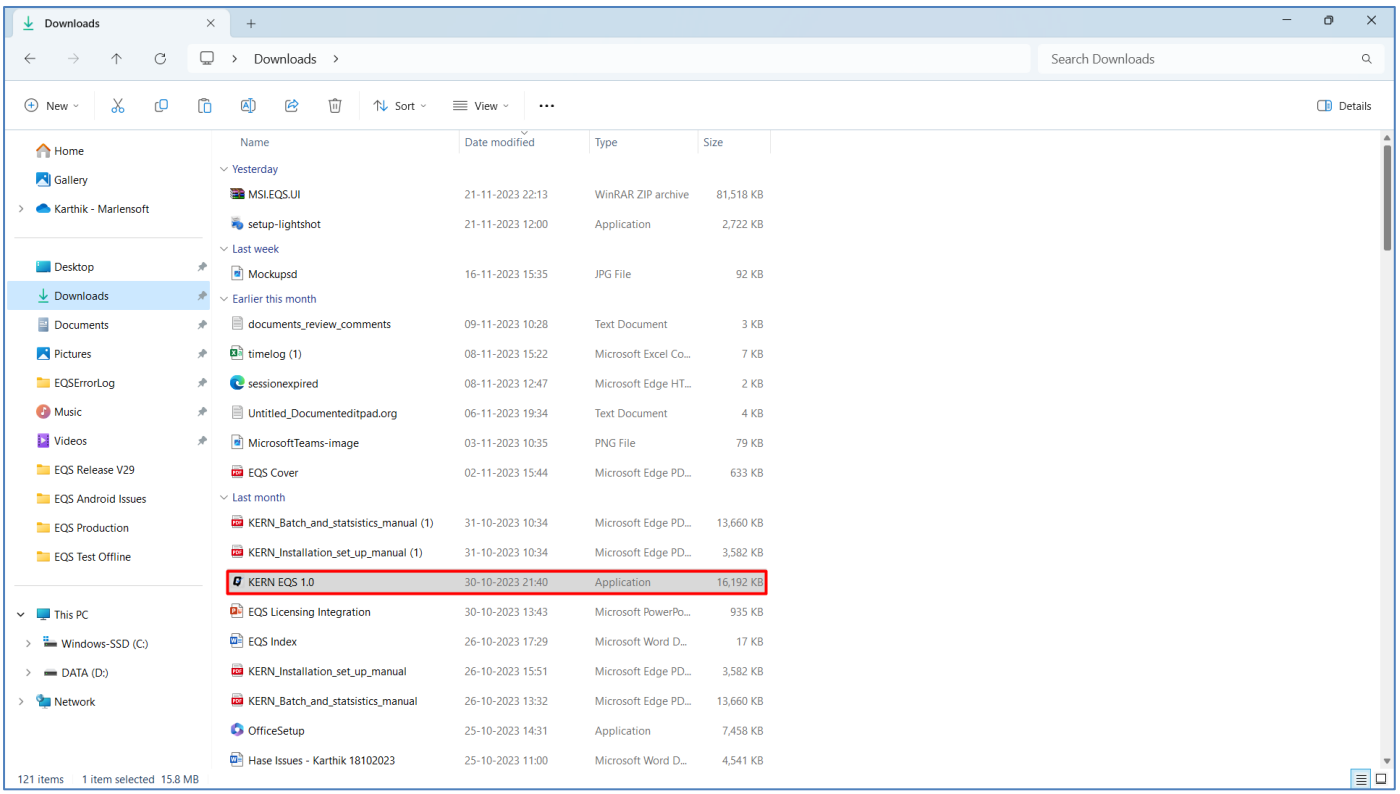
- Qualification officer.

2. Installation of EQS application

A proper user account is required by the qualification officer to use the EQS application. The EQS–License [SEQ – 01] is always required since it's the base for working with KERN EQS application.

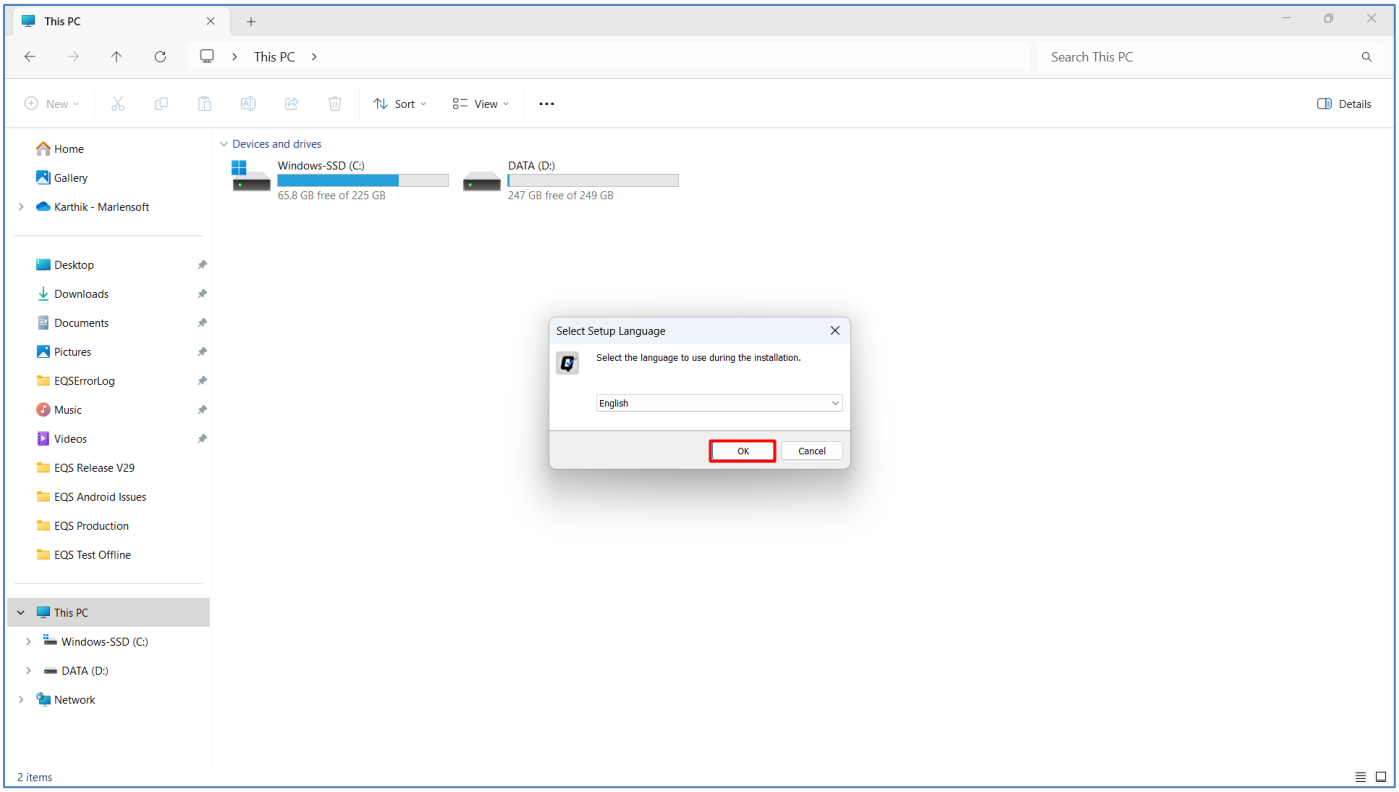
2.1 Windows download and installation

- Download the application from following URL https://en.kern-lab.com/dakksdkd/balances/geraetequalifizierung/?lang=en-GB
- Double click the file KERN EQS 1.0.exe.

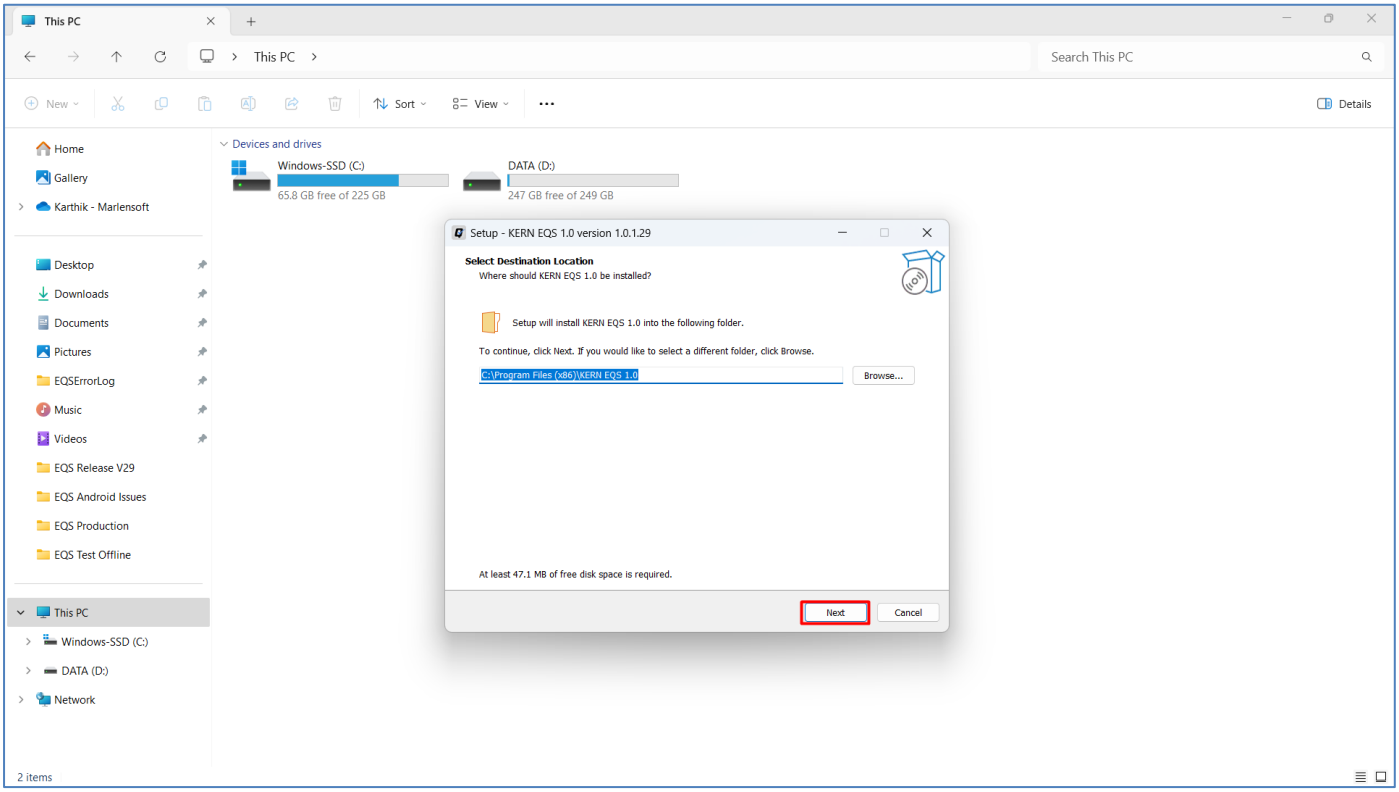


English

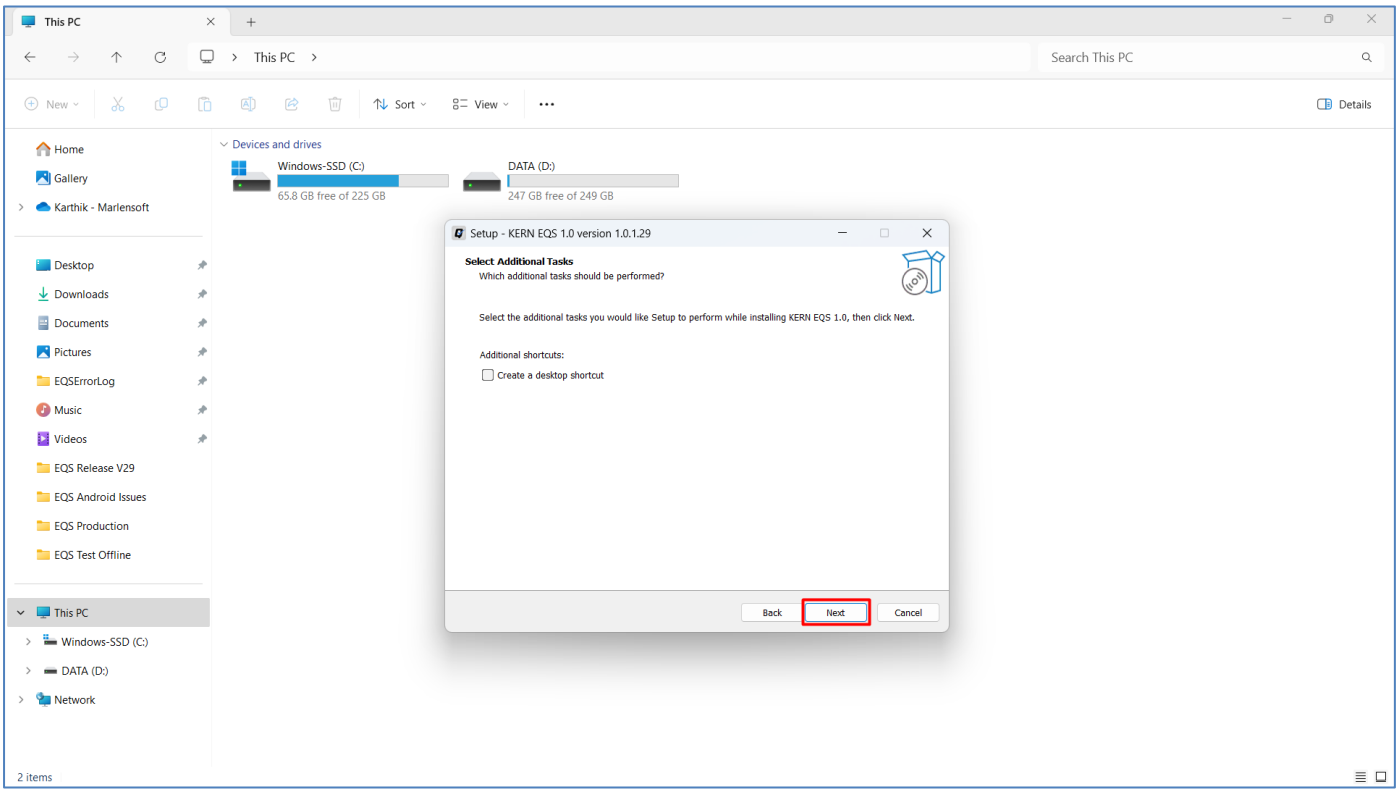
- In the Installation window, select the preferred language and click on “OK”.



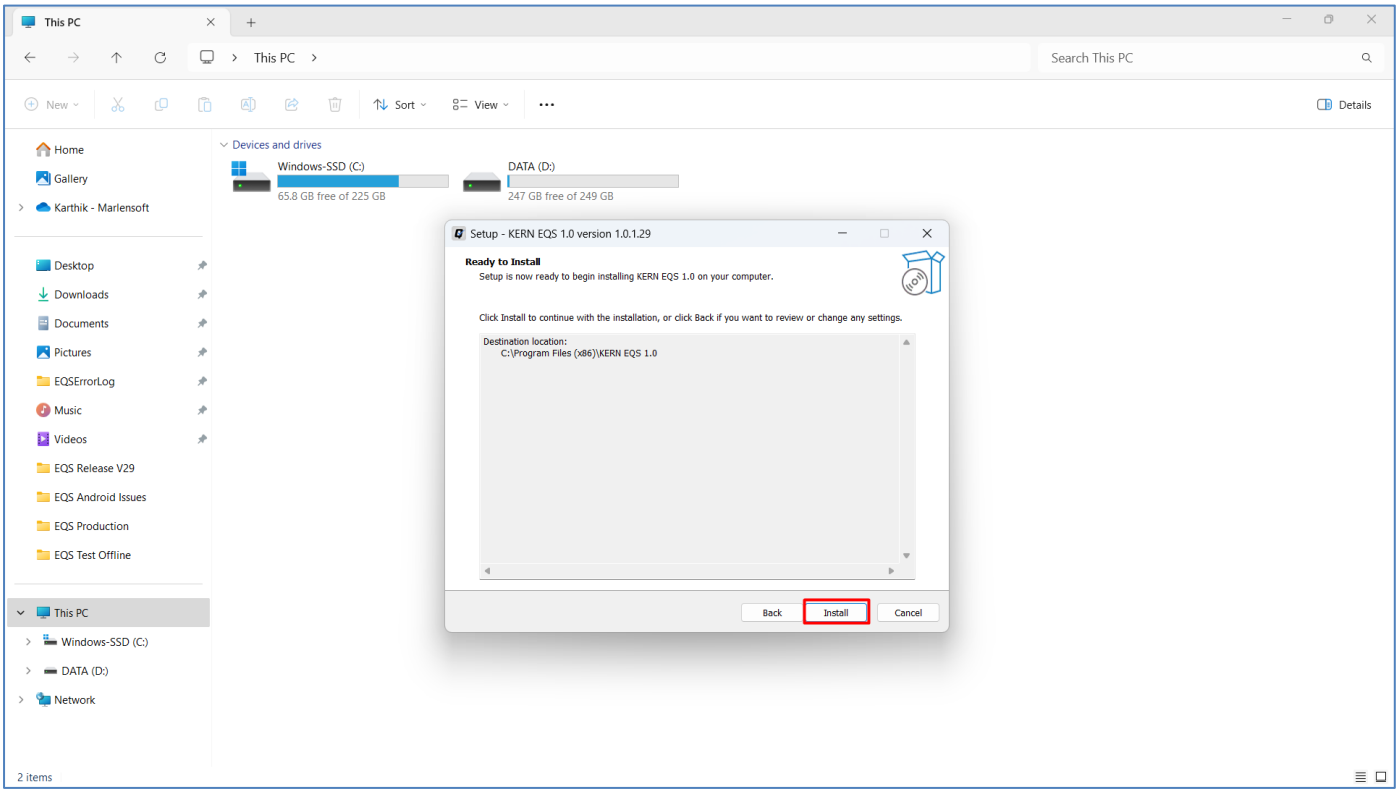
- Browse and select the installation location and click “Next” button.



- If short cut needed check-in the “Create a desktop shortcut” checkbox and click “Next” button.

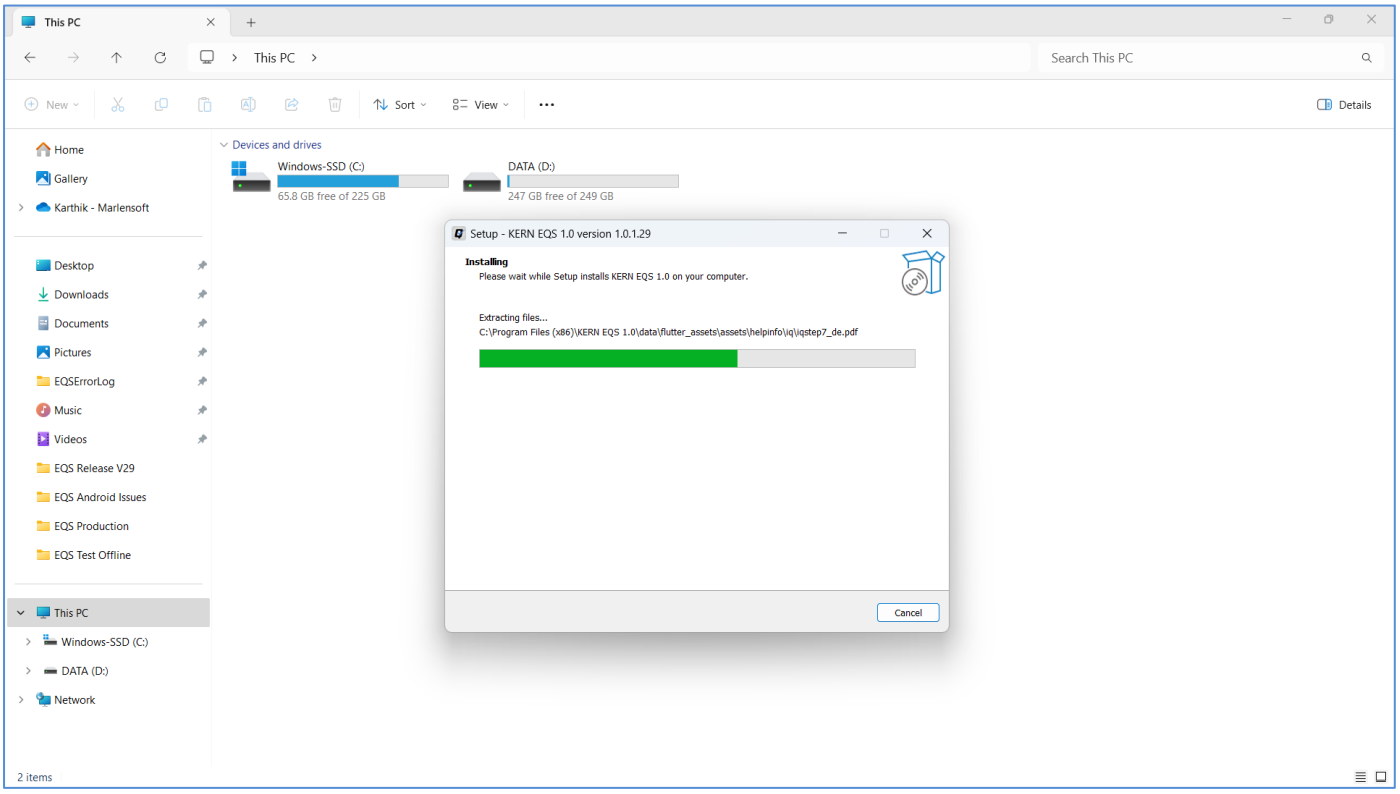


- Check the installation location and click “Install” button.

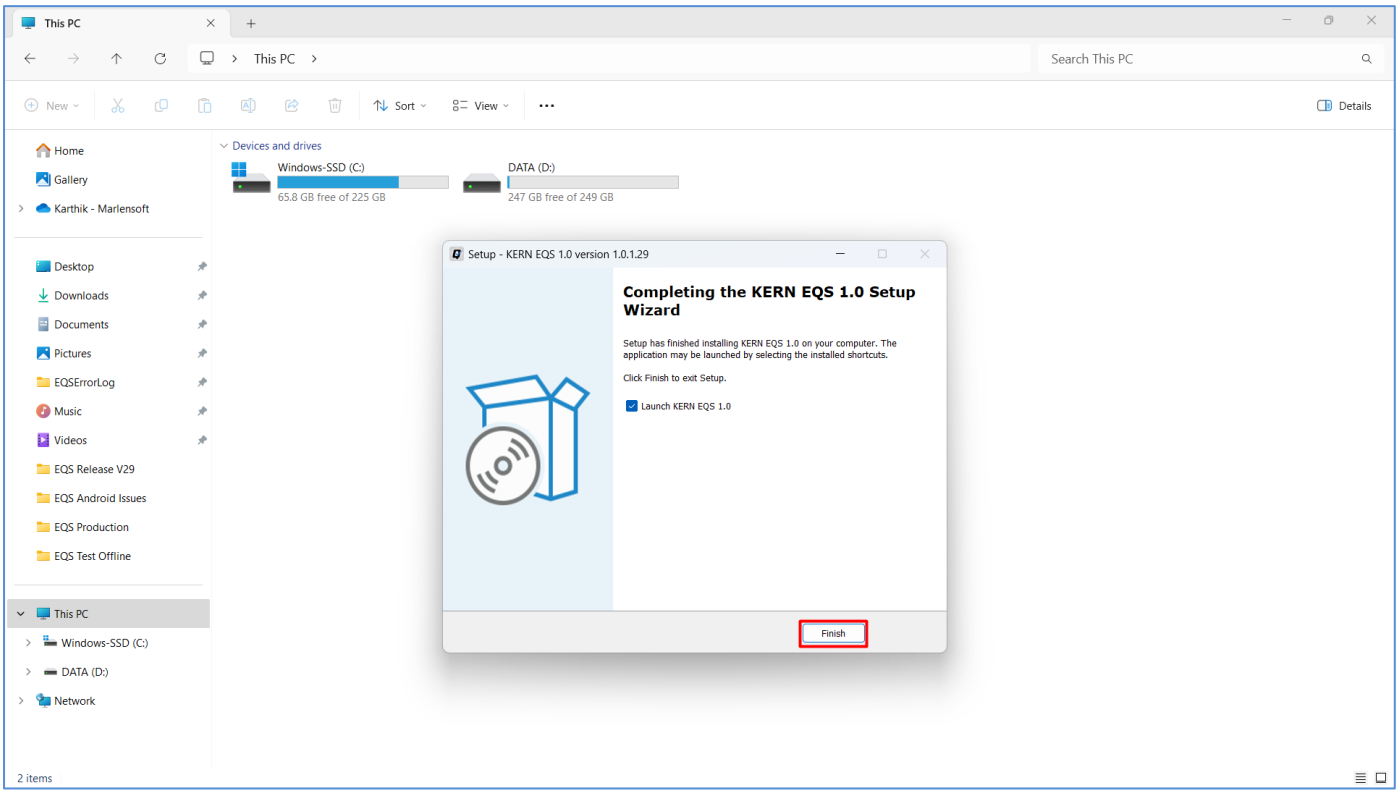


English

- After clicking the “Install” button the installation process starts, and the installation progress bar is displayed.



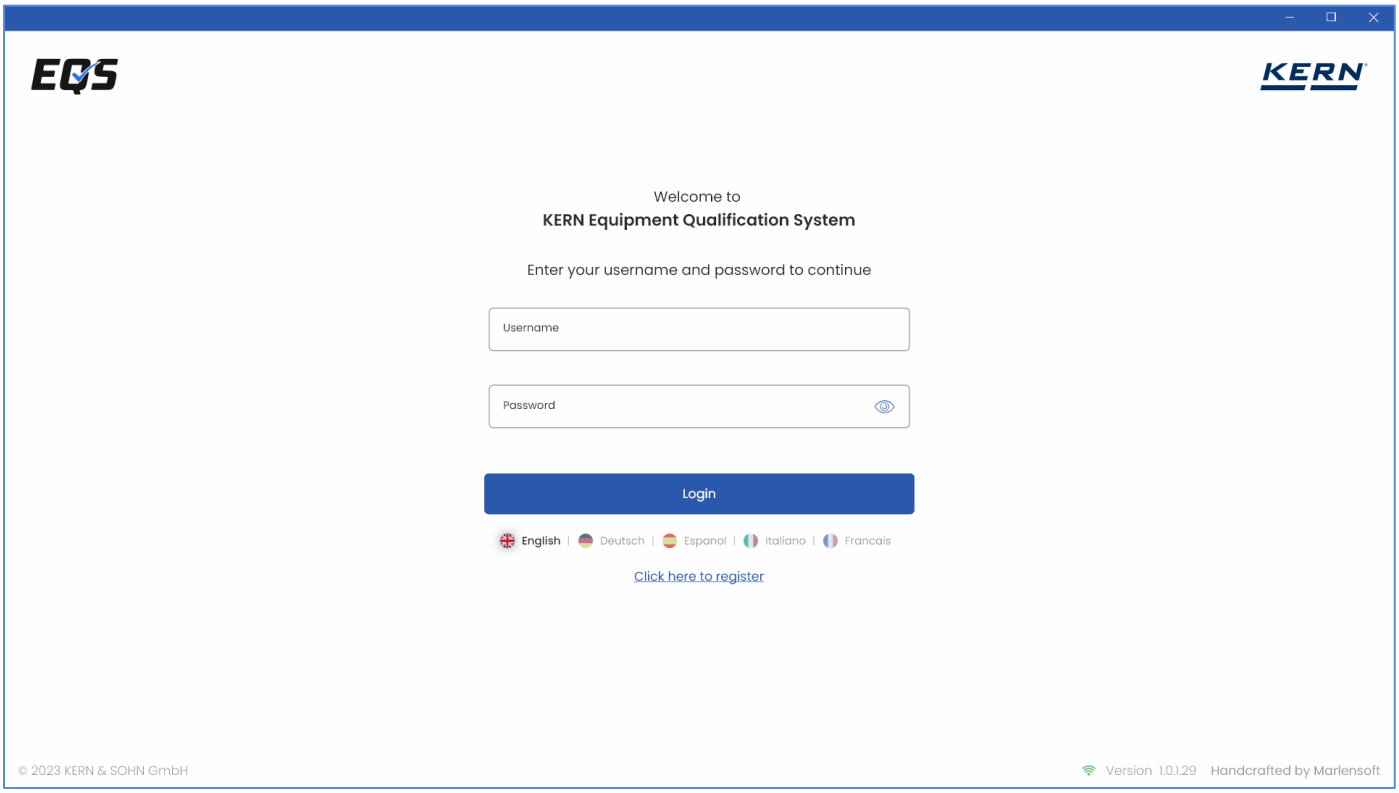
- Once the installation process is completed click "Finish” button.



Note: To immediately launch the application, check-in the “Launch KERN EQS” checkbox and click "Finish” button.

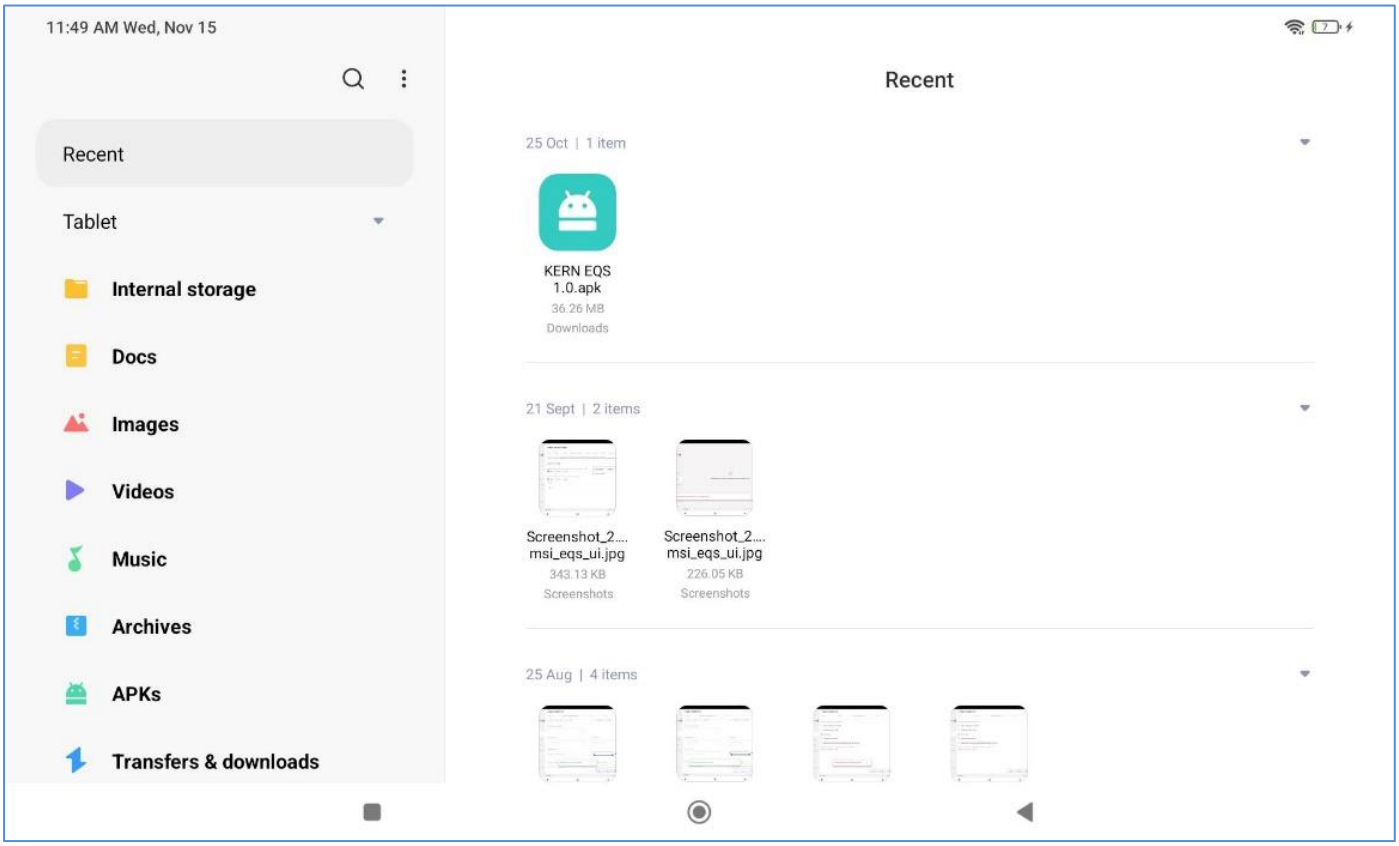
English

- KERN EQS 1.0 application can be launched anytime directly from the start menu search and desktop shortcut.



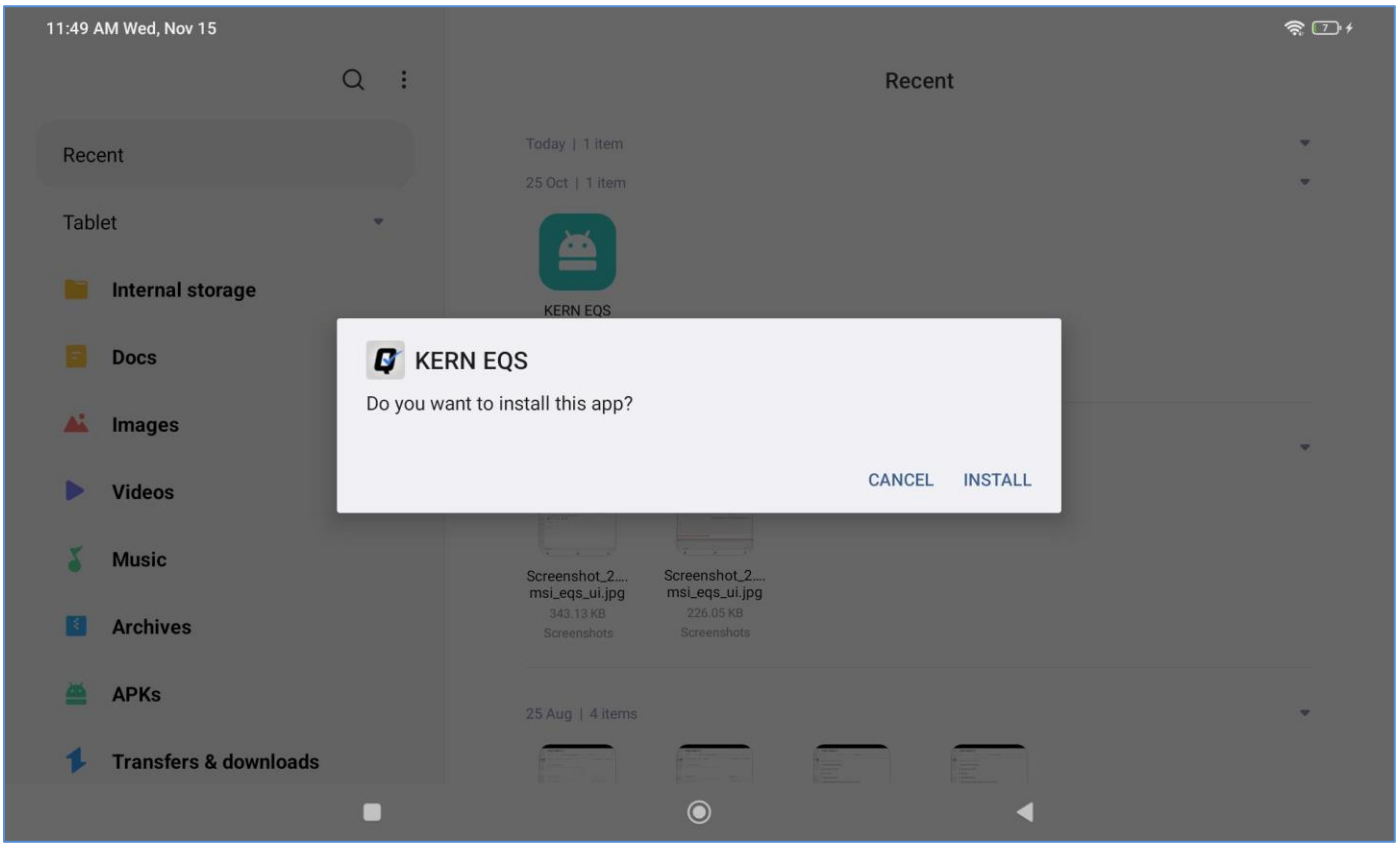
2.2 Android download and installation

- Download the application from following URL https://en.kern-lab.com/dakksdkd/balances/geraetequalifizierung/?lang=en-GB
- Click the file app KERN 1.0.apk file.

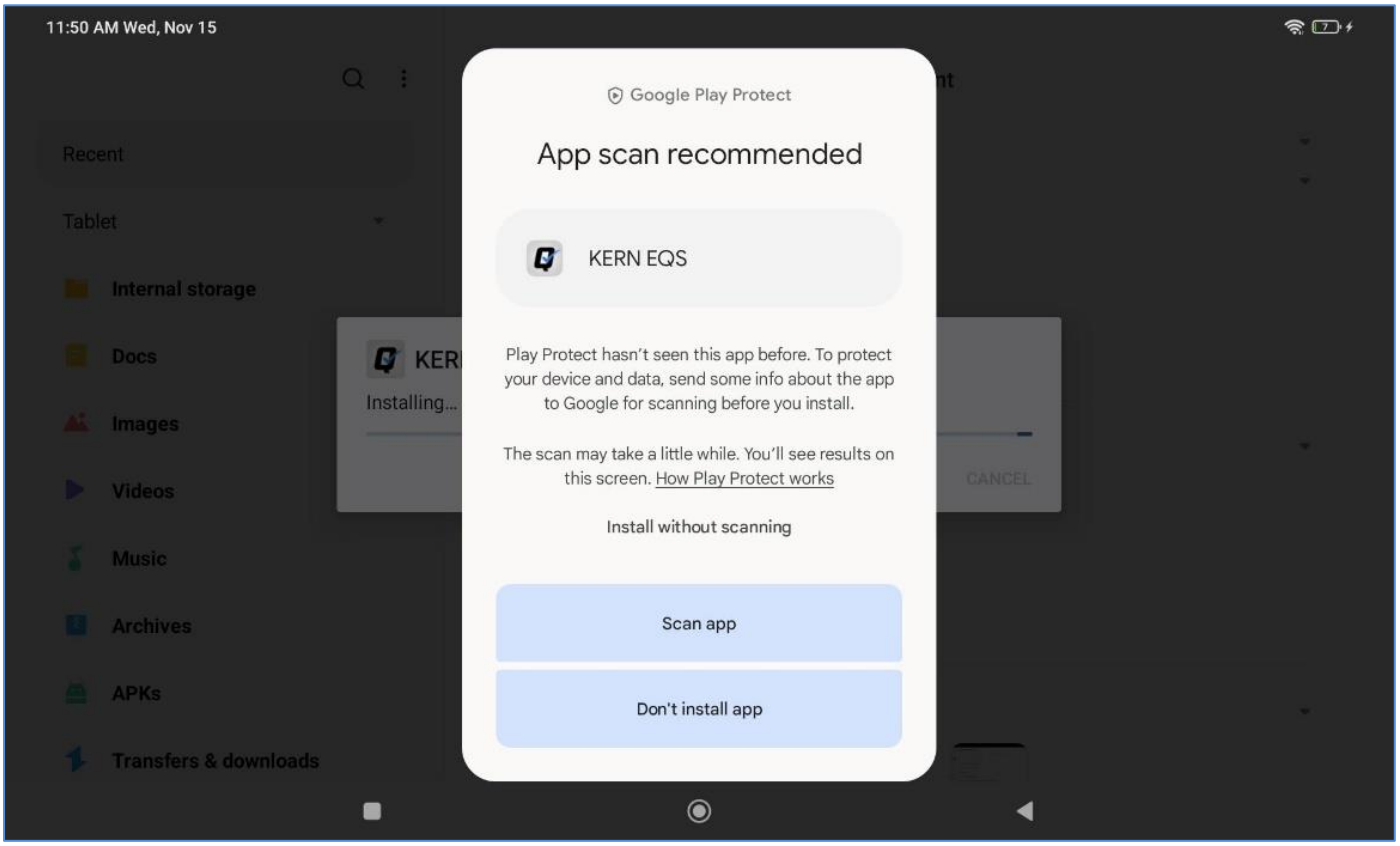


English

- In the Installation window, click on “Install”.

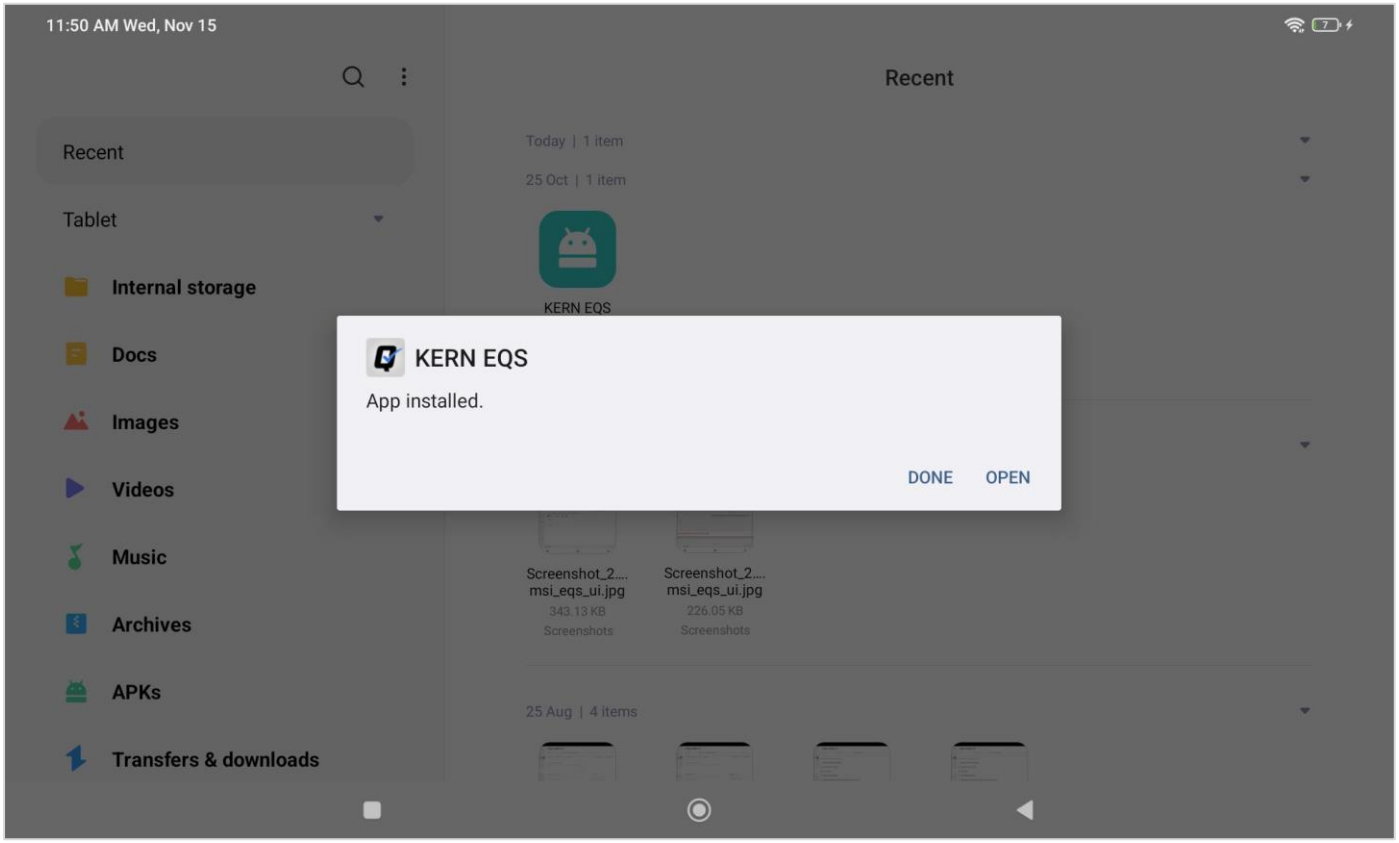


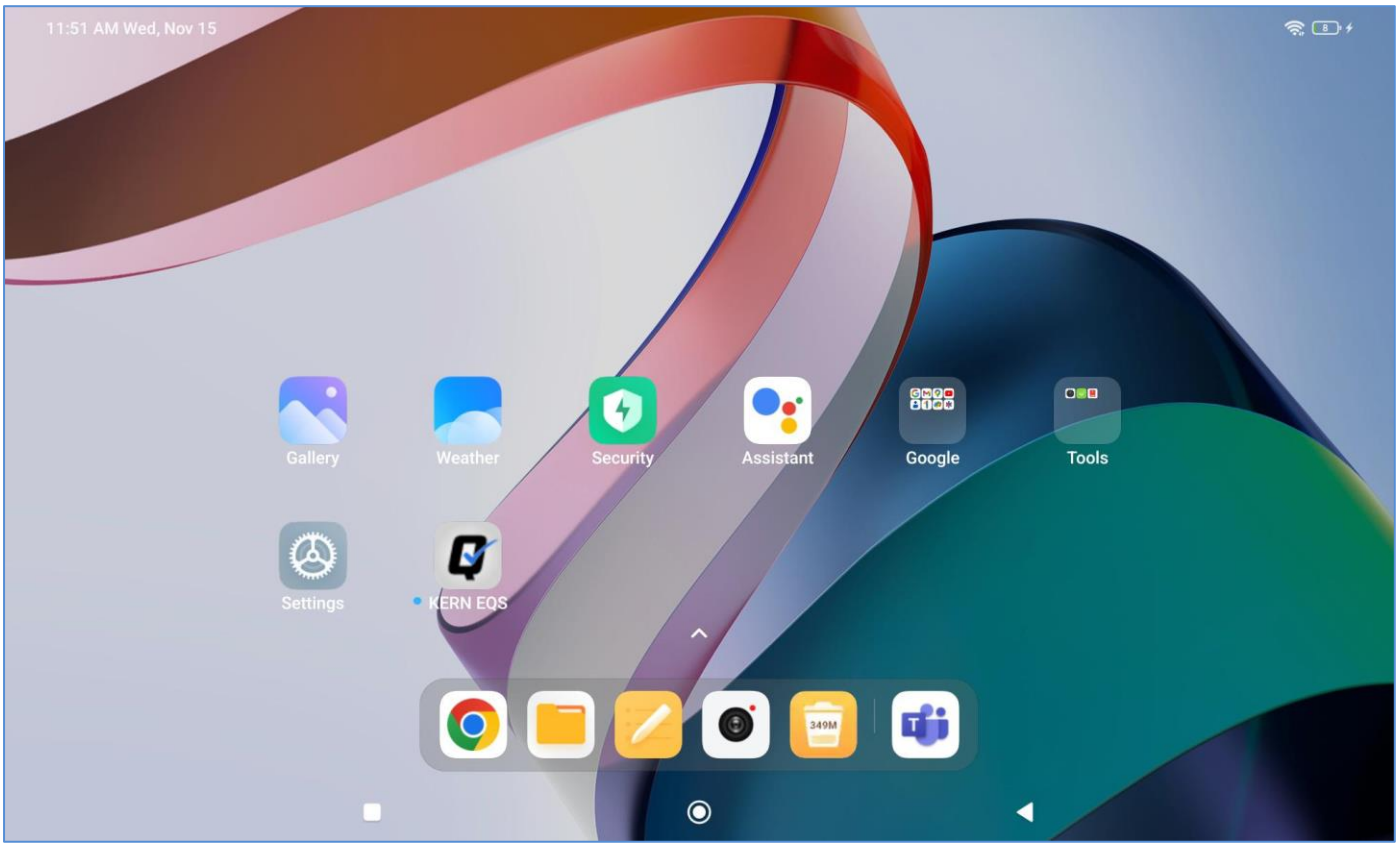
- Since the application is not yet available in play store, click on “Install without scanning” when the google play protect popup appears.



English

- The application gets installed, and the application icon appears in the home screen.



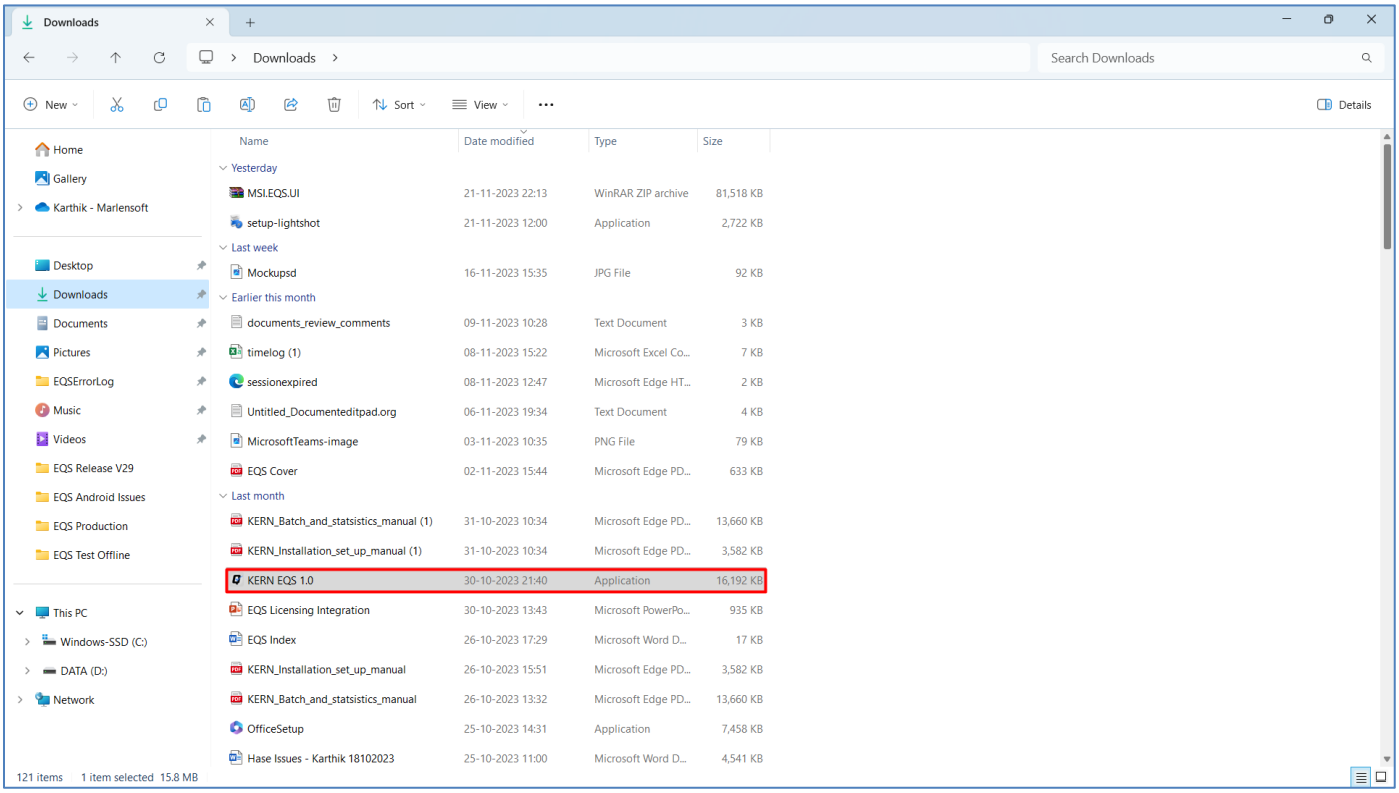


English

2.3 Upgrade application

2.3.1 Upgrade EQS application in windows

- KERN EQS 1.0 application can be upgraded to the latest version anytime by downloading the latest .exe file and installing it.
- Double click the file KERN EQS 1.0.exe.



Note: For further process, kindly refer the section 2.0 Installation of EQS application

2.3.2 Upgrade EQS application in android

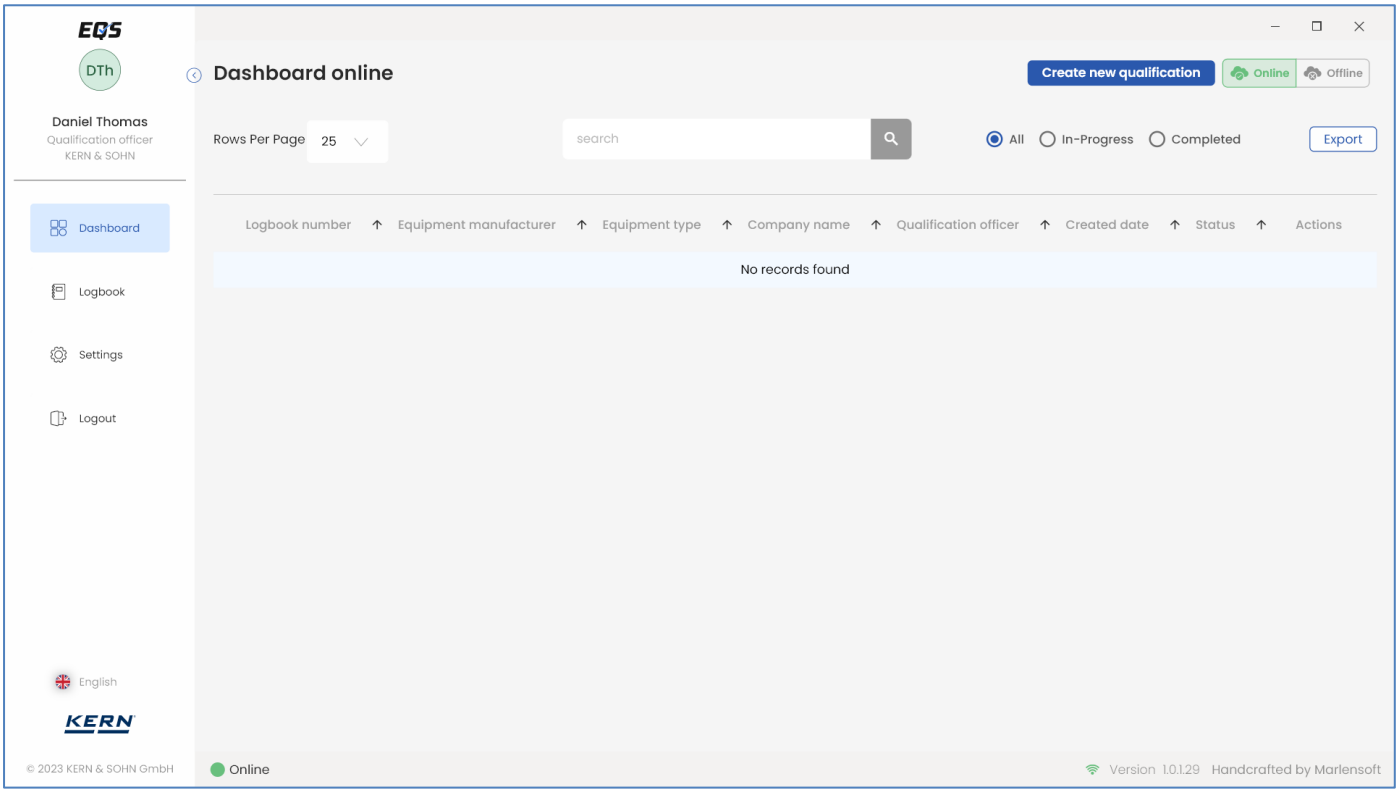
- Download and upgrade the application from following URL https://en.kern-lab.com/dakksdkd/balances/geraetequalifizierung/?lang=en-GB

English

3. Application Layout

3.1 Landing screen

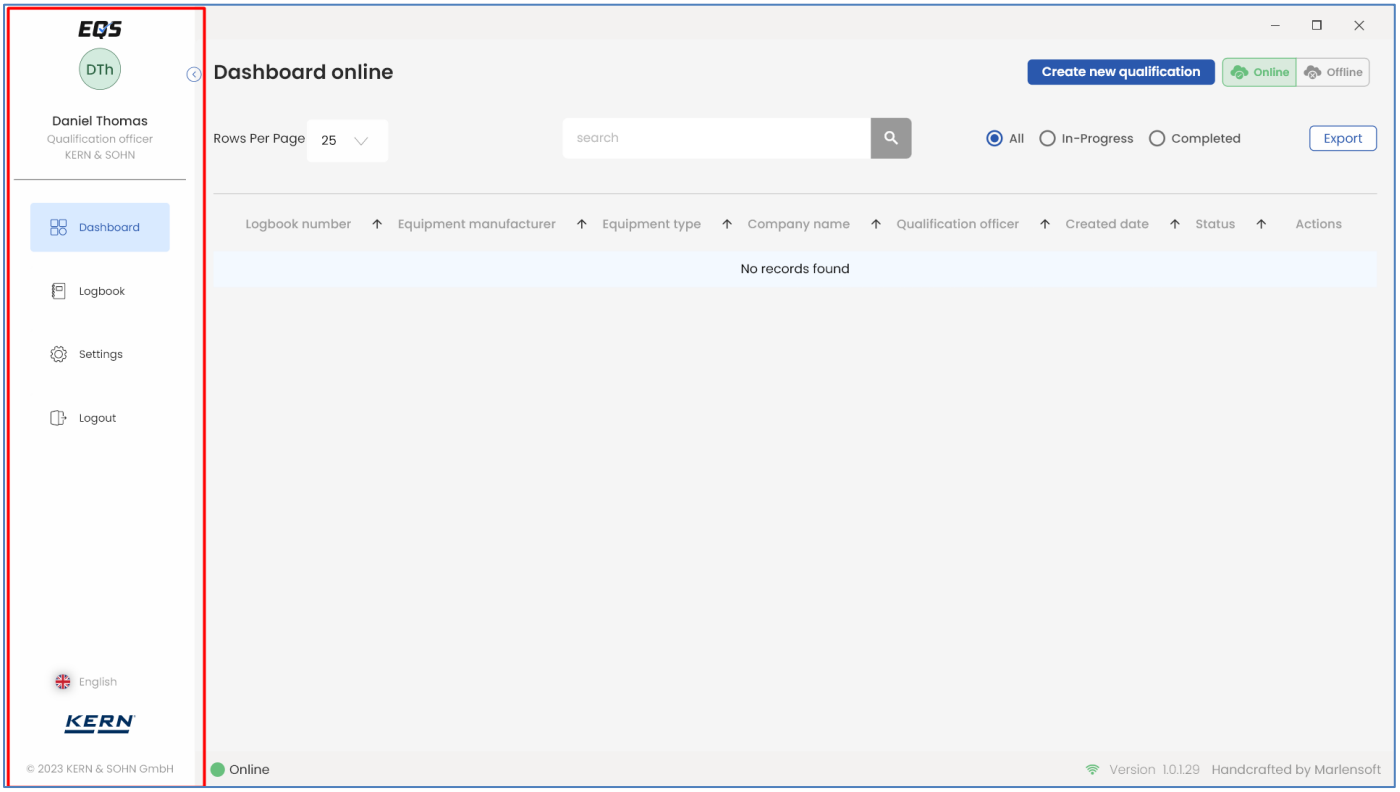
- The application landing screen is separated into side navigation bar (with expand & collapse option), logbook grid (online and offline modes), landing screen header and landing screen footer.



3.1.1 Side navigation bar

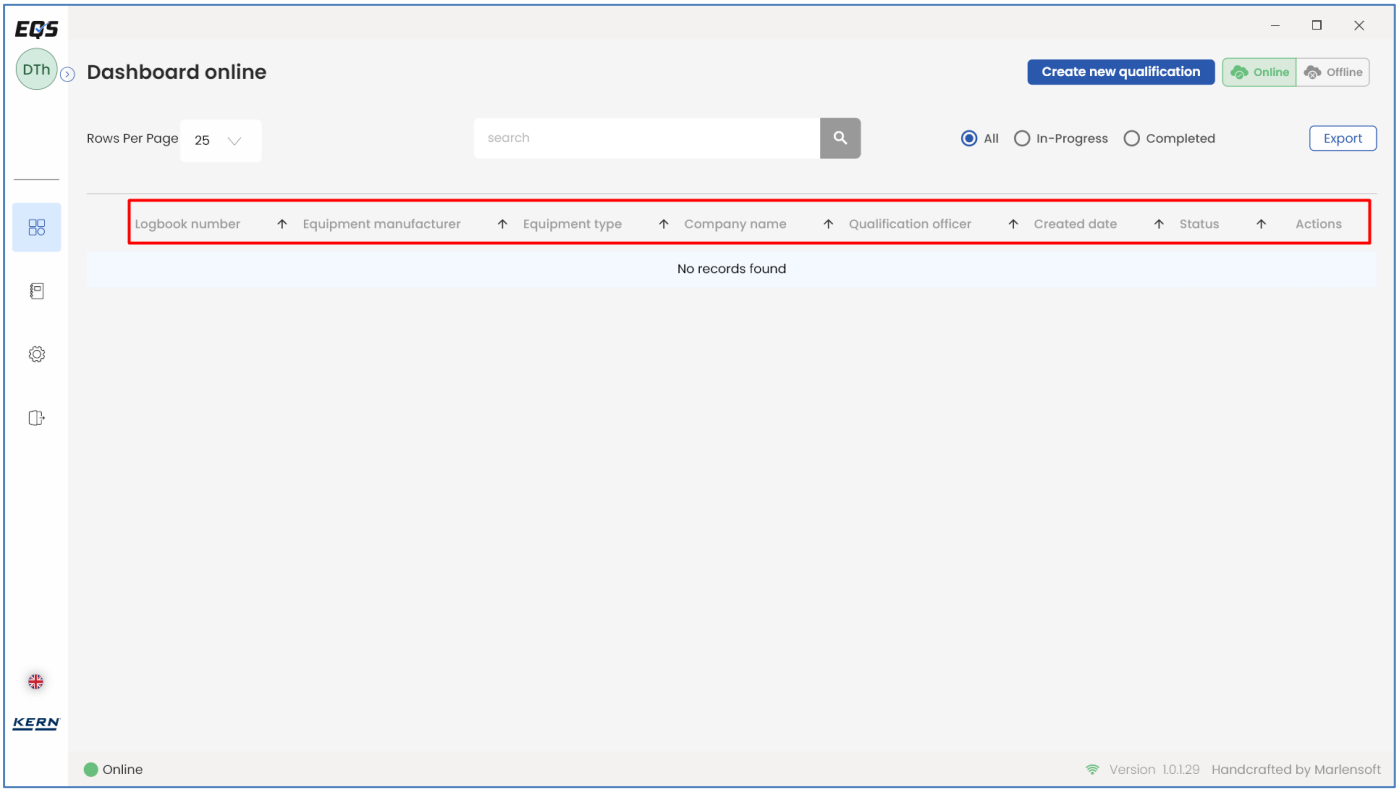
- In the top left corner of the side navigation bar details such as application logo, username with visa, user role & organization name are displayed.
- After that the following options such as dashboard short cut, create logbook, settings and logout option are listed.
- In the bottom left corner of the side navigation bar language settings option, kern logo and copy right info are displayed.

English



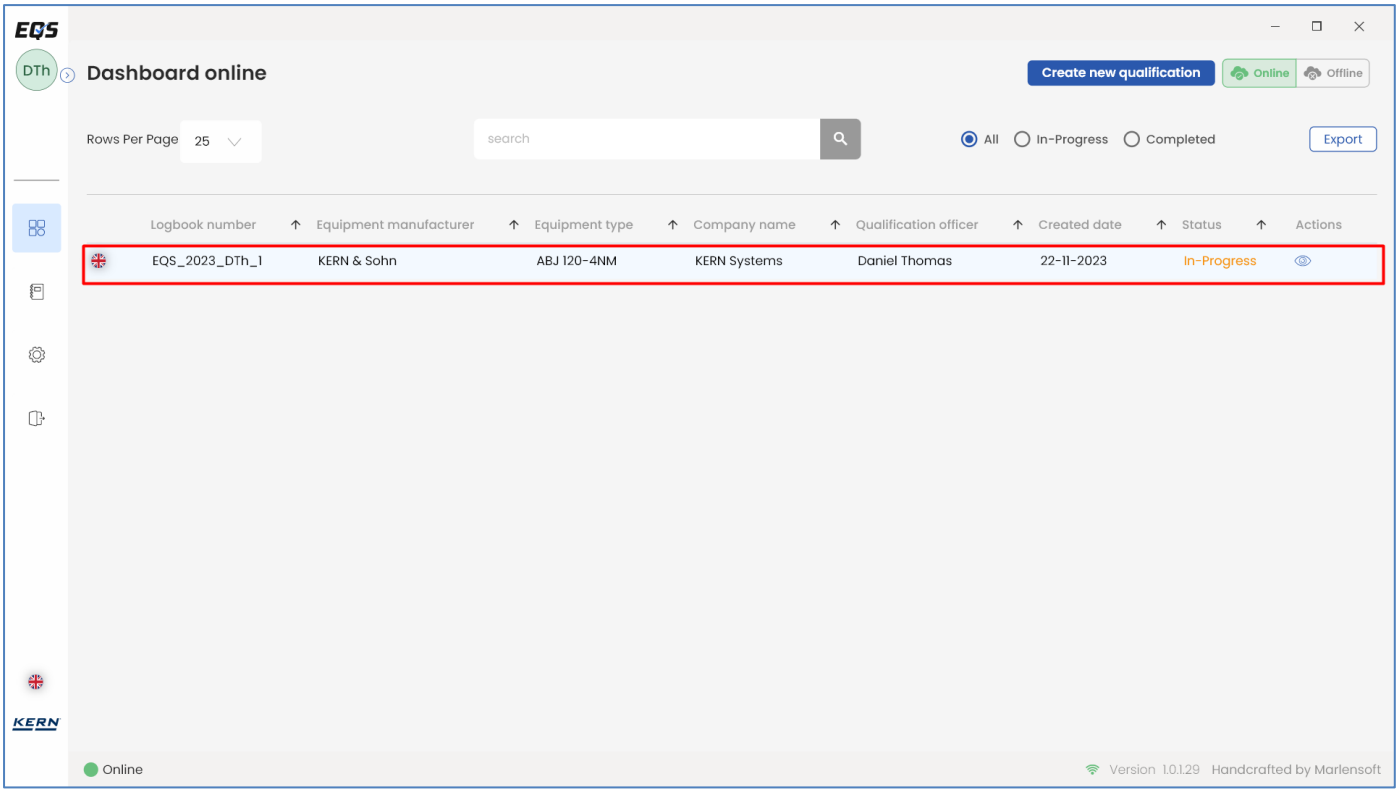
3.1.2 Logbook grid

- The logbook grid has herders such as logbook number, equipment manufacturer, equipment type, company name, qualification officer, created date, logbook status, and actions.
- Except actions all the other headers have sorting option.



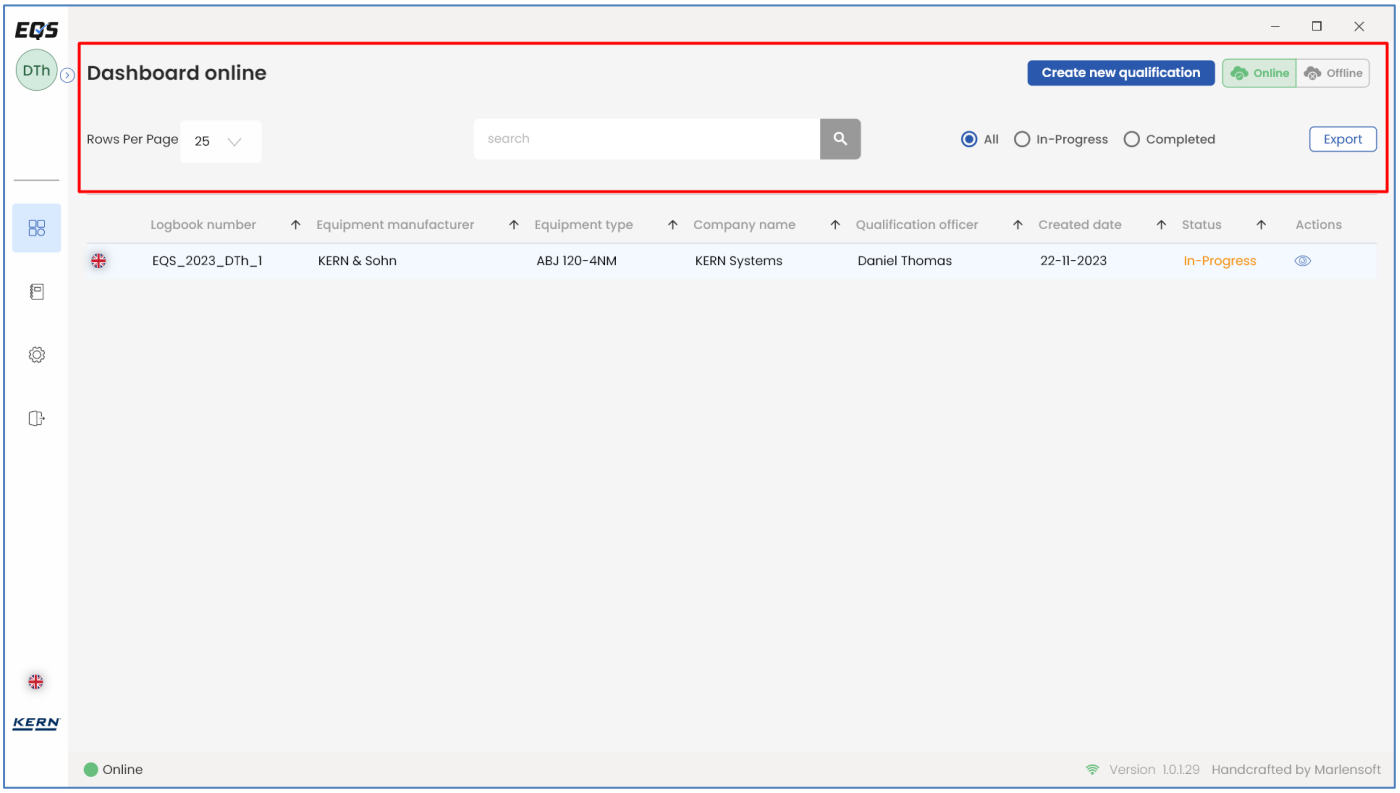
English

- The language of the logbook is indicated by the country flag icon before the logbook number.
- The logbook number is auto generated with combination of application name, year, visa, and number which increase in ascending order.



3.1.3 Landing screen header

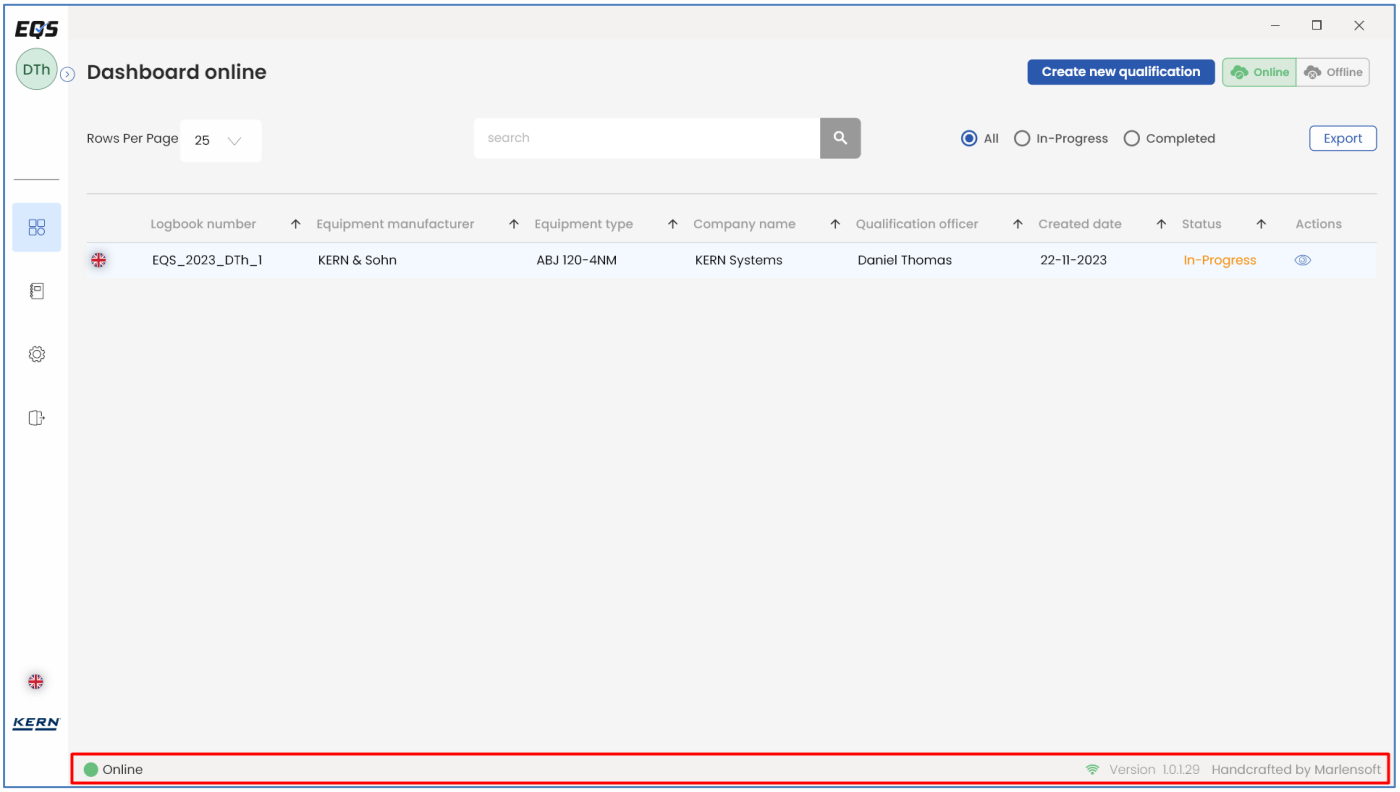
- The landing screen heard has page navigation, search option logbook status filter, create logbook option, online/offline mode toggle switch and logbook export.



English

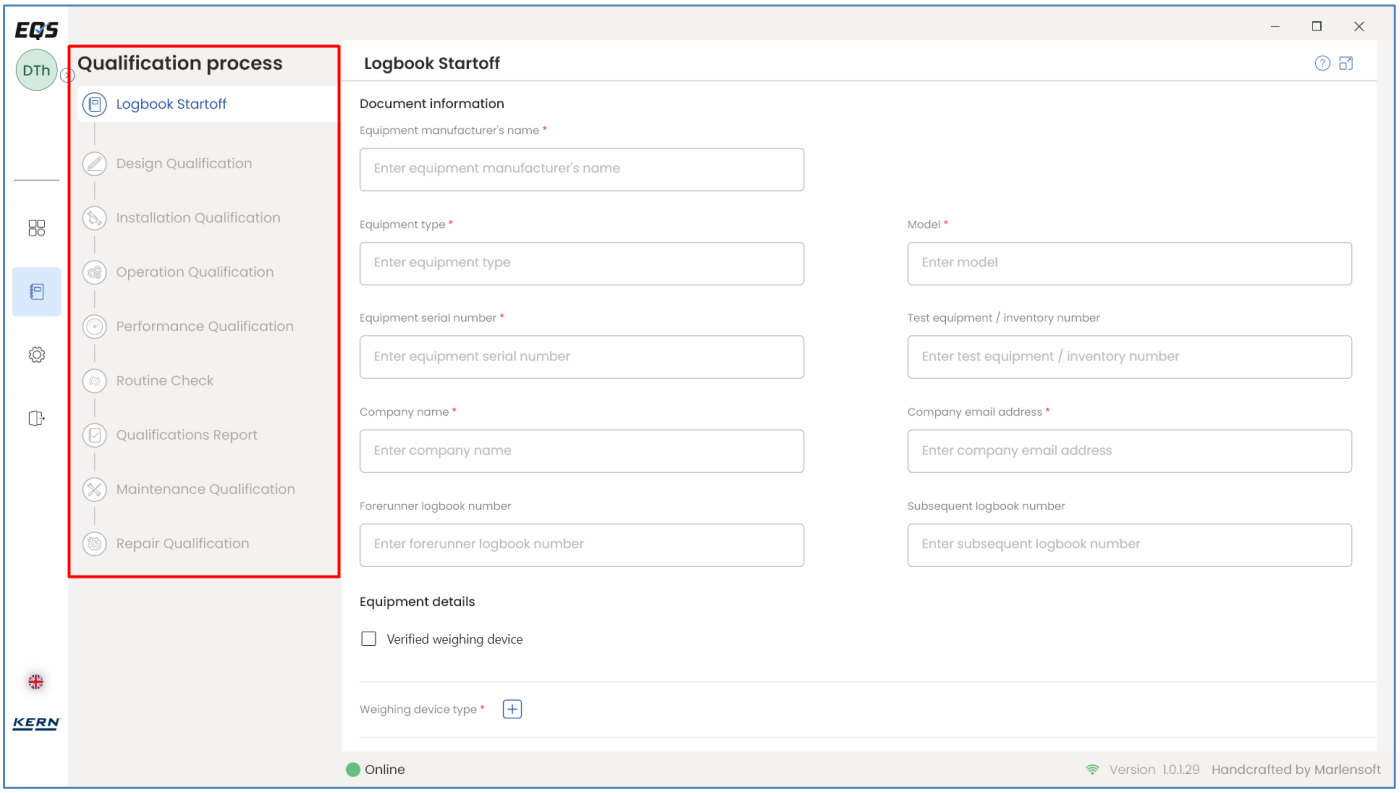
3.1.4 Landing screen footer

- The landing screen footer has online and offline mode indicator, version number, internet connectivity indicator (displays only in online mode) and application maker name.



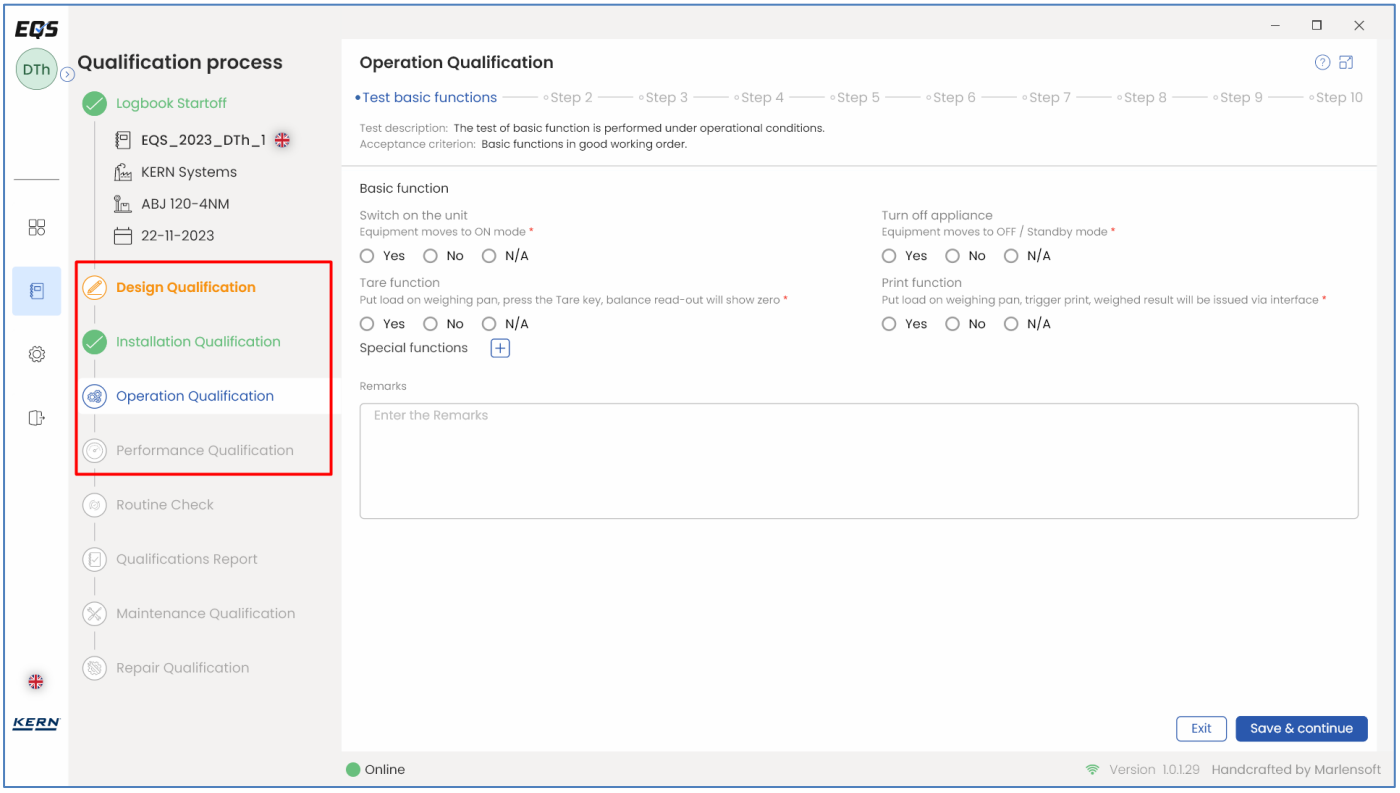
3.2 Qualification navigation

- The qualification navigation is used to indicate progress made during the equipment qualification process.



English

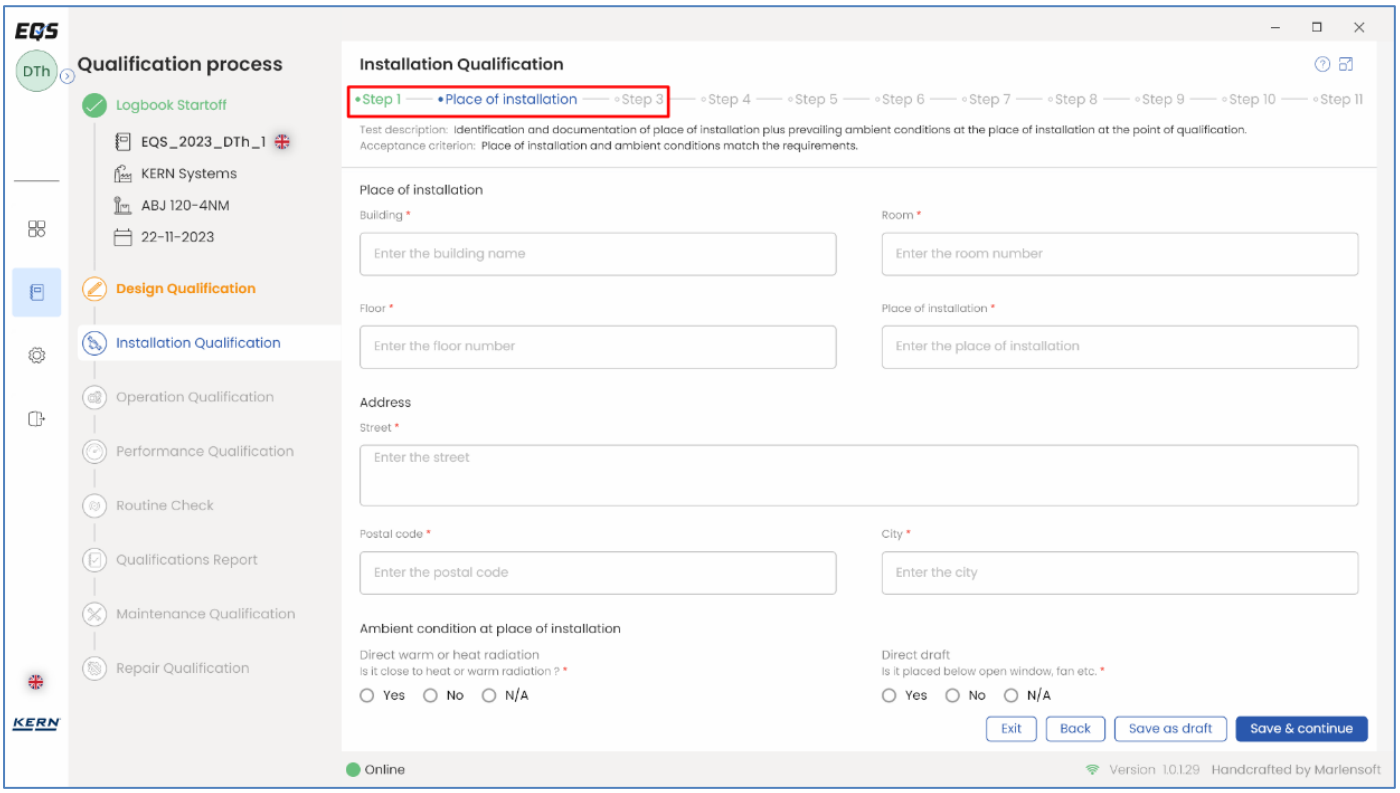
- The progress is highlighted in four different colors grey, blue, green, and orange.
- If the qualification is not yet stated it is displayed in grey color.
- If the qualification is in-progress it is displayed in blue color.
- When the qualification is completed, it is displayed in green color.
- If the qualification is skipped (only DQ can be skipped) it is displayed in orange color.
- The qualification officer can access any of the qualification steps by clicking it. Only in-progress and completed steps can be accessed.



3.3 Horizontal navigation

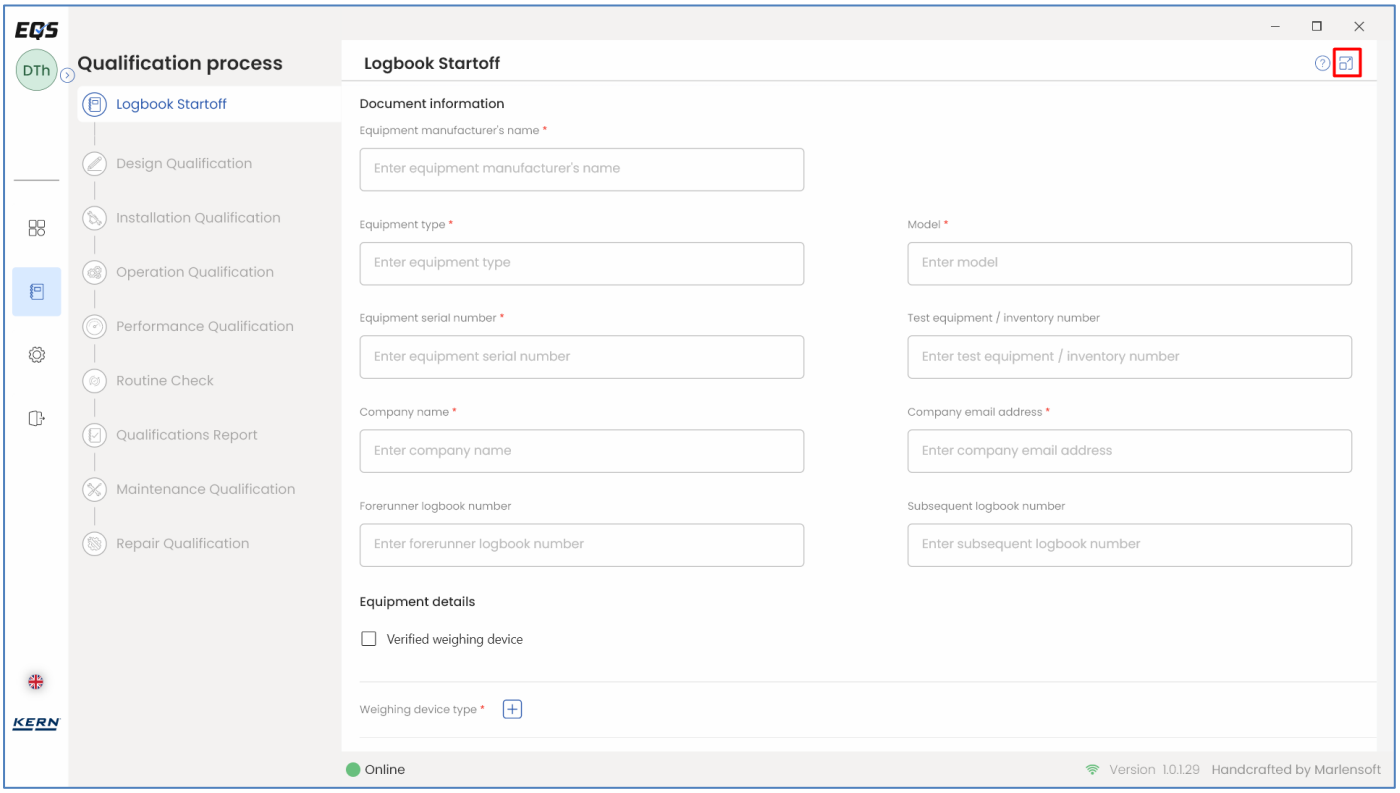
- The horizontal navigation is used to indicate the progress made in each qualification process.
- The progress is highlighted in three different colors grey, blue & green.
- If the qualification is not yet stated it is displayed in grey color.
- If the qualification is in-progress it is displayed in blue color.
- When the qualification is completed, it is displayed in green color.
- Only the current step name is displayed.

English



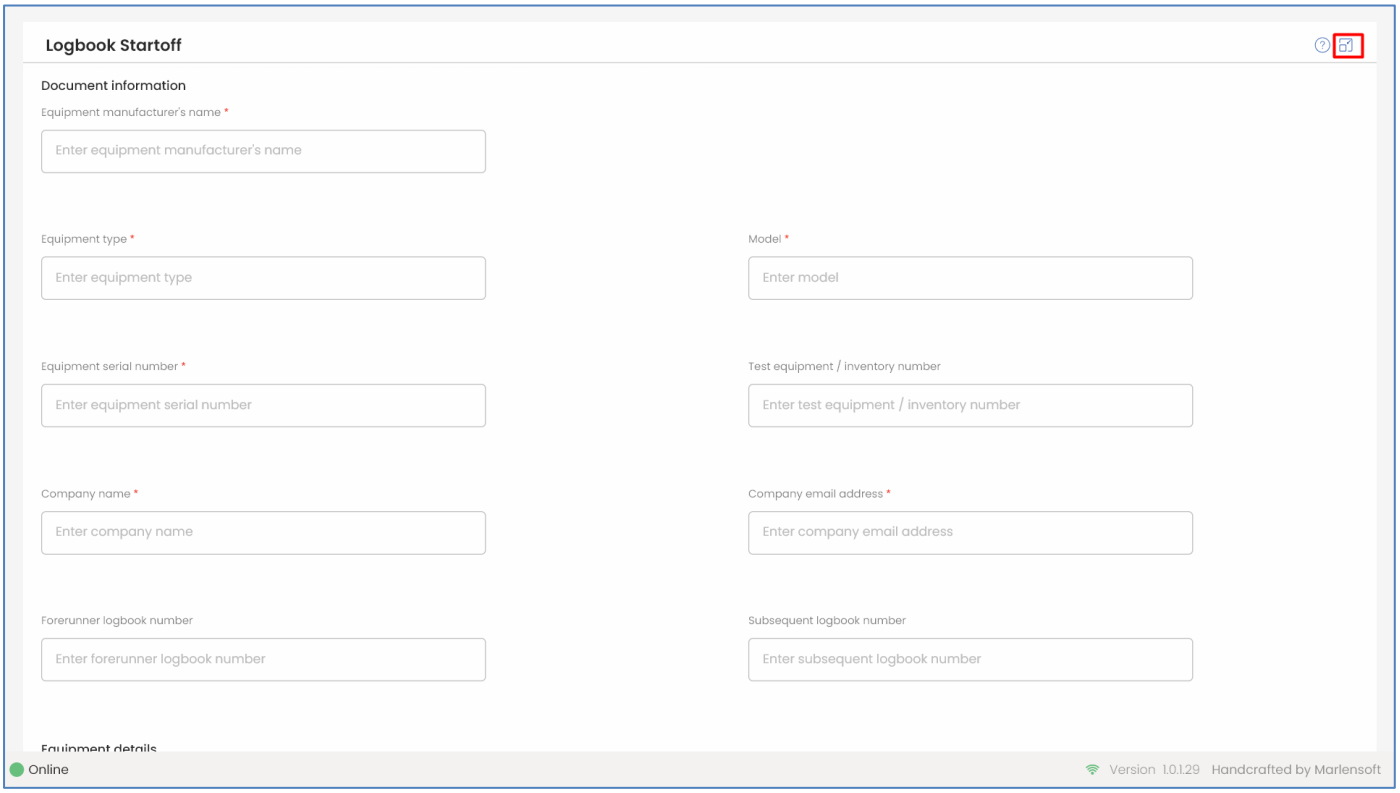
3.4 Fullscreen mode

- The full screen mode feature gives more easy access when entering data during the qualification process.
- The option is present in the top right corner of the application and only available in logbook creation and all qualification steps.



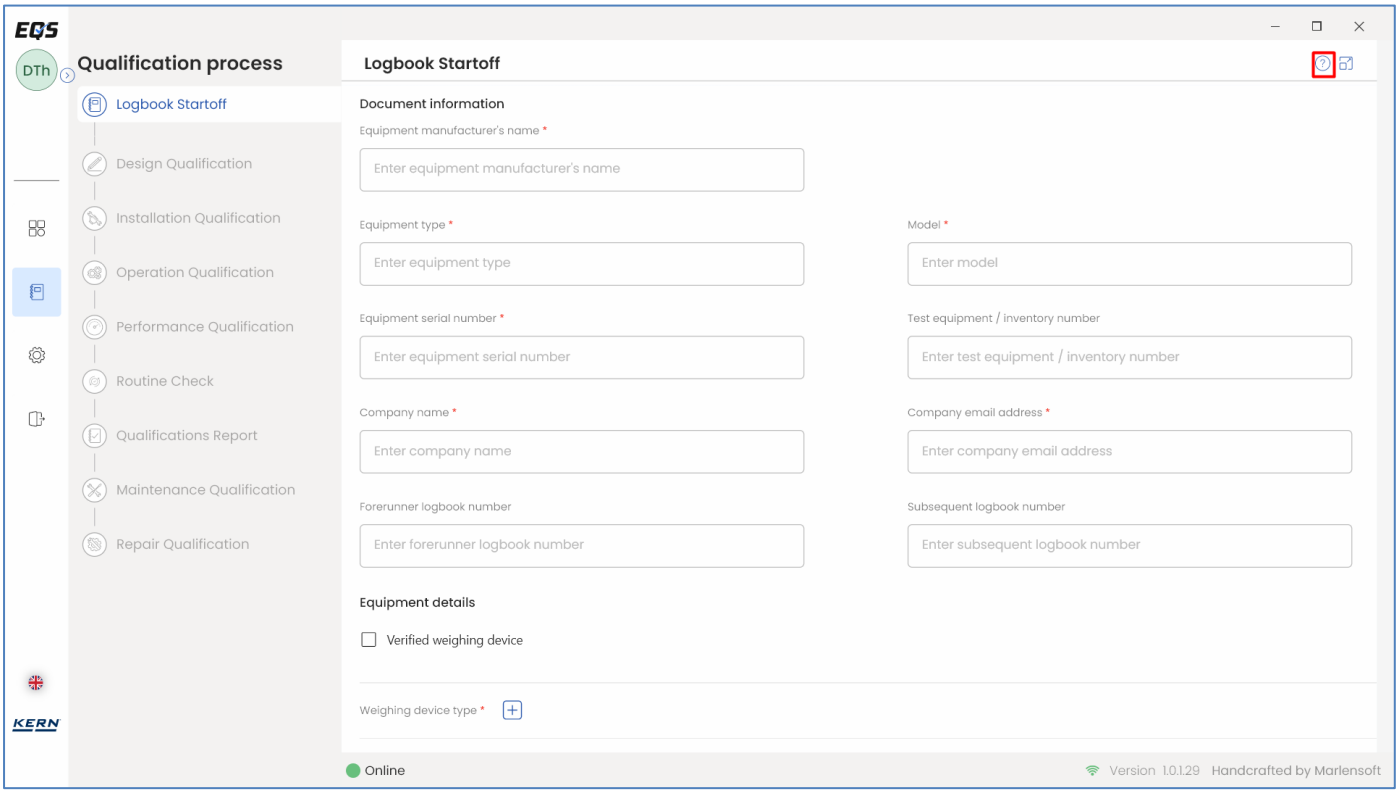
English

- When clicking this option, the qualification navigation and side menu bar are hidden.



3.5 Help info

- The help info option is used a guide by the qualification officer during equipment qualification process.
- The help info option is available in the top right corner for logbook creation, installation qualification & operation qualification.
- The help info document is available in logbook created language.



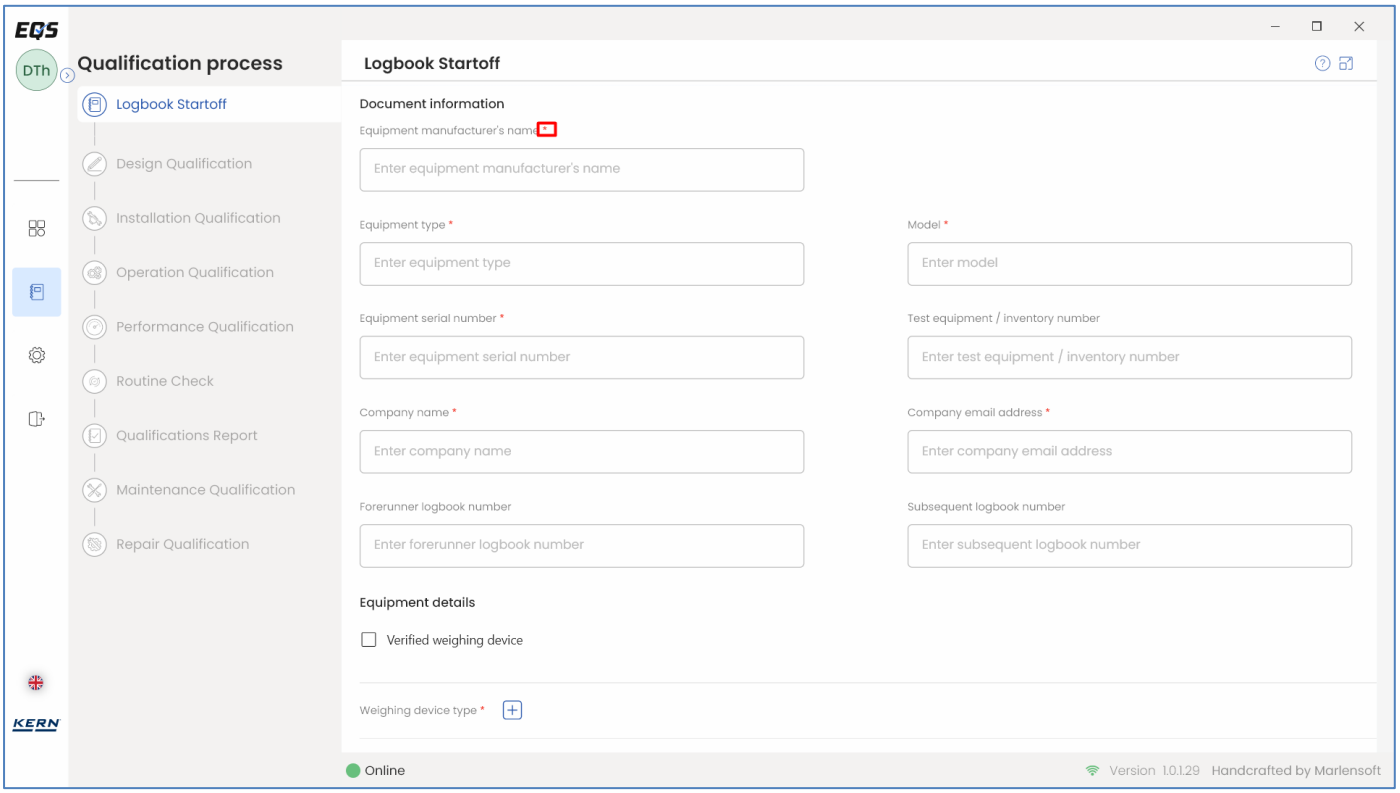
English

3.6 Common button functionalities

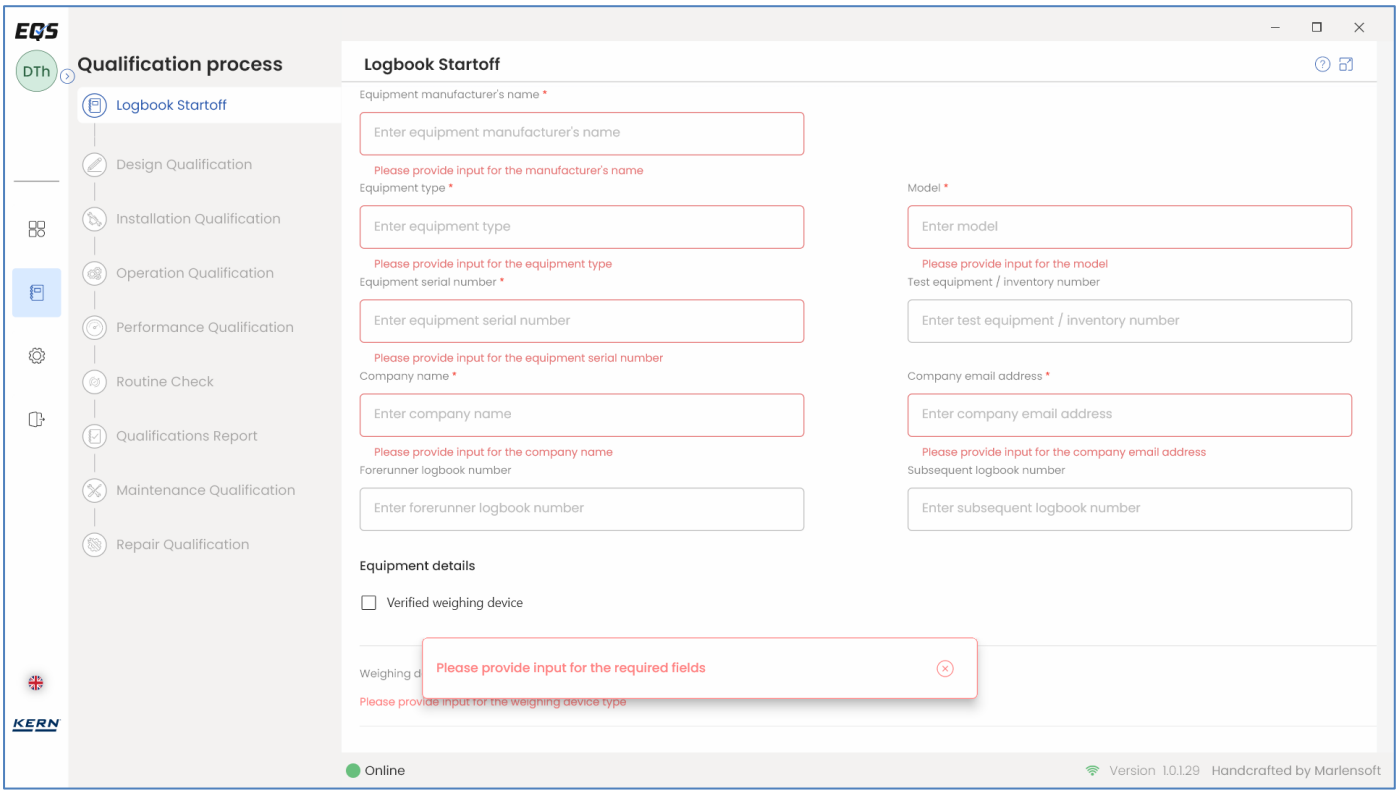
- **Back button:** When clicking the “Back” button, the screen redirects to the previous screen.
- **Exit button:** When clicking the “Exit” button, the screen redirects to the dashboard screen.
- **Save as draft button:** When clicking “Save as draft” button data entered in screen is saved temporarily and can be changed. Save as draft works same in both in online and offline mode.
- **Save & continue:** When clicking “Save & continue” button data entered in this screen gets saved permanently and will moves to the next step of the process.
- **Proceed:** When clicking “Proceed” button, the user moves to the next step of the process.

3.7 Error messages

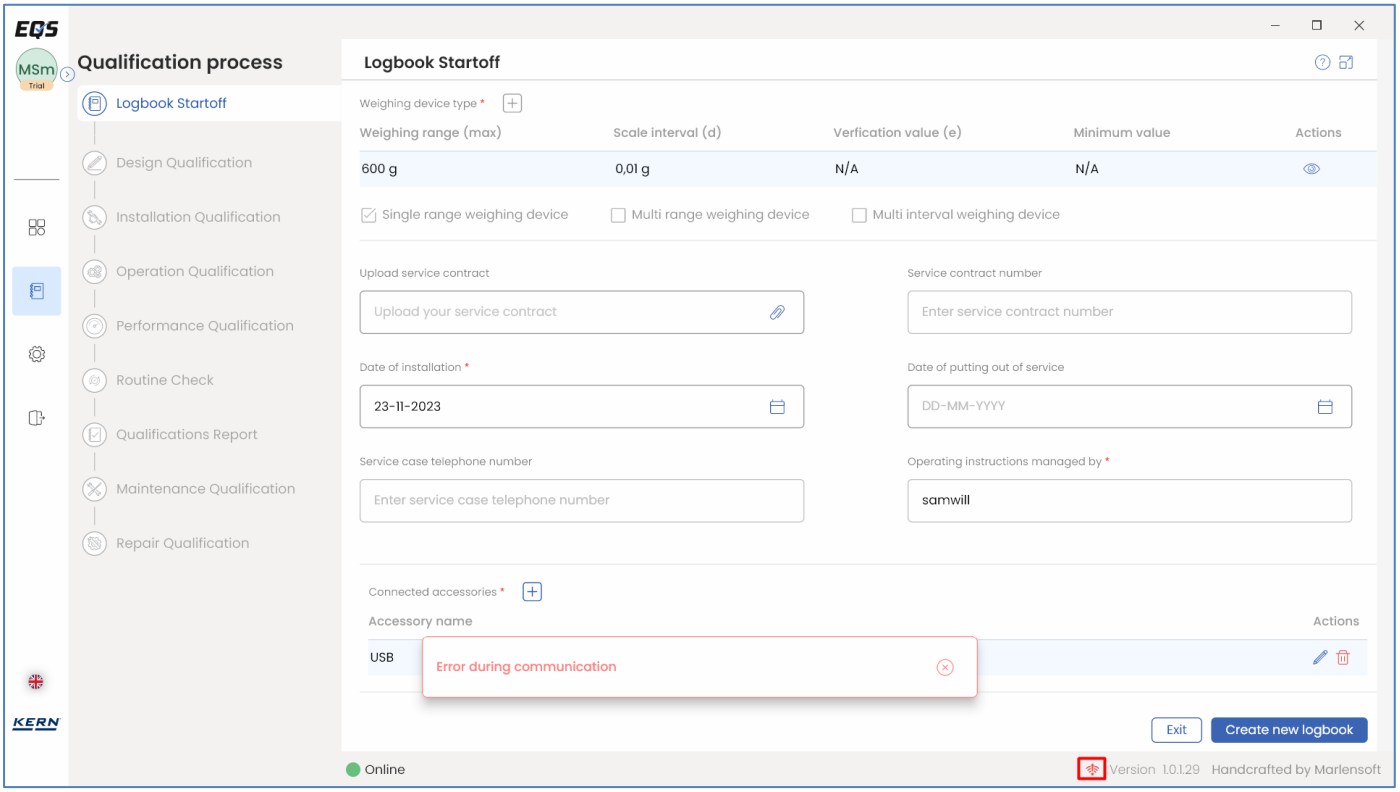
- When data is not entered in mandatory fields “*” error messages are displayed.



English



- When the error occurs, while connecting to the server, it shows as an “Error during communication” as snack bar.



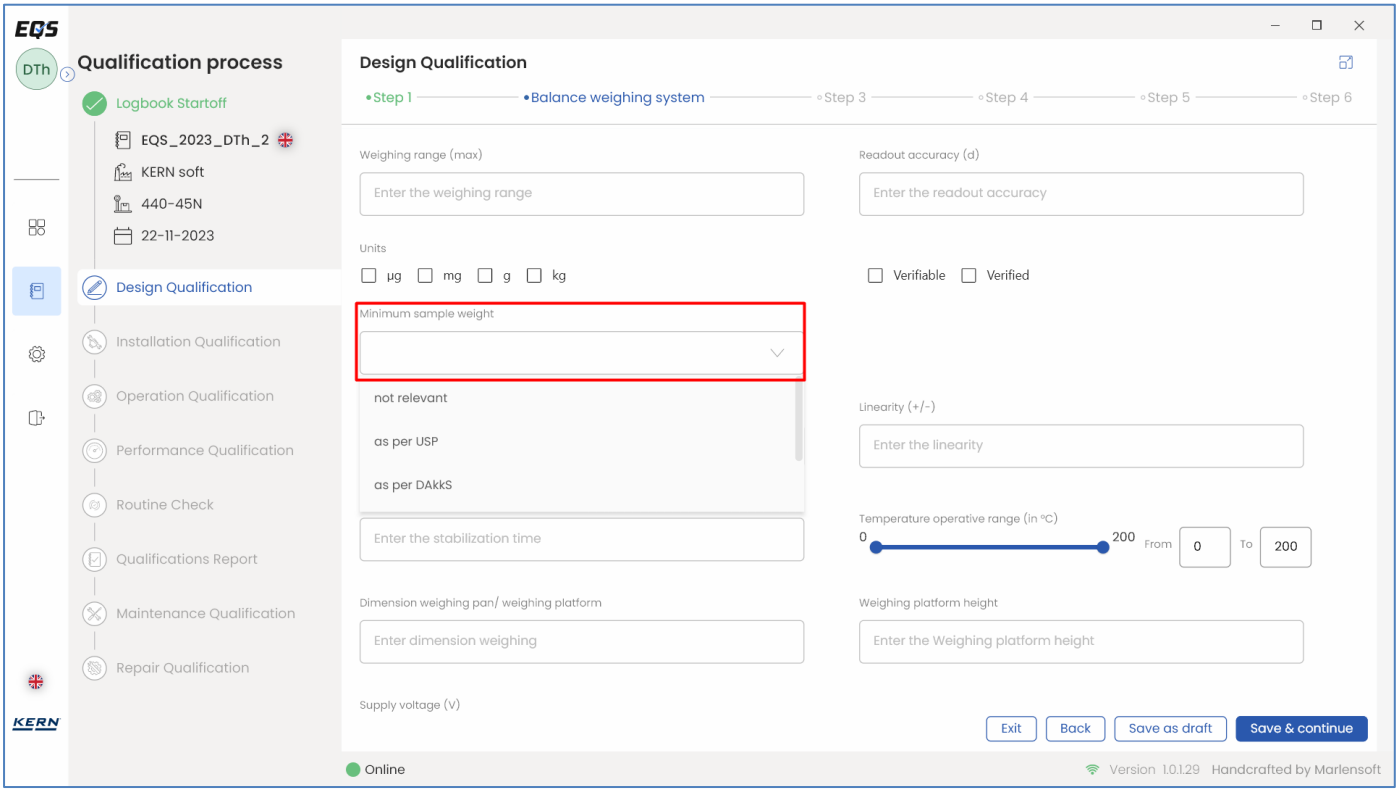
3.8 Additional fields

Fields that appear when data and changes are made to the parent field are known as additional fields.

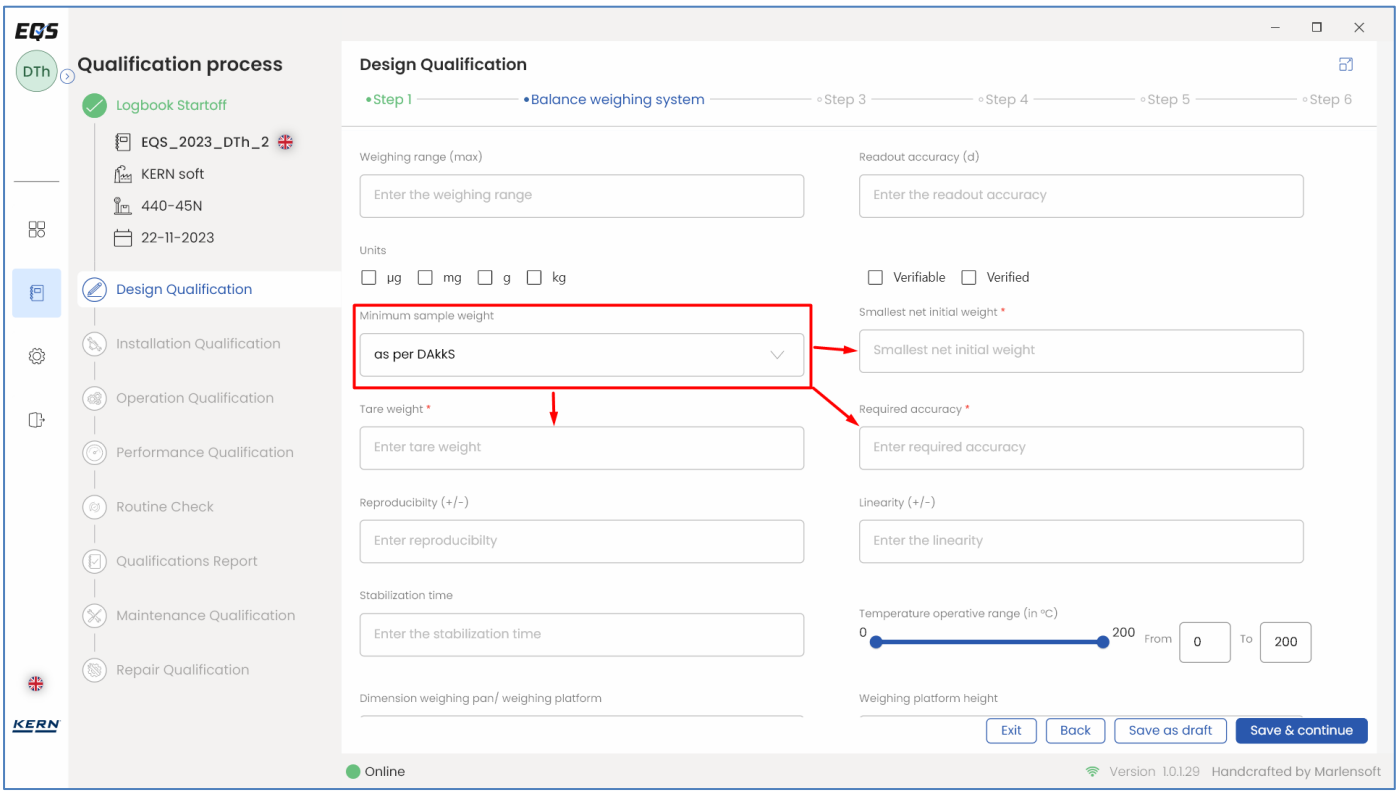
Example: (Design qualification step 2)

- The qualification officer selects an option in parent field.

English



- The fields related to the parent field appear.



English

4. EQS licensing

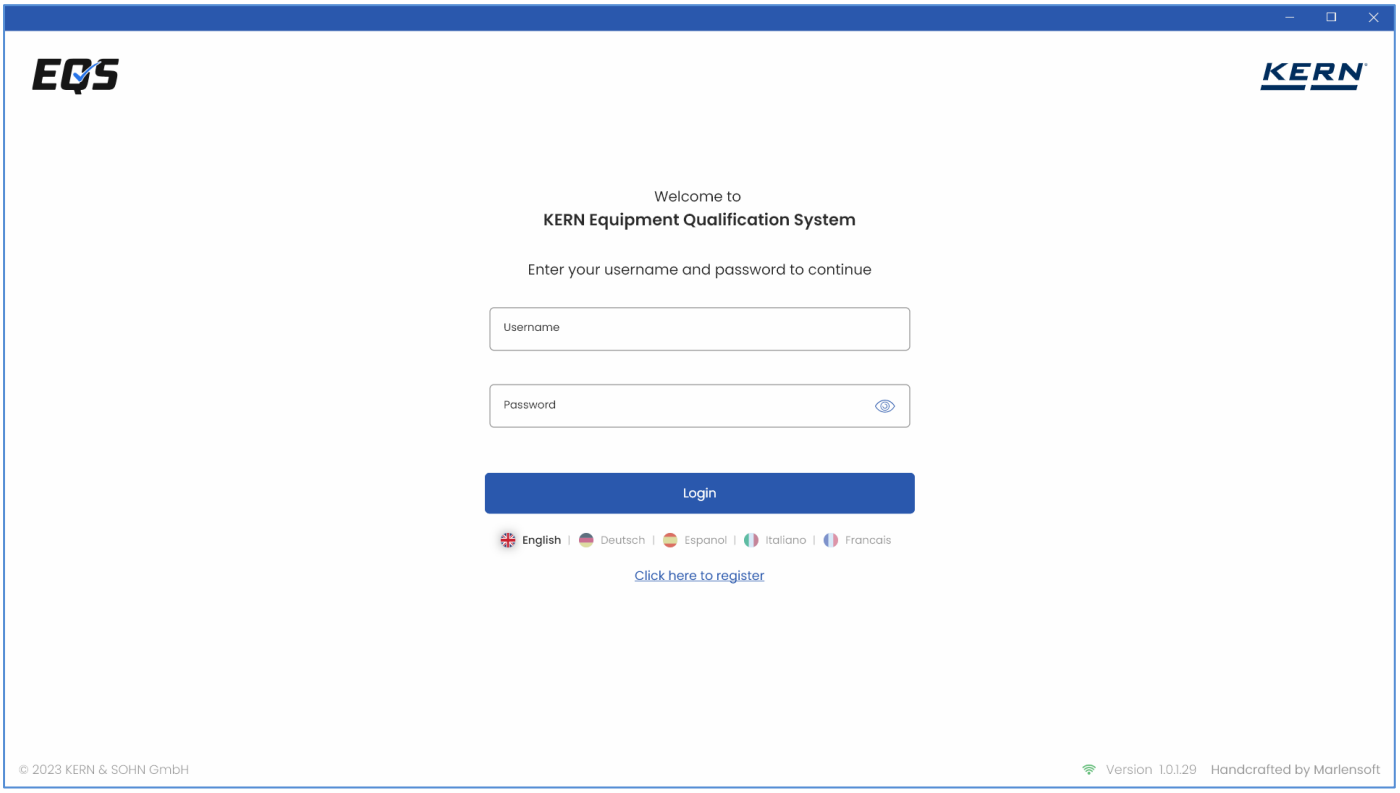
Once the qualification officer successfully Loggins into the application is then redirected to the manage licenses screen.

4.1 Procuring Licensing

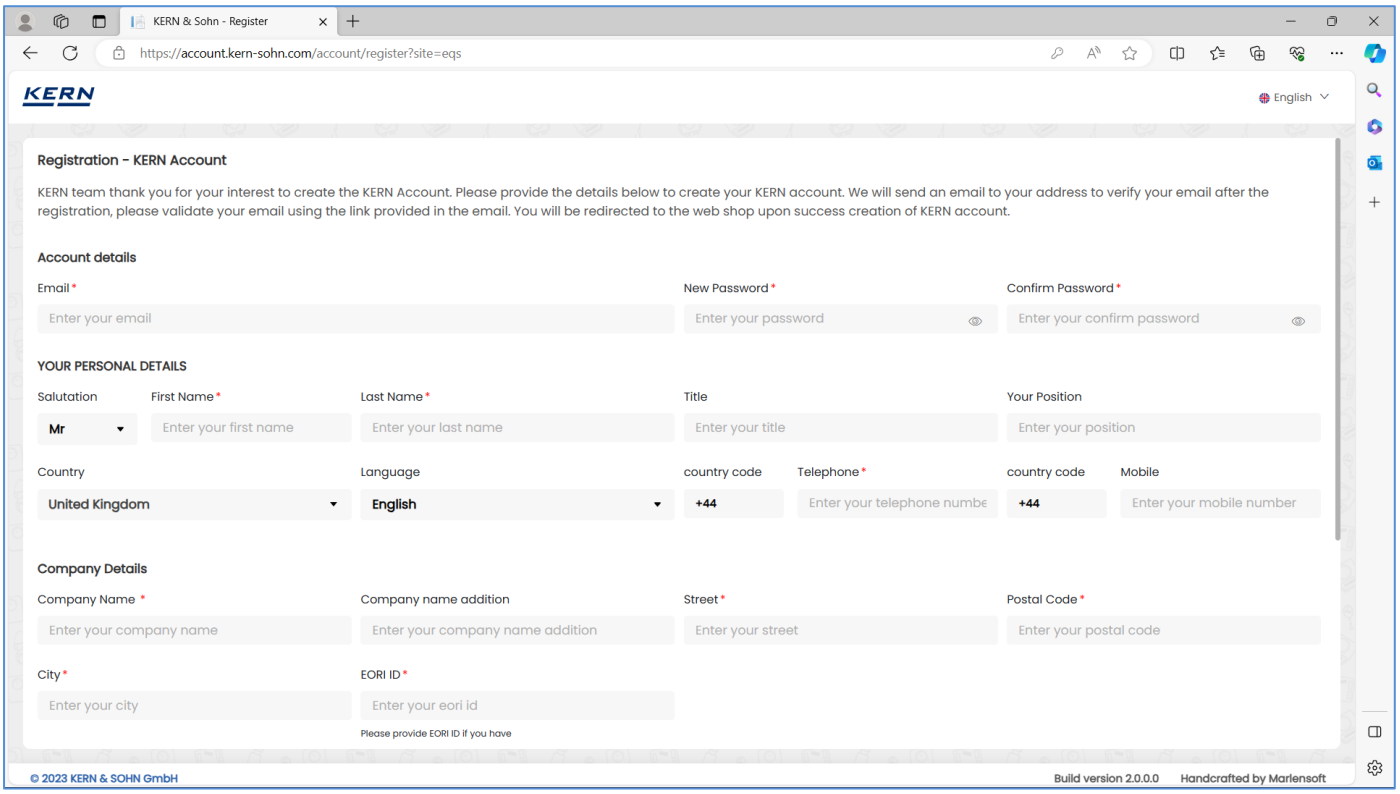
- To procure EQS license, please contact the KERN admin.

4.2 Activate paid license

- To activate the license, qualification officer needs to enter valid credentials to login to the EQS application.

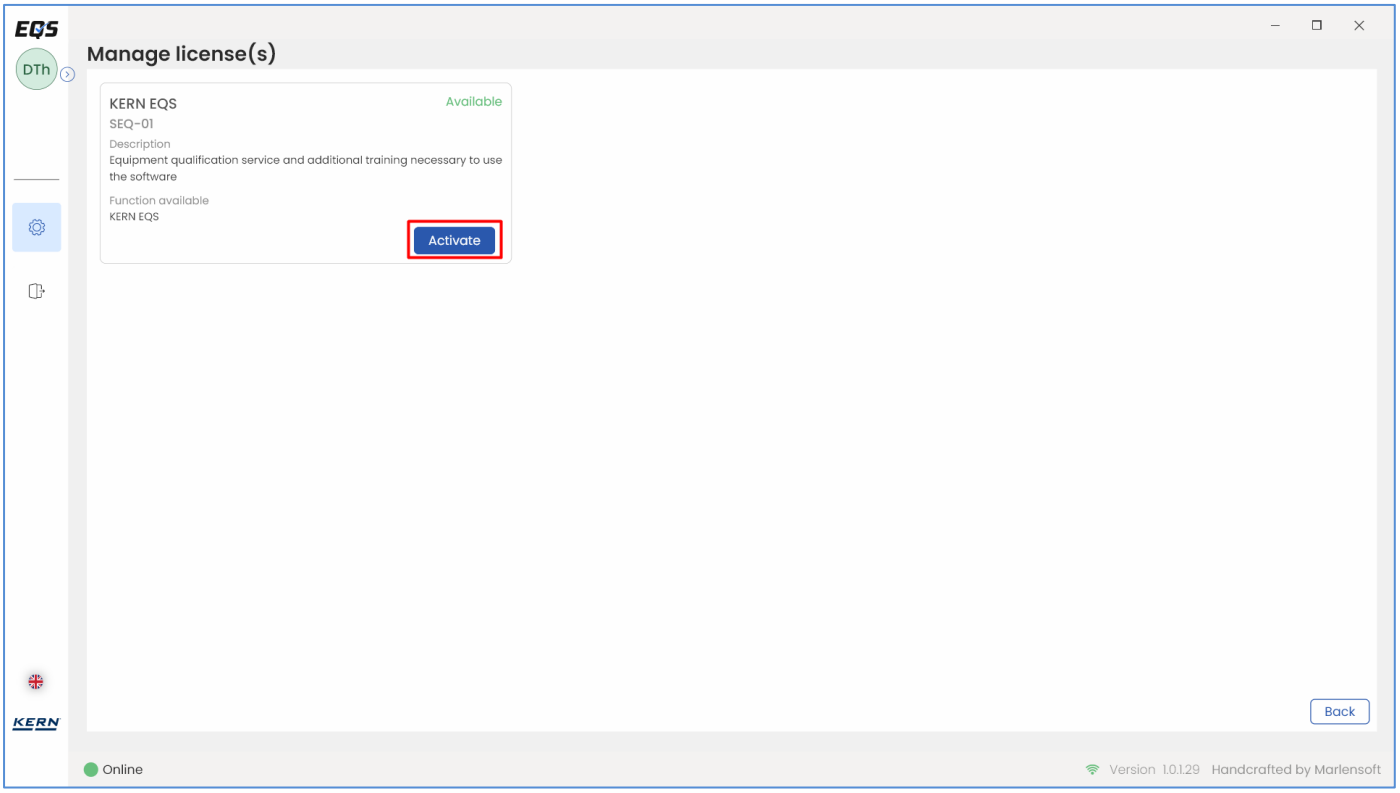


English

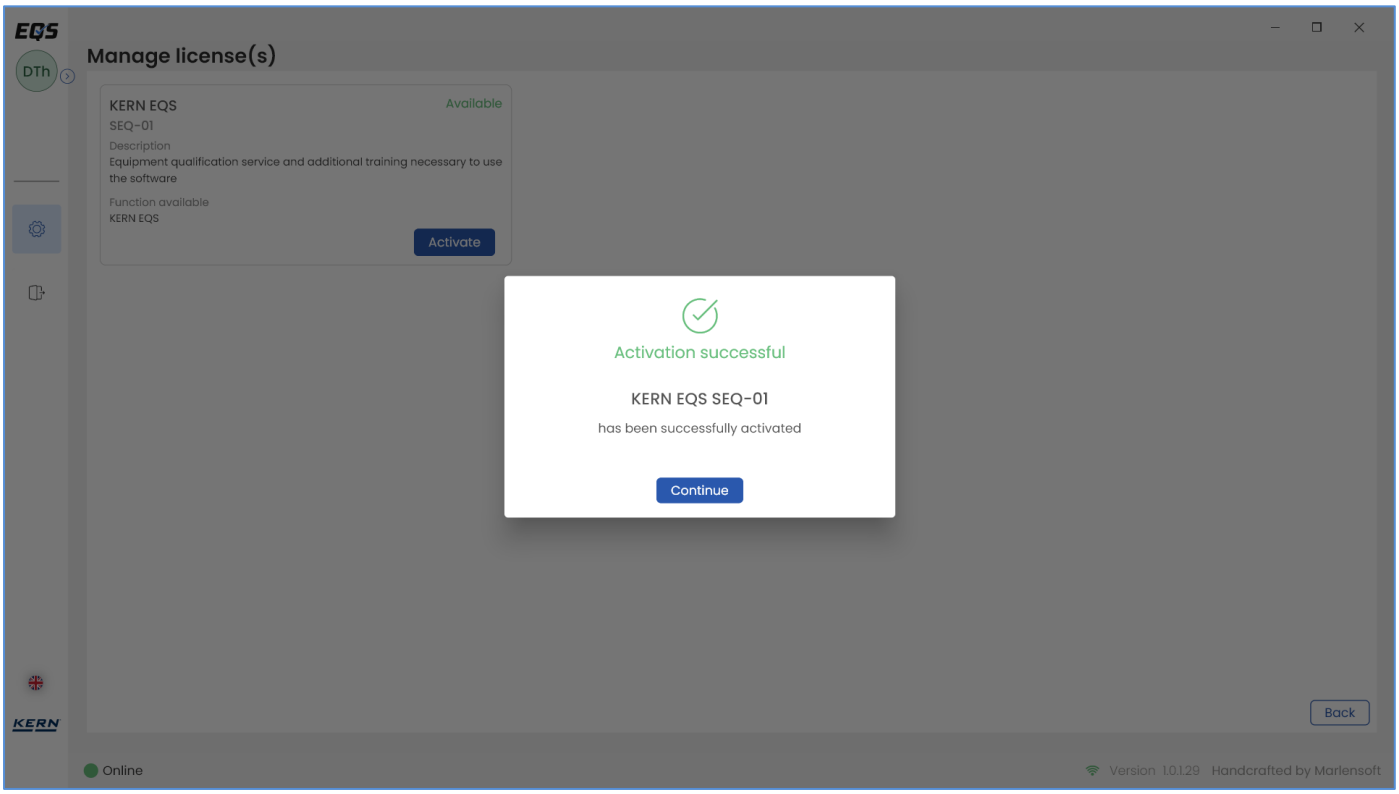


Note: To get valid credentials the qualification officer needs to register as kern account user and need to get site permission from admin.

- If a license is available, the qualification officer can activate the license and start using the application.



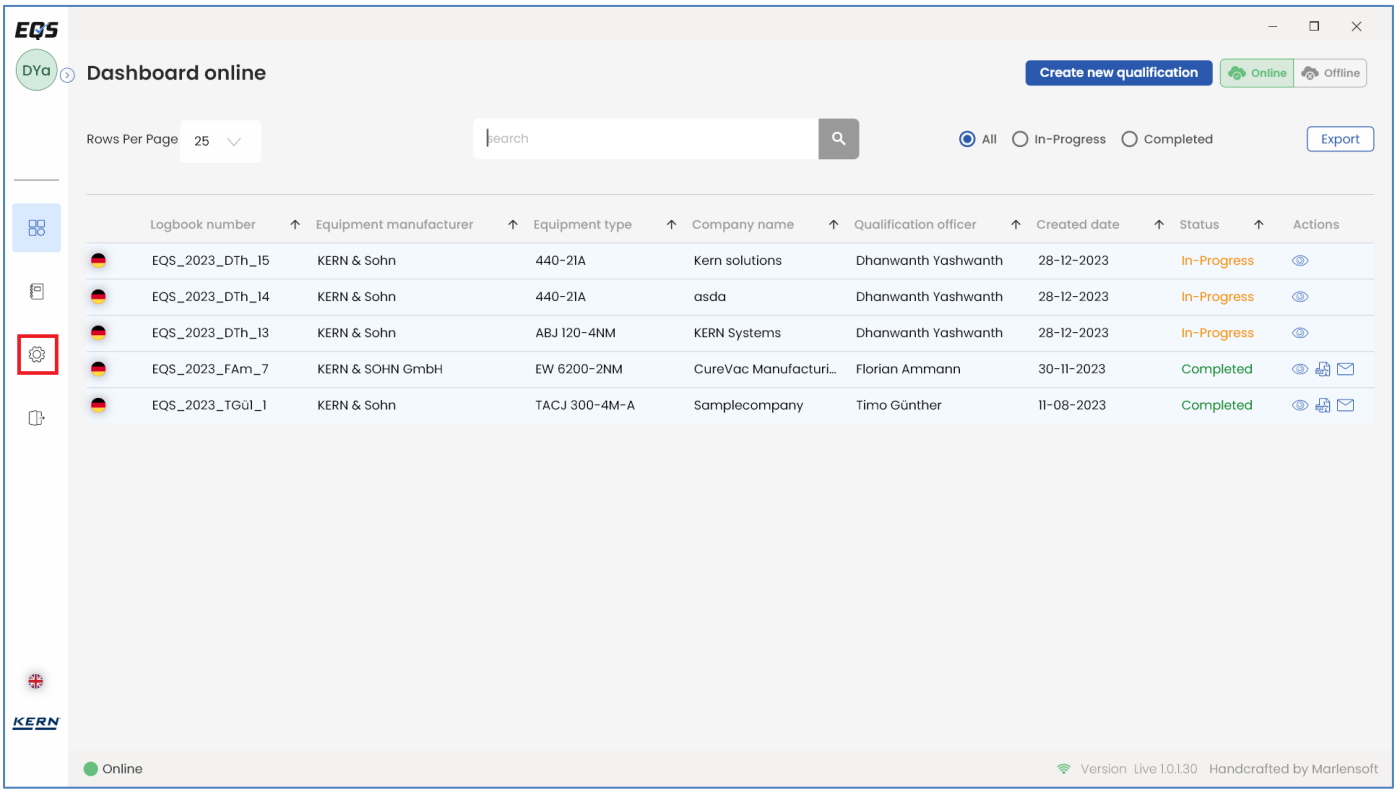
English



4.3 Deactivate paid license

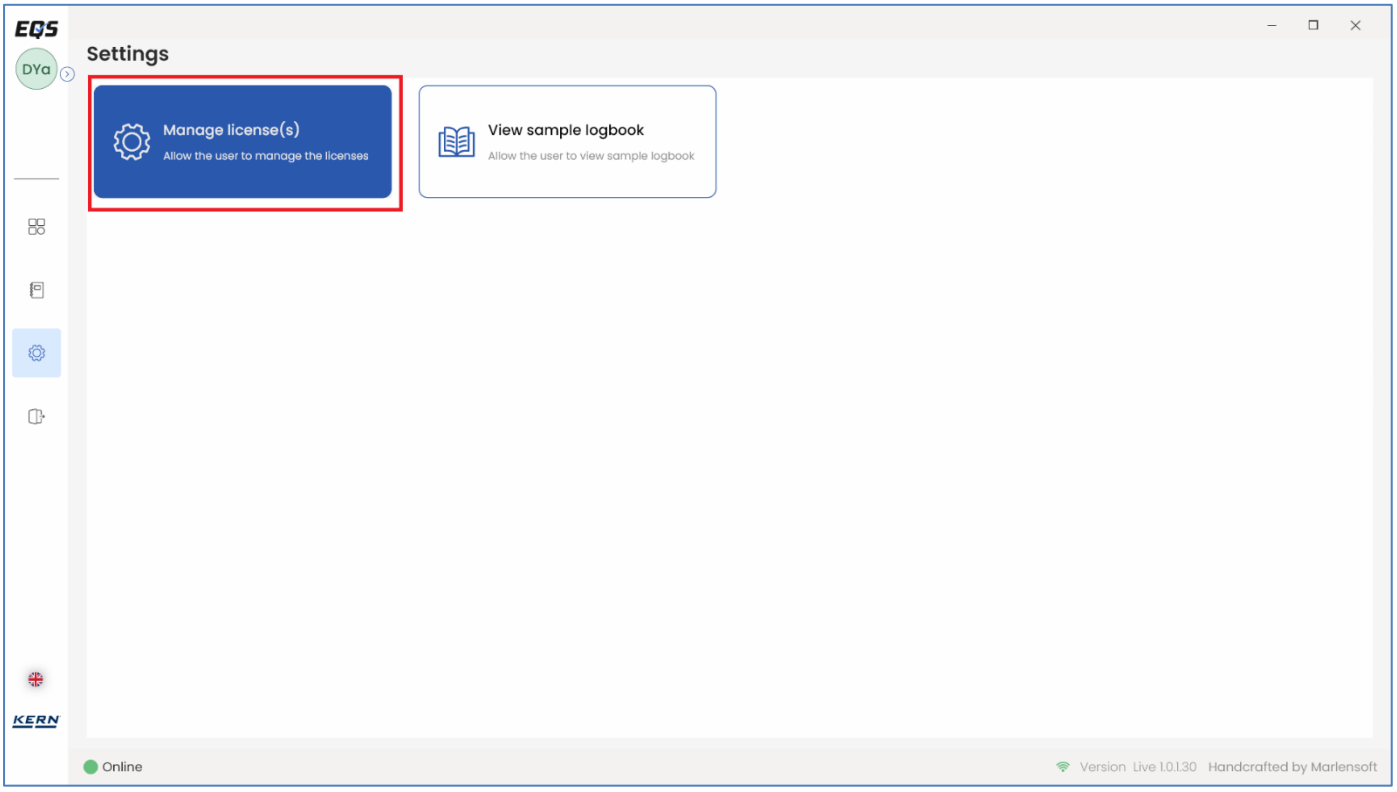
Qualification officer can be able to deactivate the license in EQS application itself.

- Click the settings icon and go to the settings screen.

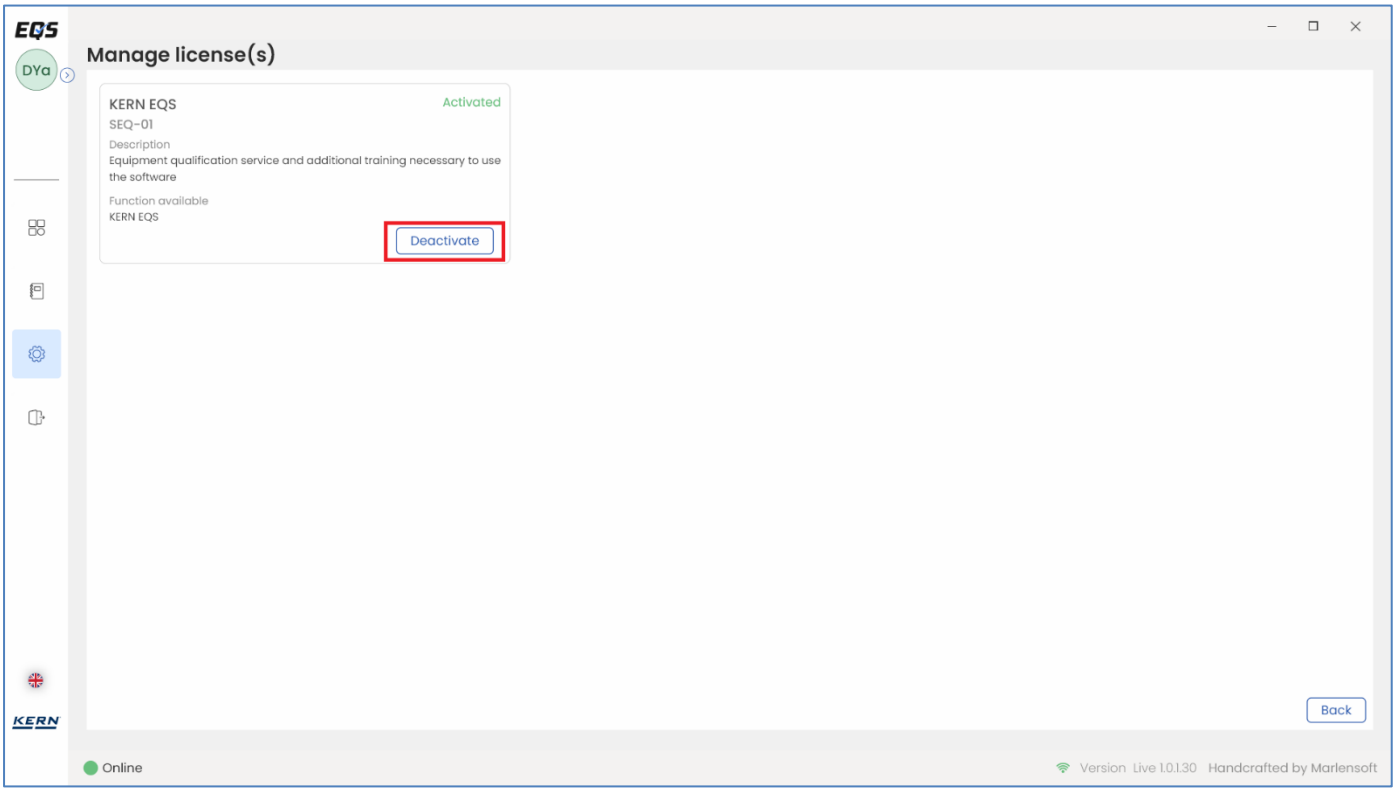


English

- In the settings screen click the **“Manage license(s)”.** It will navigate the qualification officer to the license management screen.

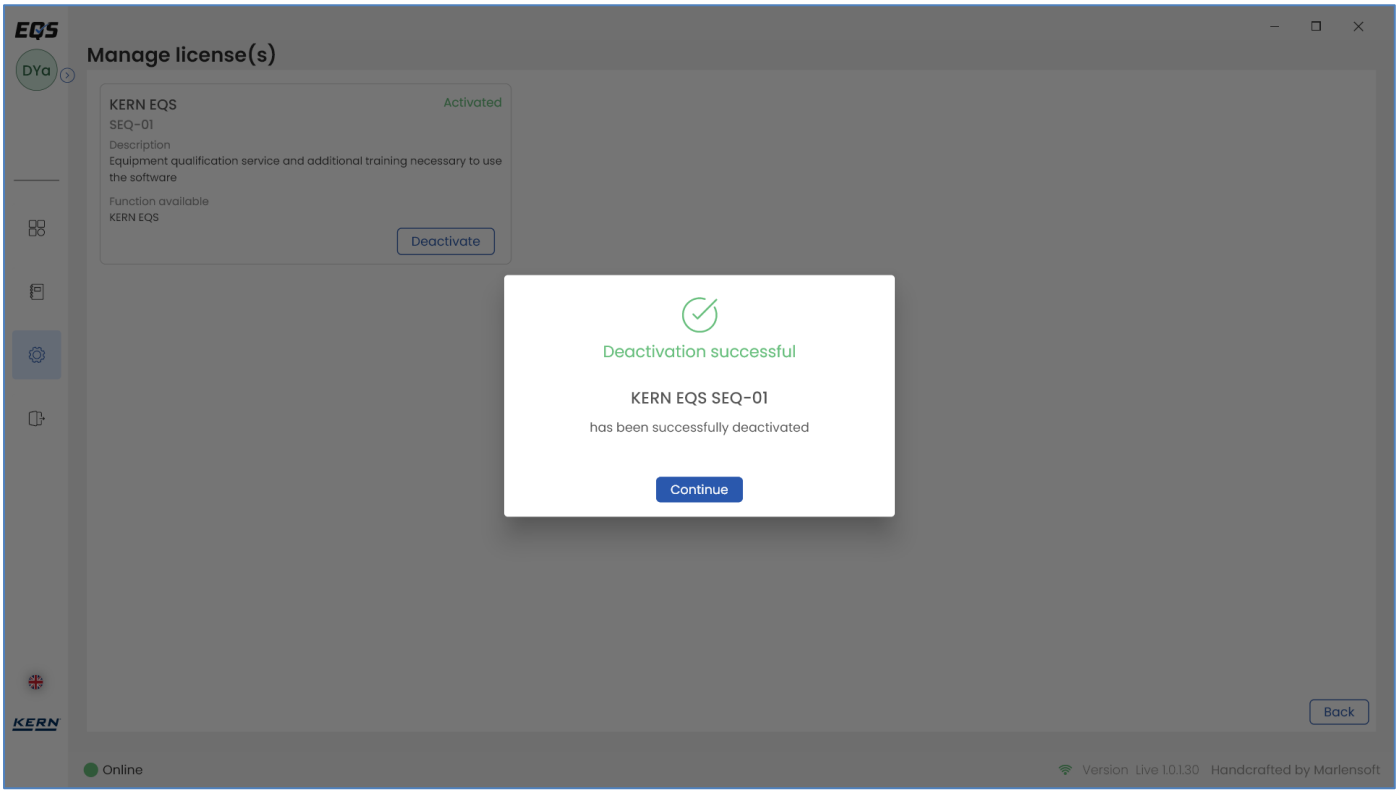


- There qualification officer will have the provision to “Deactivate” the activated license.

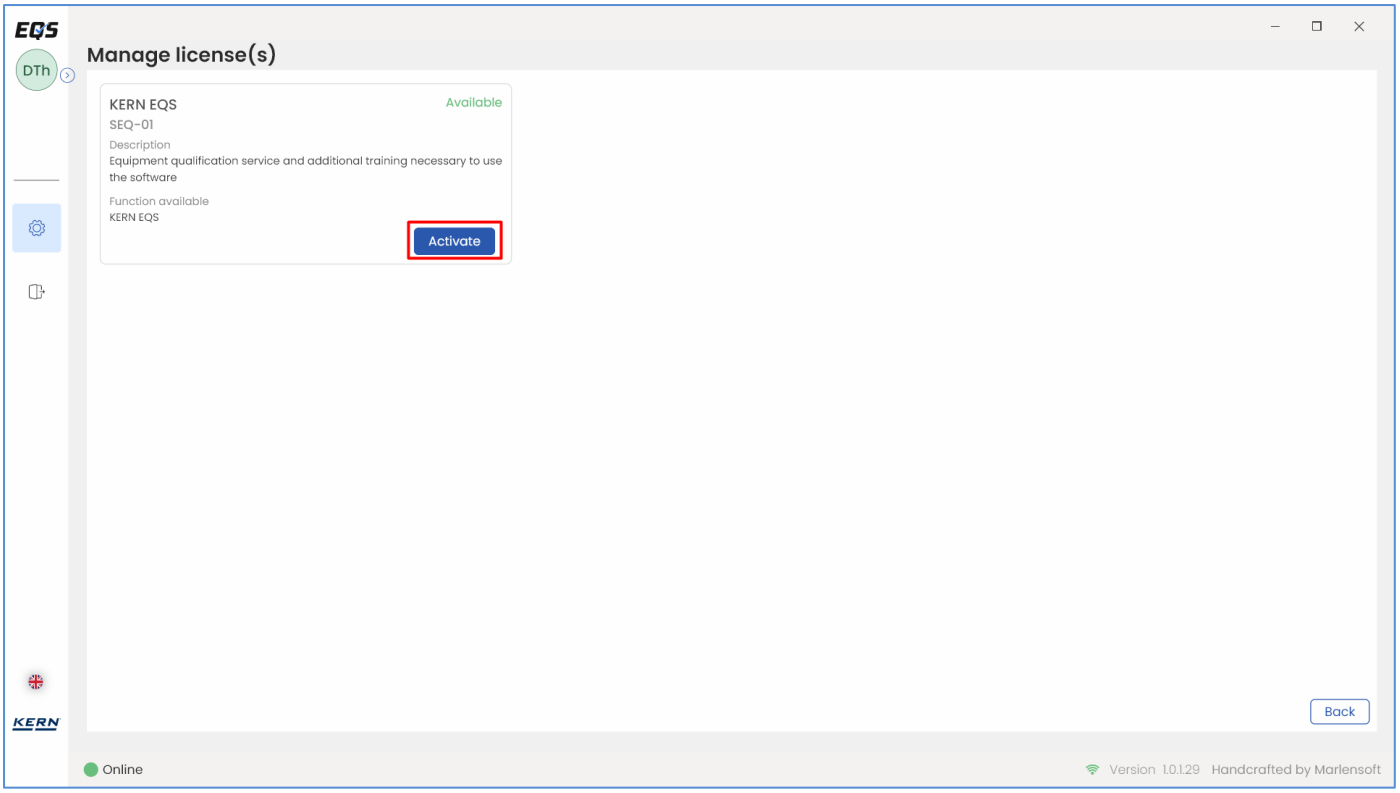


English

- Once the license is deactivated successfully, the success popup will show.



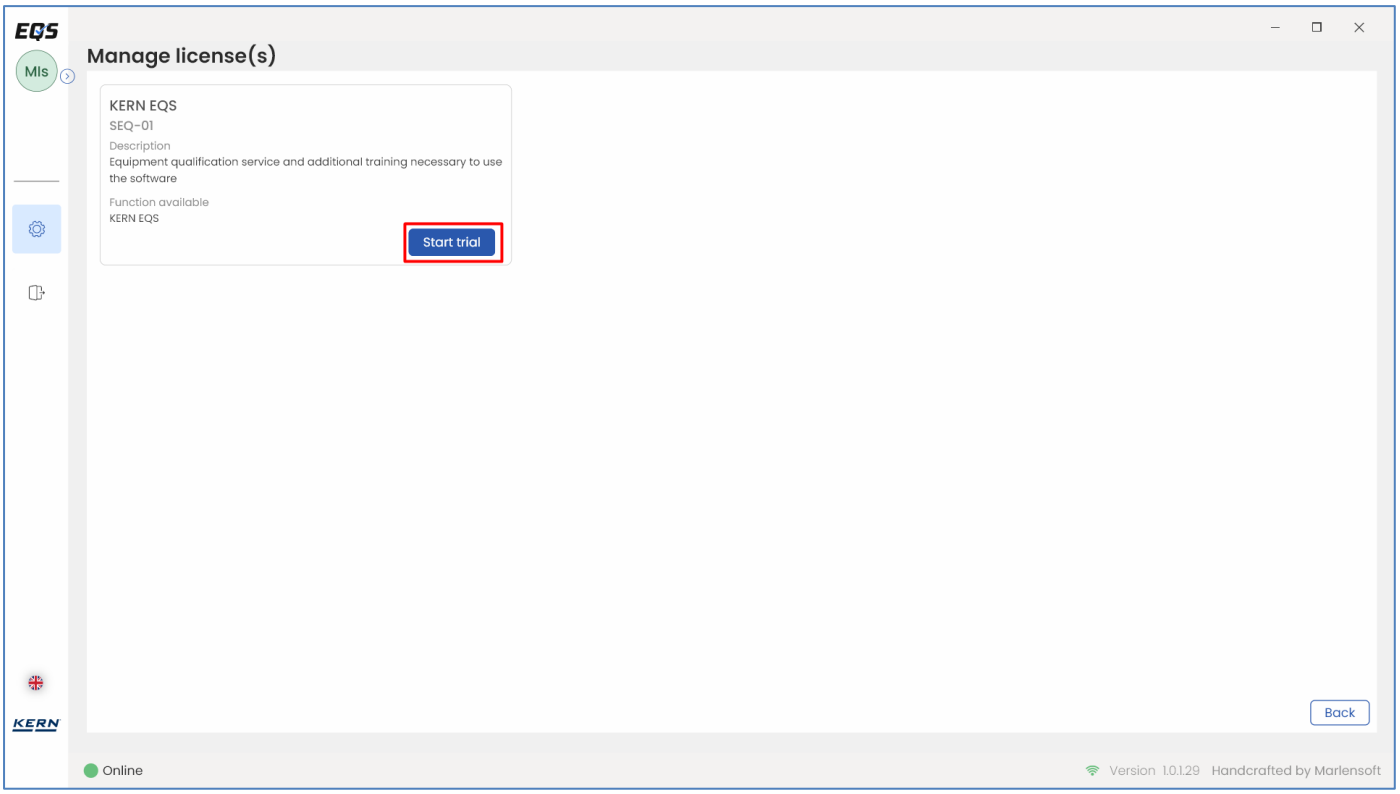
- Then the “Deactivate” button will change to “Activate” button.



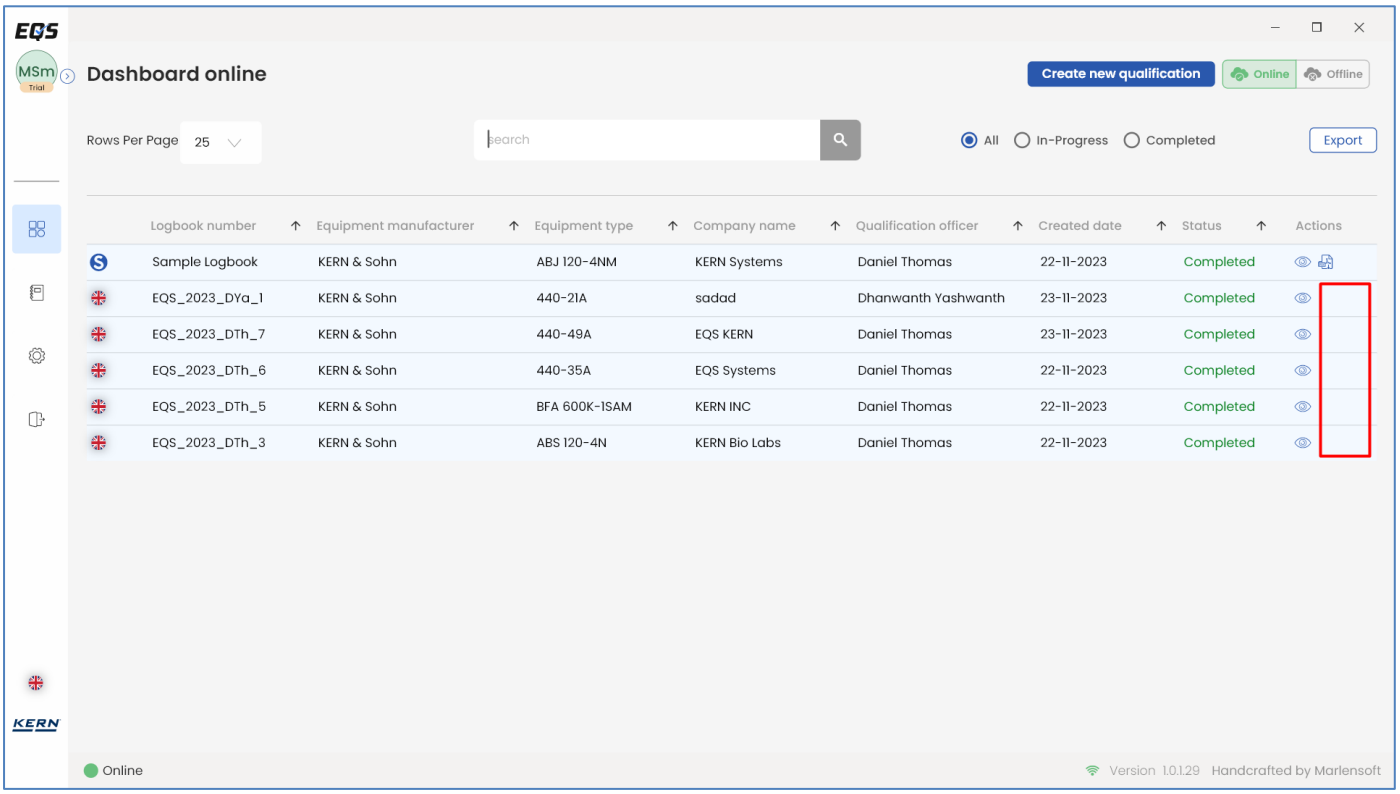
English

4.4 Activate trial license

- If the User is under the training to become qualification officer, the admin can provide temporary access by giving a trial version of the application.
- All the users need an SSO account and site permission.
- The trail version is only available for short period of time (30 days)



- The option to generate logbook PDF and send mail is not available for people (under training to become qualification officer) who are using trail license.



English

5. Overview

Design Qualification (DQ):

The requirements for the measuring and test equipment balance in respect of specific applications are defined in the design qualification. The objective is to base the decision to select a specific equipment and a specific equipment manufacturer on the requirements and thus to provide evidence that all the relevant requirements were considered for the purchase decision.

Installation Qualification (IQ):

The objective of the installation qualification for non-automatic equipment types is to furnish documented evidence that the equipment was properly installed in a controlled environment (such as GLP, GMP) and that the requirements specified by the owner-operator, with respect to scope of delivery, documentation, technology and GMP compliance, were met.

Operational Qualification (OQ):

The operational qualification describes the metrological test performed for the balance at the place of installation. During this all parameters that define the efficiency of a measurement will be checked. Operational qualification will be carried out with the help of SOP (Standard Operating Procedure) and recorded on a DakkS calibration certificate. The OQ must be carried out by trained staff with the help of qualified aids (such as certified weights that are traceable to an approved standard).
Briefing / training of users must be assured and recorded in the OQ. The installation and operational qualification depend on the balance's/weighing system's place of installation. If the equipment is taken to be operated at a different place the IQ/OQ must be repeated.

Performance Qualification (PQ):

The PQ represents documented evidence that the balance or weighing system functions in the selected application as intended. This will be assured by a qualification test of the equipment under real conditions with respect to its surroundings and the problem definition (such as traceable data transmission).

Routine Test:

Periodic checks of the measuring instrument according to a standardized procedure.
Test performed by the user using DAkkS traceable test weights. Ensures that measuring performance remains within specified tolerances.

Qualification Report:

Results of DQ, IQ, OQ, and PQ are documented in a final report. Measuring and
test equipment is approved for the application specified in the DQ if all qualifications are successful.

Maintenance Qualification (MQ):

Periodical maintenance, cleaning, and complete metrological testing documented by a trained authorized engineer. Recorded on a DakkS calibration certificate. Maintenance conducted based on a predetermined schedule.

Repair Qualification (RQ):

Failures and repairs are documented. Servicing and repairs carried out by an authorized trained engineer with genuine spare parts. All parameters determining the efficiency of the balance are checked after repairs. Recorded on the DakkS calibration certificate.

5.1 Advantage of EQS

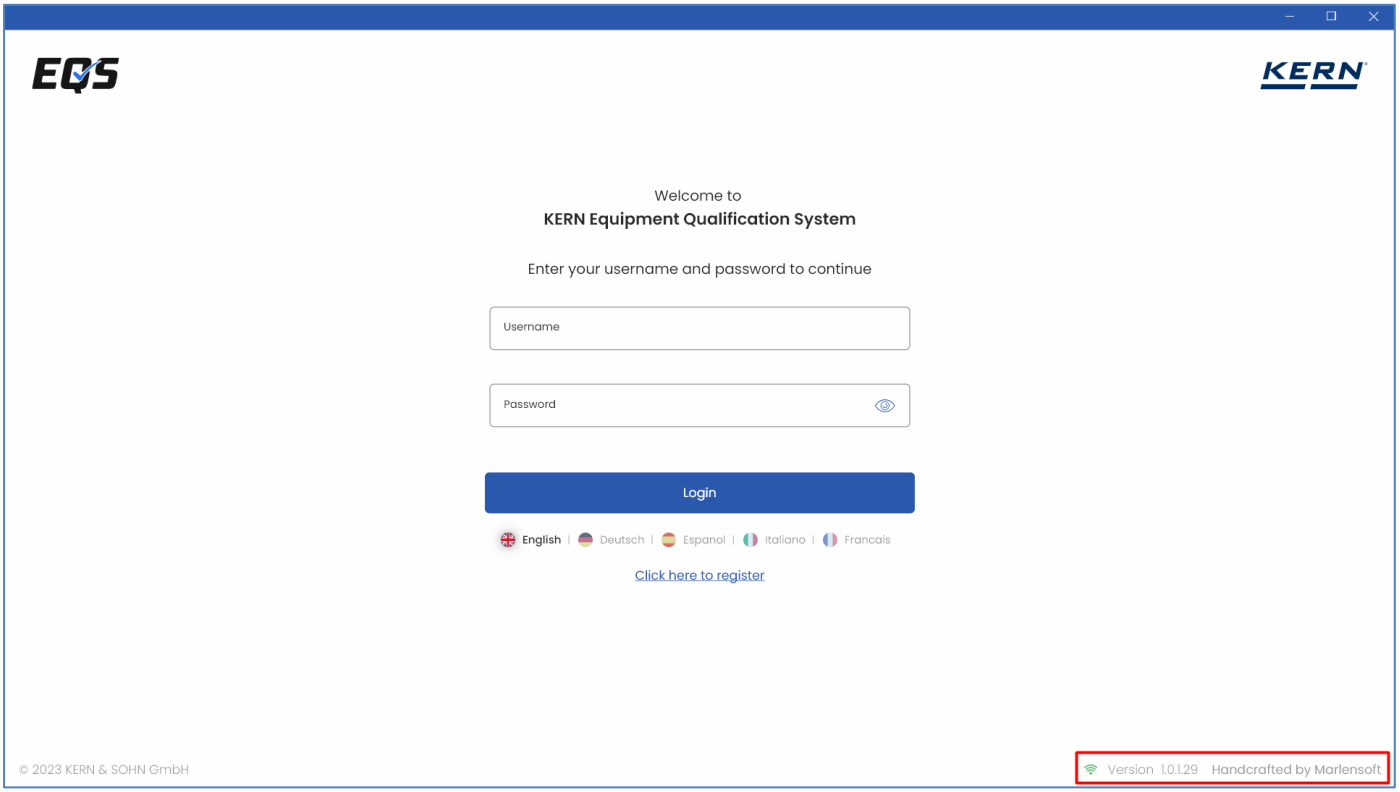
KERN & Sohn GmbH currently uses a paper logbook for equipment qualification, which requires trained personnel to fill out manually. This process is time-consuming and inefficient, and we cannot store all data digitally in our databases. To address this, we aim to digitize our equipment

qualification logbook to streamline the process, make it more user-friendly, and save time and effort.

5.2 Login

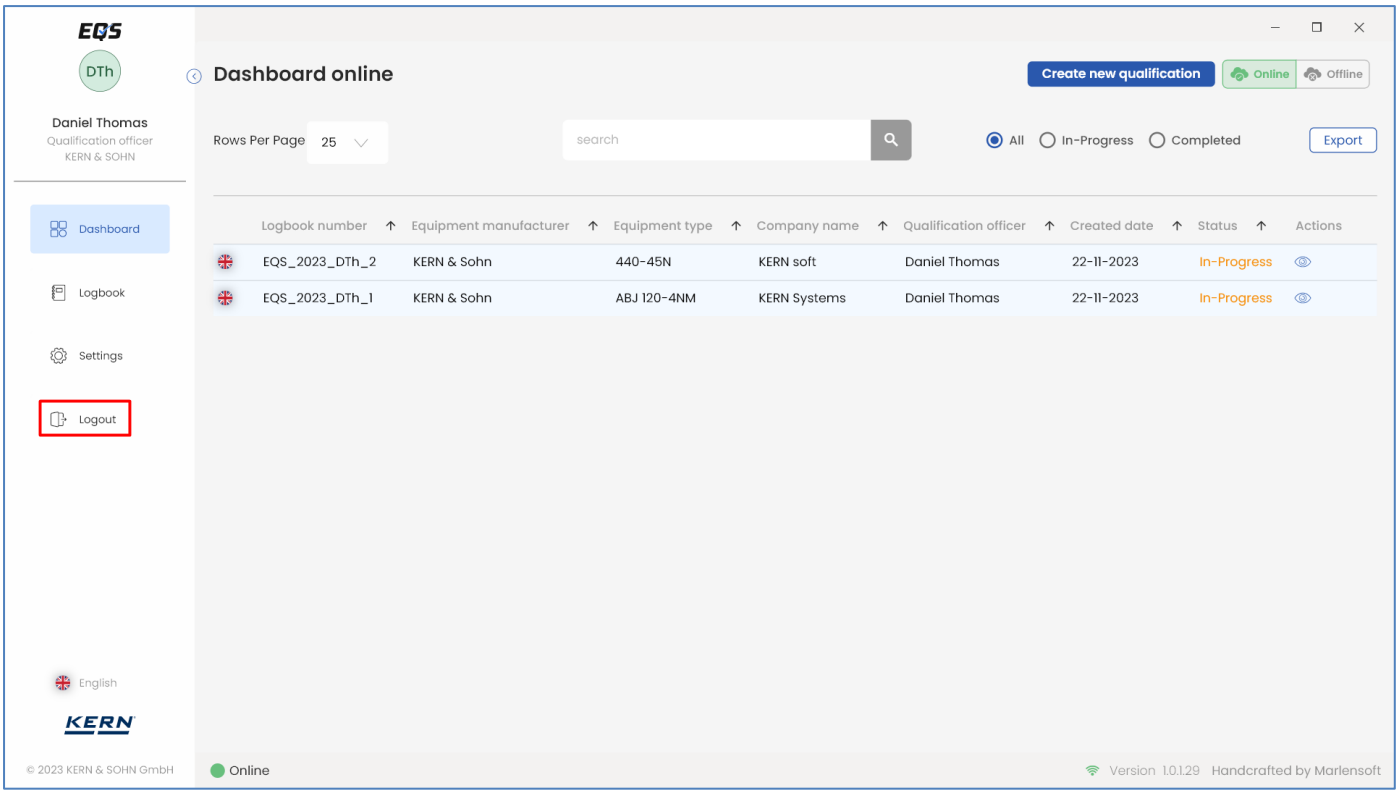
- The qualification officer needs to enter valid credentials to login to the EQS application.
- To get valid credentials the qualification officer needs to register as a kern account user and need to get site permission from admin.

- The login screen has an internet connectivity indicator, localization option, application version number and option to register in kern account registration URL.



5.2.1 Logout

- The logout option is present in the left menu bar.



Note: A qualification officer needs an internet connection to log out of the application.

English

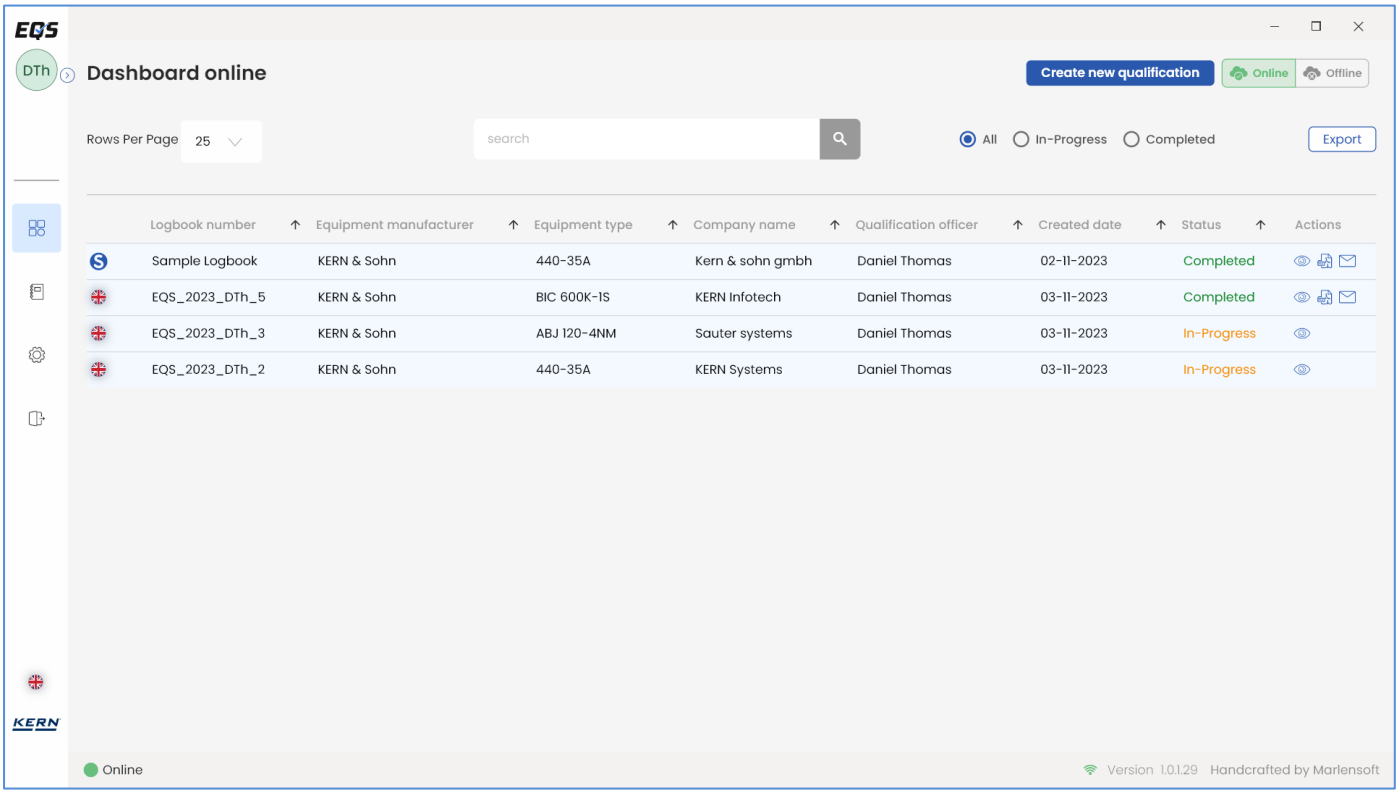
5.3 Dashboard

The EQS application dashboard is split into two modes, online and offline.

5.3.1 Online mode

In online mode, logbooks created in online mode are listed. The online mode has the following functions.

- Create new qualifications.
- Online and offline mode toggle button.
- Logbook status filter
- Sorting
- Pagination
- Search field
- Export option
- Actions options
- Sample logbook (if marked)
- Internet connectivity indicator
- Online offline status indicator.



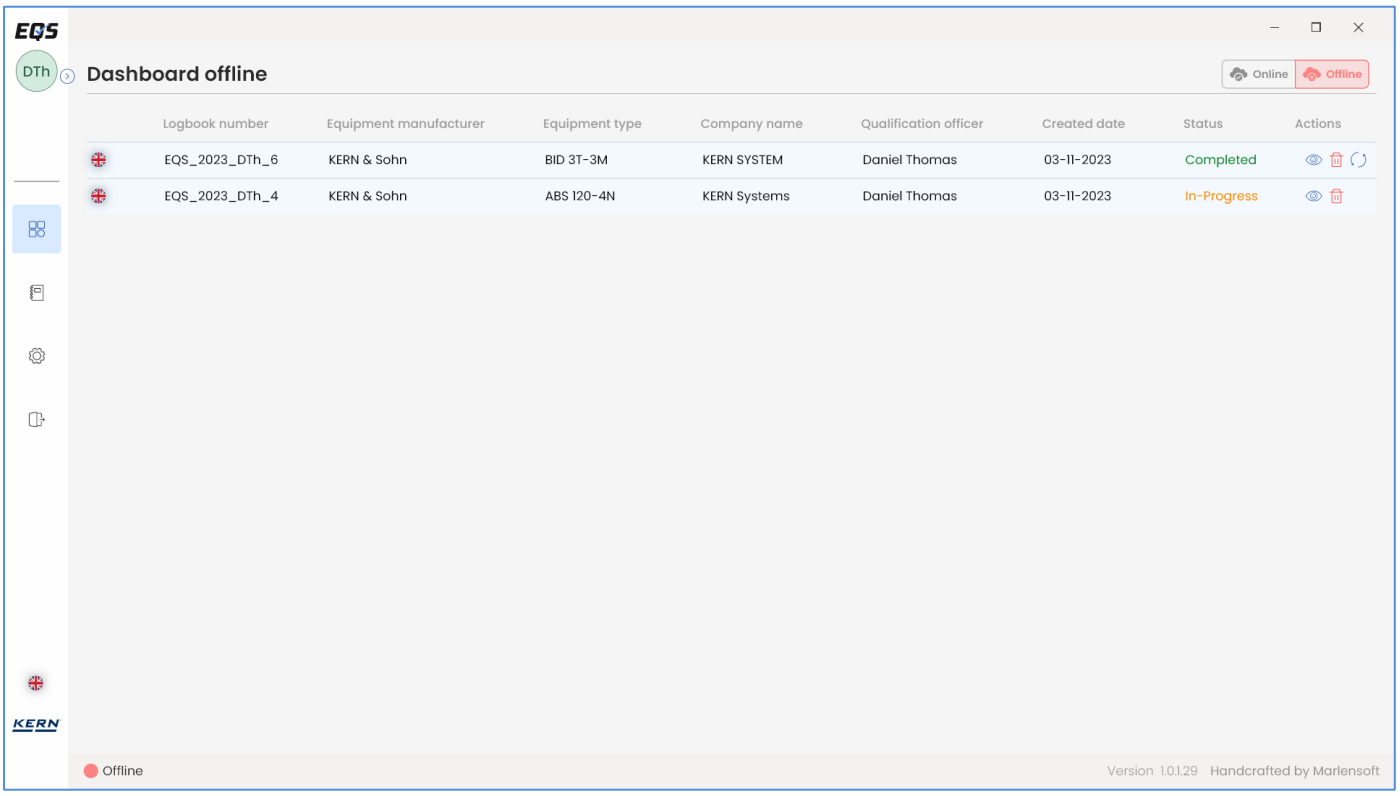
Note: Only completed logbooks will be displayed for all qualification officers of the same organization.

5.3.2 Offline mode

In offline mode, logbooks created in offline mode are displayed. The offline dashboard has the following functions.

- Online and offline mode toggle button
- Actions options.
- Online offline status indicator.

English



Key points:

- After synchronizing the logbook, it will be moved to online mode.
- Qualification officer doesn't need internet connection to perform basic qualification process and MQ or RQ in offline mode.
- Qualification officer needs internet connection to move from online mode to offline mode and vice versa.

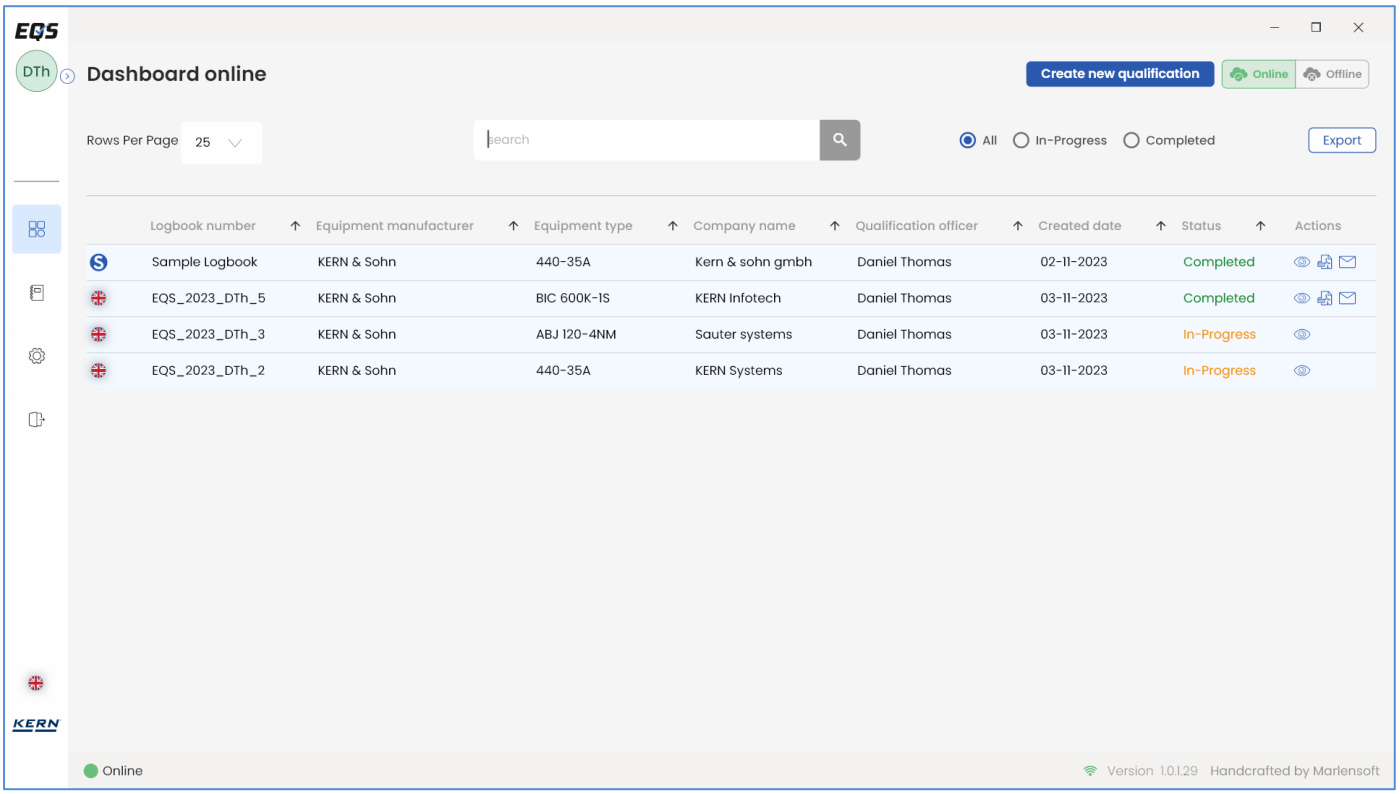
5.3.3 Actions option in dashboard

The qualification officer logins to the application and accesses the dashboard, options under the "Action" column will display in the following order.

Online mode:

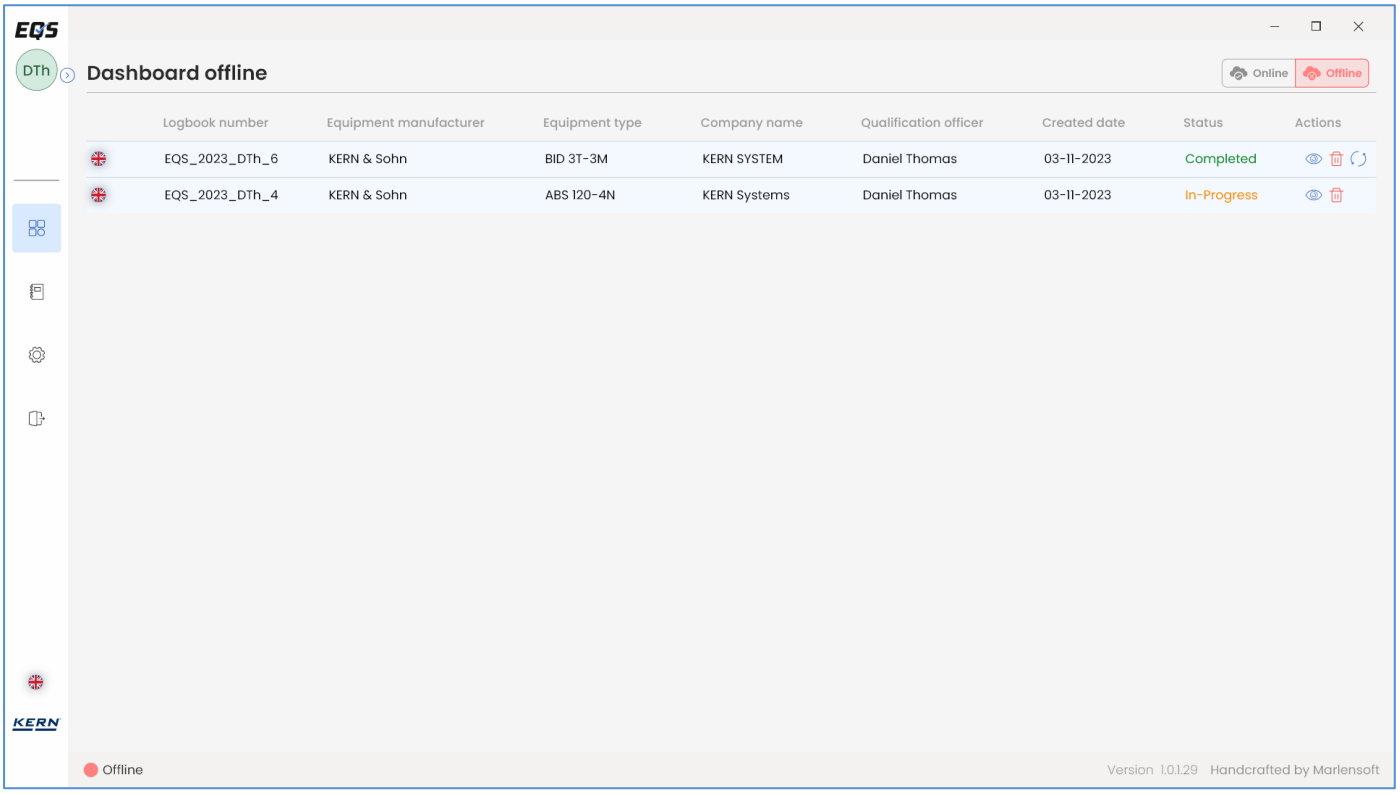
- **View** – Option is used to view logbooks. If the logbook status is in "in-progress" the qualification officer is redirected to the last used screen.
- **Generate logbook PDF** – This option is used to generate PDF, only available for completed logbook and sample logbook (both paid and trial version)
- **Send qualification report** – Option is used for sending qualification report via email. (option only available for completed logbooks)
- **Maintenance due notification** – An alert notification icon appears to indicate that the maintenance due is over.

English



Offline mode:

- **View** - Option is used to view logbooks which are in completed and in progress status.
- **Synchronize** – This option is used to synchronize the logbook to the server.
- **Delete** – This option is used to remove all data from basic qualification in logbooks for both in-progress and completed status.



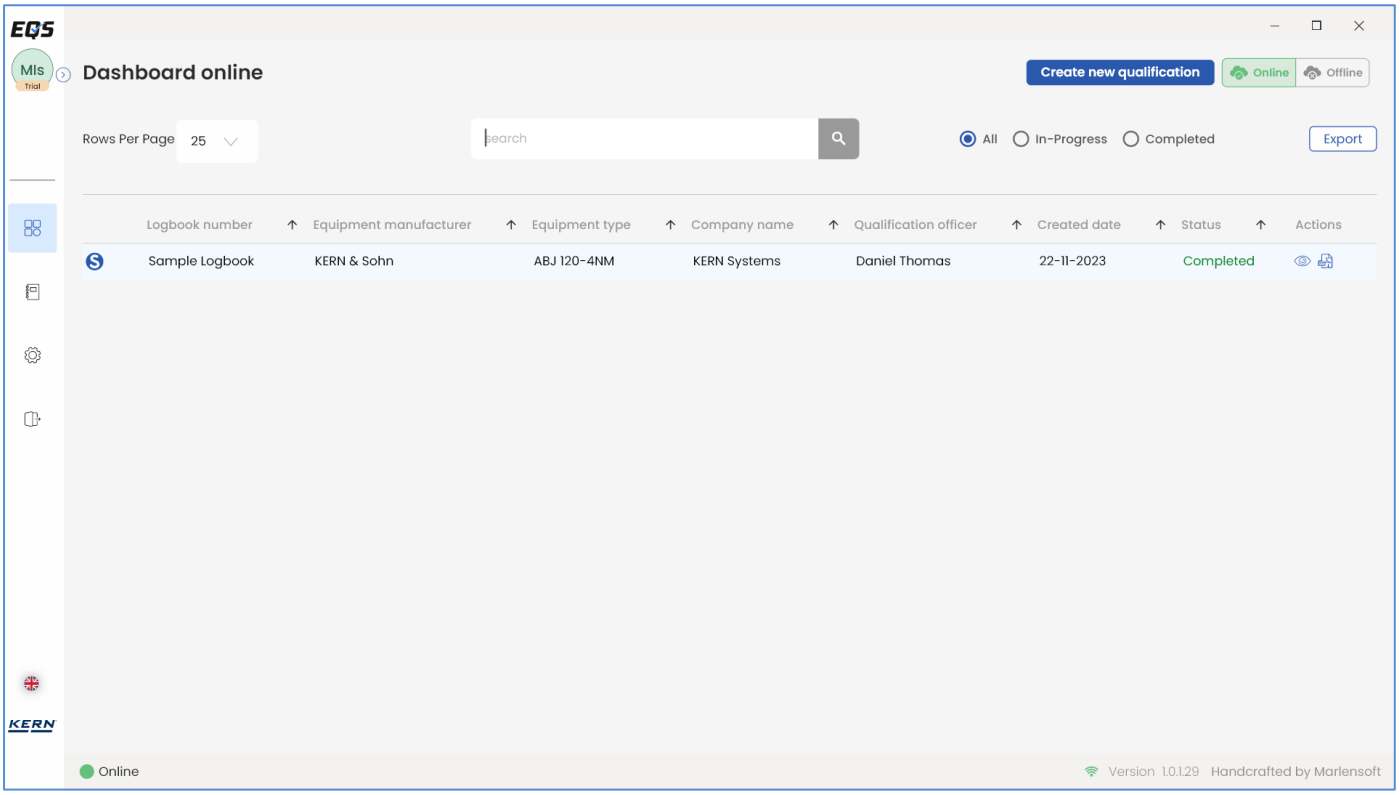
English

5.4 Sample logbook

The Sample logbook will be used as reference for creating logbooks in EQS application.

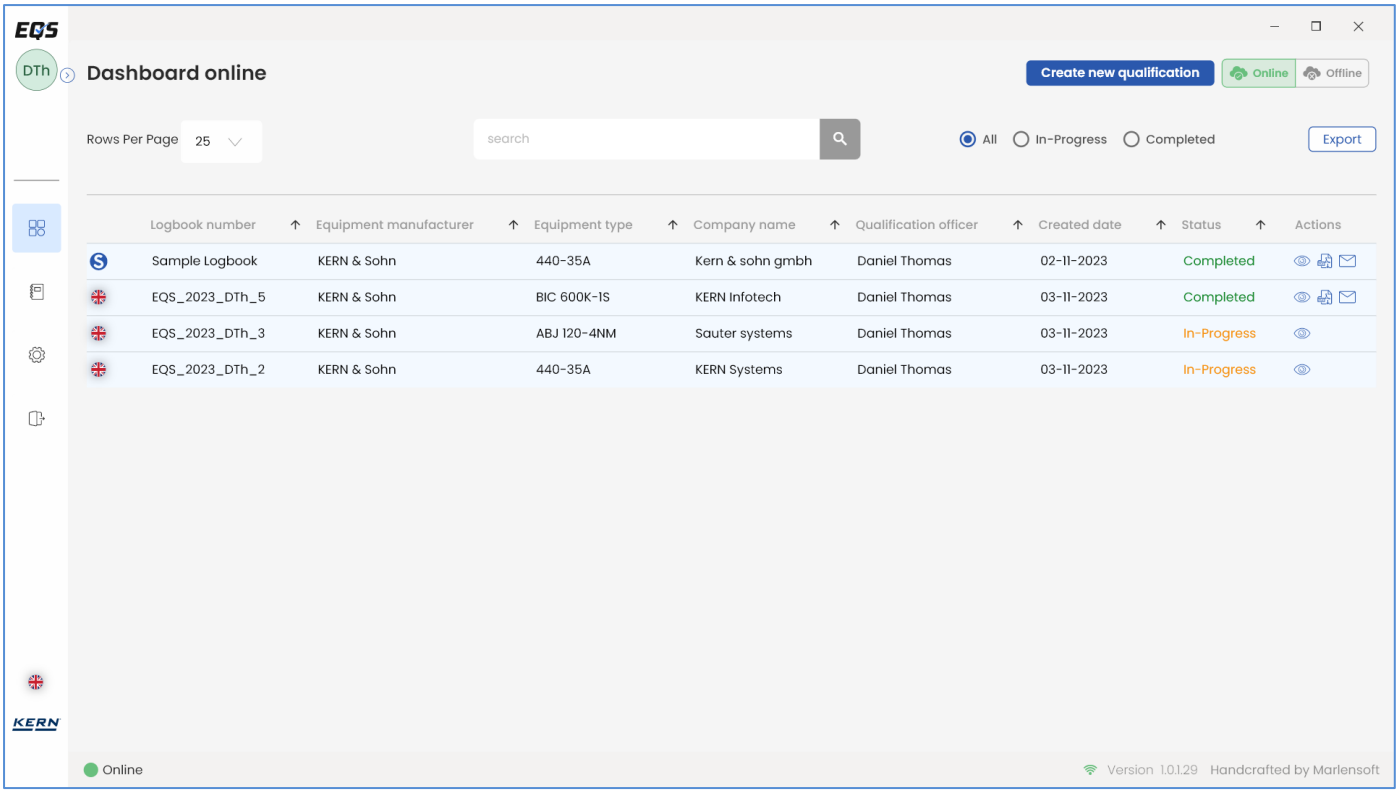
5.4.1 Sample logbook in trail version

The Sample logbook will be available for all trainee qualification officers who use the trial version of the EQS license.



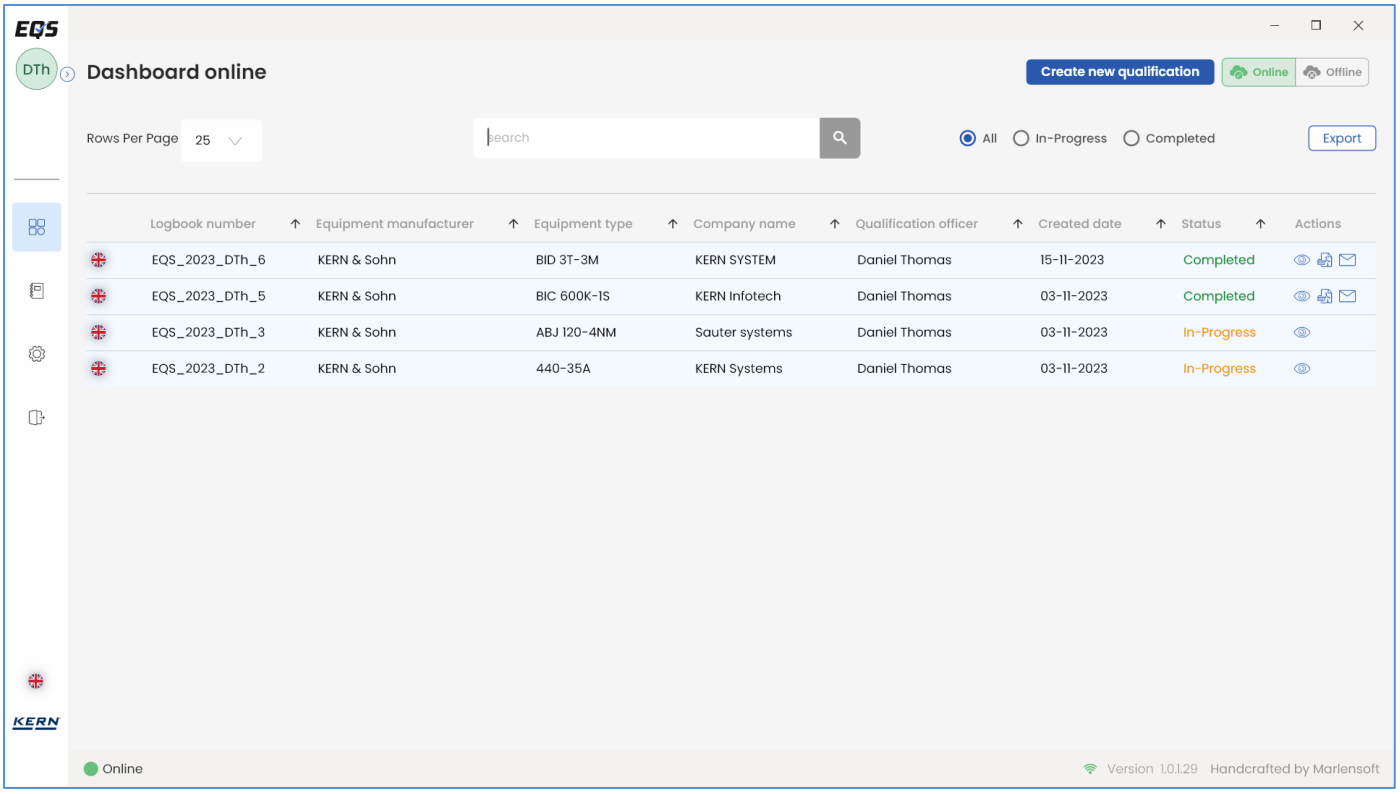
5.4.2 Sample logbook in paid version

After the qualification officer is moved from trial to paid license version, sample logbook will be available in the dashboard for a particular time.

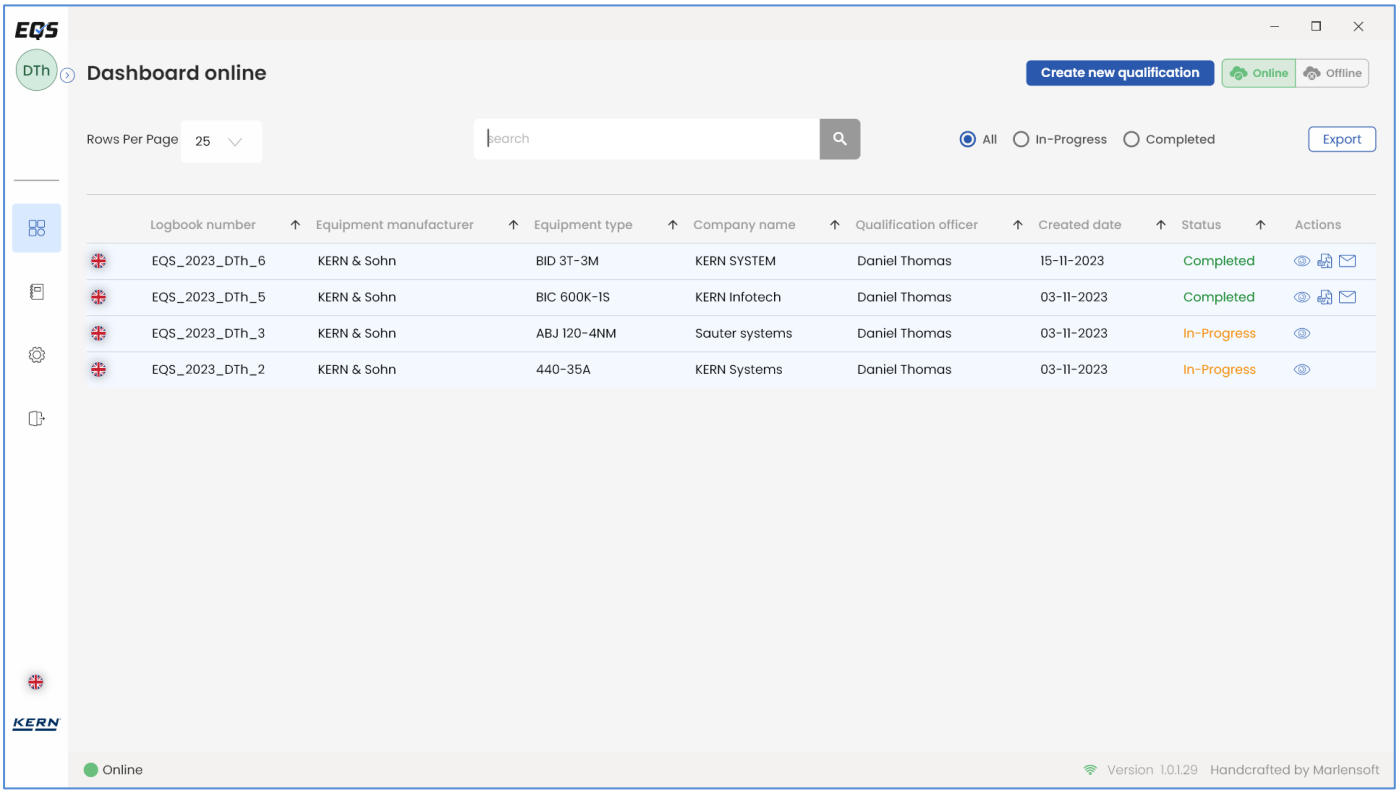


English

- When the qualification officer logs in after adding two logbooks the sample logbook will not be available in the dashboard.

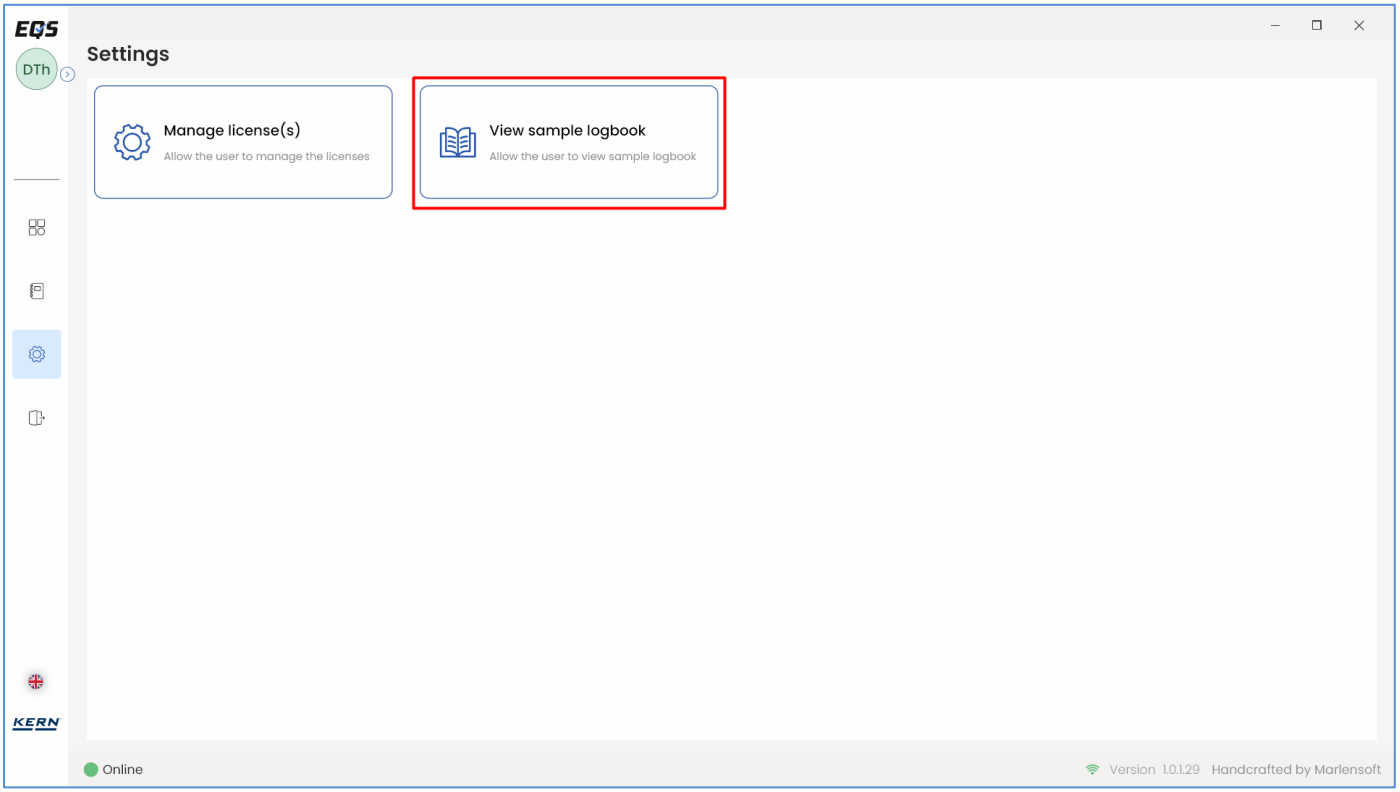


- A pop up will appear with the message: "For your reference the sample logbook will be available in the settings section."



English

- The qualification officer can still view the sample logbook in an option present in the settings screen.



5.4.3 Sample logbook PDF

- The Sample logbook PDF will have a water mark as “Sample Logbook” on all the pages.

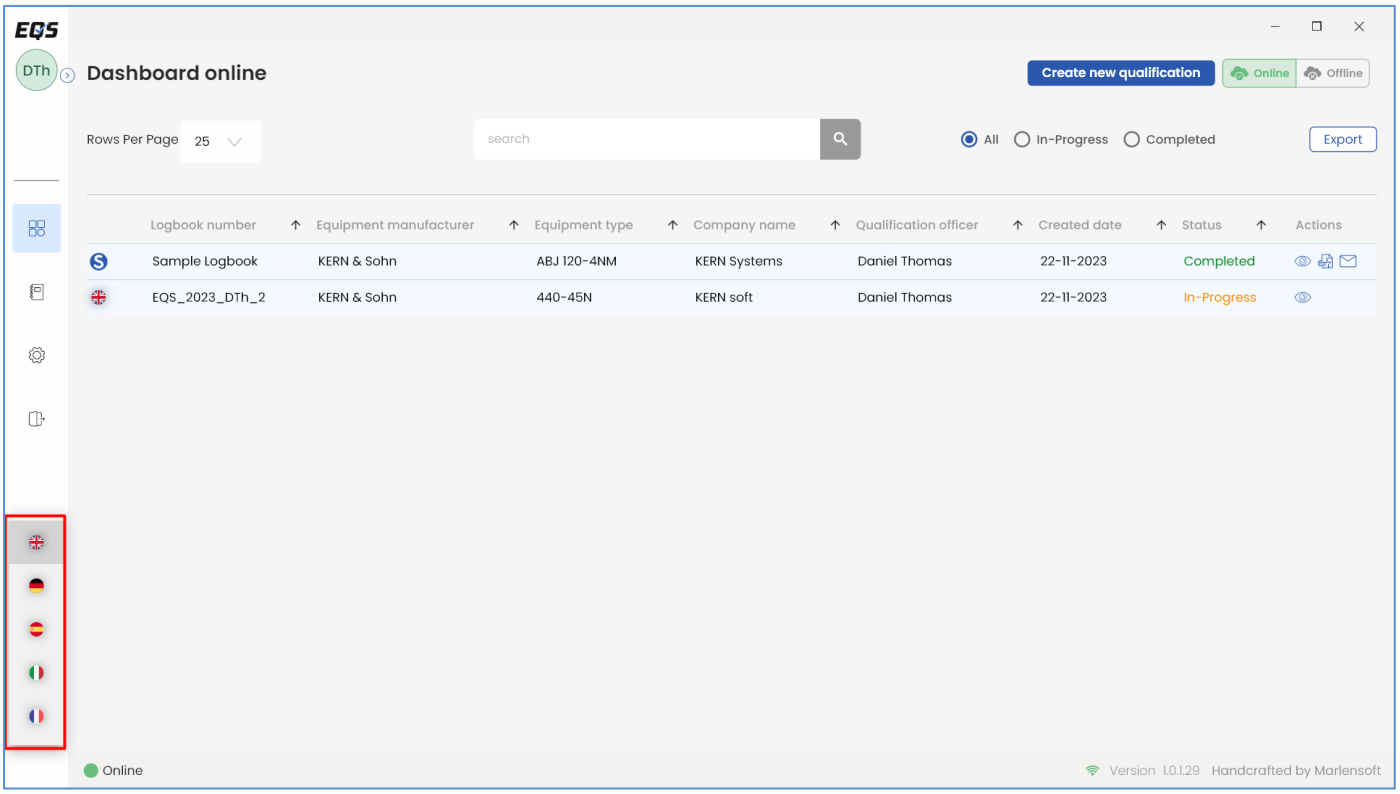


English

6. Localization

6.1 Create logbook in multiple languages.

- When the qualification officer clicks the flag in the menu, there will be an option which displays all the country flags and based on the selected option the application language will change and the changes will be available until any further language change.

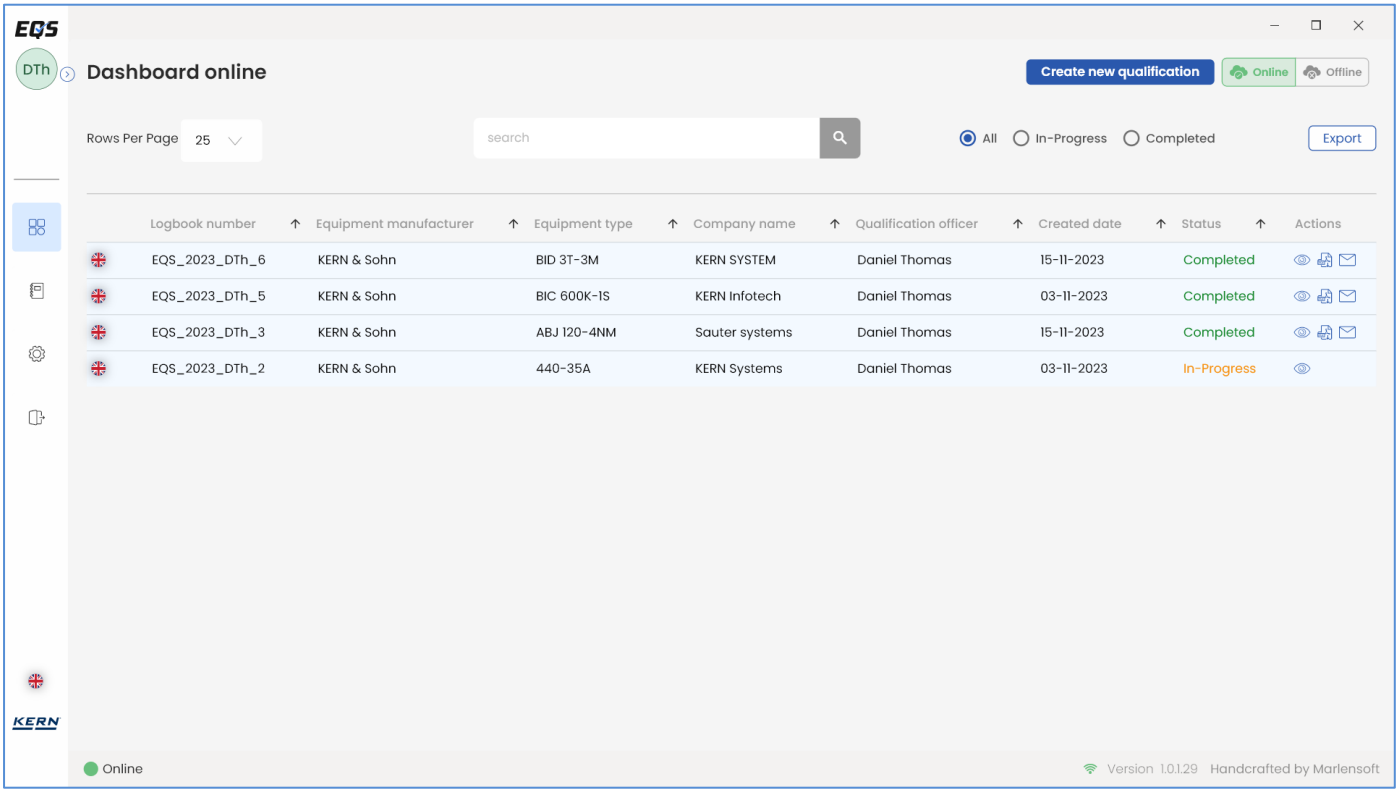


- The qualification officer can't be able to change the languages in between the qualifications.
- The logbook can be created in five different languages English, German, French, Italian & Spanish.

6.2 View logbook

- Qualification officer can be able to view the logbook in respected created language and the language is applied though out the application.

English



- Qualification officer will be able to generate the PDF with respective logbook created language.



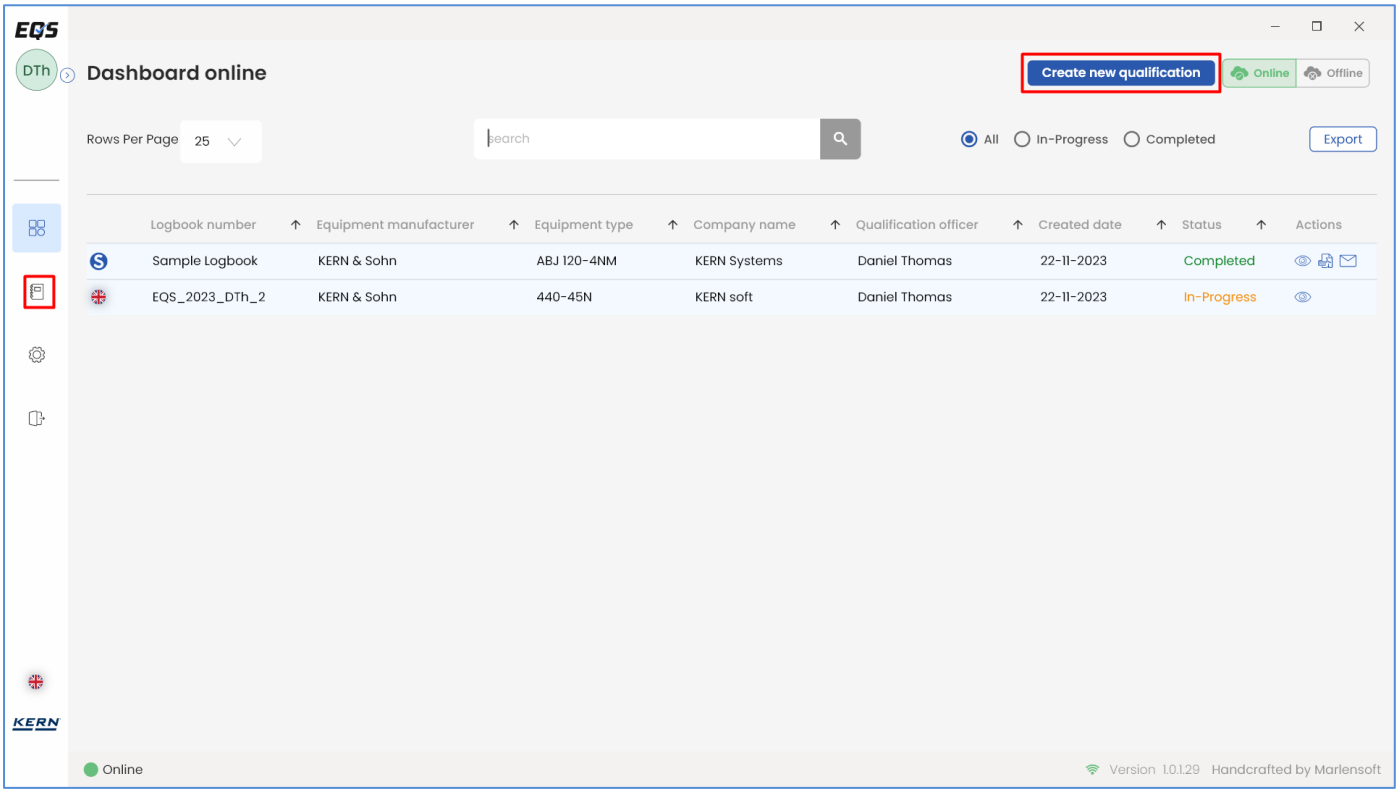
English

7. Qualification

A logbook is a document or record-keeping tool used to systematically record and track information related to the qualification of equipment.

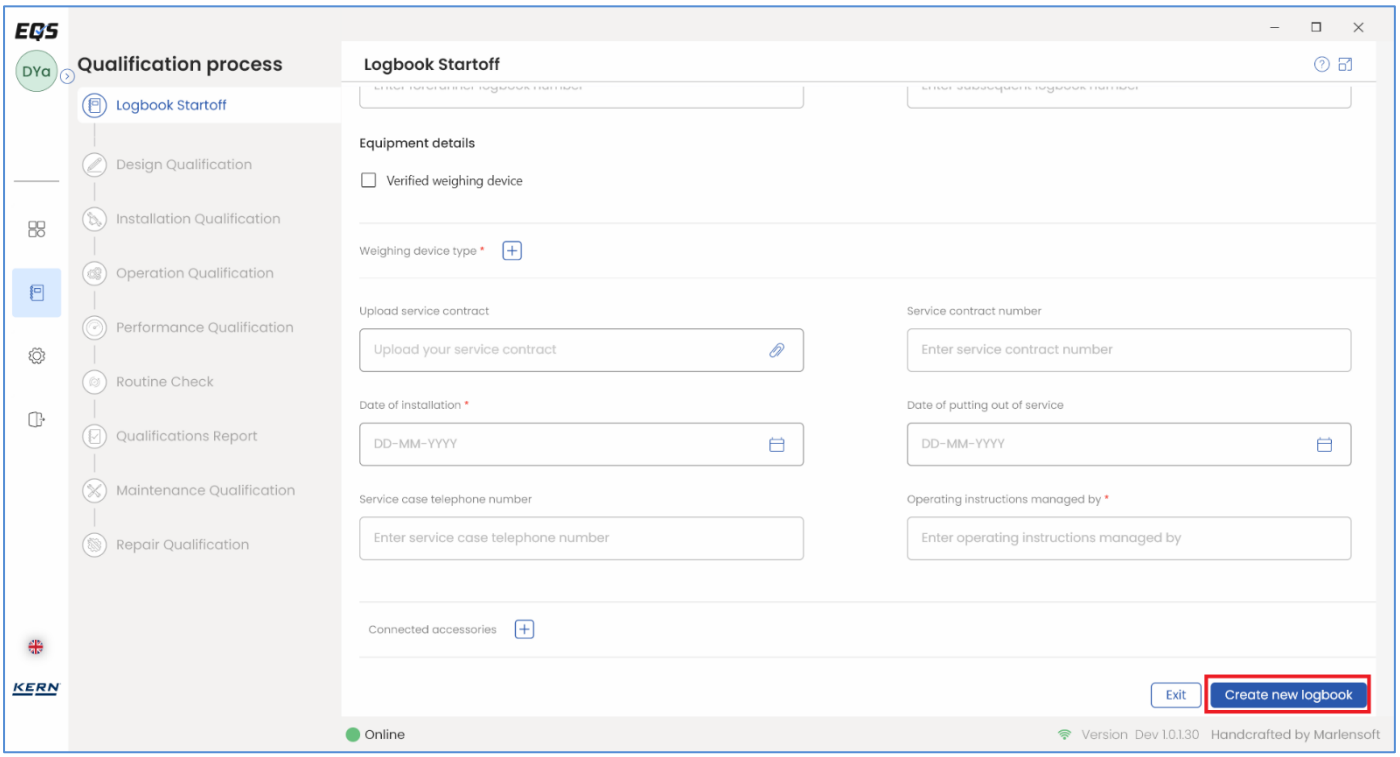
7.1 Logbook creation

- The logbook creation option is available in two places.



- Logbook is a list of qualifications performed during calibration process of weighing machines.
- **Step 1**: Click any of the above-mentioned options to open create logbook.
- **Step 2:** Enter data in the mandatory fields and when the qualification officer selects company name and equipment type data gets auto populated in weighing device type.
- The qualification officer needs to click “Create new logbook” button.

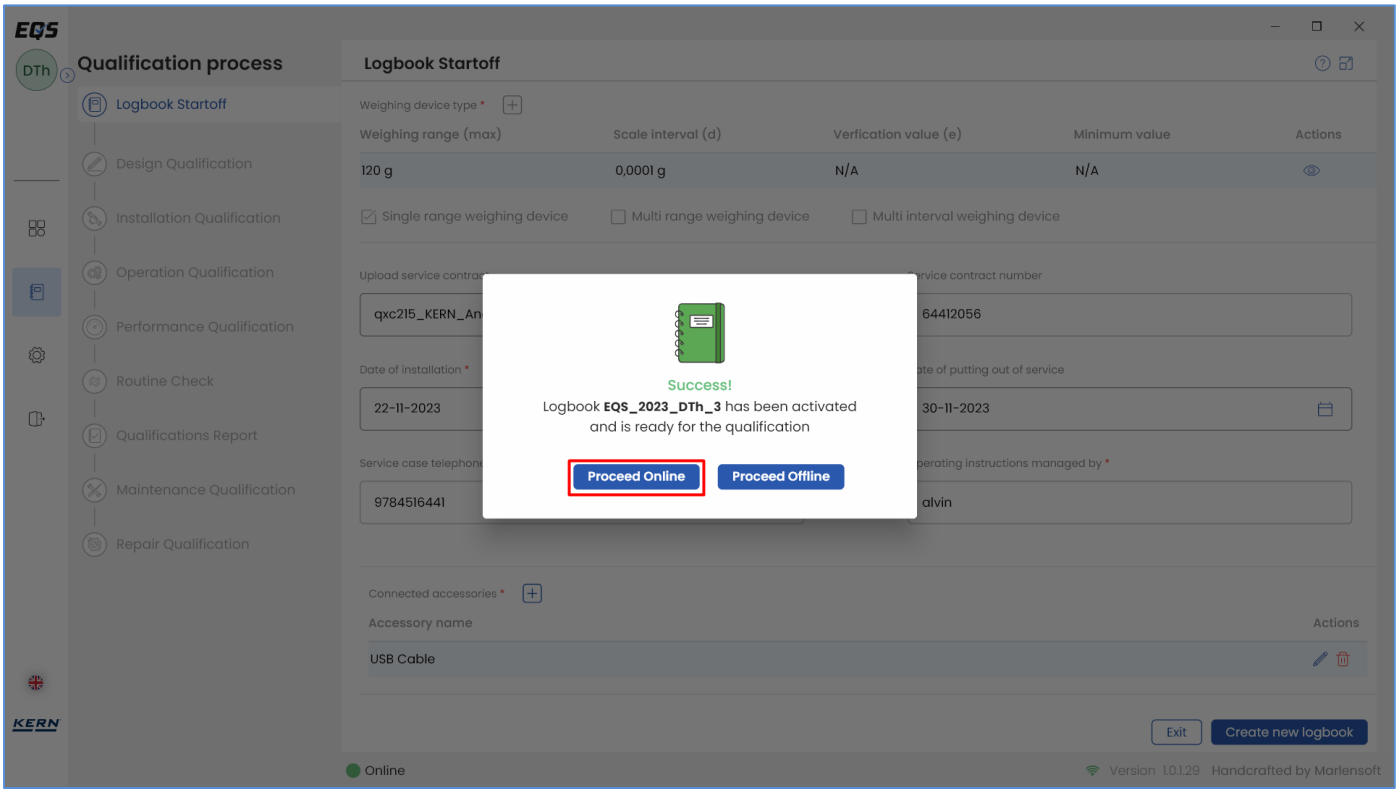
English



Key points:

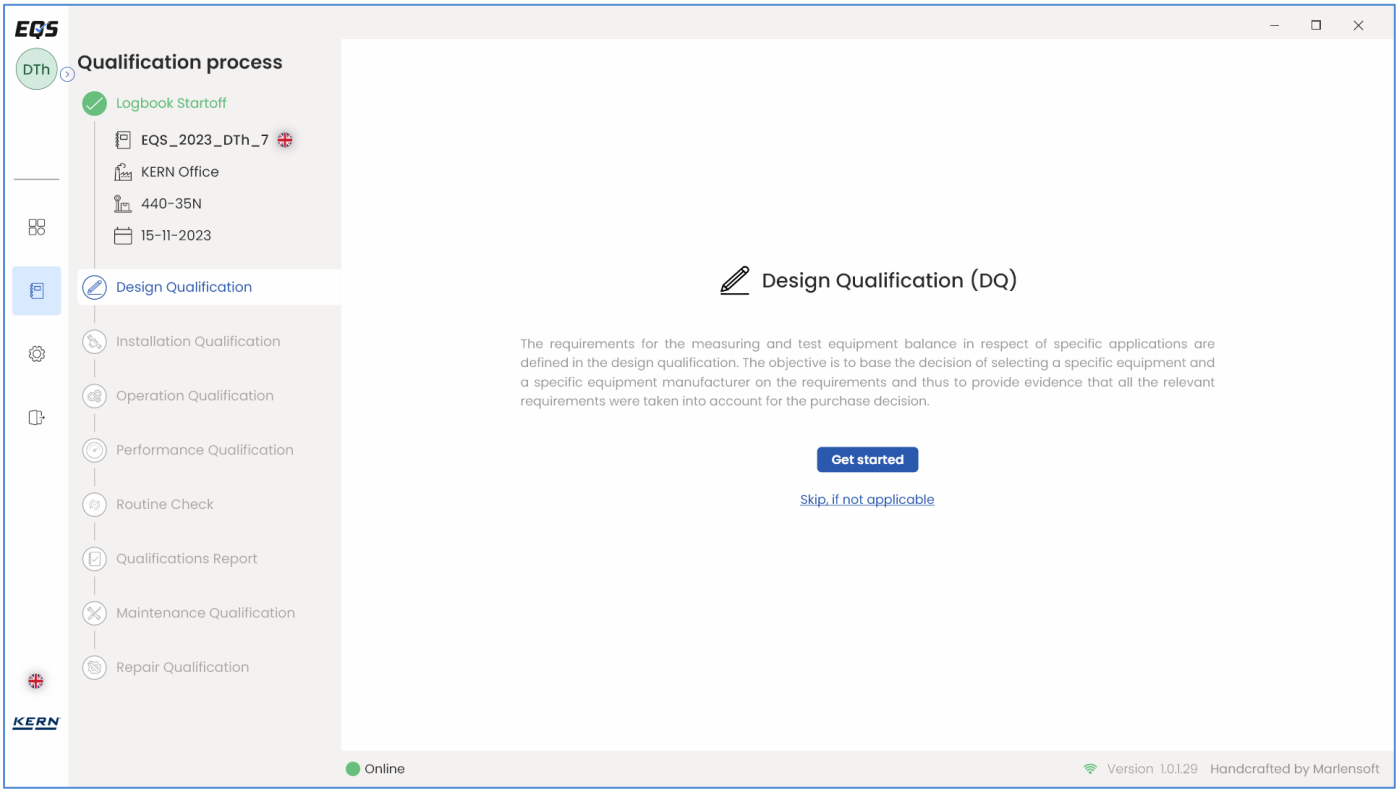
- The qualification officer can also enter data manually in equipment manufacturers name and equipment type. This data will be listed in the product database.
- Based on the equipment type model name and weighing device type data will be populated.

- **Step 3:** An option appears where the qualification officer can continue in online mode or offline mode.



English

- **Step 4:** Once the qualification officer selects a mode, the logbook creation process is complete, and is redirected to design qualification start off screen.



Key points:

- For logbook creation internet connectivity is required.
- Based on the mode selection, the qualification officer will be able to perform further qualification.

Basic Qualification:

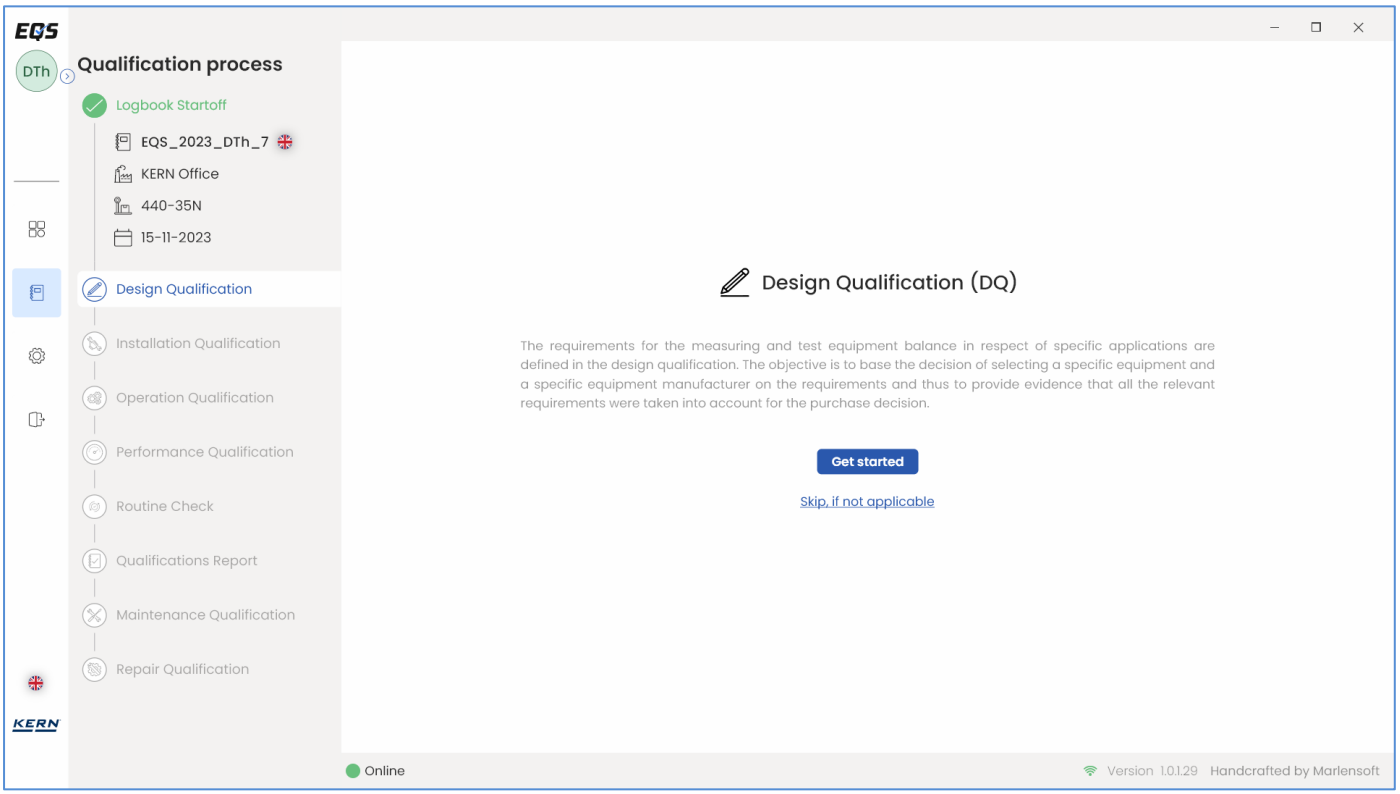
Basic qualification is combination of several individual qualifications such as design qualification, installation qualification, operational qualification, performance qualification, routine check & qualification reports.

English

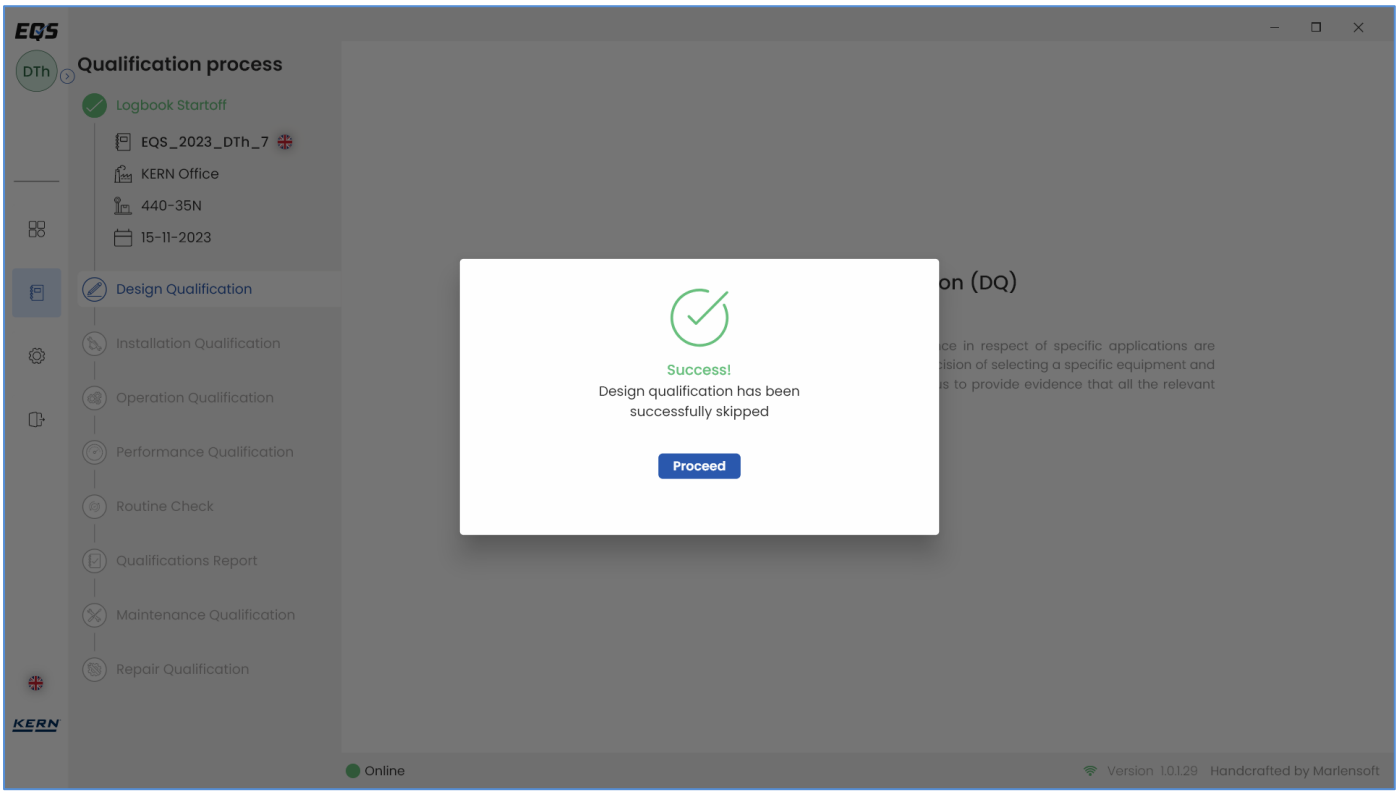
7.2 Design qualification

Design qualification involves users establishing requirements for measuring and testing equipment, specifically balances or weighing systems, considering factors like accuracy, measurement method, and supplier criteria. These specifications must be documented before purchasing. KERN helps in defining requirements, and additional considerations for equipment selection include ambient conditions, user qualifications, the object being tested, and the testing method. Visit www.kern-sohn.com for related literature.

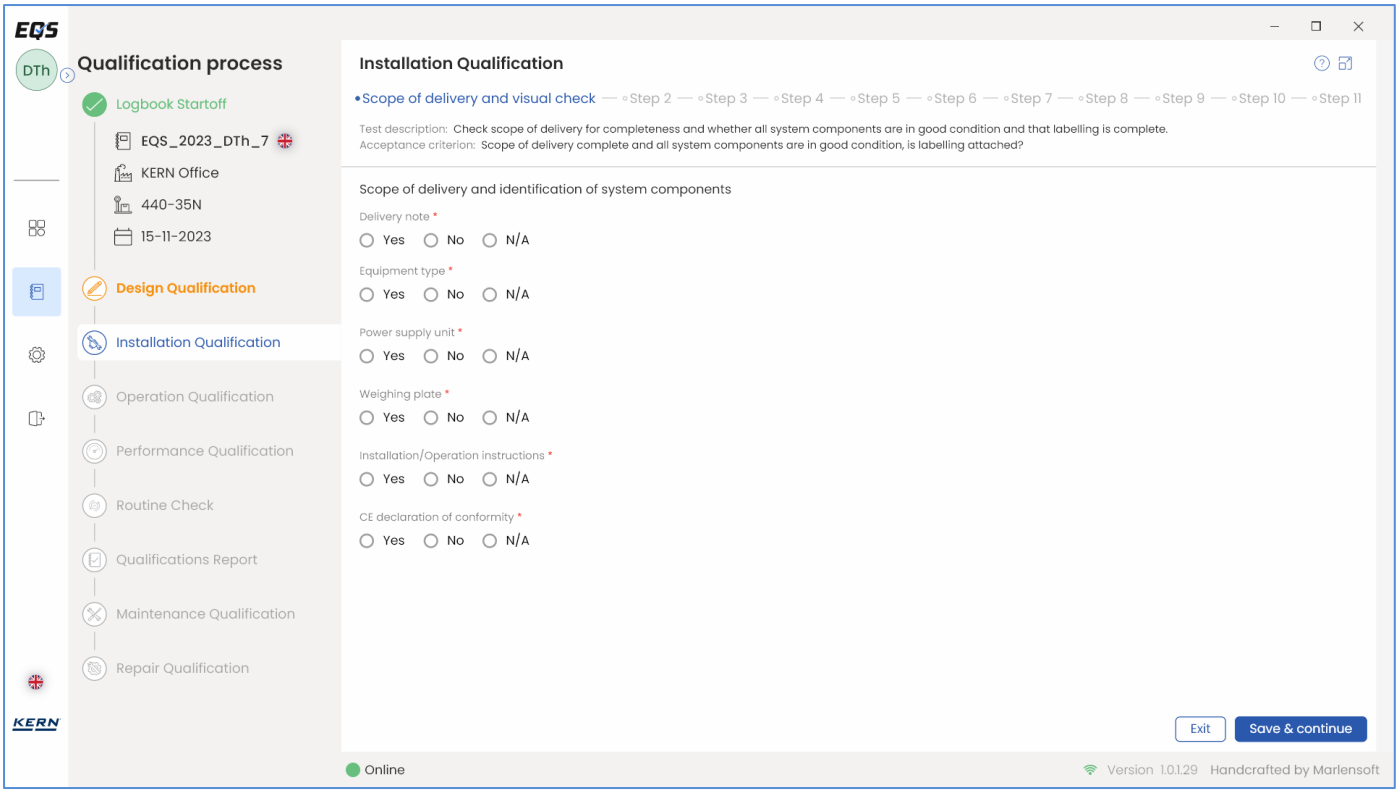
- The qualification officer is given two options to start or skip the design qualification.



English

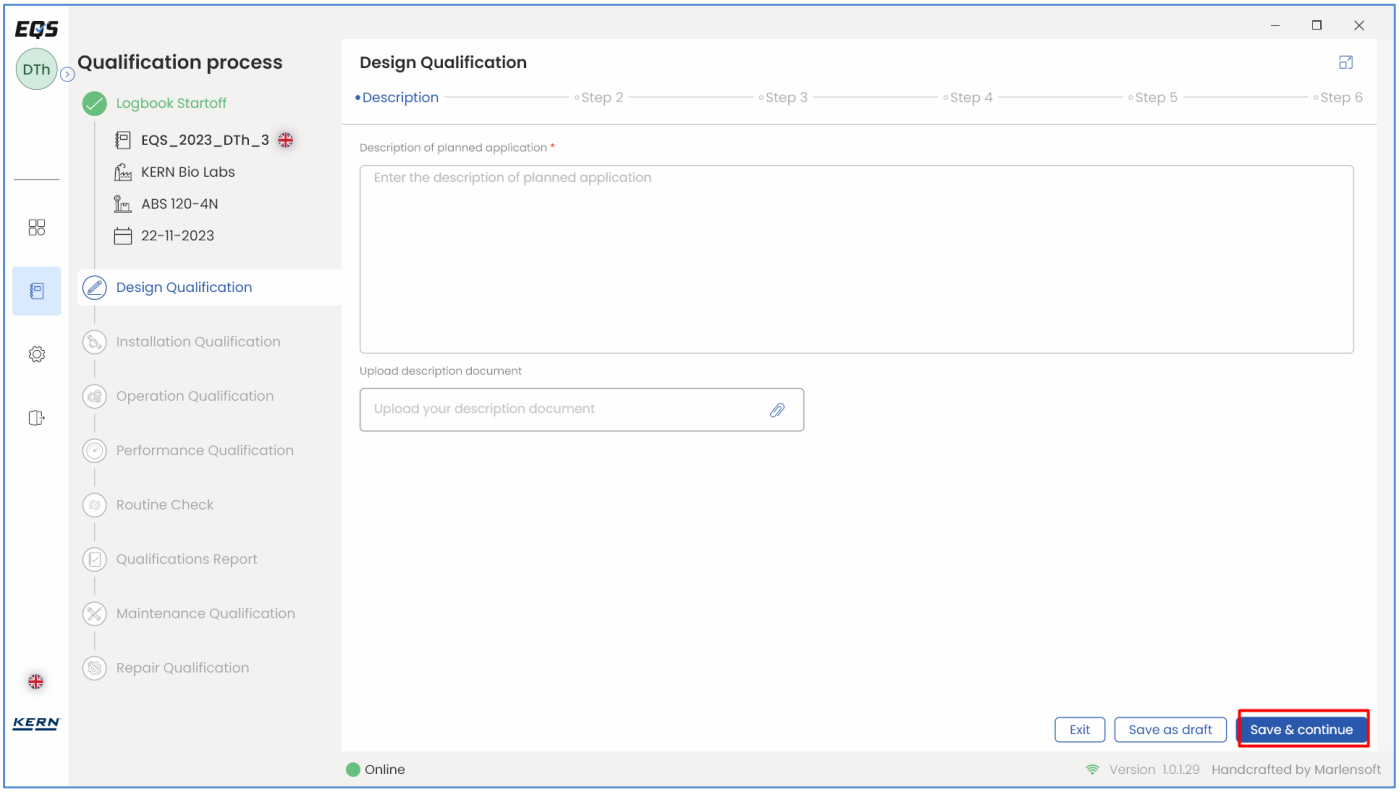


Note: If the qualification officer skips the Design qualification, then the qualification officer is redirected to the next qualification “Installation Qualification” and the design qualification is marked in orange color in the qualification navigation.

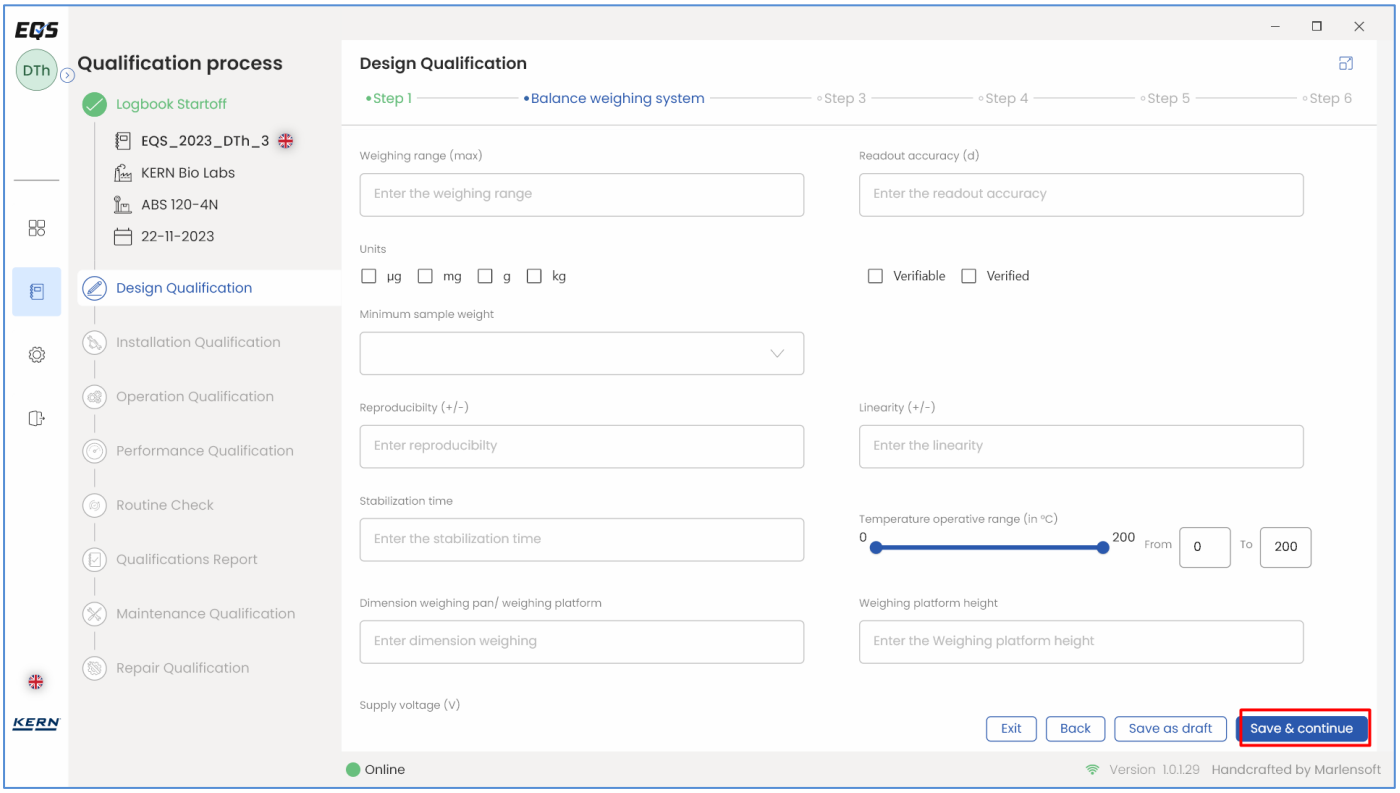


English

- **DQ Step 1(Description):** Enter data in the mandatory fields and click “Save and continue” button.



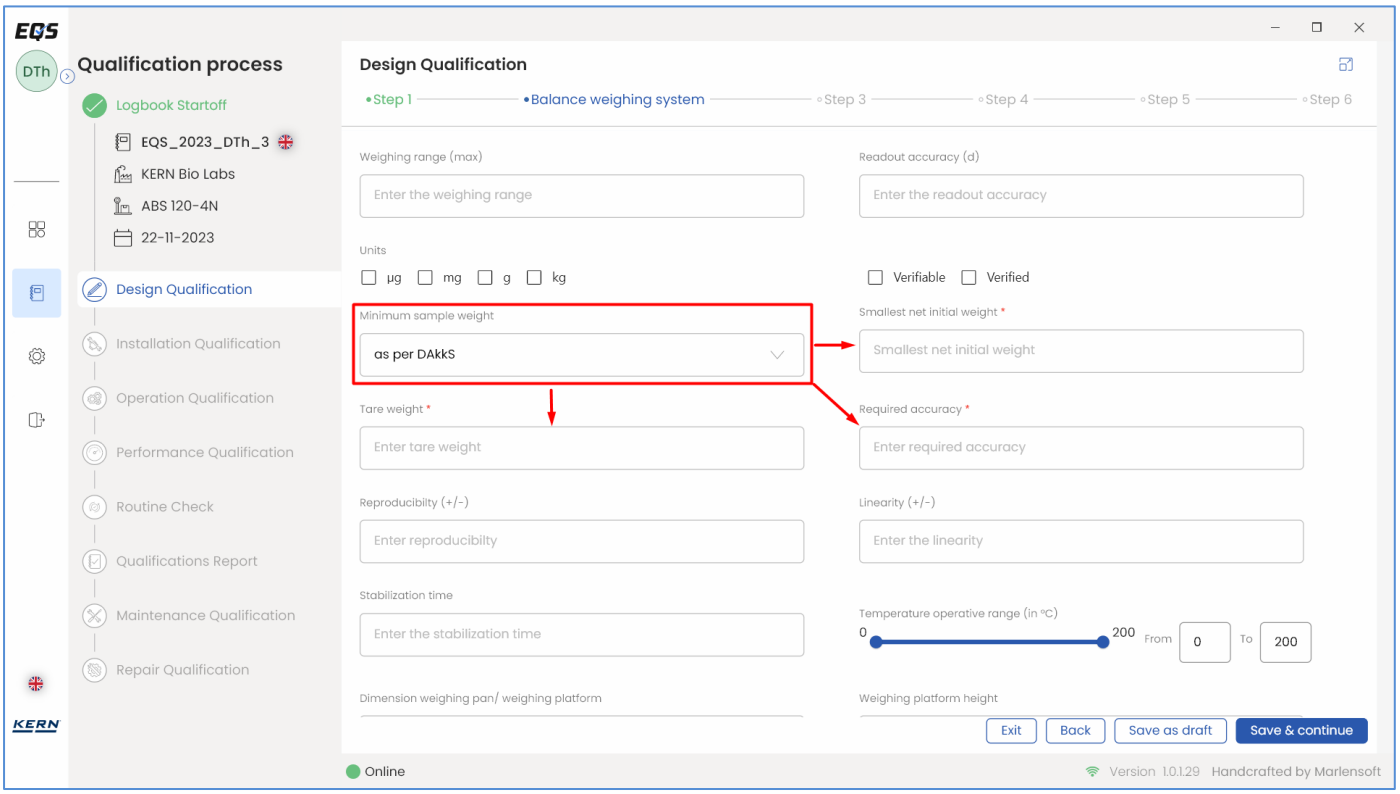
- **DQ step 2 (Balance Weighing System):** Enter data in the required fields and click “Save and continue” button. When adding data in certain fields additional fields are activated where some may be mandatory fields.



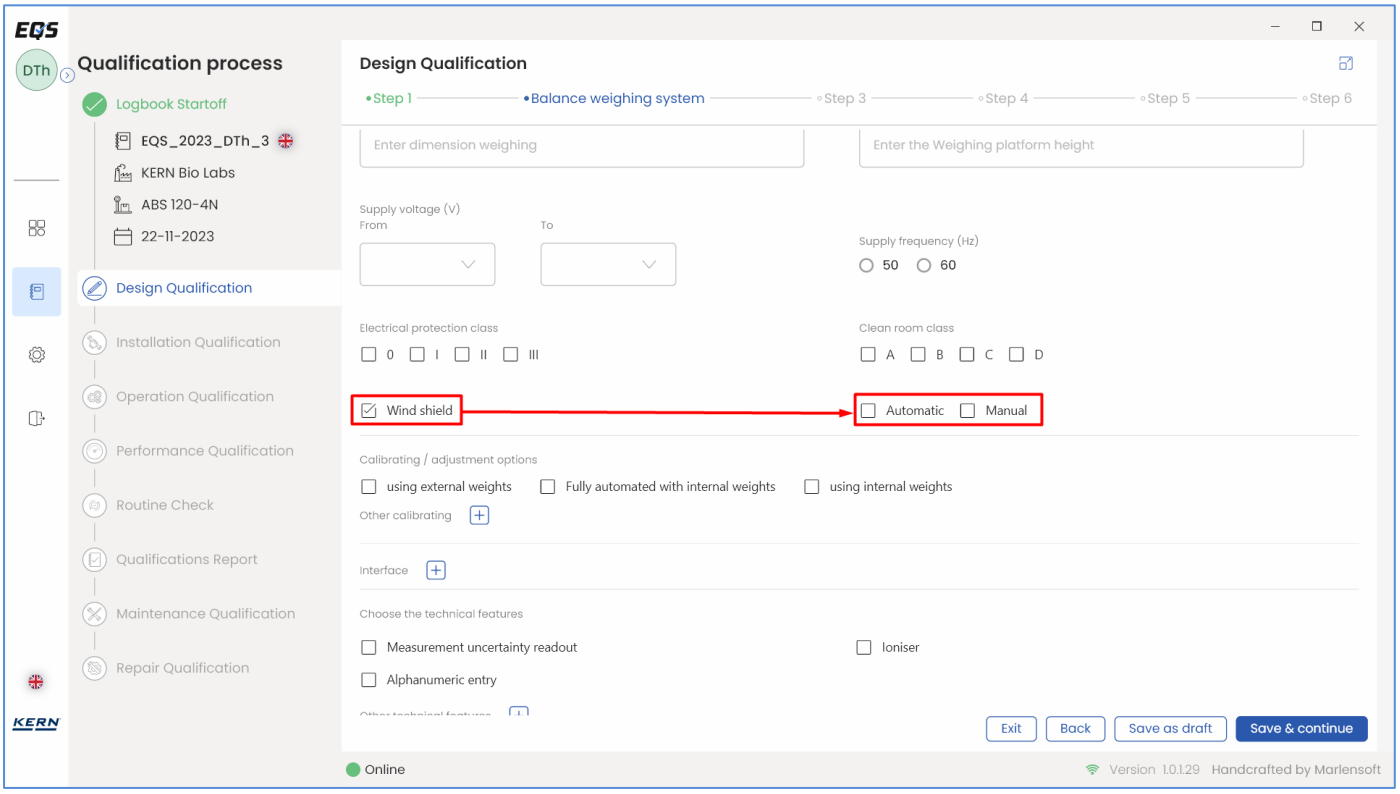
English

Additional fields:

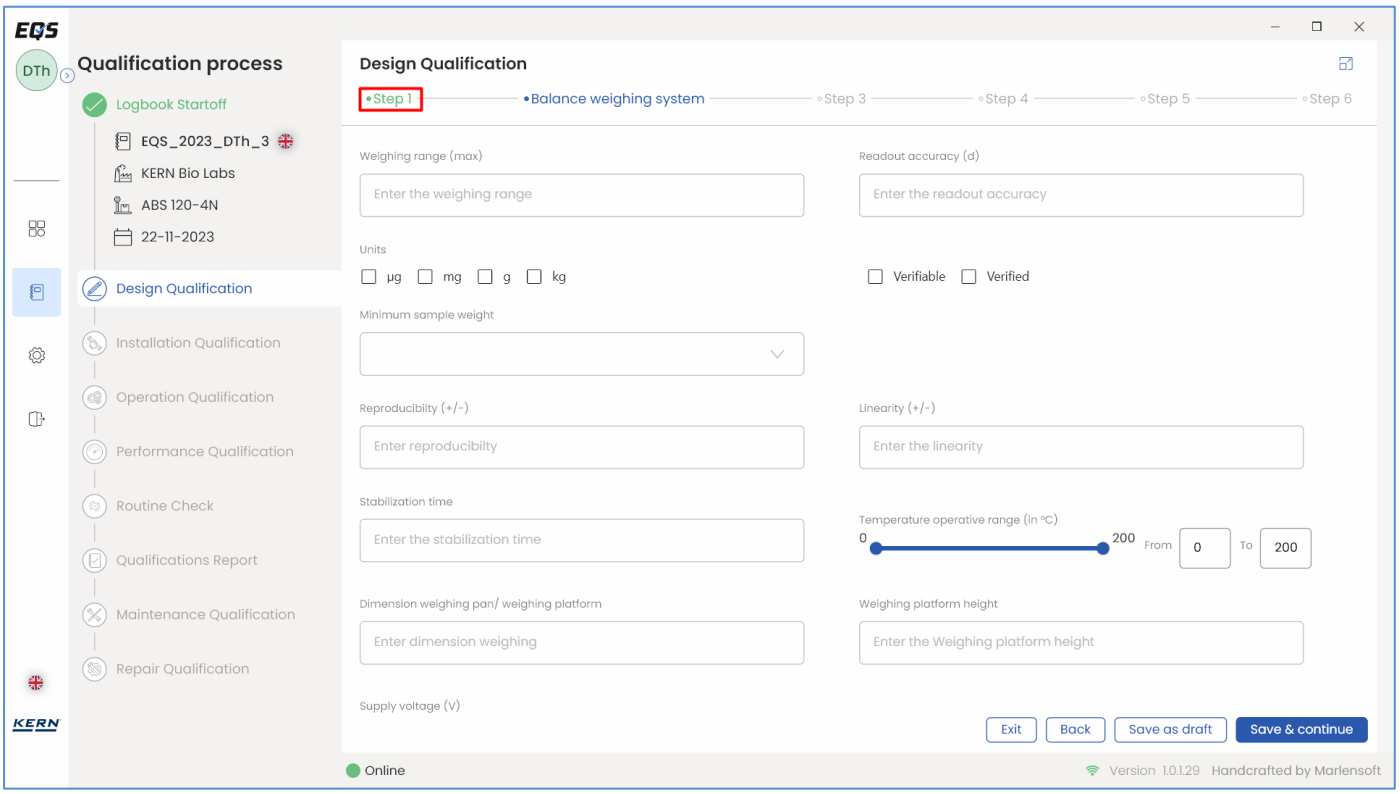
- Minimum sample weight (Parent field) – Smallest net initial weight, Tare weight, Required accuracy (additional fields)



- Wind shield (Parent field) – Automatic & Manual (additional fields)

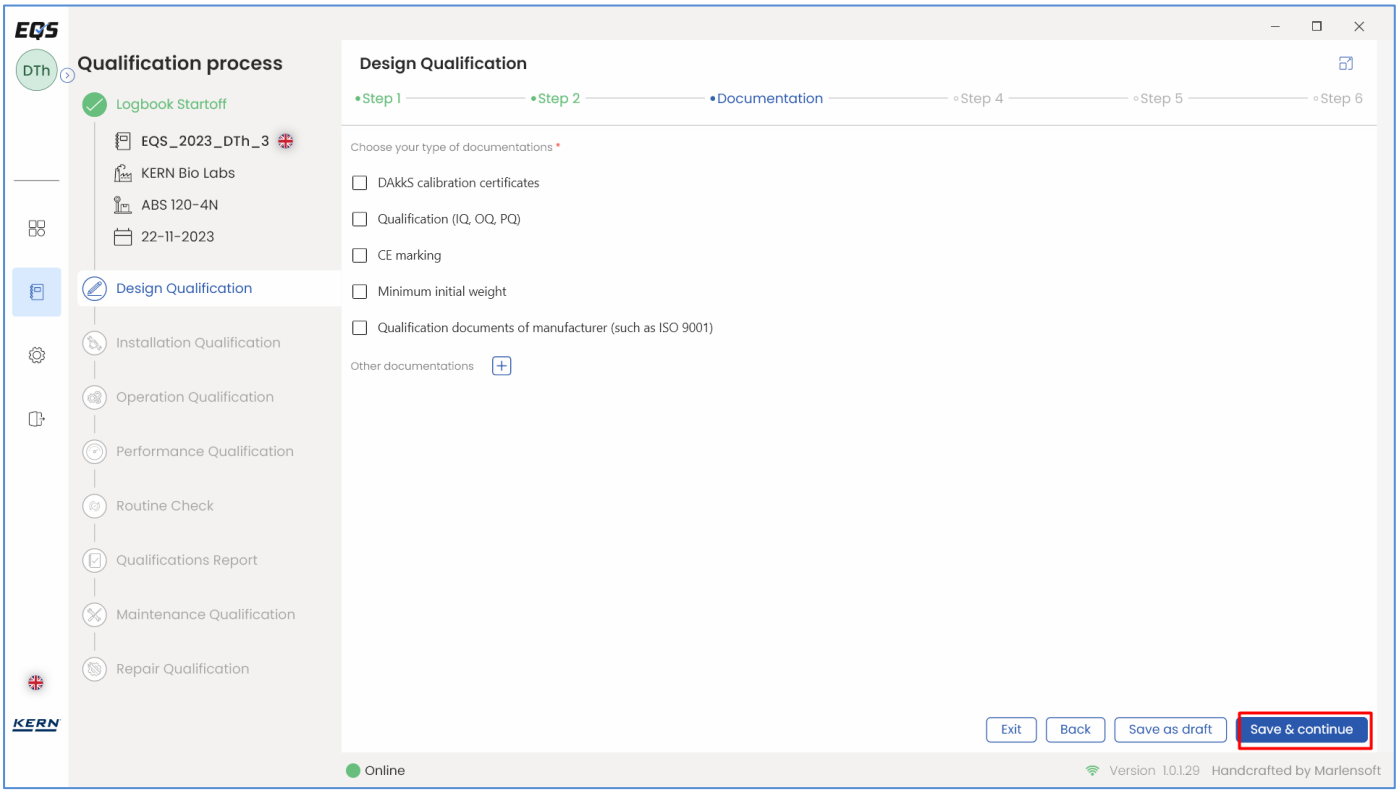


English



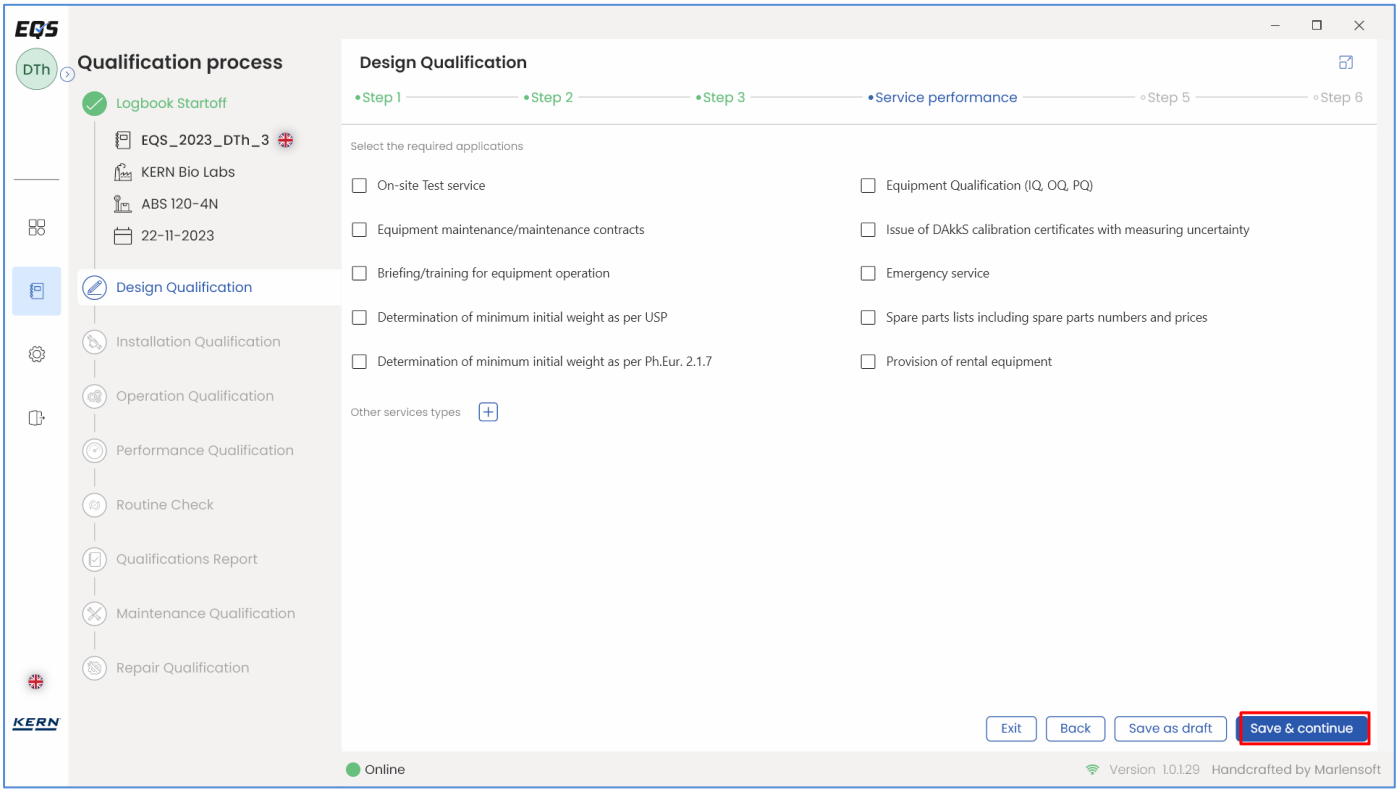
Note: Once a step has been completed it's marked in green color.

- **Step 3(Documentation):** Enter data in the mandatory fields and click "Save and continue" button.

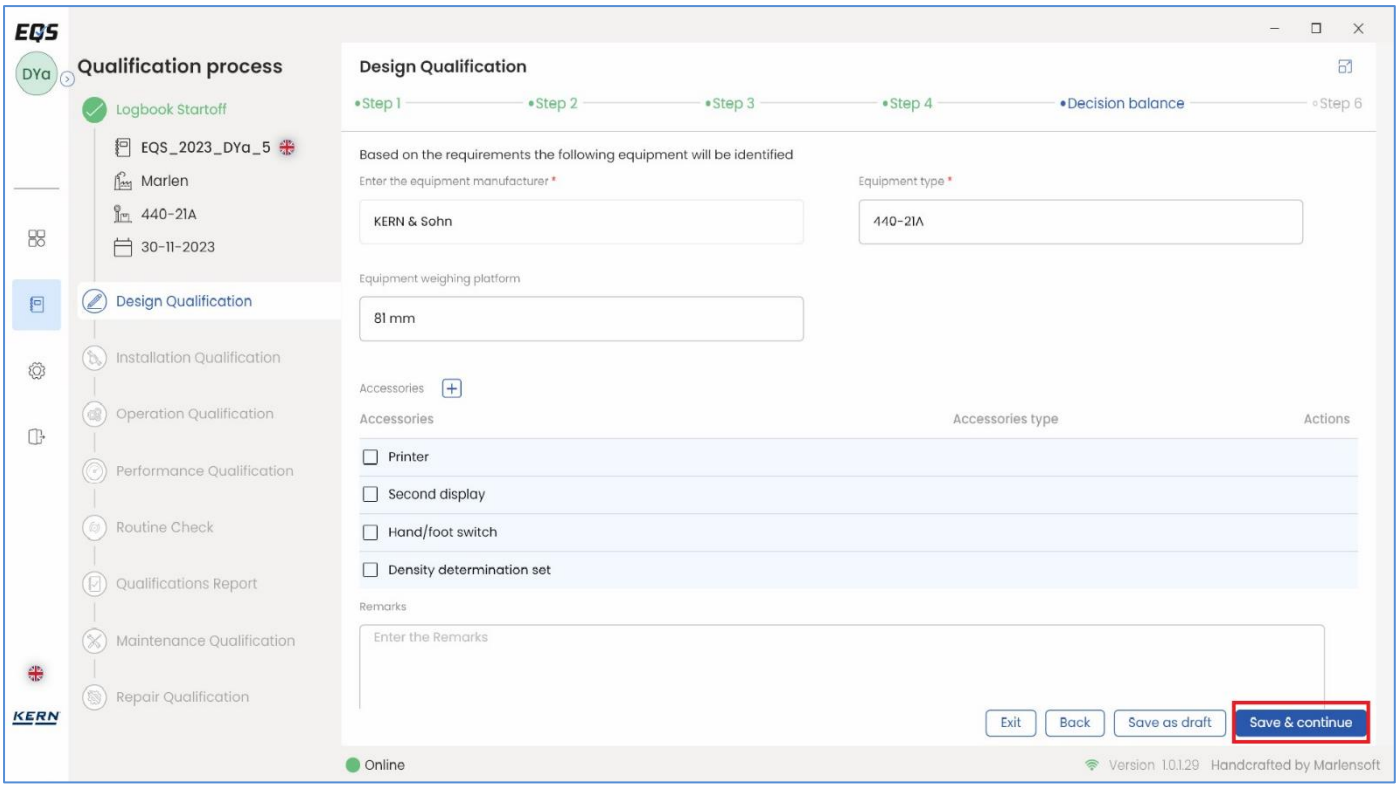


English

- **Step 4(Service Performance):** Enter data in the required fields and click “Save and continue” button.

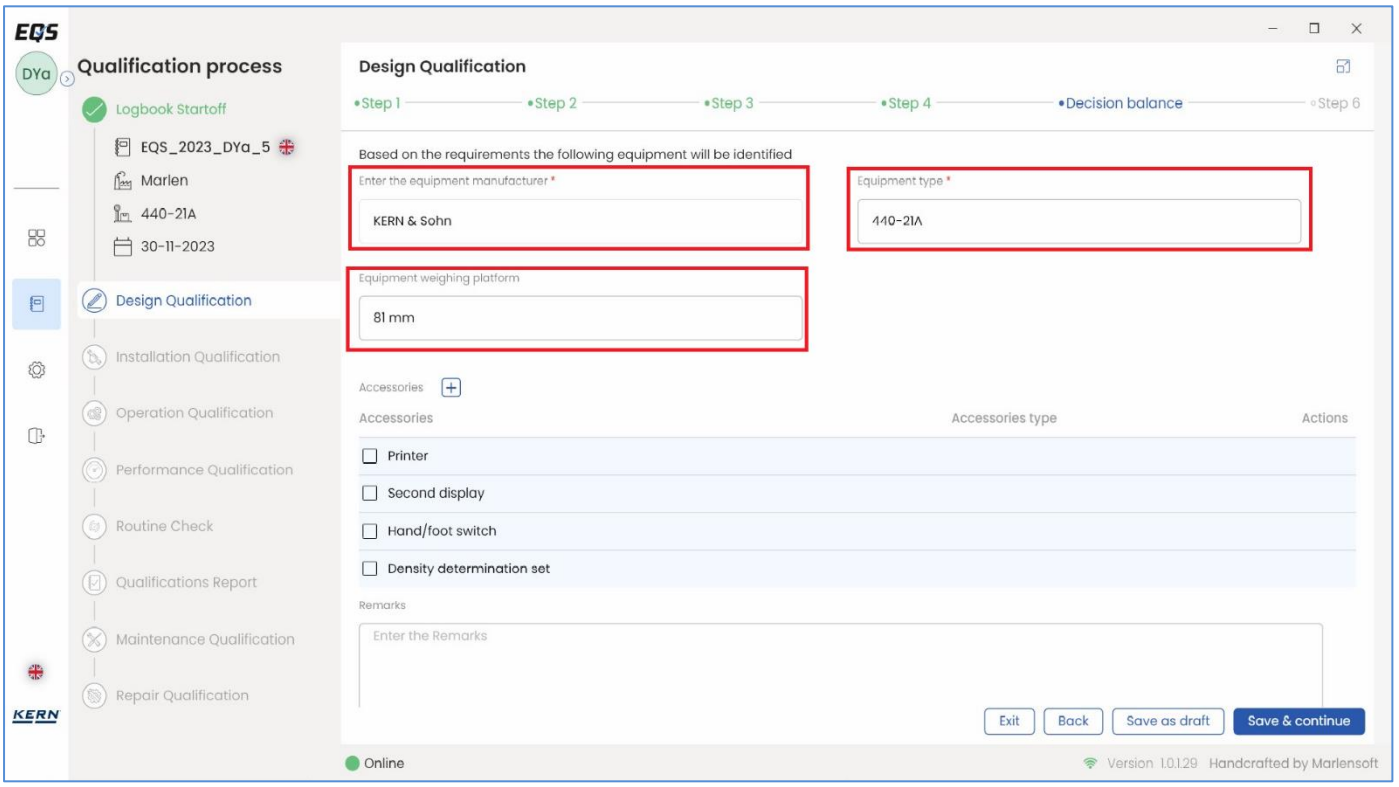


- **Step 5(Decision balance):** Enter data in the mandatory fields and click “Save and continue” button. Here certain fields have prepopulated data from logbook start-off screen.

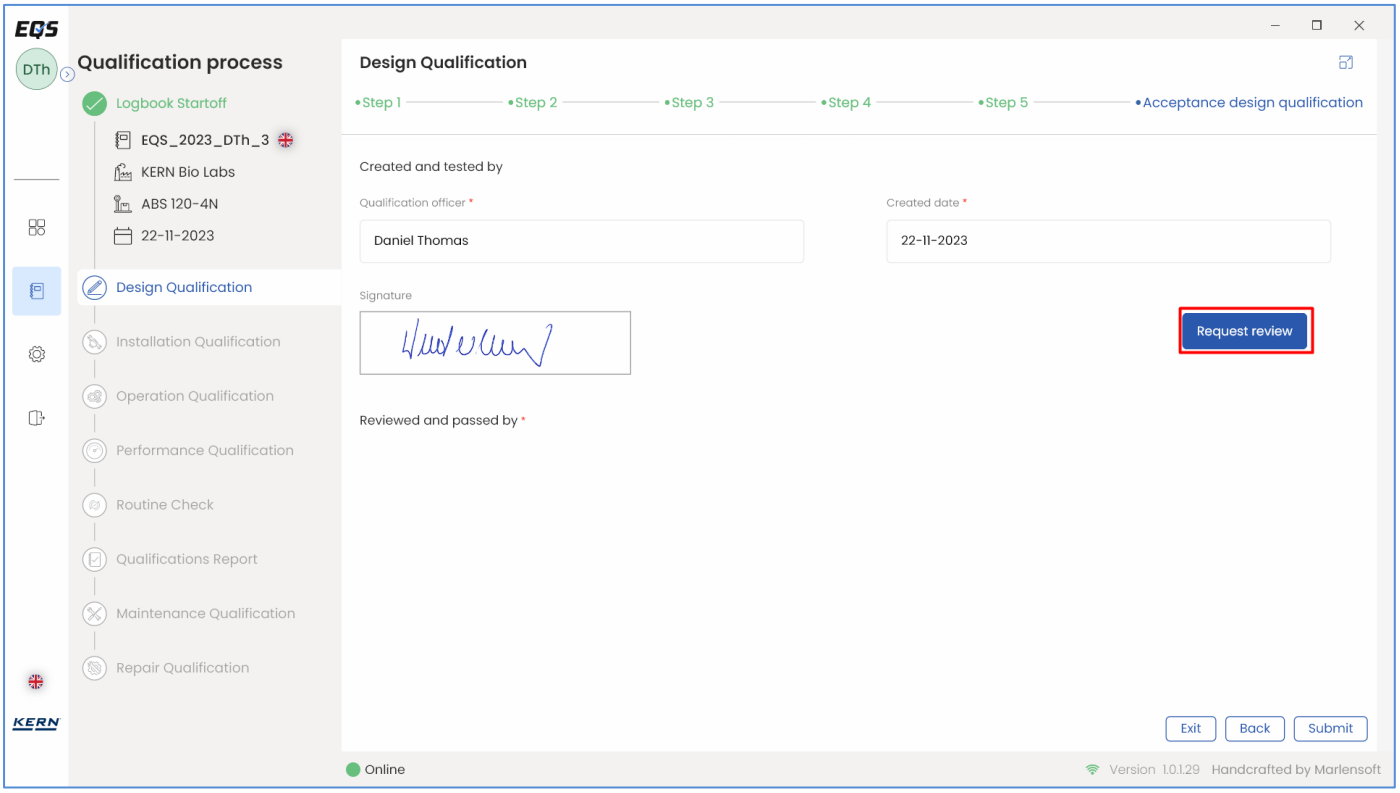


English

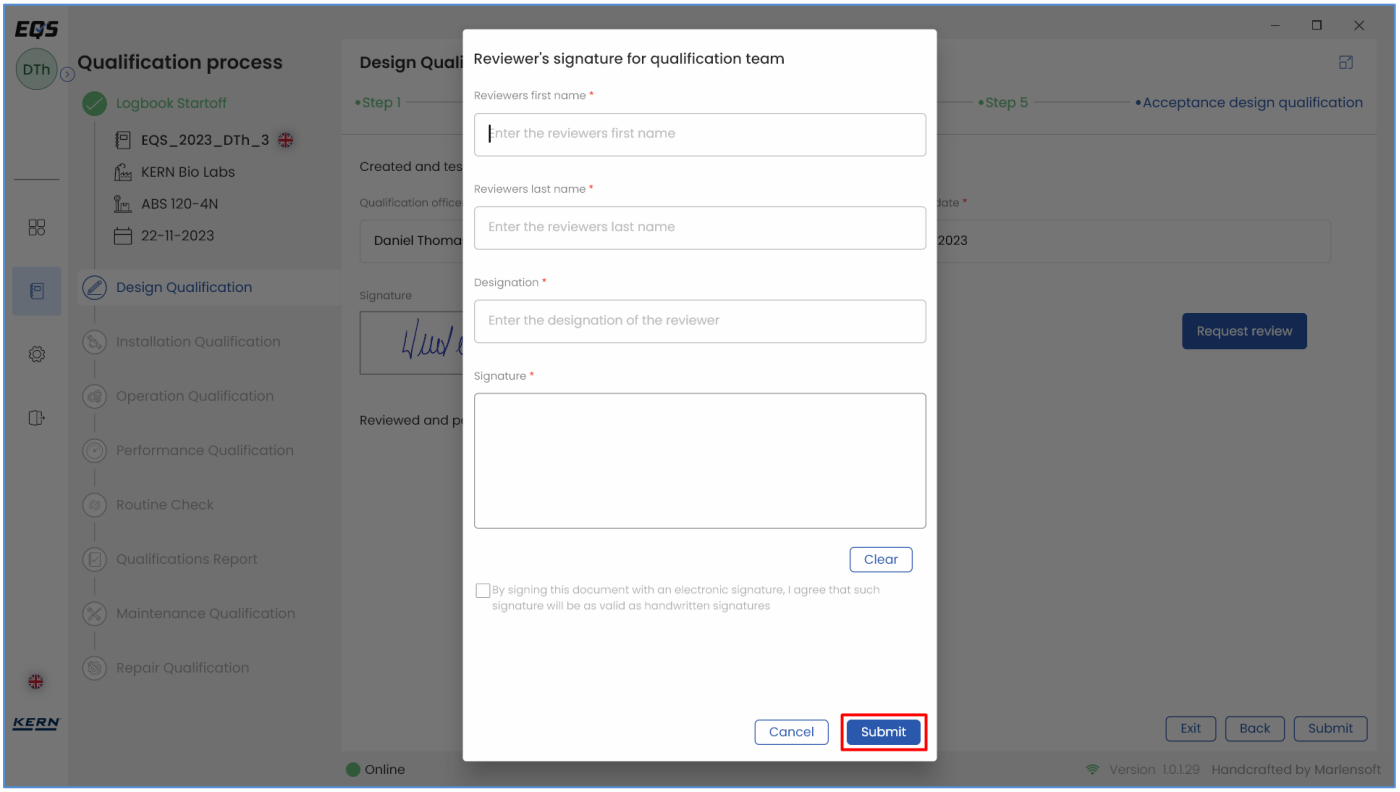
Prepopulate field:
Equipment manufacture, Equipment type & Equipment weight platform – prepopulated from logbook start off screen.



- **Step 6 (Acceptance Design Qualification):** Here the qualification officer details will be pre-populated and click the request review button, fill the reviewer details and click "Submit" button.

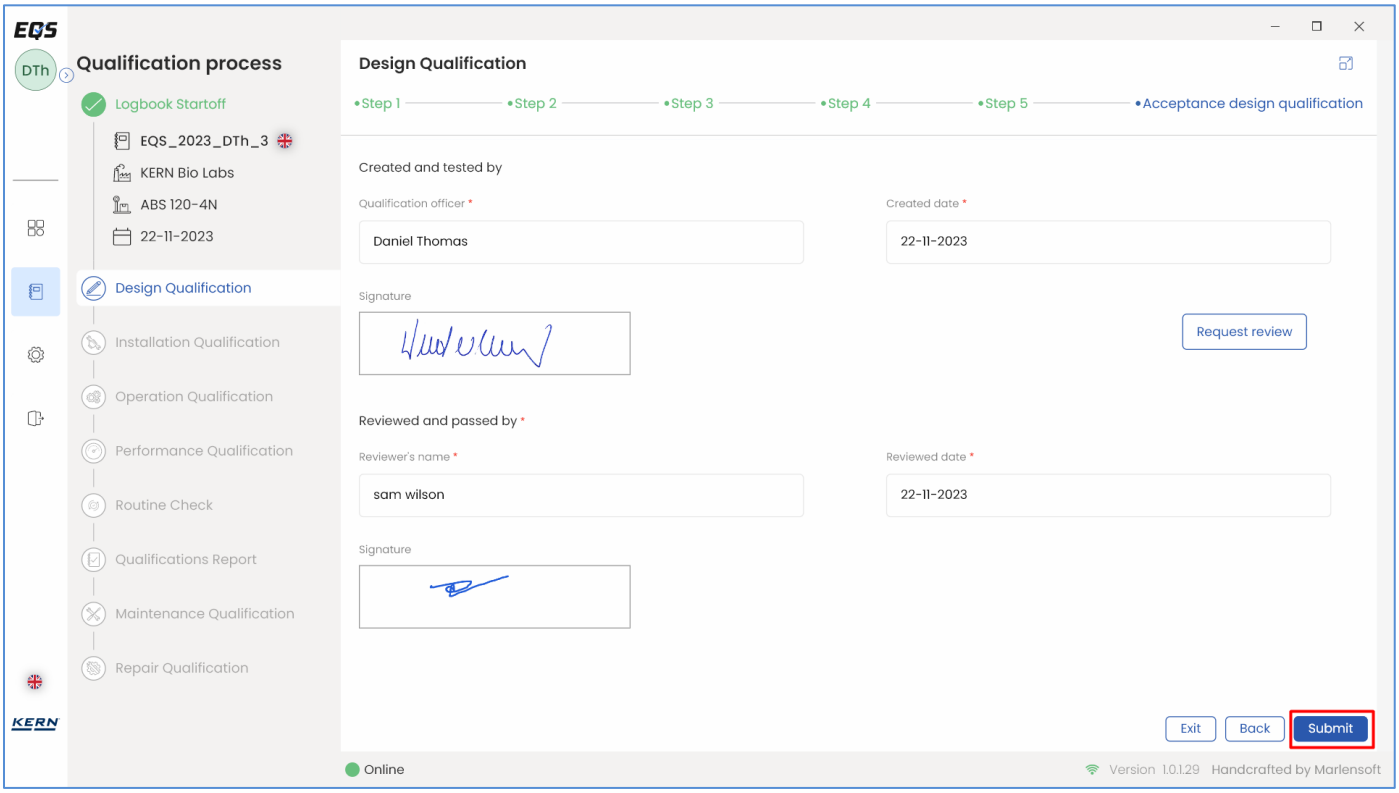


English



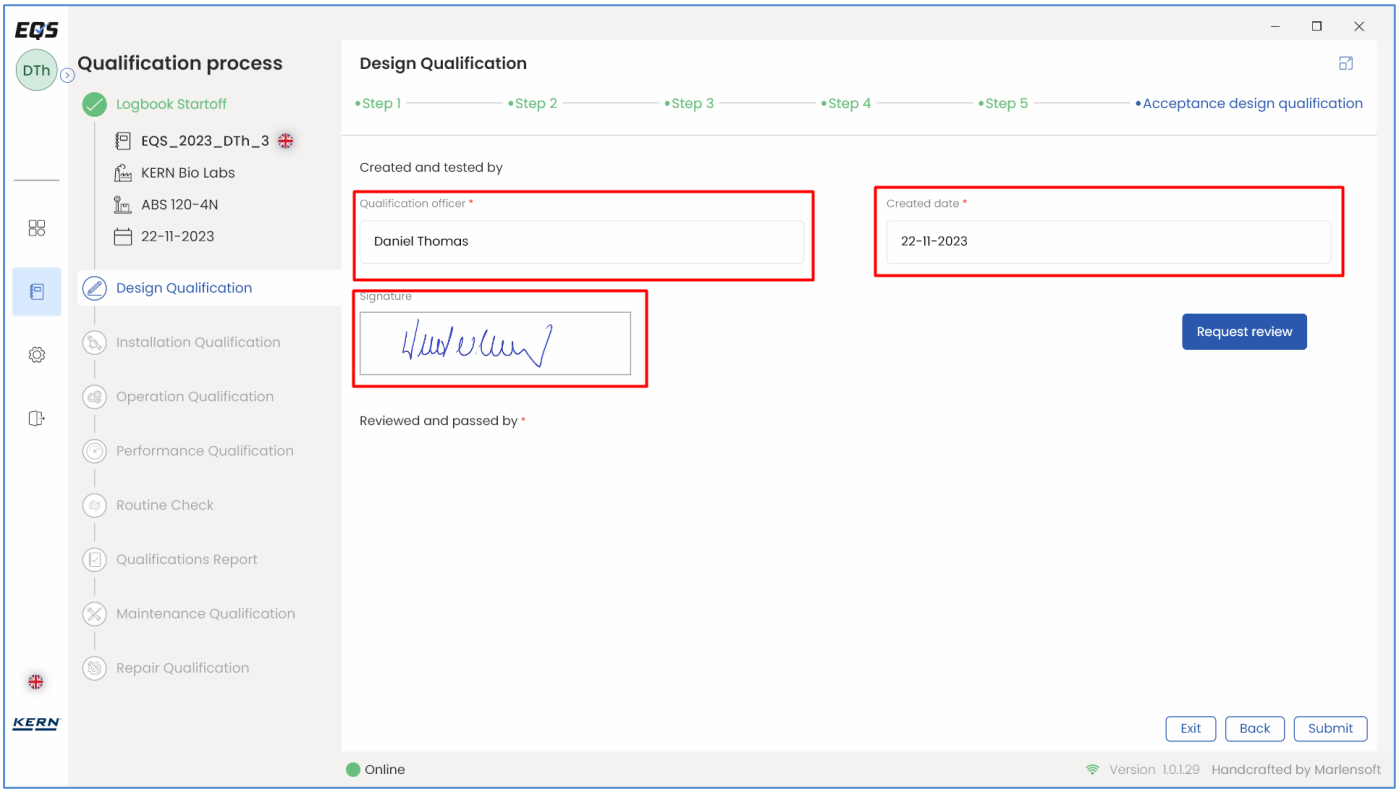
Note: The reviewer details including signature entered in design qualification will be auto populate in reviewer steps for installation qualification.

- After completing the review request procedure click “Submit” button to complete the design qualification process.

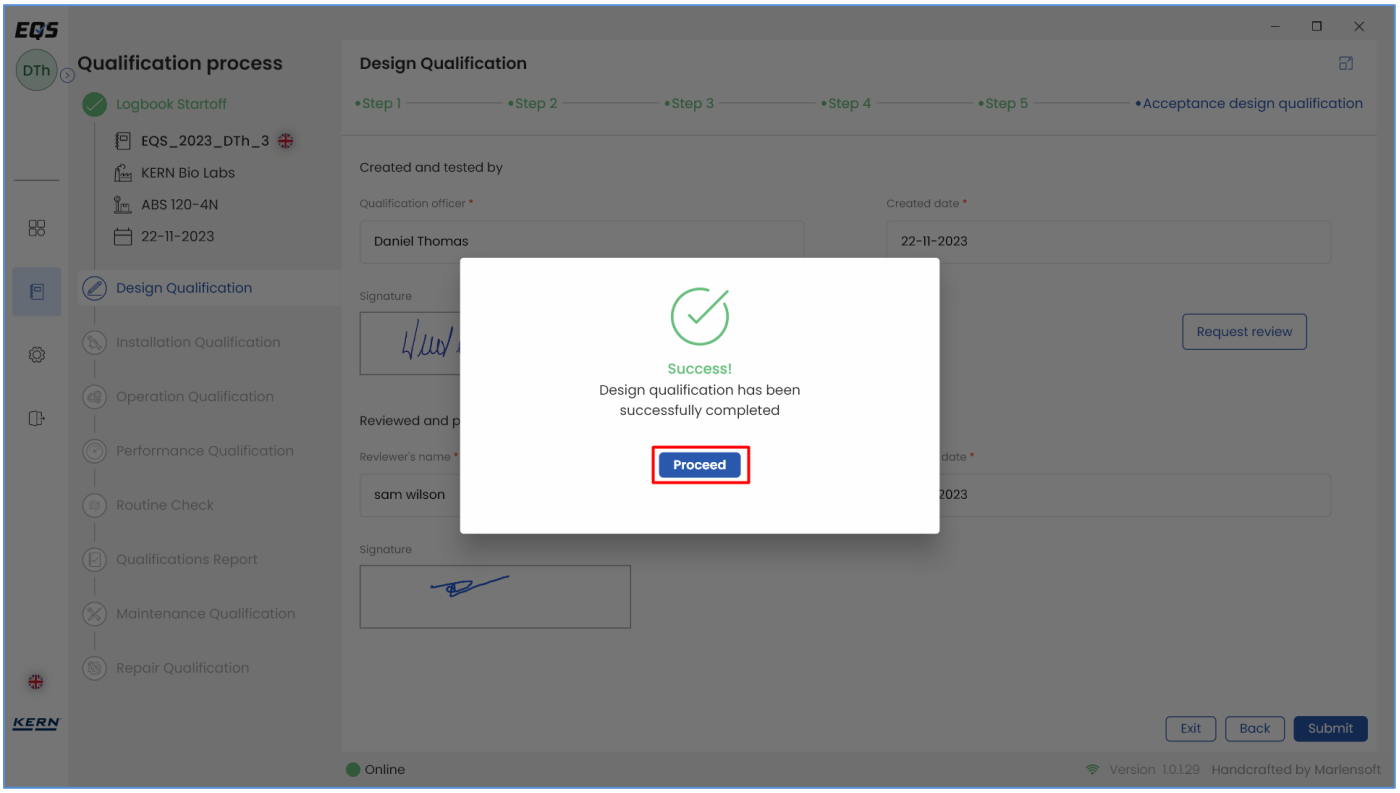


English

Prepopulate field:
Qualification officer created date & signature – prepopulated from login information and user database.



- Once a qualification process has been completed a success message popup appears. After clicking “Proceed” button the qualification is marked in green color in the side navigation.

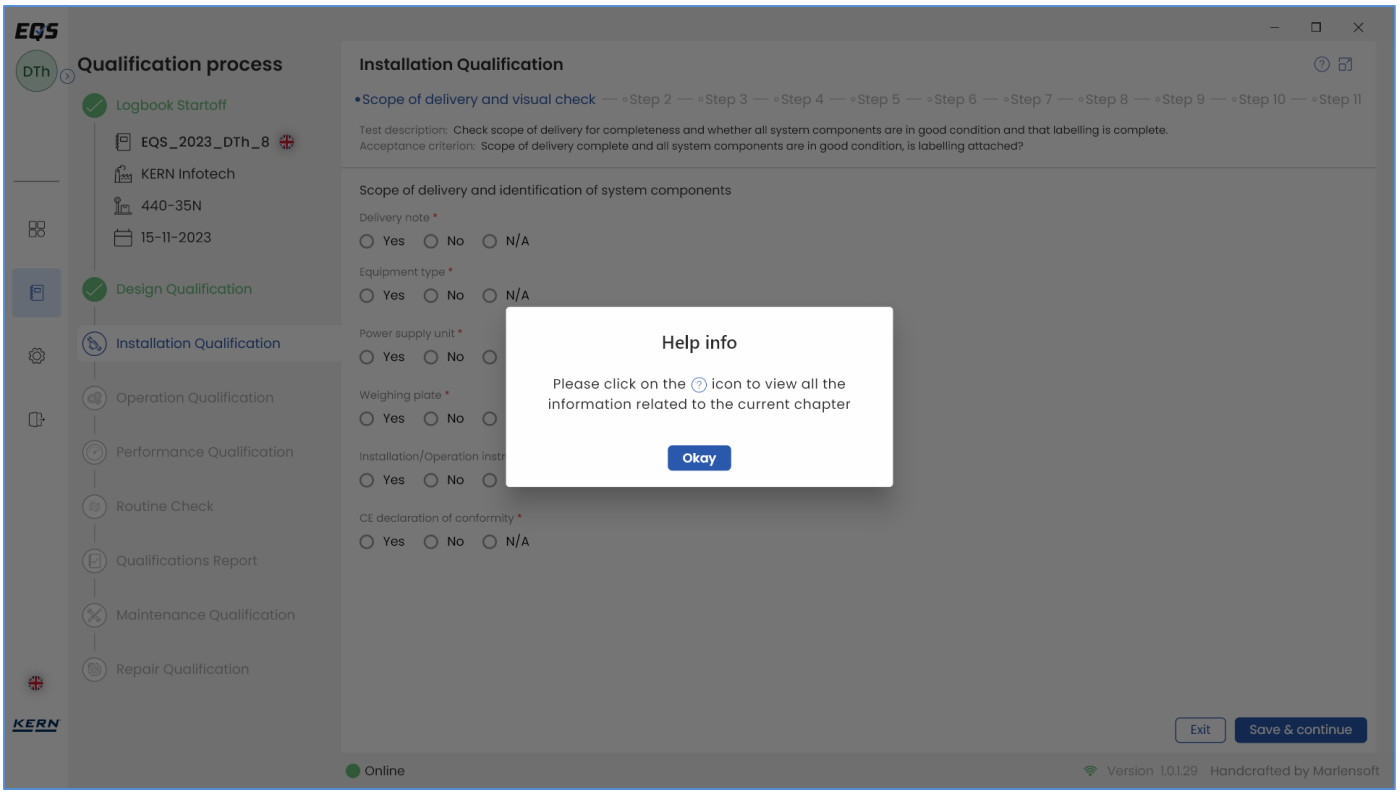


English

7.3 Installation qualification

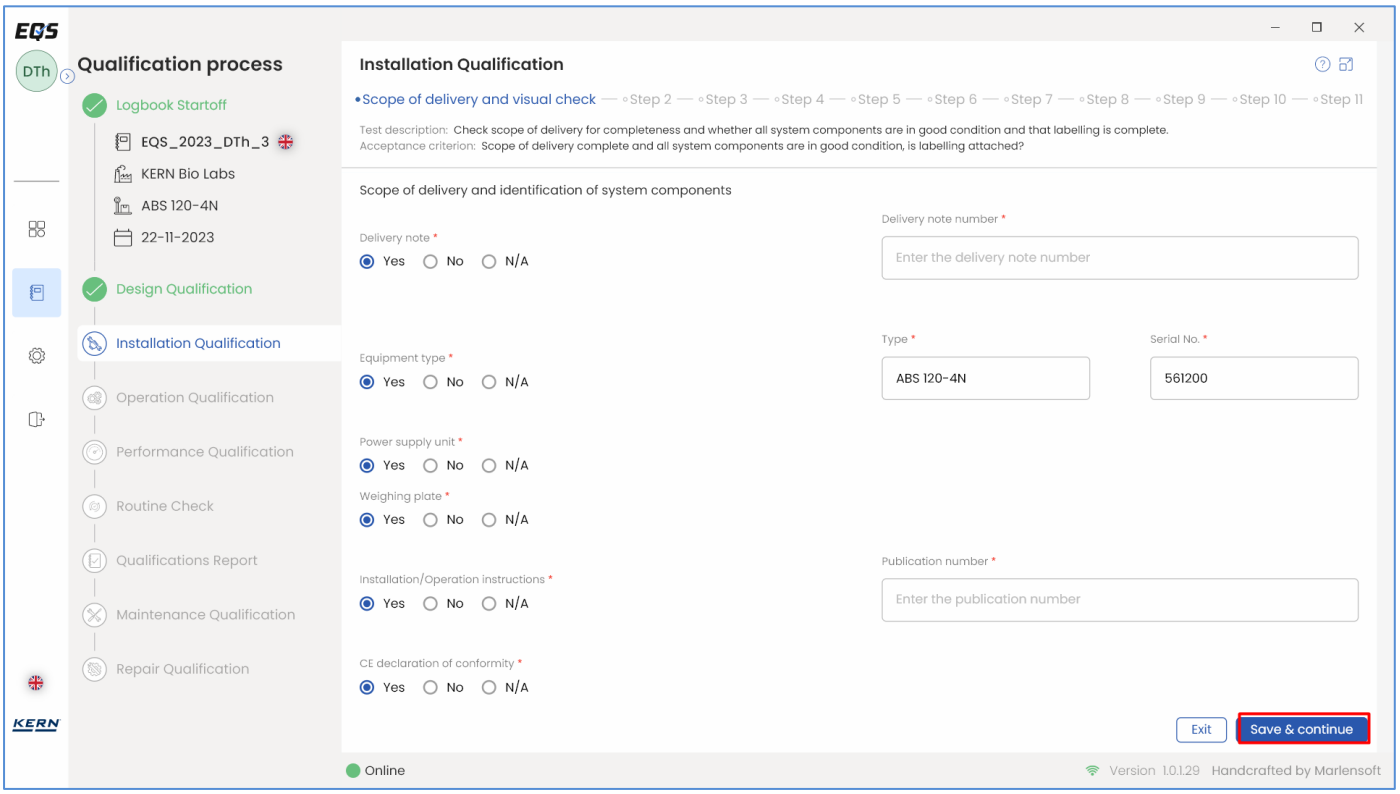
Installation qualification outlines the detailed steps for setting up and starting the operation of equipment. This includes checking the completeness of the delivered items, ensuring they meet specifications, describing the installation environment, proper installation procedures, confirming equipment readiness, documenting configurations, and settings, and recording the installation of connected peripheral units.

- The help information popup is displayed to the qualification officer regarding the accessibility of help information regarding installation qualification.
- This is displayed until the qualification officer completes the first step of installation qualification.



English

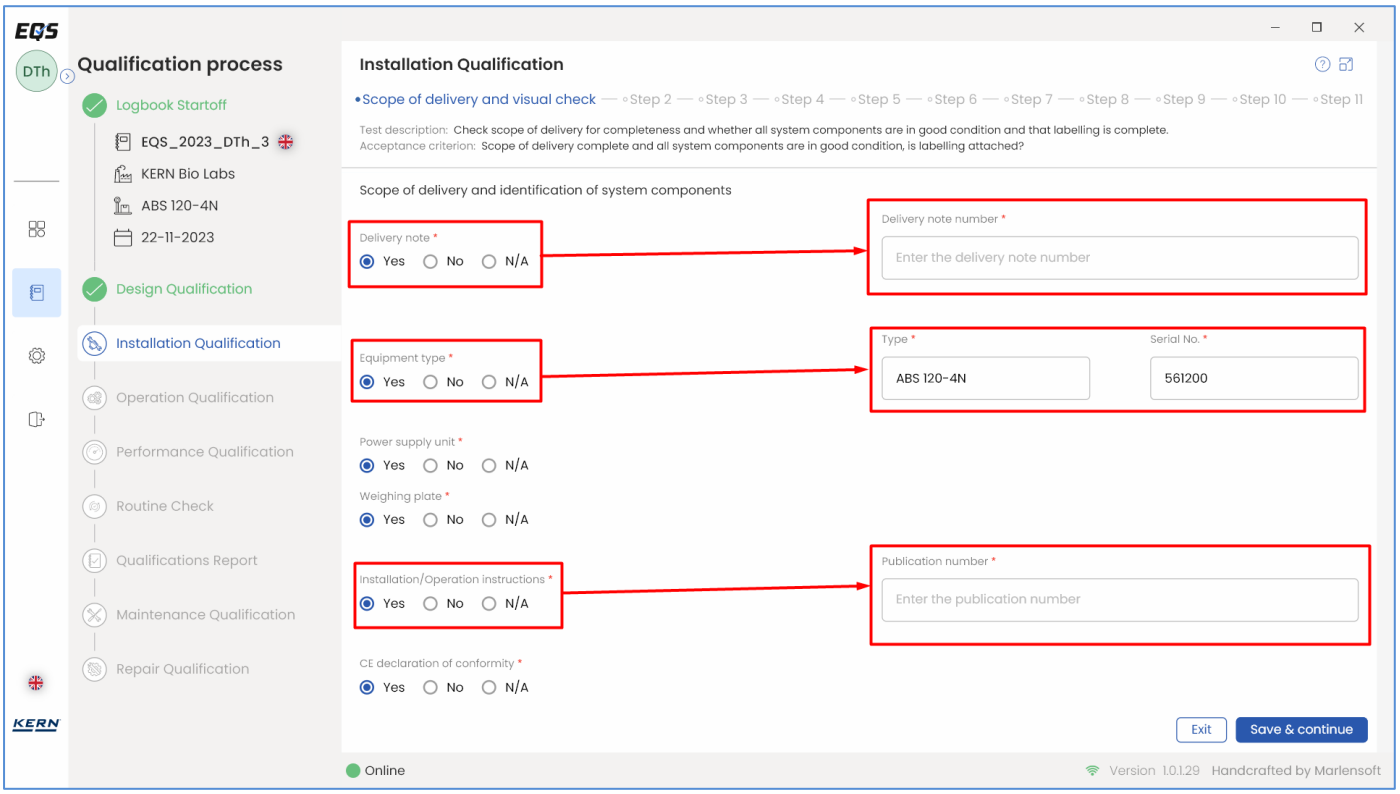
- **Step 1(Scope of delivery and visual check):** Enter data in the mandatory fields and click "Save and continue" button. Here there are fields that have prepopulated data and in certain fields have additional fields which are mandatory.



Additional fields:

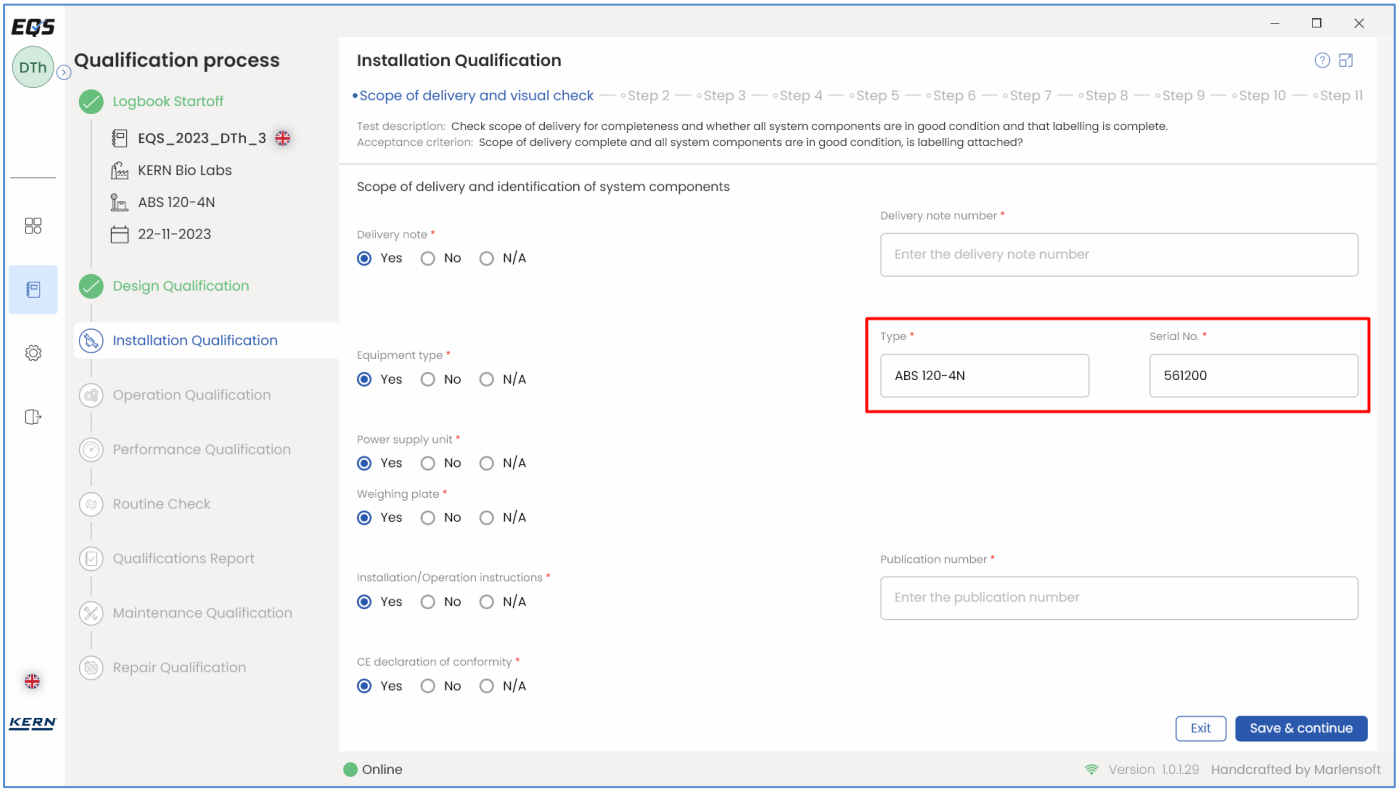
- Delivery note (parent field) – Delivery notes number (additional field)
- Equipment type (parent field) – Type & serial number (additional fields)
- Installation operation instruction (parent field) – Publication number (additional fields)

English



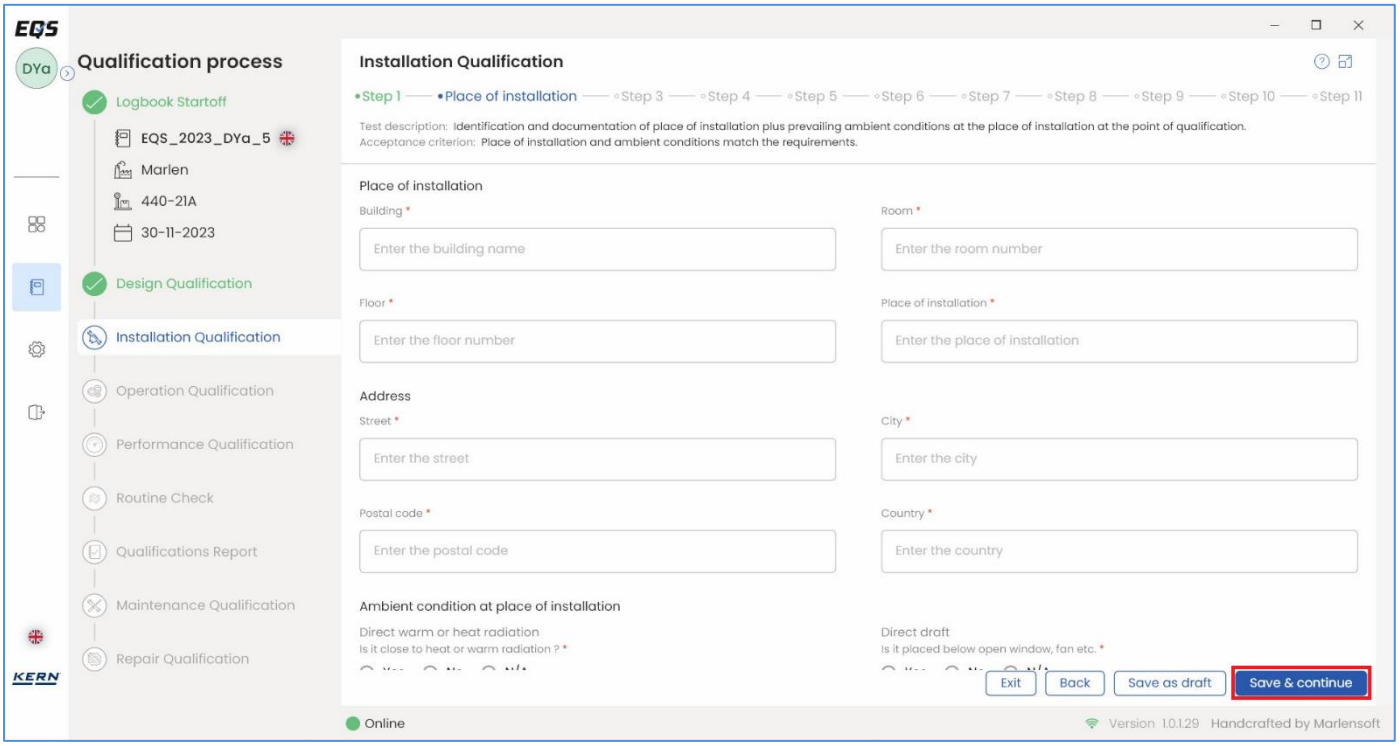
Prepopulate field:

- Type and serial number – prepopulated from logbook start off screen.

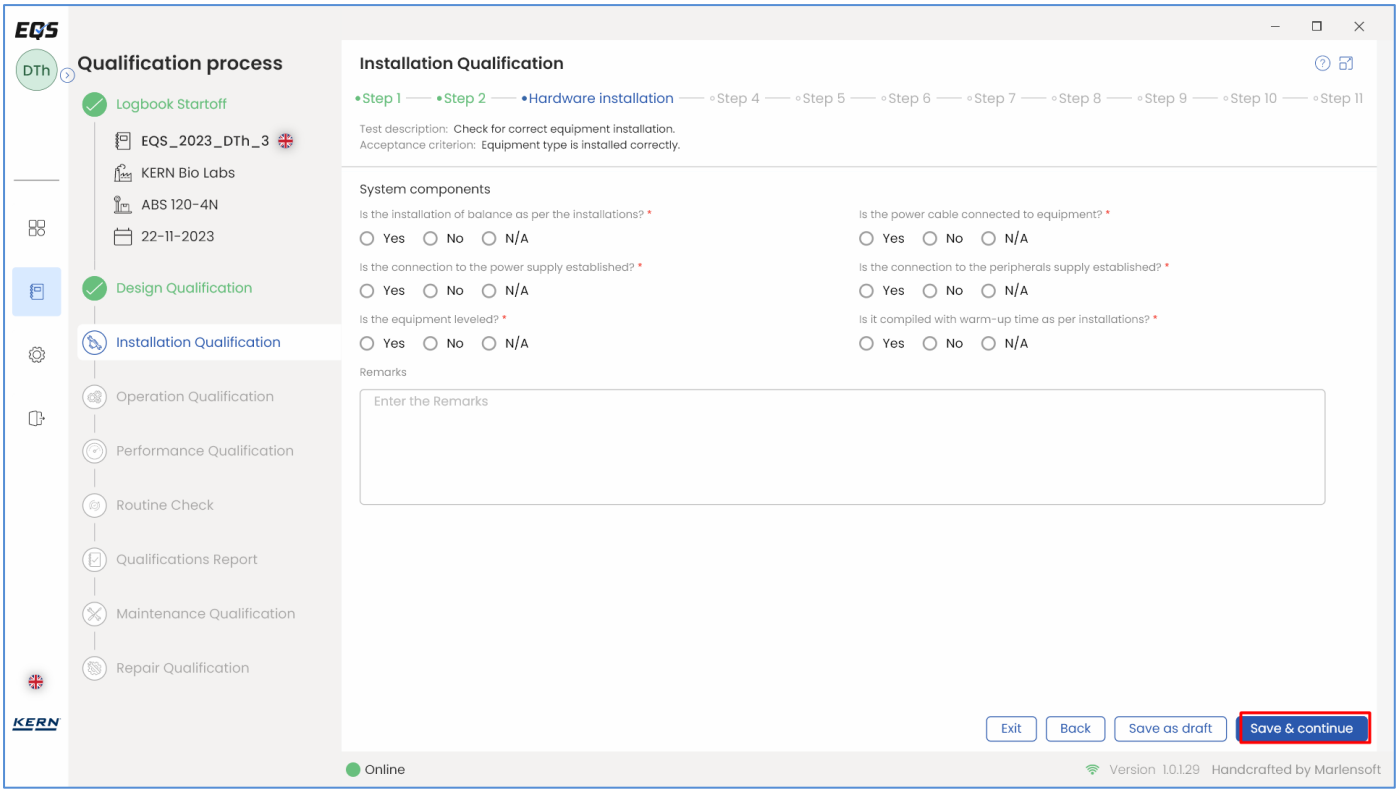


English

- **Step 2(place of installation):** Enter data in the mandatory fields and click “Save and continue” button.

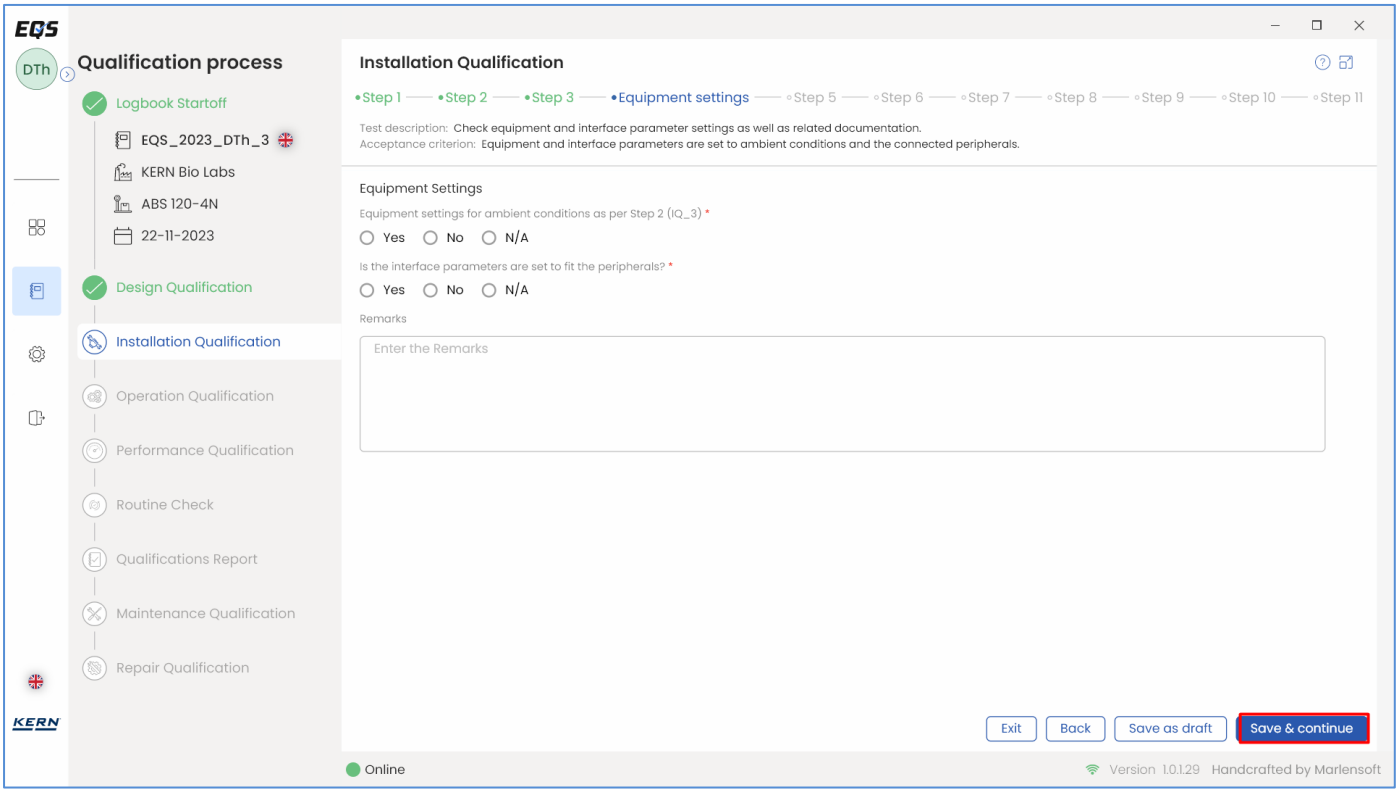


- **Step 3(Hardware installation):** Enter data in the mandatory fields and click “Save and continue” button.



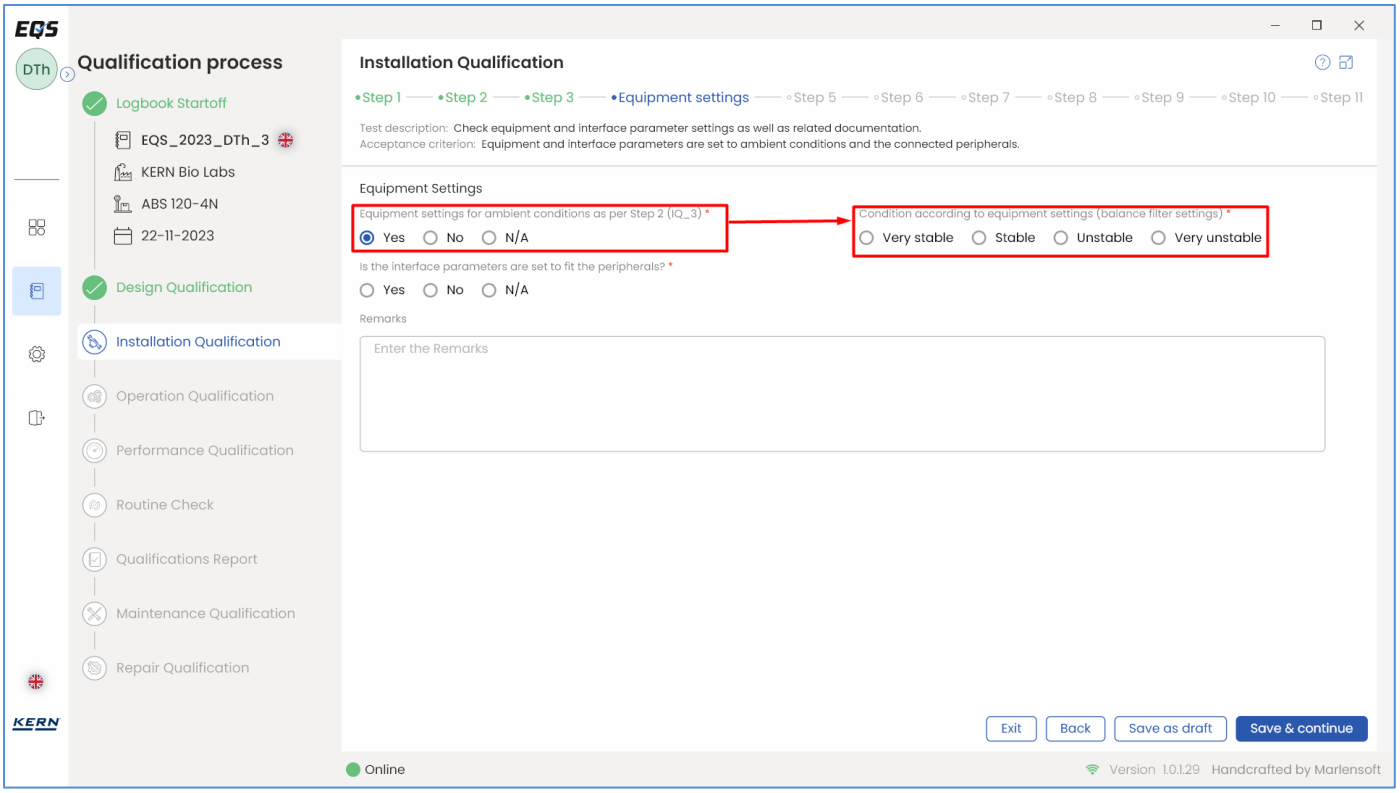
English

- **Step 4(Equipment settings):** Enter data in the mandatory fields and click “Save and continue” button. Here there is a field which has additional field that is mandatory.



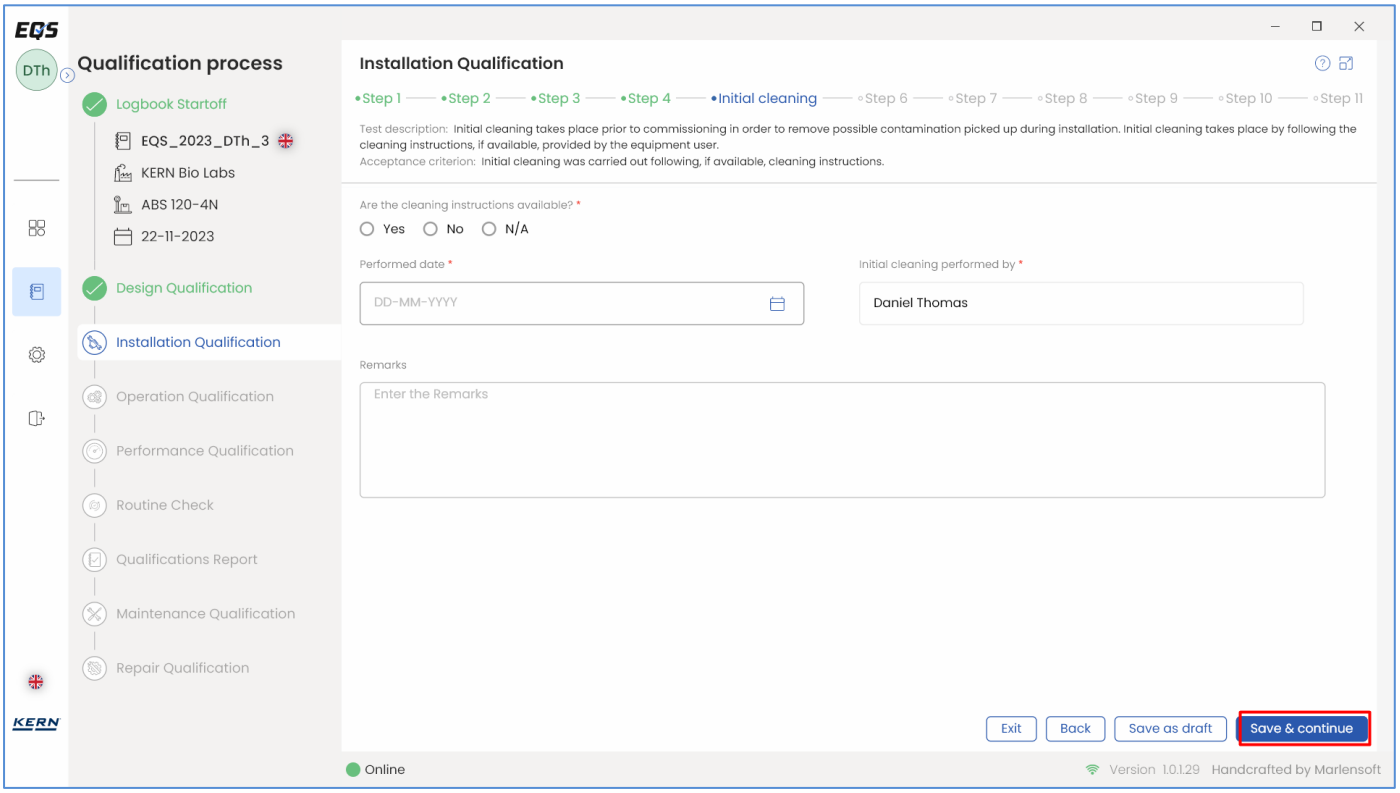
Additional fields:

- Equipment settings for ambient conditions as per step2 (parent field) – Condition according to equipment settings (additional field).



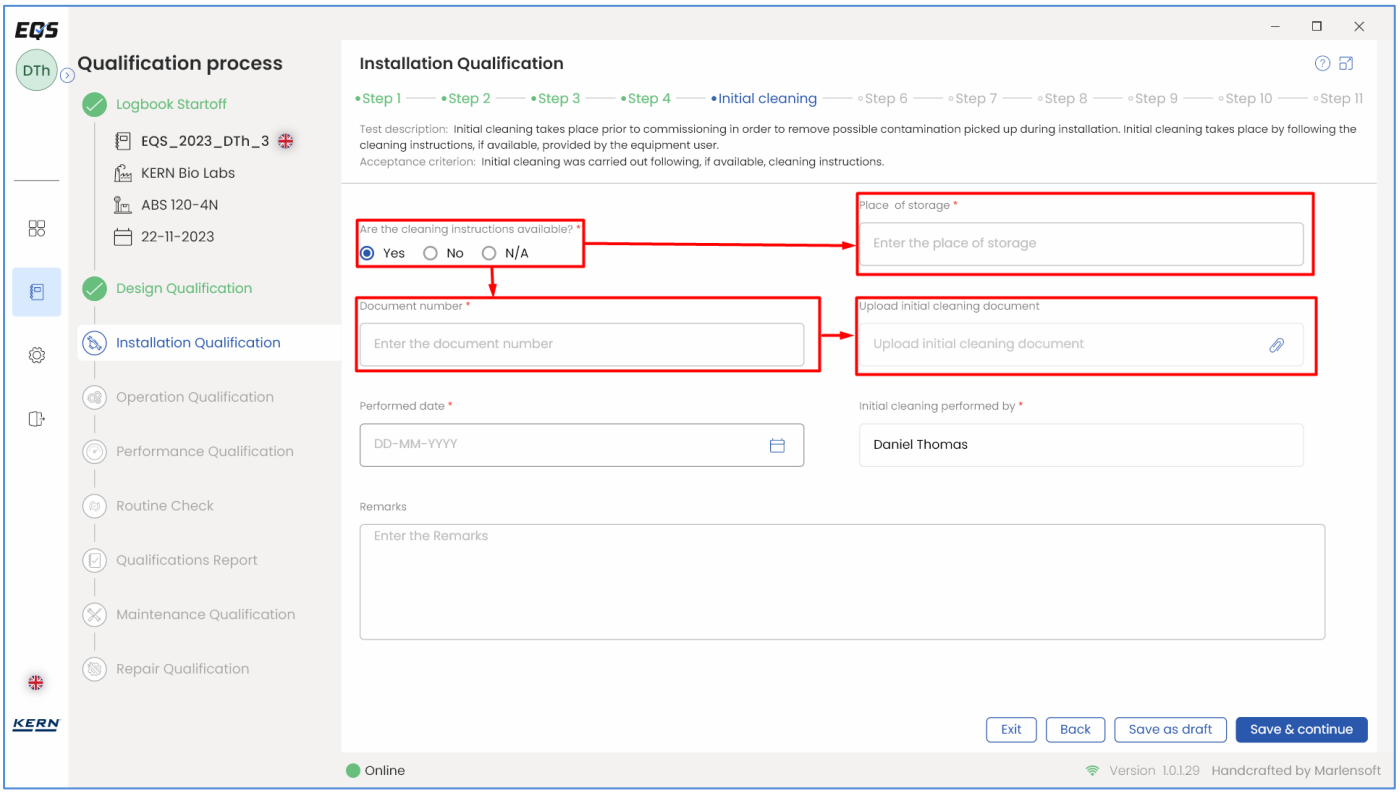
English

- **Step 5(Initial Cleaning):** Enter data in the mandatory fields and click “Save and continue” button. Here there is a field which has additional field that is mandatory.



Additional fields:

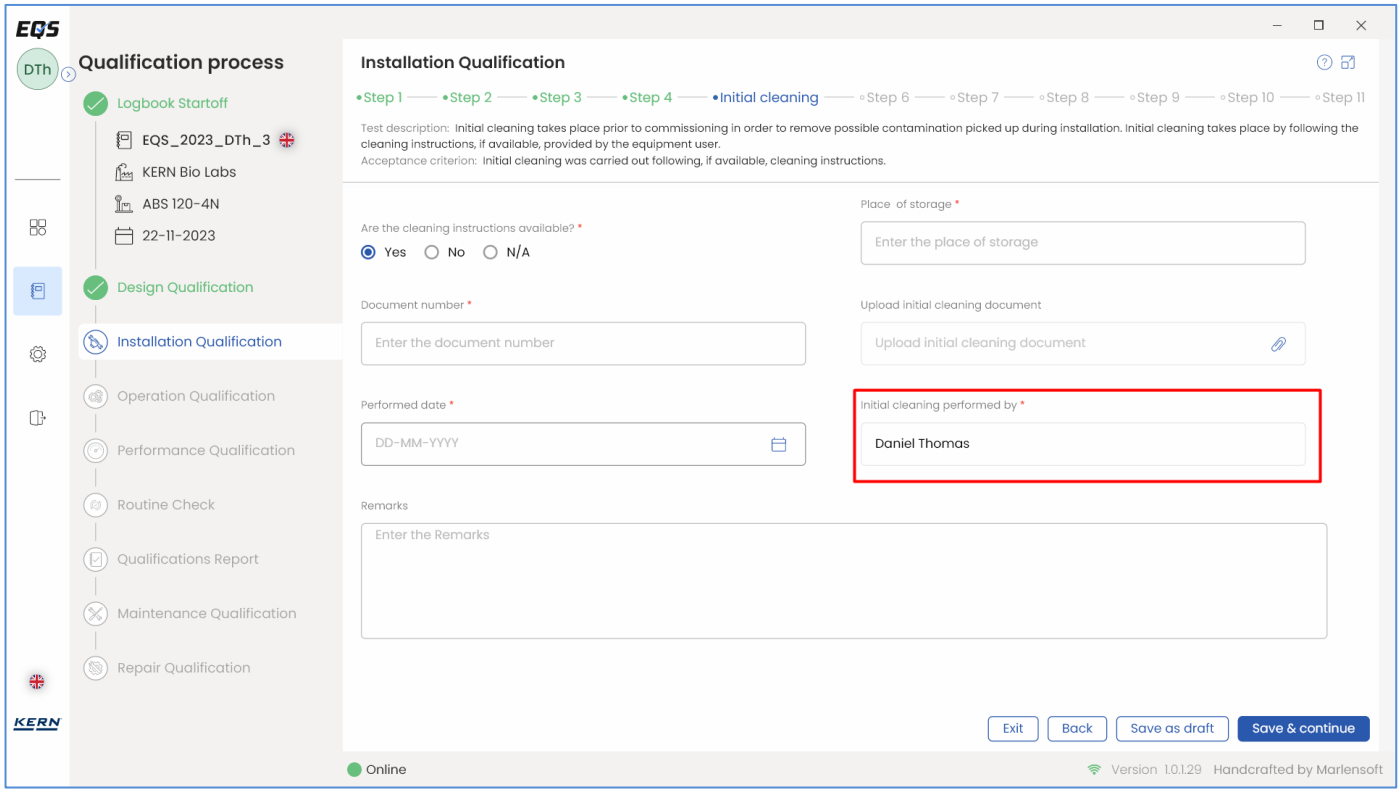
- Are the cleaning instructions available (Parent field) - Place of storage, Document number & Upload initial cleaning document (additional fields).



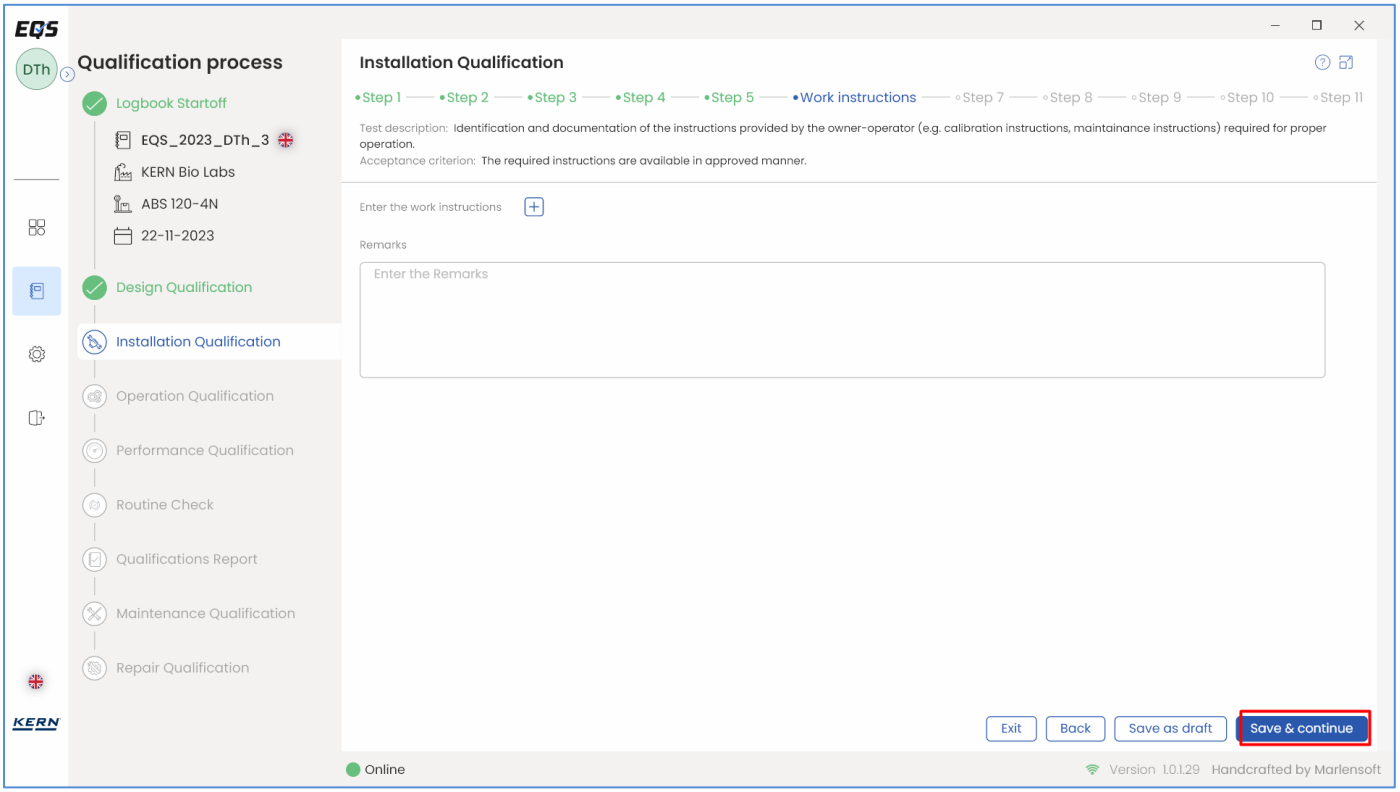
English

Prepopulated fields:

- Initial cleaning performed by – Prepopulated from user login information.

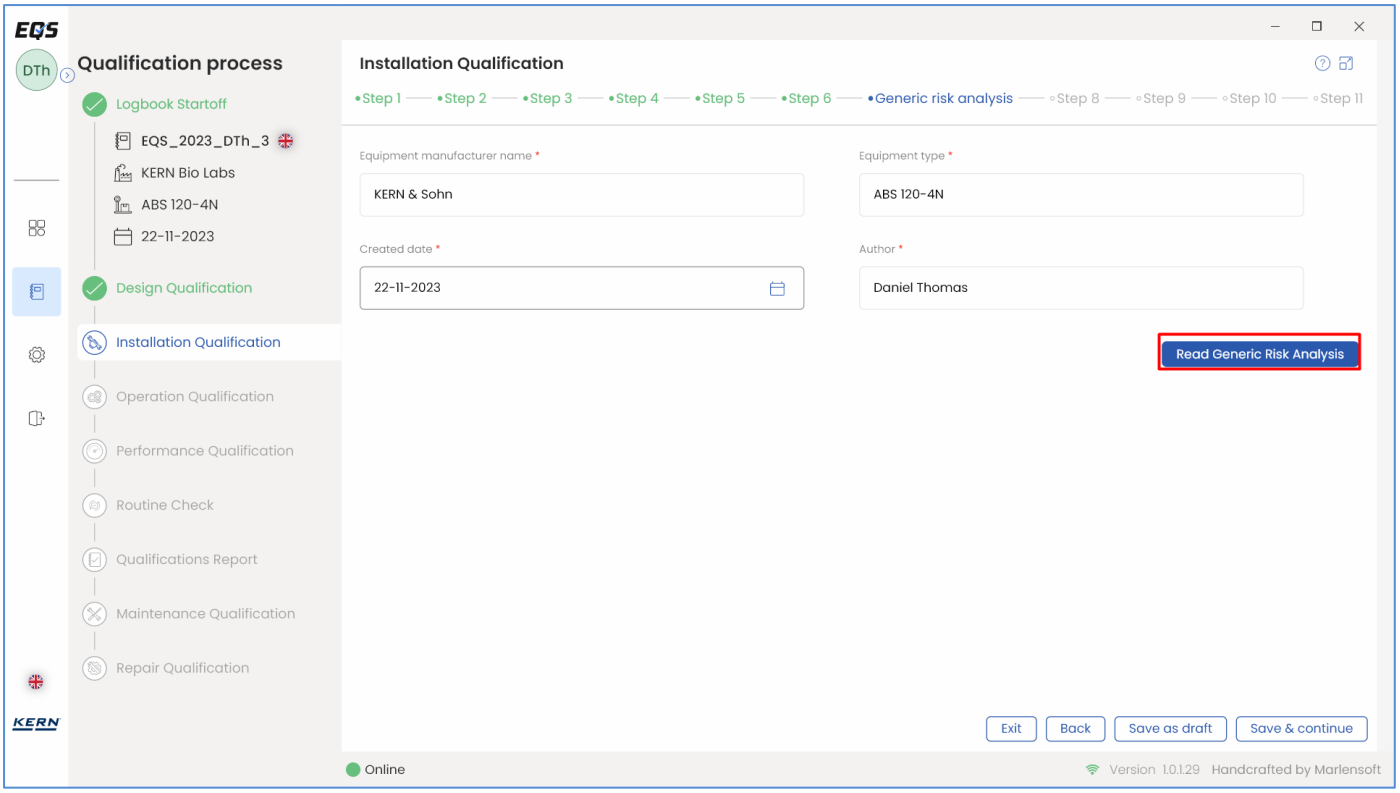


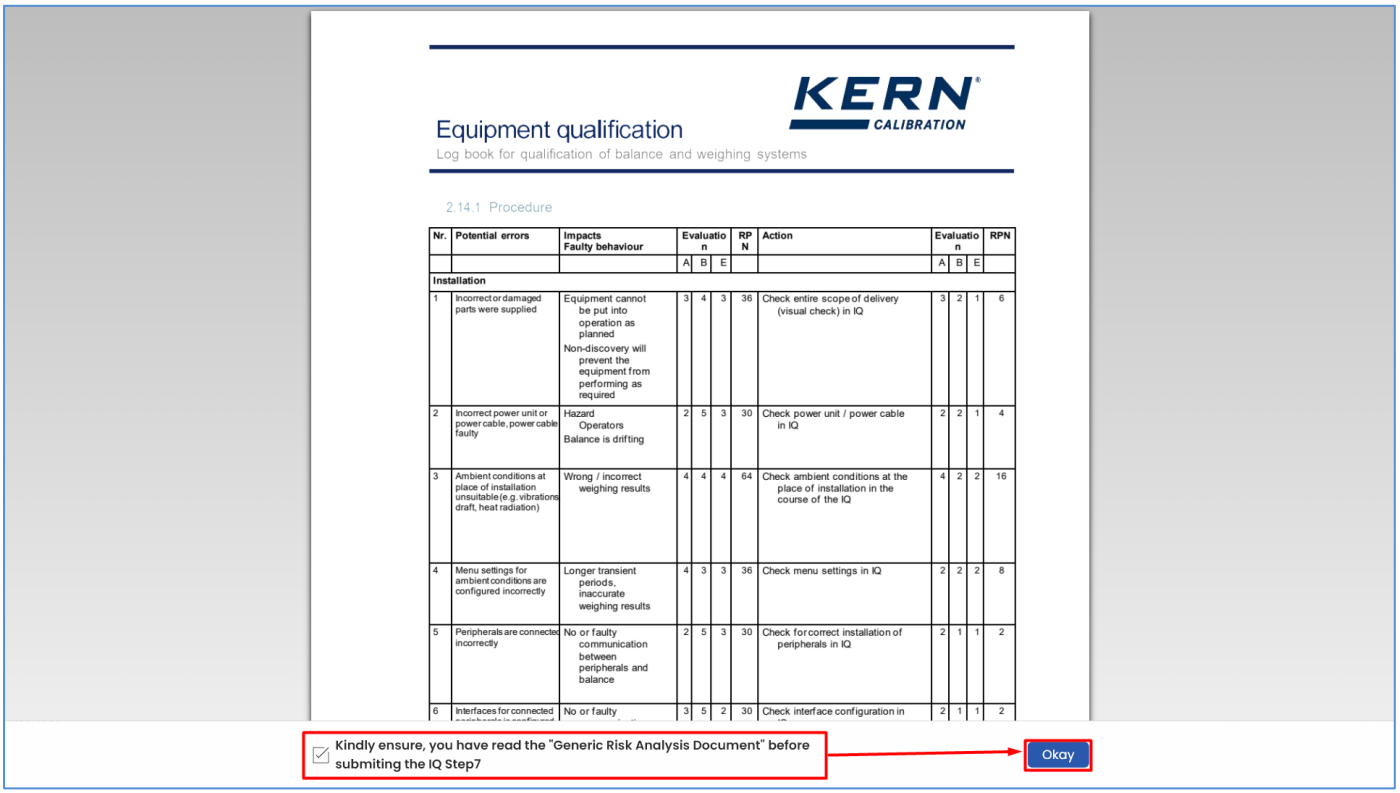
- **Step 6(Work Instructions):** Add work instruction documents and click “Save & continue” button.



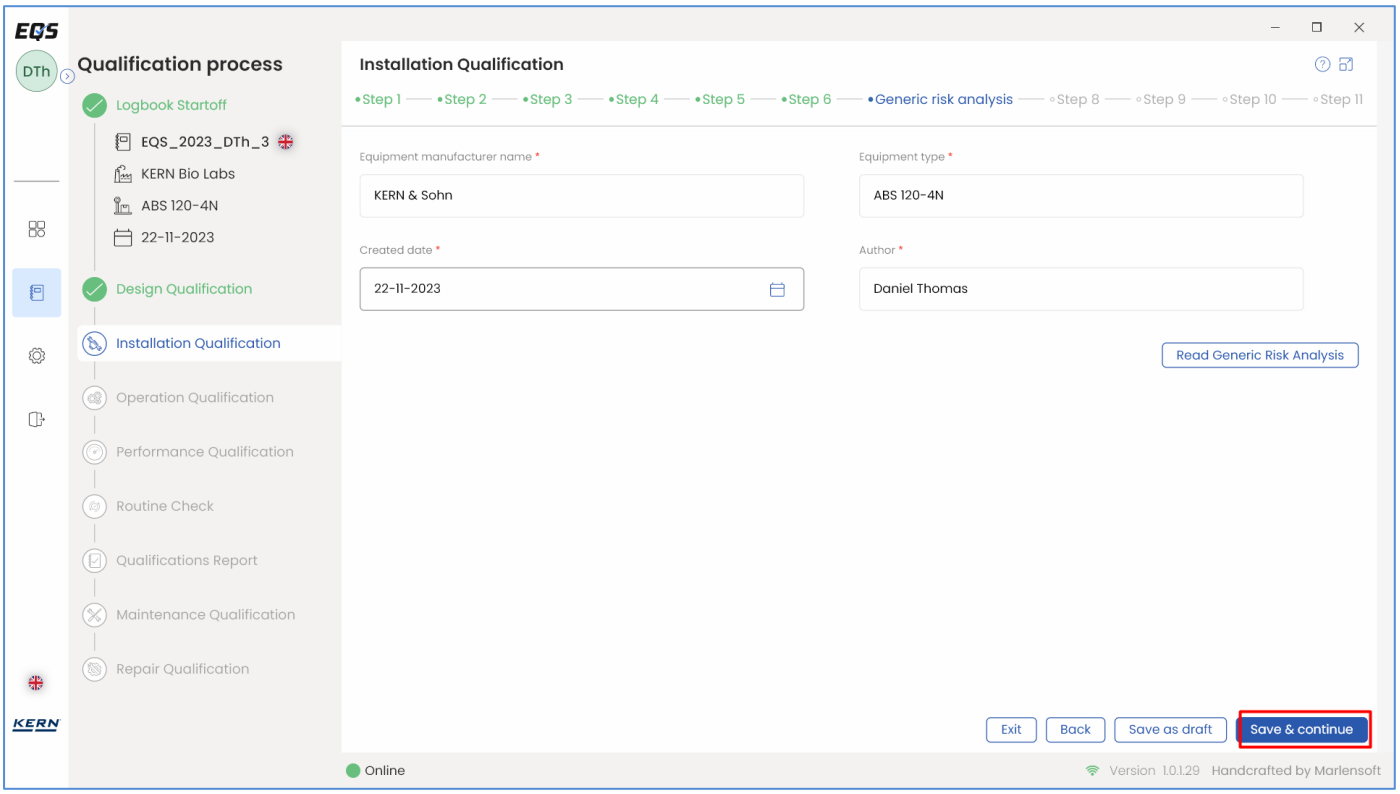
English

- **Step 7(Generic risk analysis):** Go through and confirm the generic risk analysis document and enter fill the mandatory fields before clicking “Save & continue” button. Here there are fields that have prepopulated data.



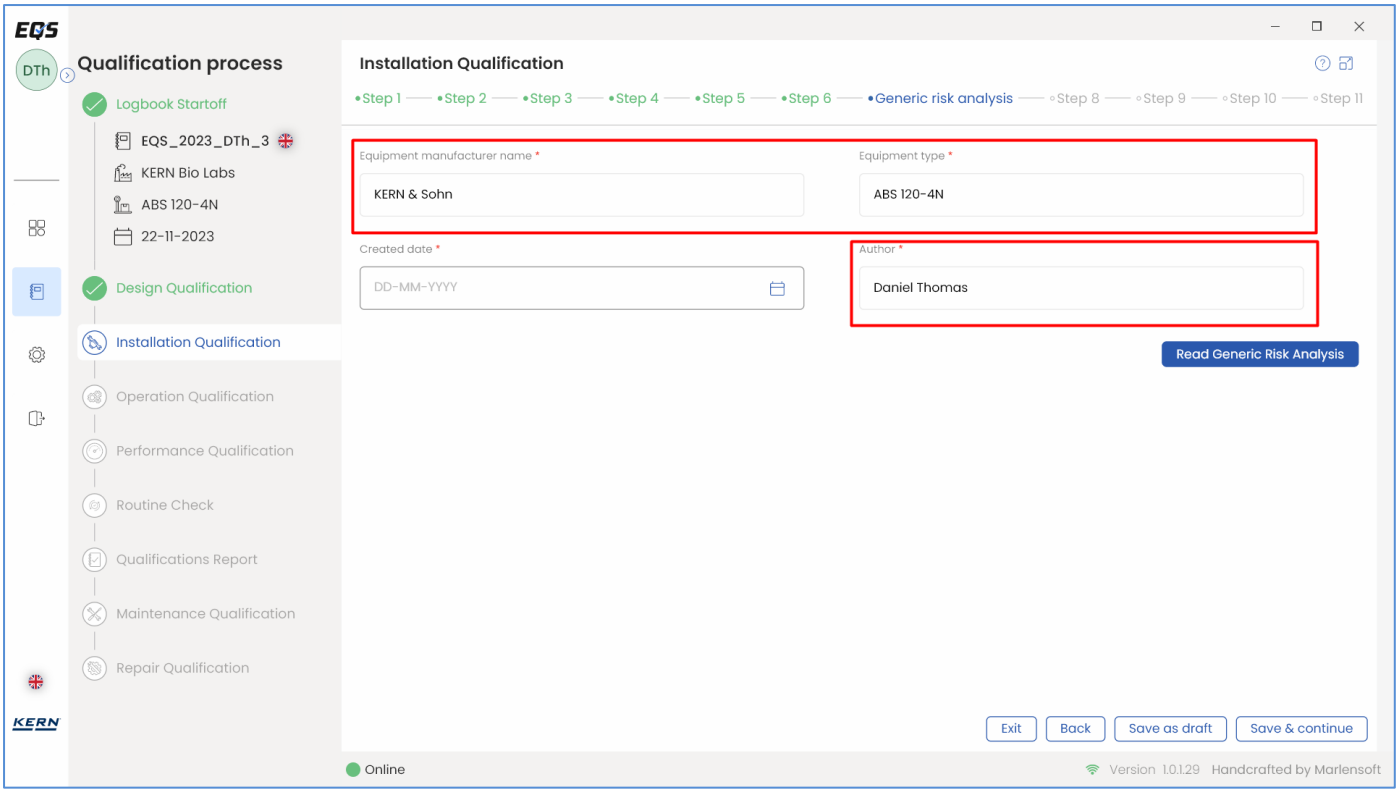


English



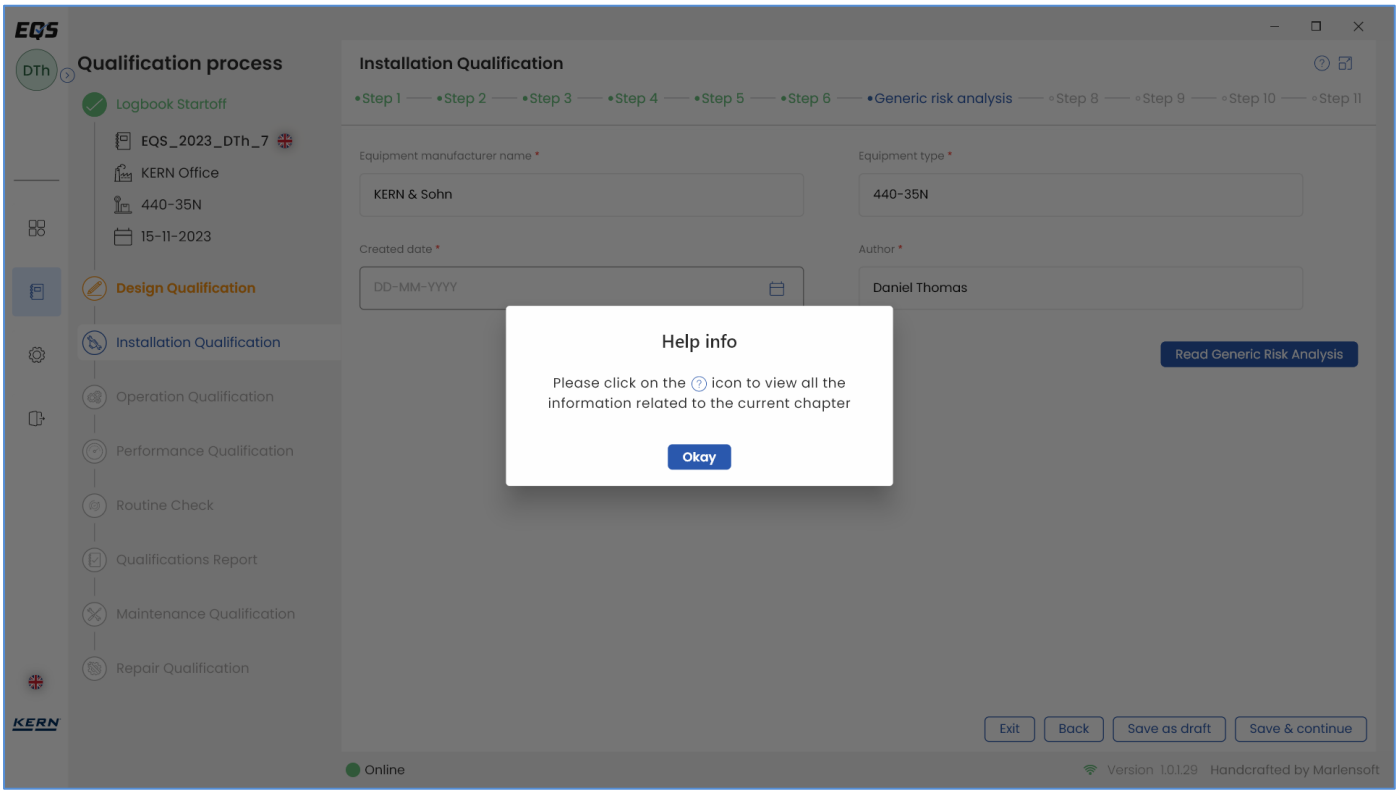
Prepopulated fields:

- Equipment manufacture name, Equipment type and Author – Prepopulated from user login information and logbook start off'.

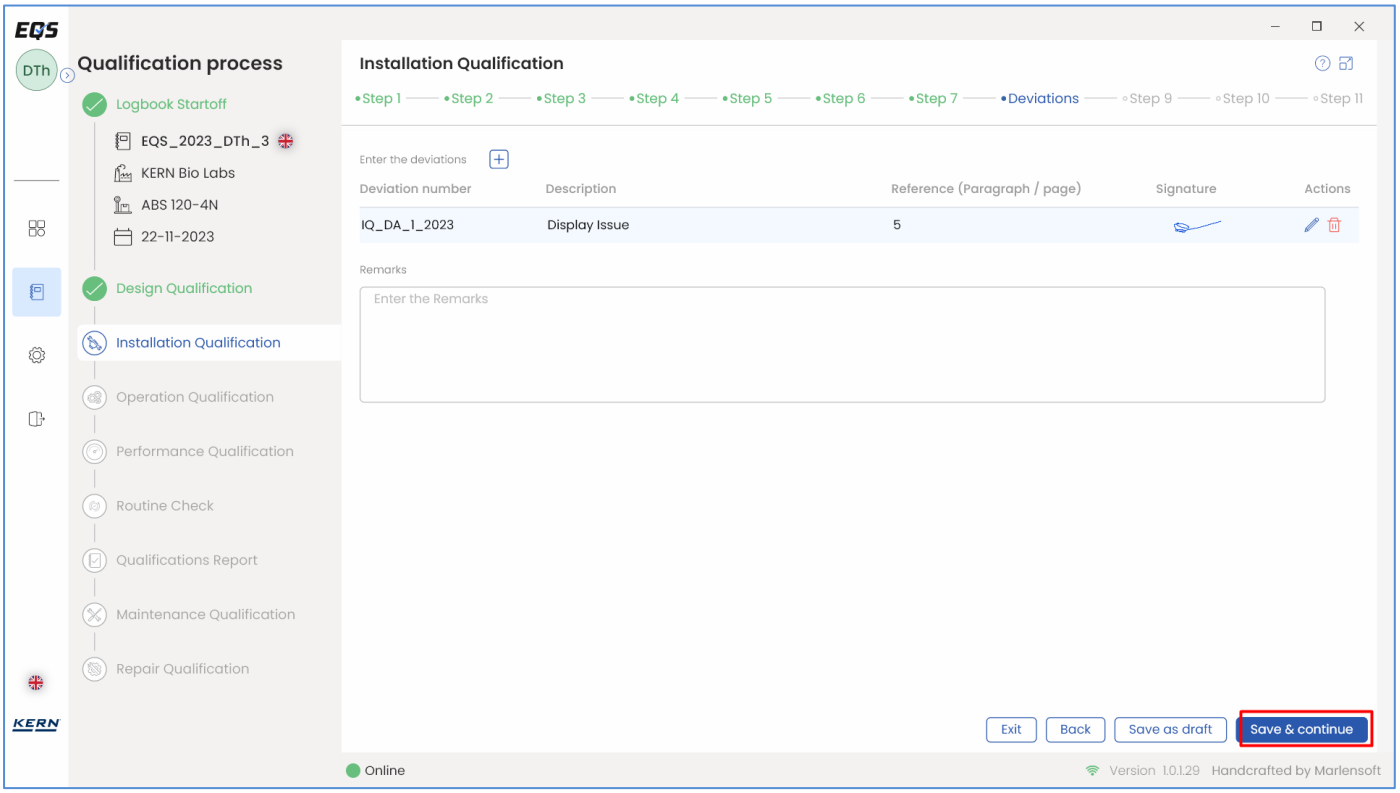


Note: Help information popup displays when entering installation qualification step 7.

English

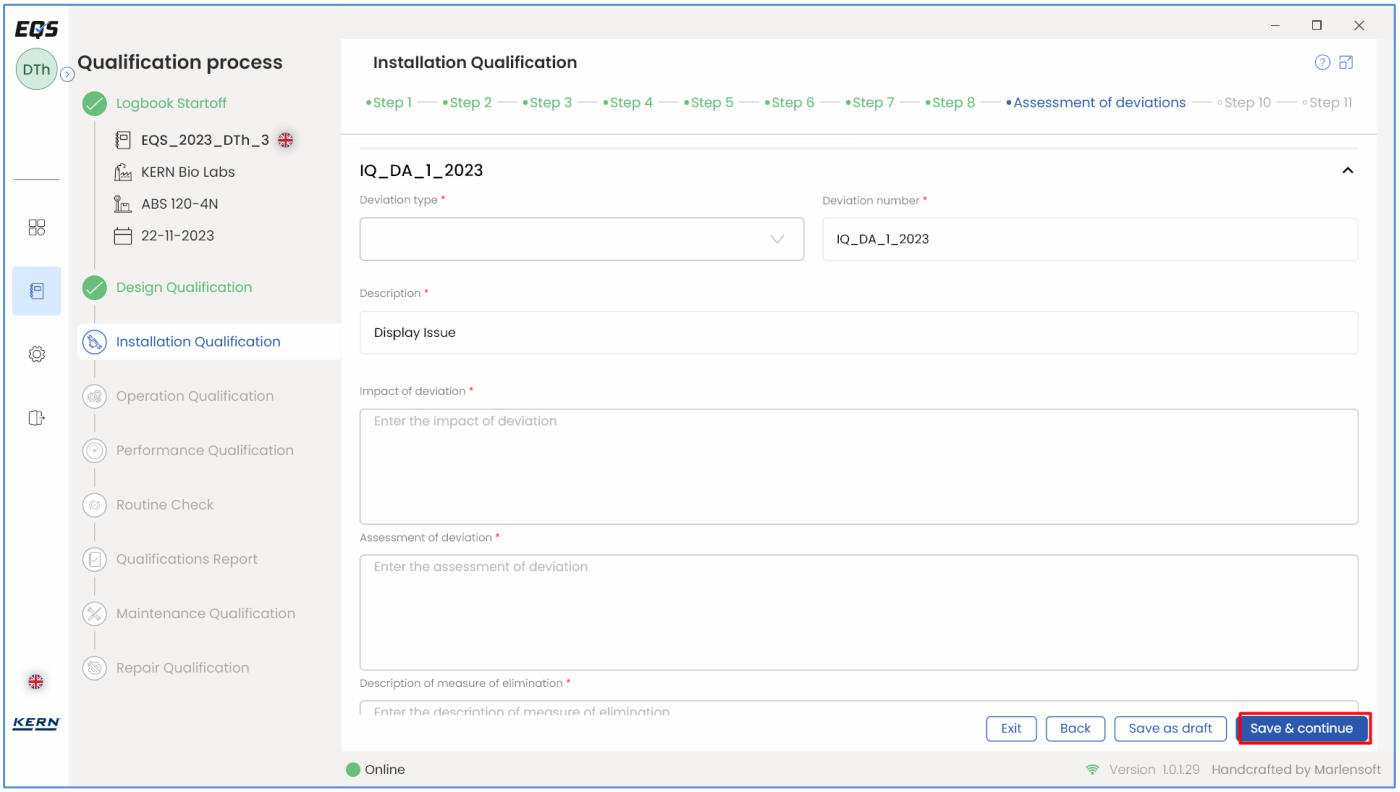


- **Step 8(Deviations):** Add deviations if any and click “Save & continue” button.



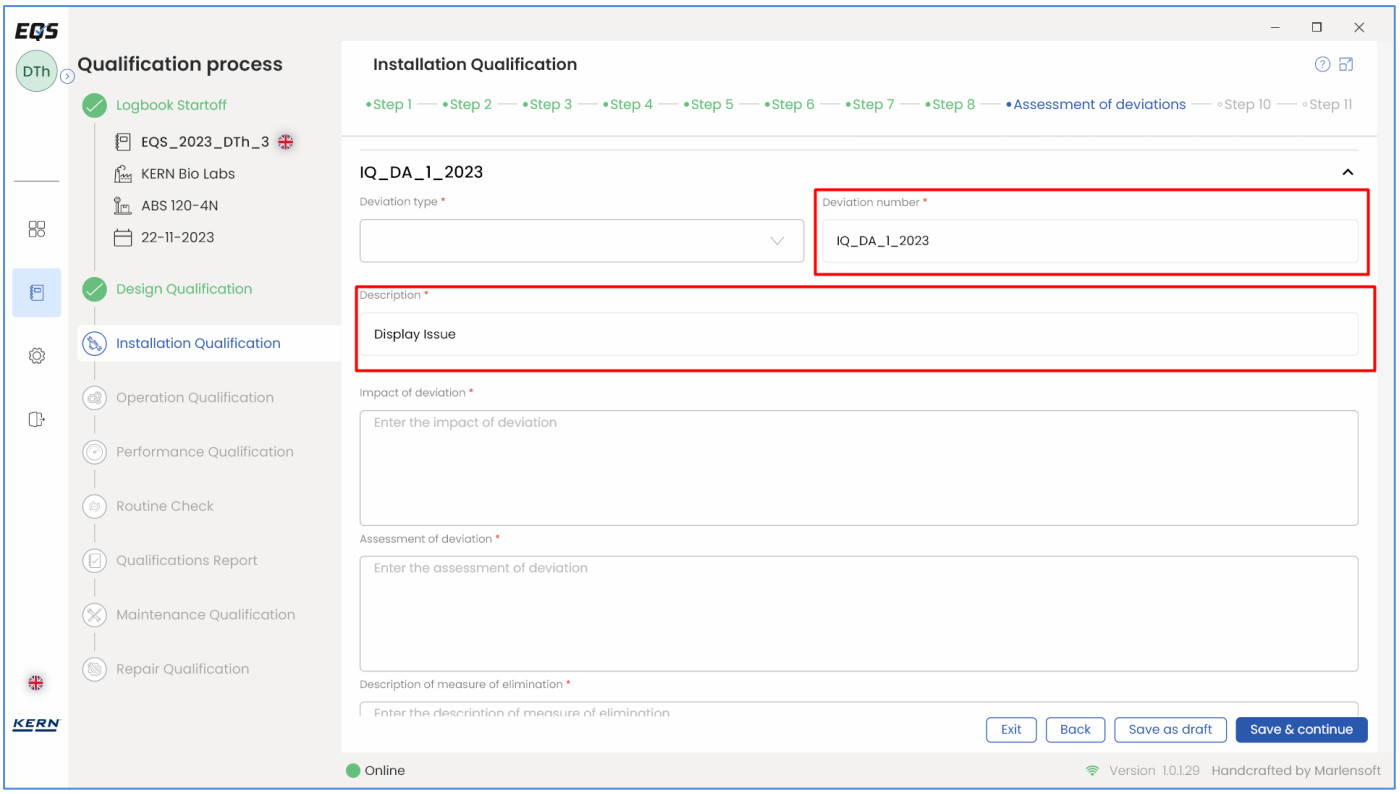
English

- **Step 9(Assessment of deviations):** Enter data in the mandatory fields and click “Save and continue” button.



Prepopulated fields:

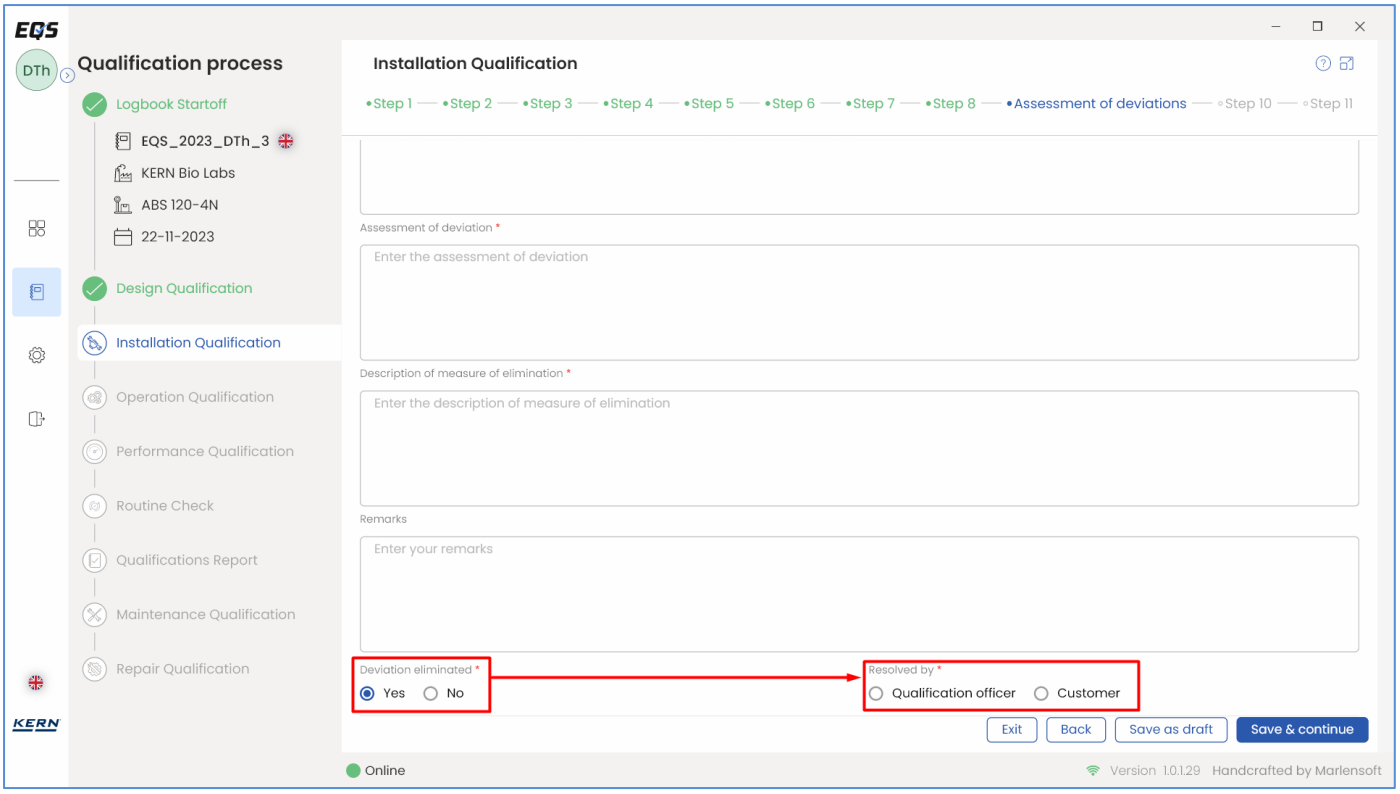
- Deviation number, description – Prepopulated from previous step.

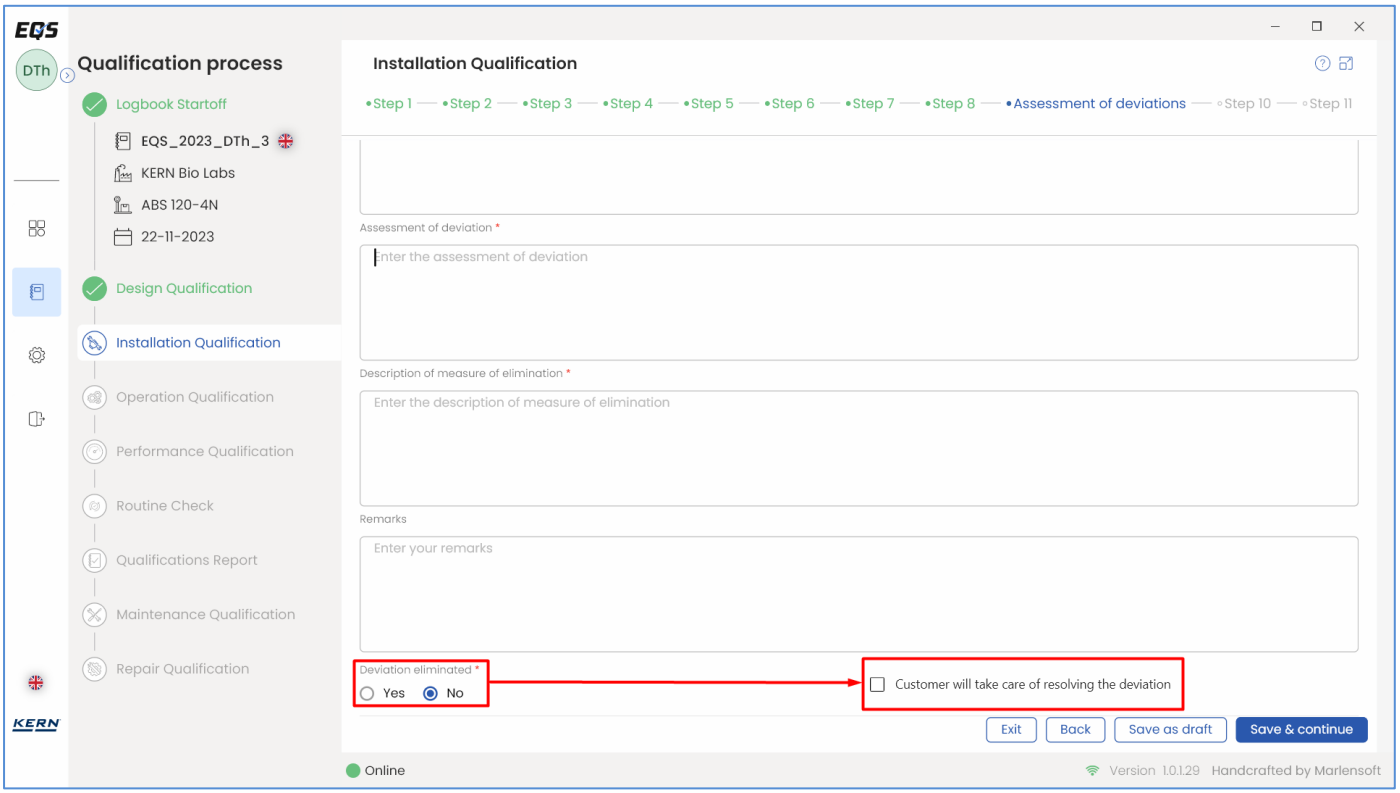


English

Additional fields:

- Deviation elimination (parent field) – Resolved by and customer will take care of solving deviation (additional fields)

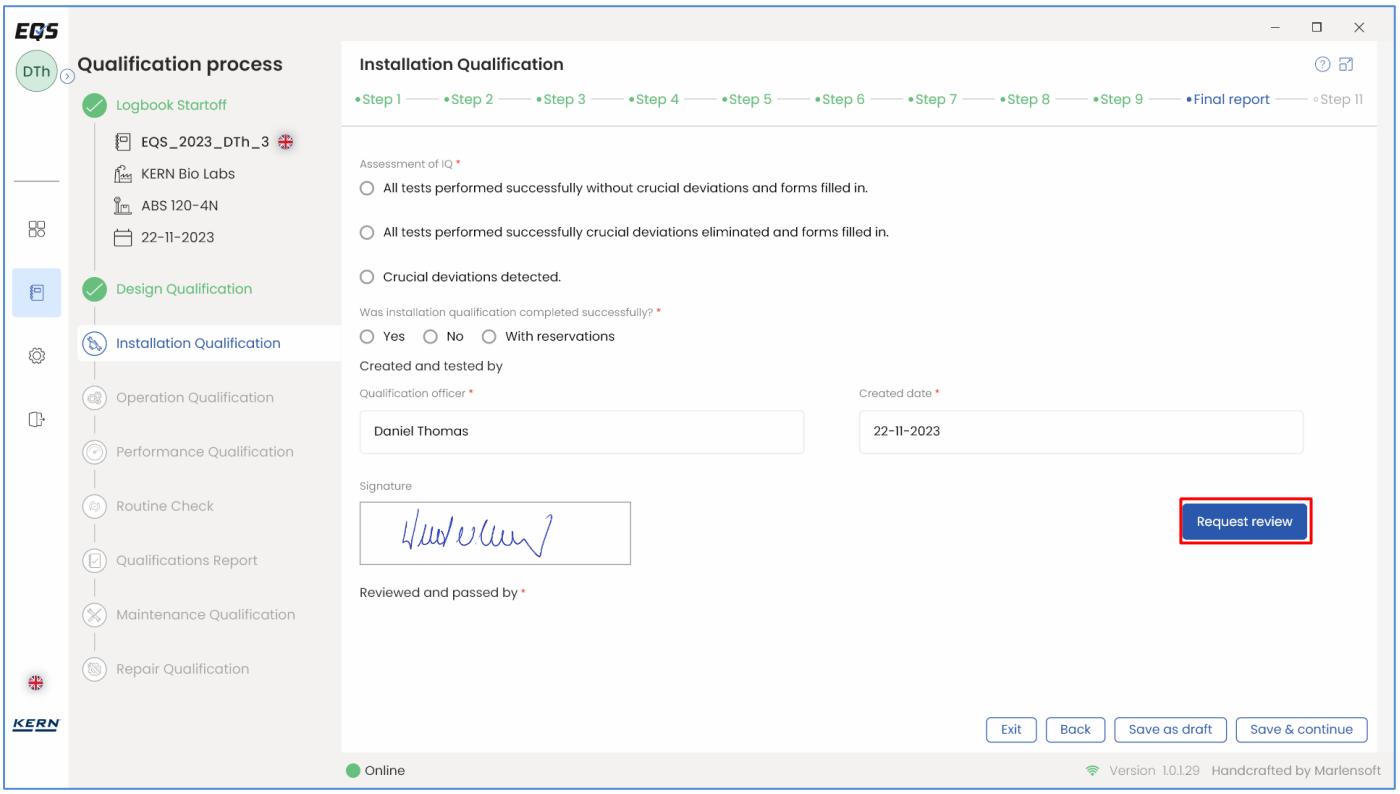


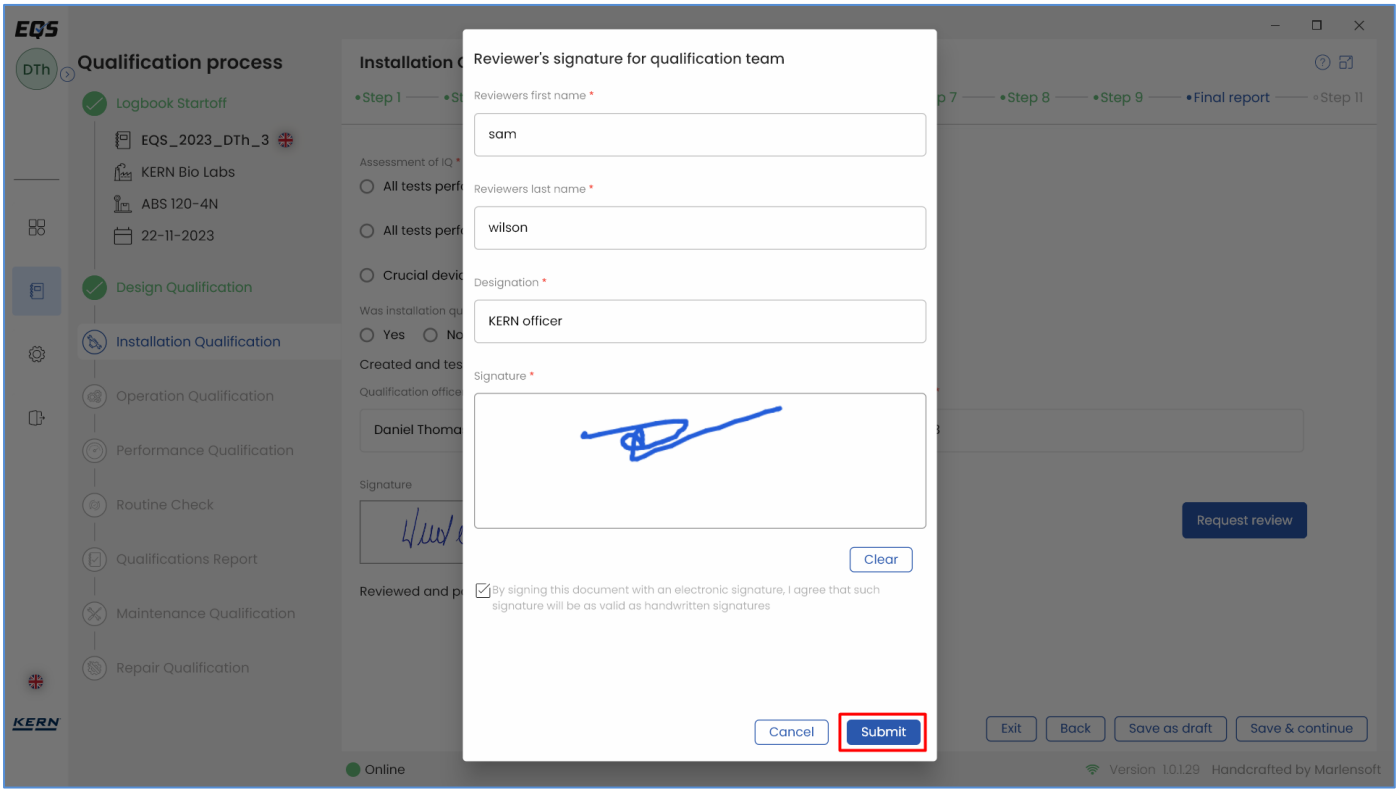


Note: The number of deviations entered in the previous steps will be listed here.

- **Step 10(Final Report):** Enter data in the mandatory fields and click “Save and continue” button. Here there are fields that have prepopulated data and certain fields have additional fields which are mandatory.

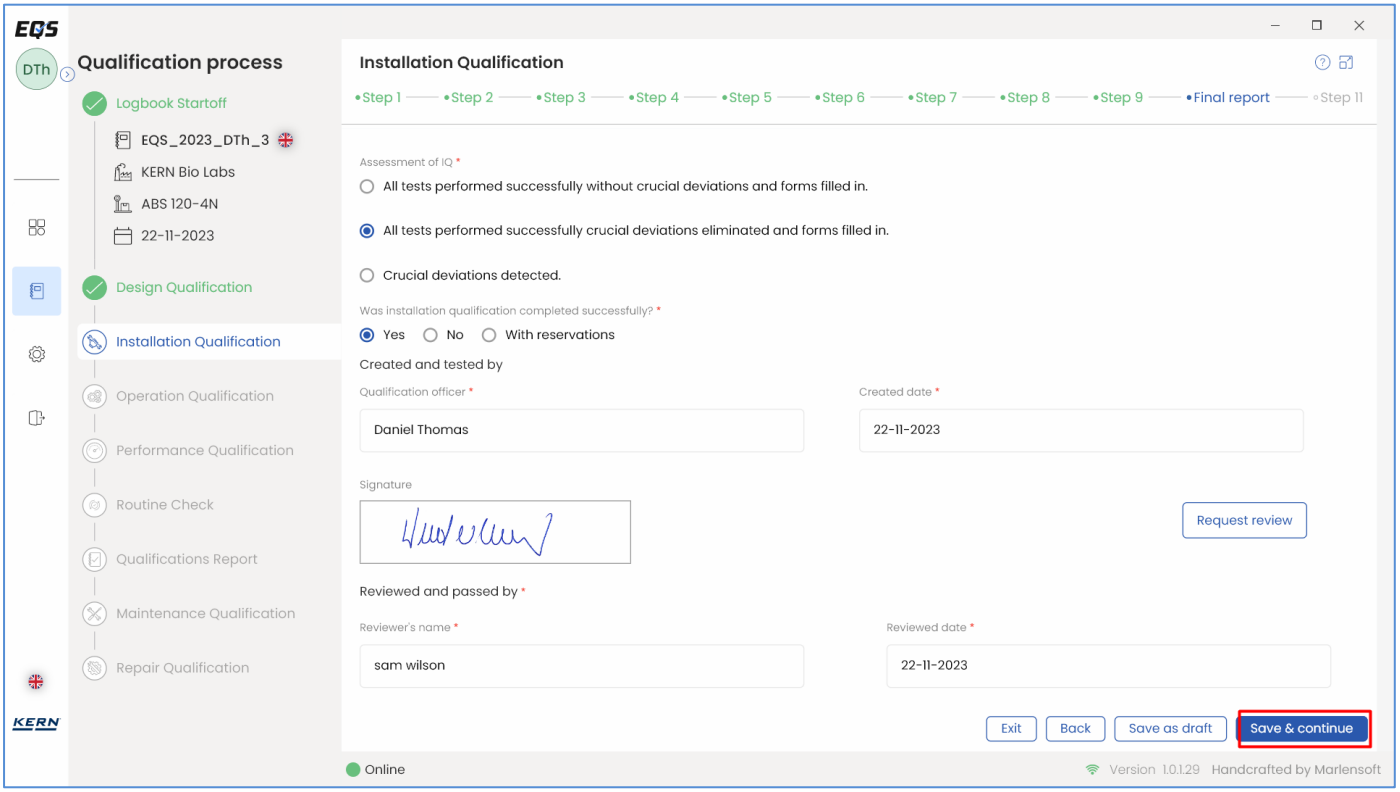
English





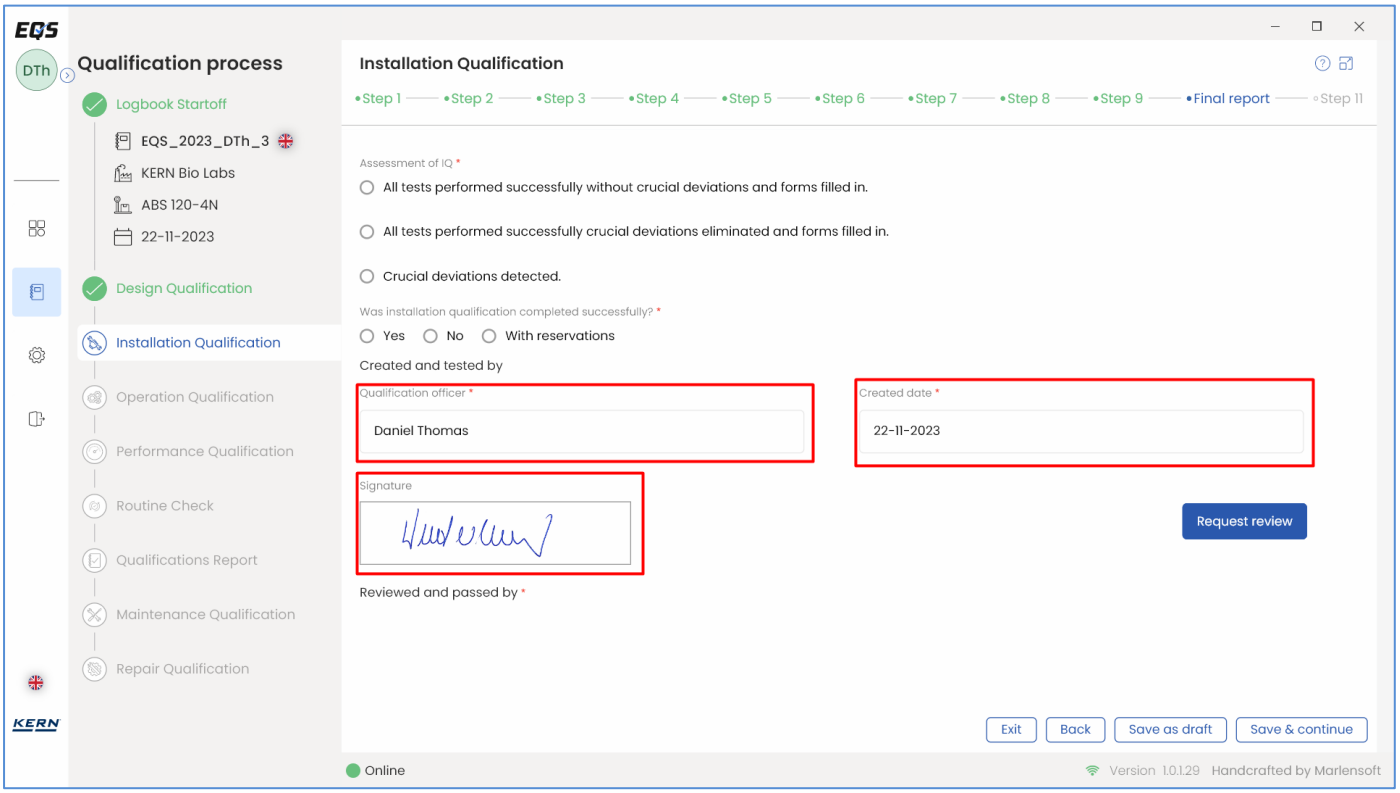
English

Note: Review request data will get auto filled if entered in design qualification.



Prepopulated fields:

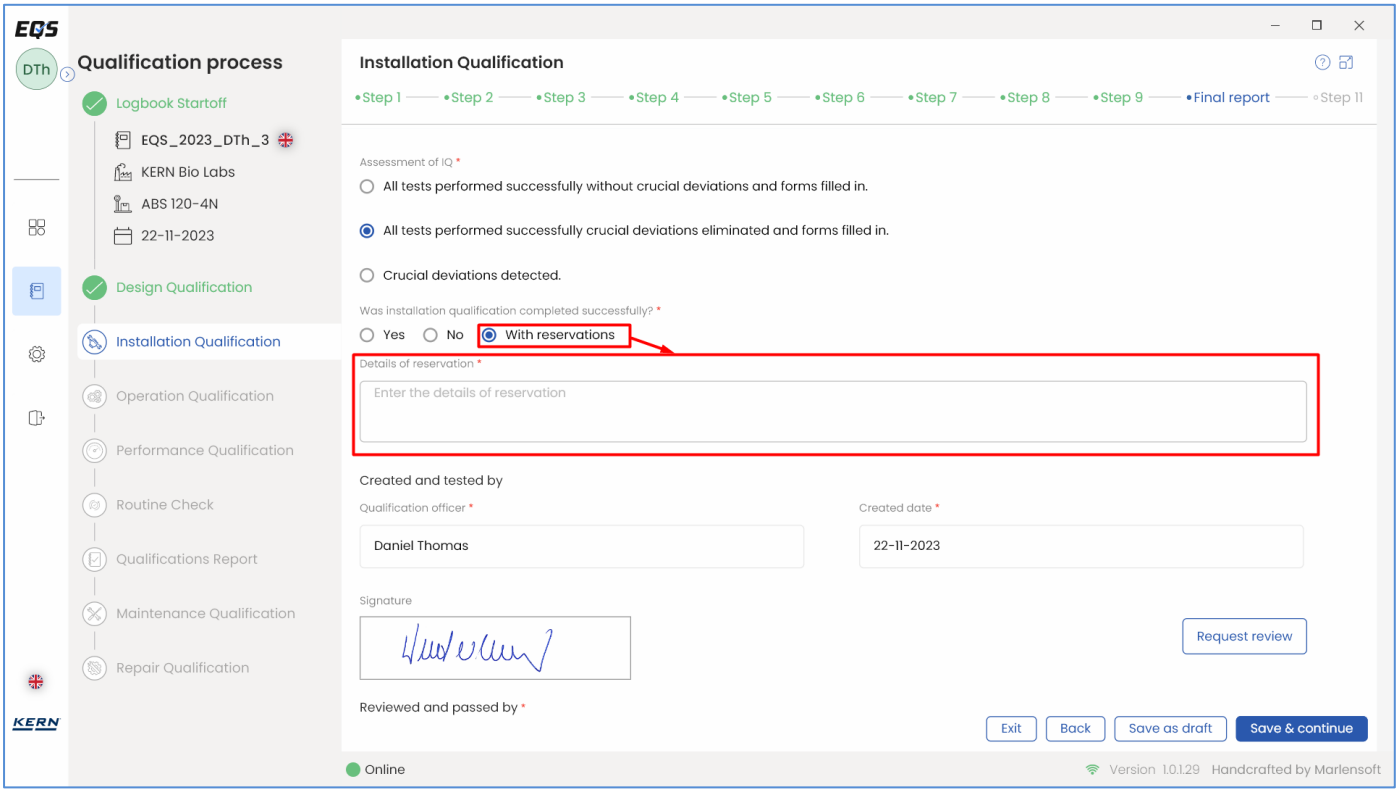
- Qualification officer created by & signature – Prepopulated from user information details and logbook start off.



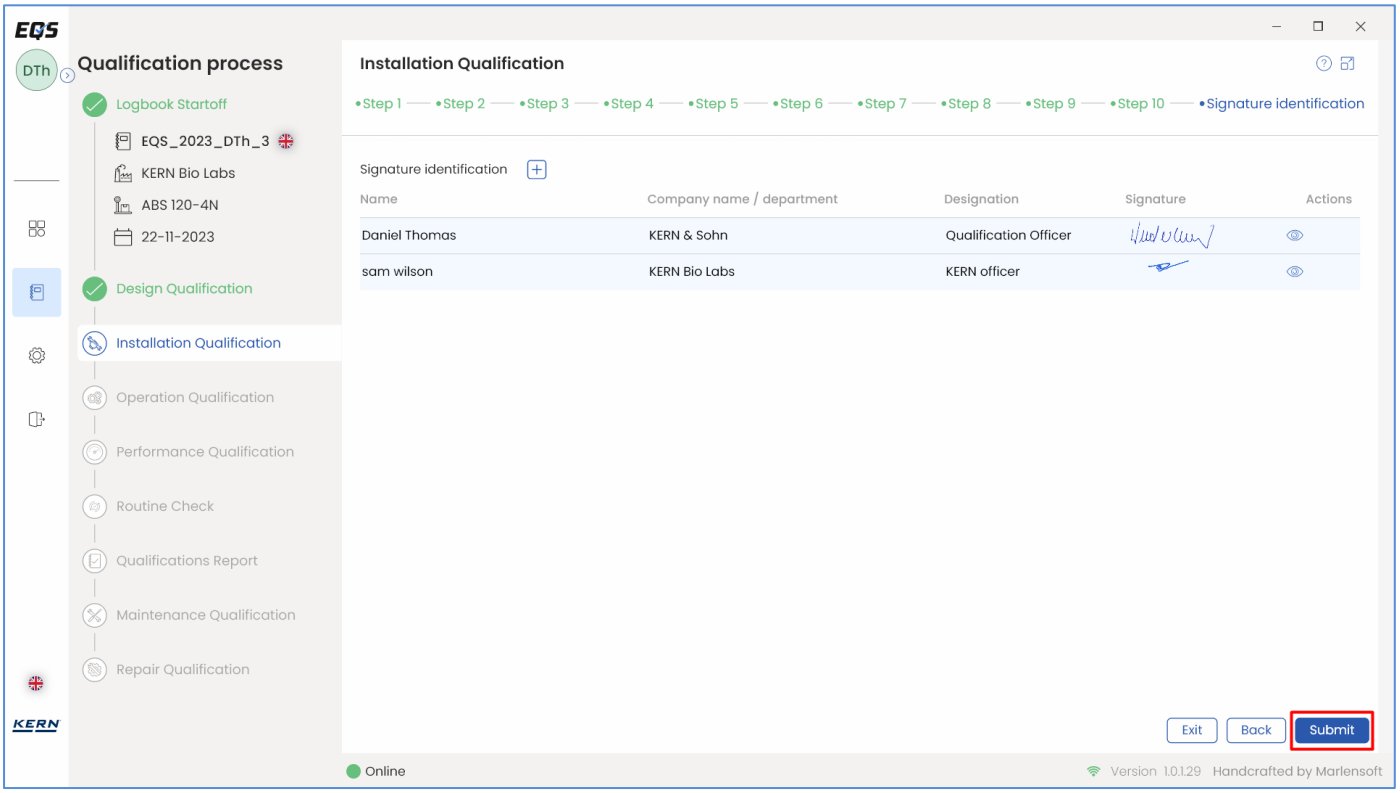
English

Additional fields:

- With reservations (parent field) – Details of reservations (additional fields)



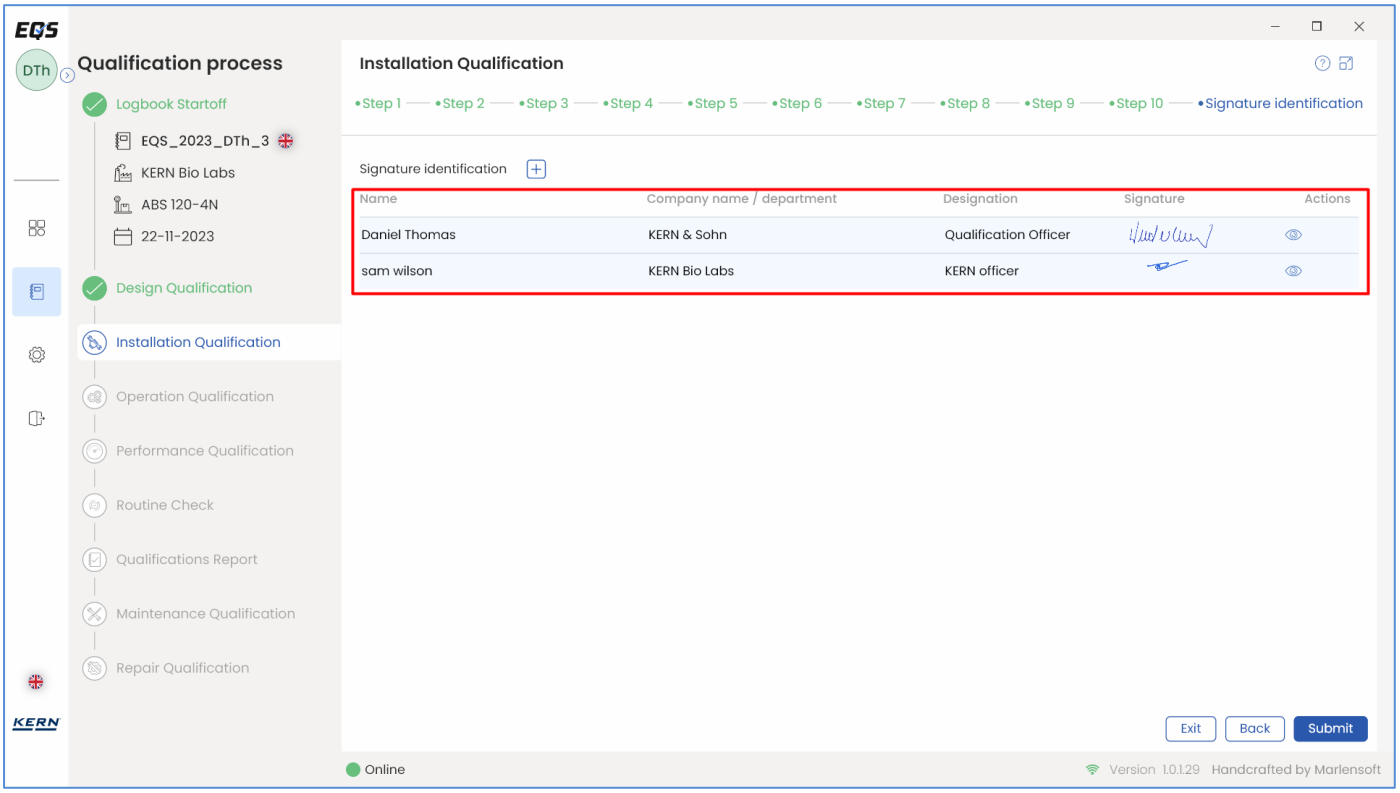
- **Step 11(Signature identification):** Here qualification officer details and installation qualification reviewer details will be prepopulated. Can be able to add more signature identifications.



English

Prepopulated fields:

- Signature identification – Prepopulated from user information and from design qualification.

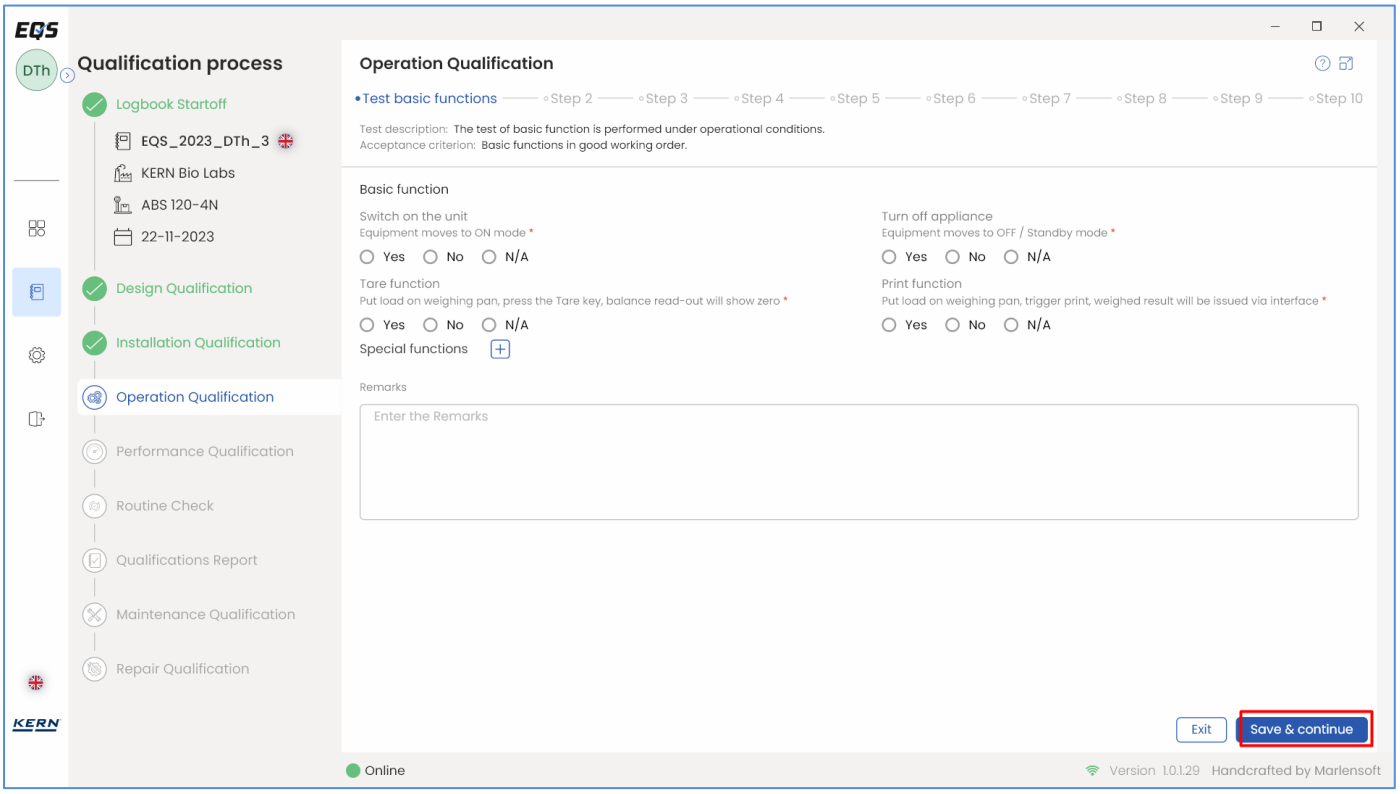


7.4 Operation qualification

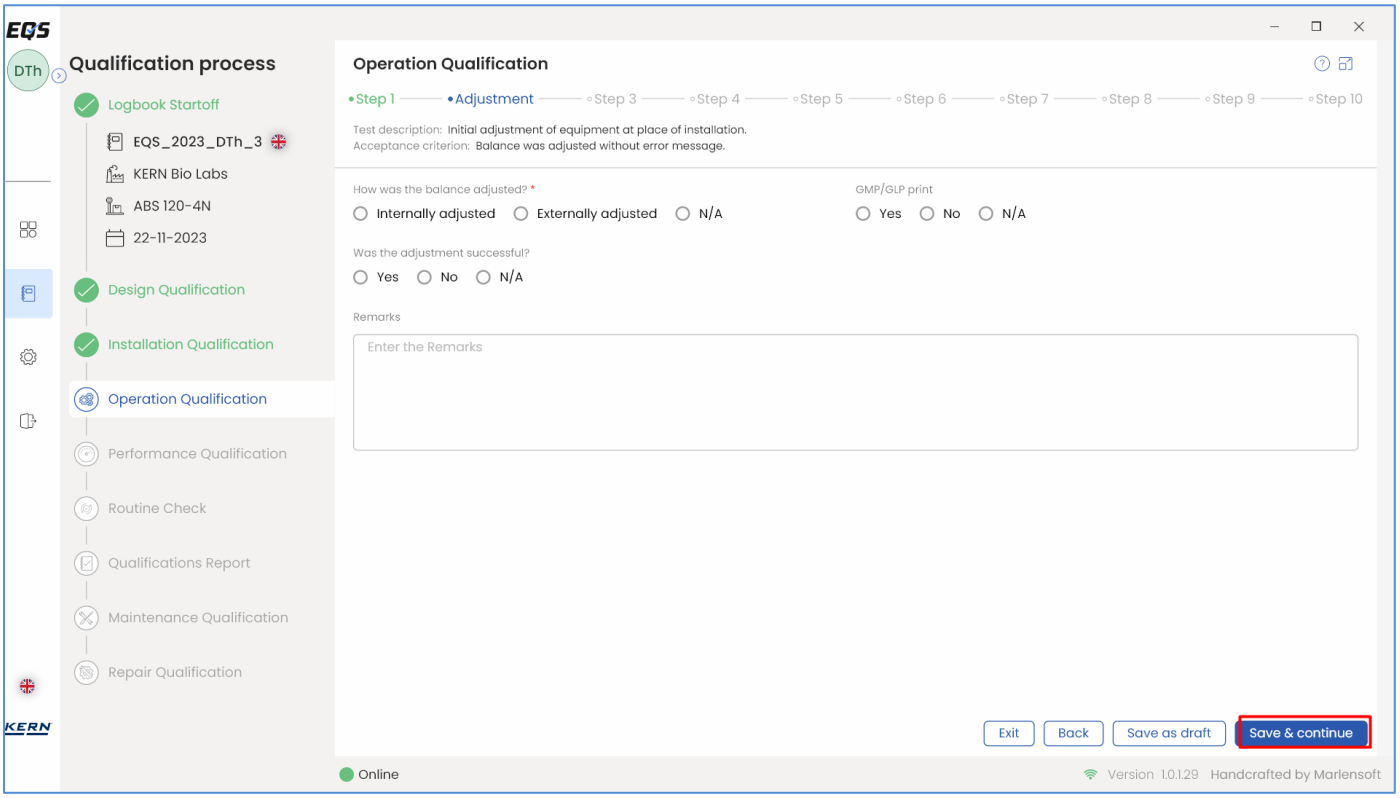
Operational qualification involves conducting metrological tests on the balance or weighing system at its installation site. This verifies parameters critical for measurement effectiveness. The process, guided by a Standard Operating Procedure (SOP), is documented on a DakkS calibration certificate. Trained personnel, using certified weights traceable to an approved standard, carry out the qualification. User briefing and training are recorded in the Operational Qualification (OQ). The qualification is location-specific, and if the equipment is moved, the Installation Qualification (IQ) and OQ must be repeated.

English

- **Step 1(Test basic function):** Enter data in the mandatory fields and click “Save and continue” button.

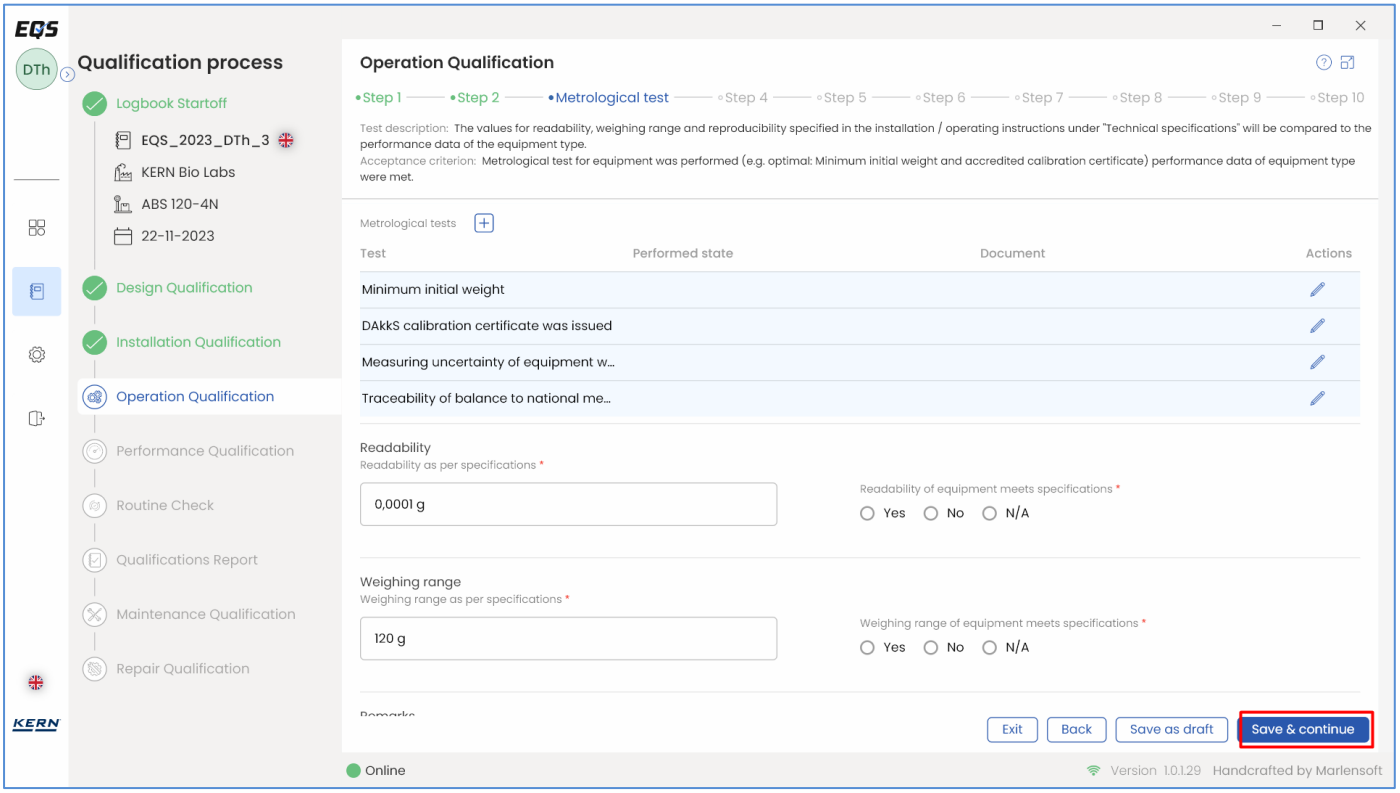


- **Step 2(Adjustment):** Enter data in the mandatory fields and click “Save and continue” button.



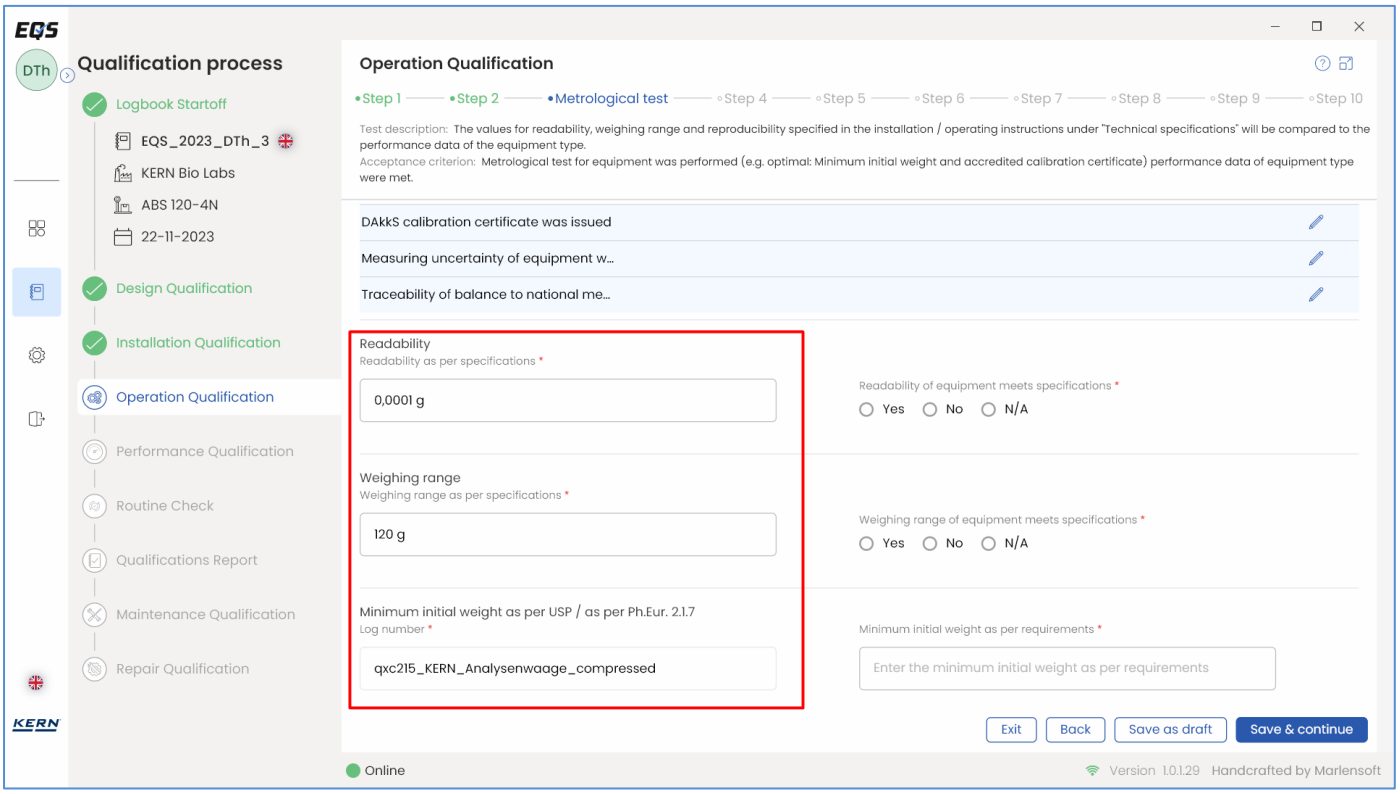
- **Step 3(Metrological test):** Enter data in the mandatory fields and click “Save and continue” button. Here there are fields that have prepopulated data and certain fields have additional fields which are mandatory.

English



Prepopulated fields:

- Readability and weighing range – Prepopulated from logbook start off.
- Log number – Prepopulated from the same step.

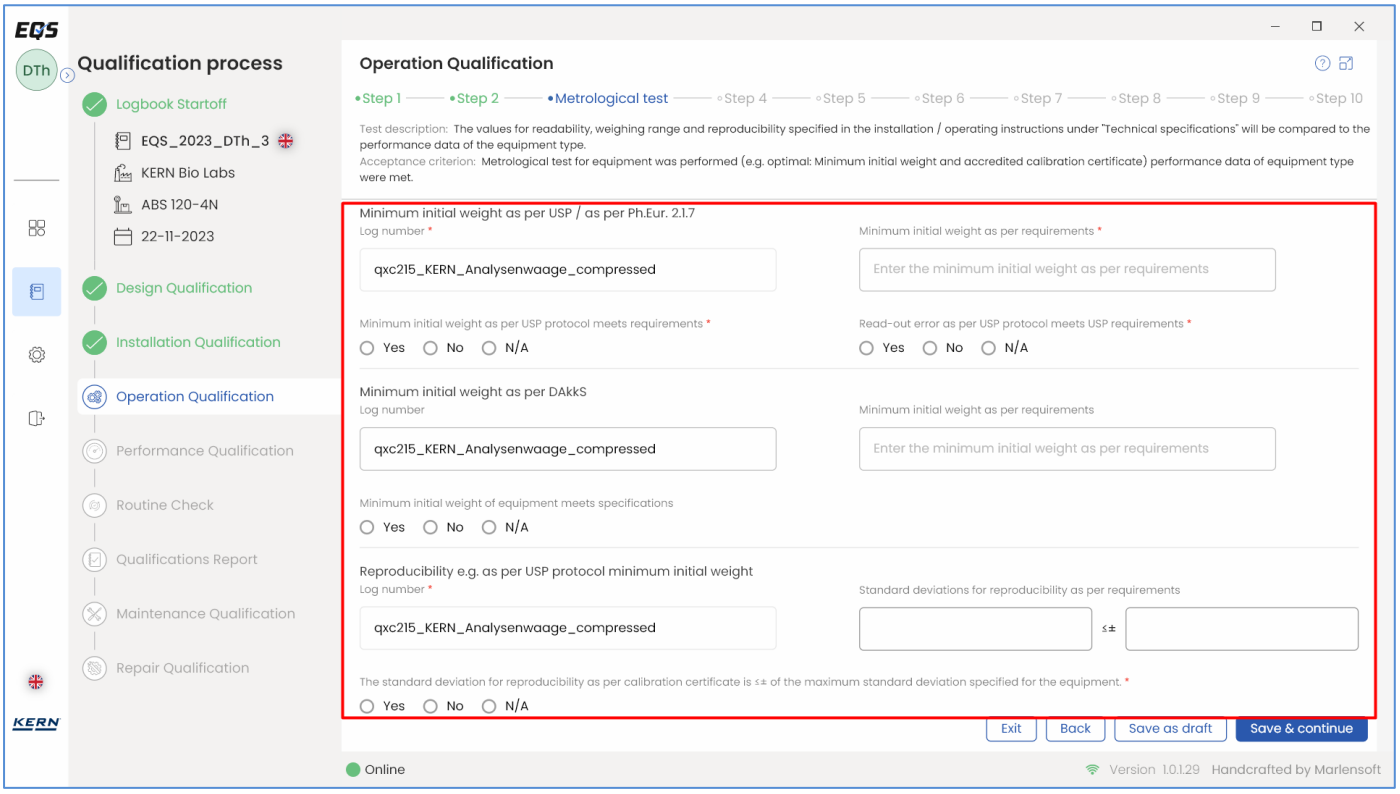


Additional fields:

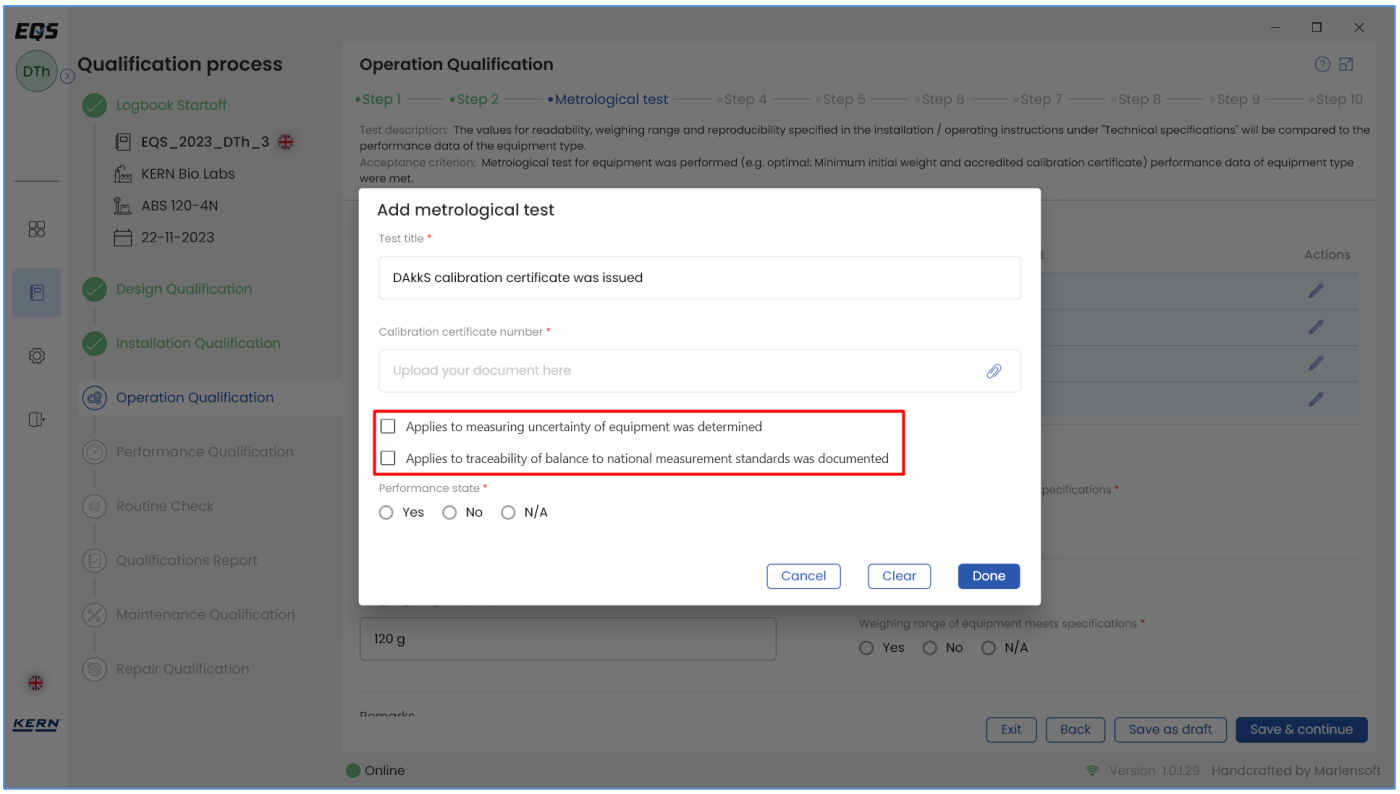
- Minimum initial weight (parent field) – Minimum initial weight as per USP / as per ph.Eur, Minimum initial weight as per requirements, Minimum initial weight as per USP protocol meets requirements, Read out error as per USP protocol USP requirements, Log number and standard deviations for reproducibility as per requirements (additional fields)

English

- DAkkS calibration certificate was issued (parent field) – Log number and standard deviations for reproducibility as per requirements (additional fields)

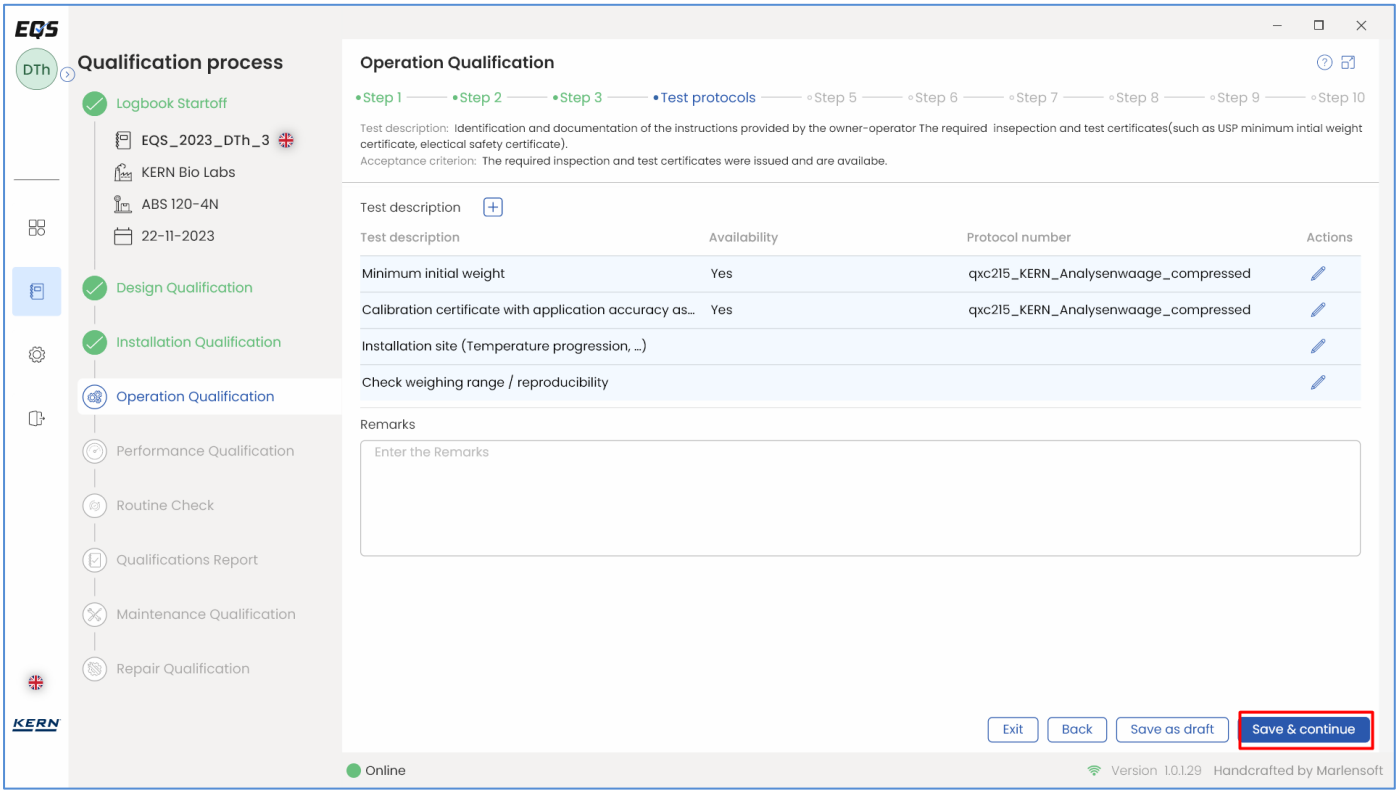


Note: When checking on "Applies to measuring uncertainty of equipment was determined" and "Applies to tractability of balance to national measurement standard was document" checkboxes the uploaded document automatically updates for respective section.



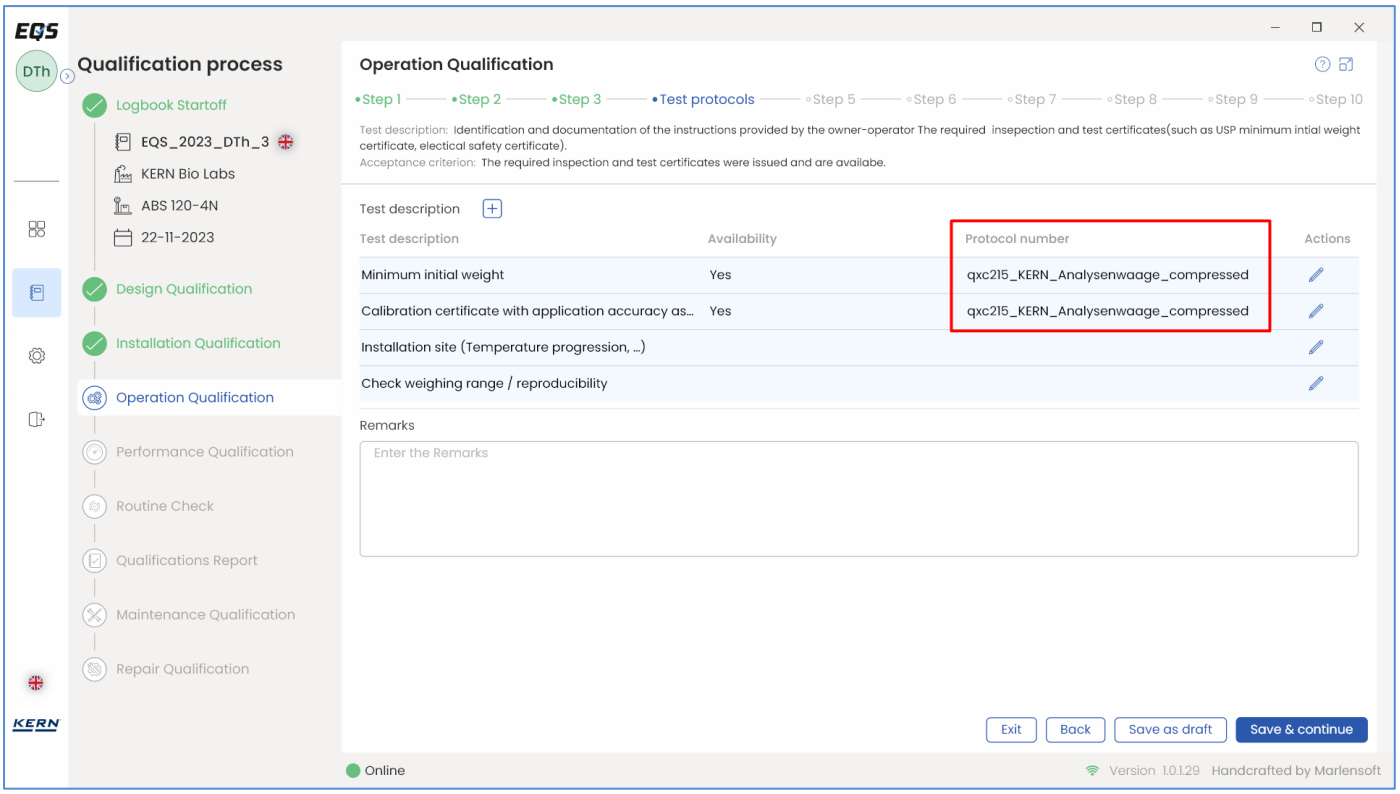
English

- **Step 4(Test protocols):** Enter data in the required fields and click “Save and continue” button. Here there are fields that have prepopulated data.



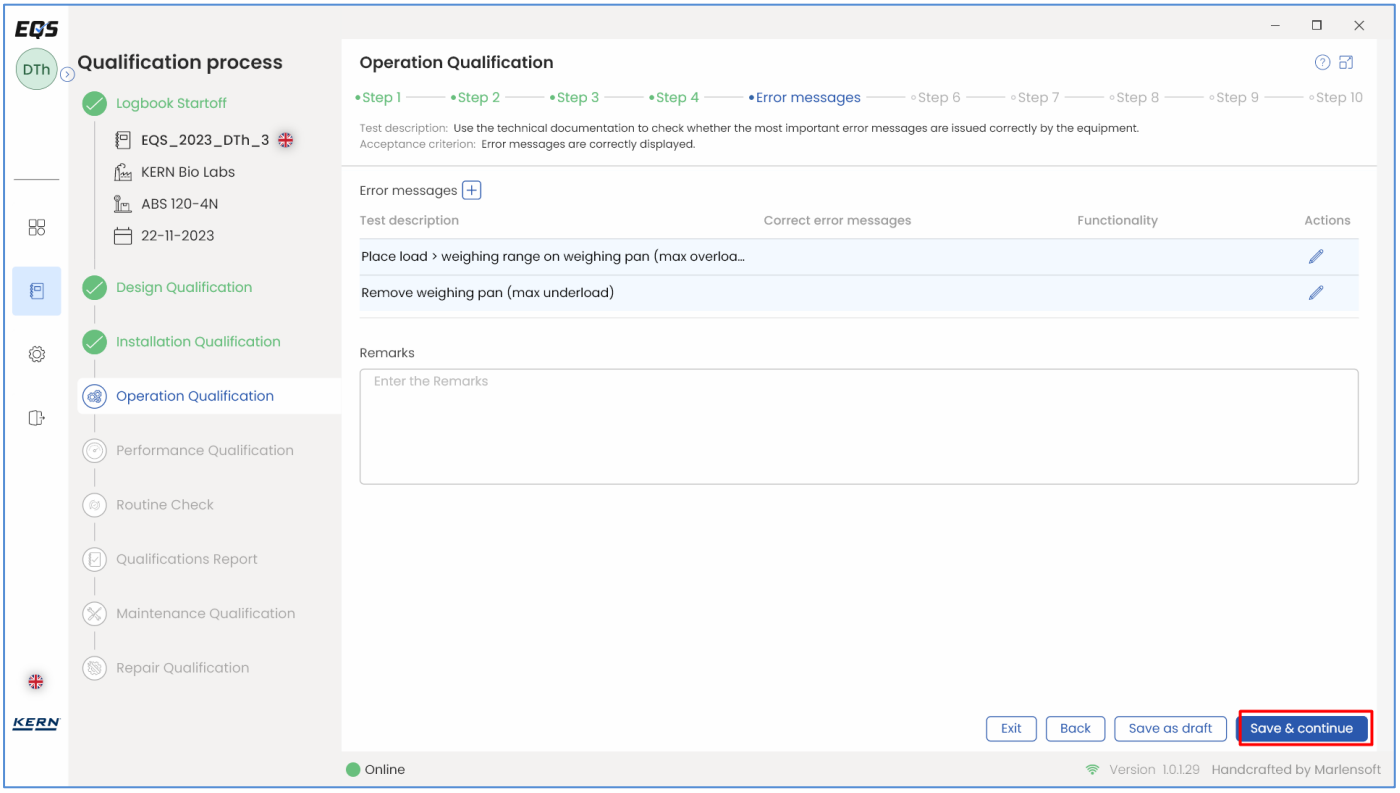
Prepopulated fields:

- Protocol number – Prepopulated from previous step.

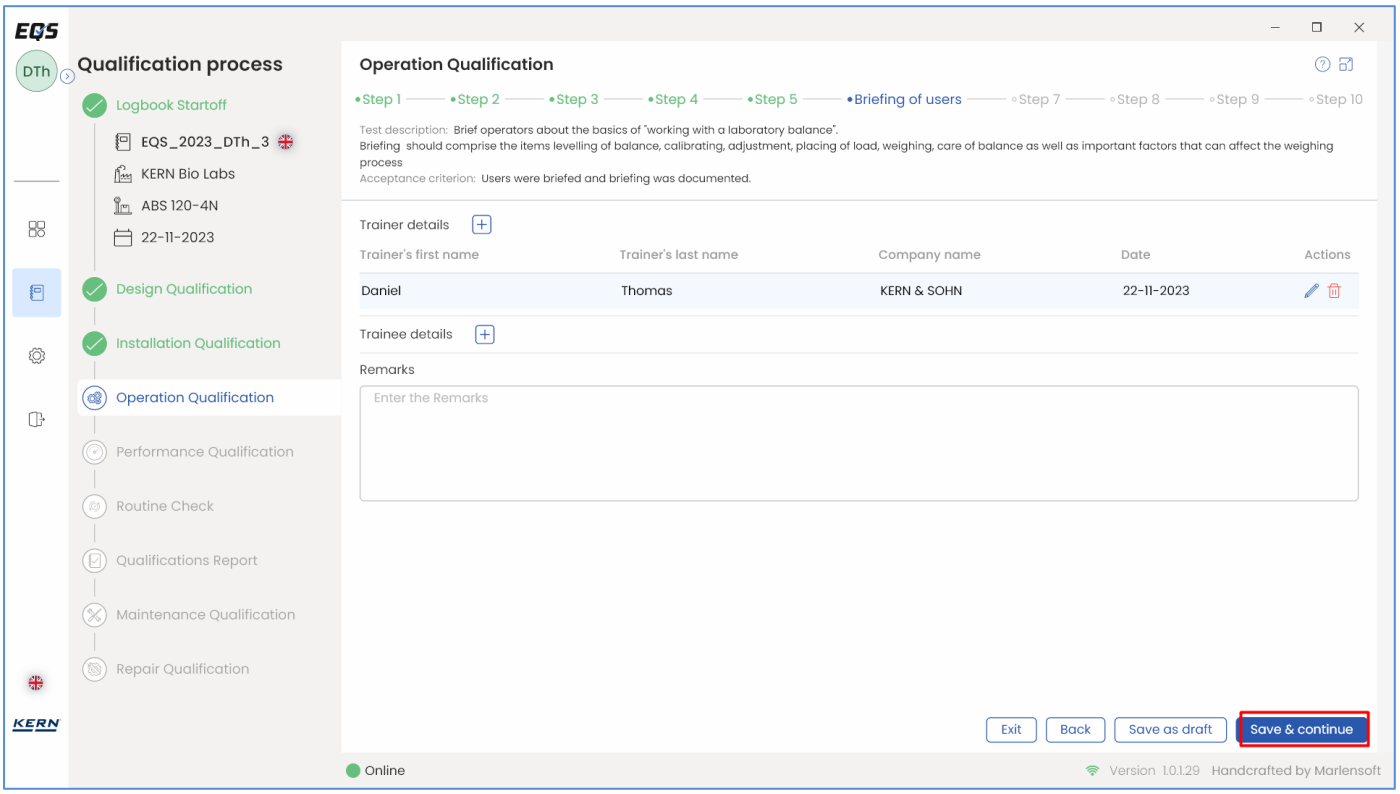


English

- **Step 5(Error messages):** Enter data in the required fields and click “Save and continue” button.



- **Step 6(Briefing of users):** Enter data in the required fields and click “Save and continue” button. The qualification officer’s details is prepopulated in the trainer detail list.



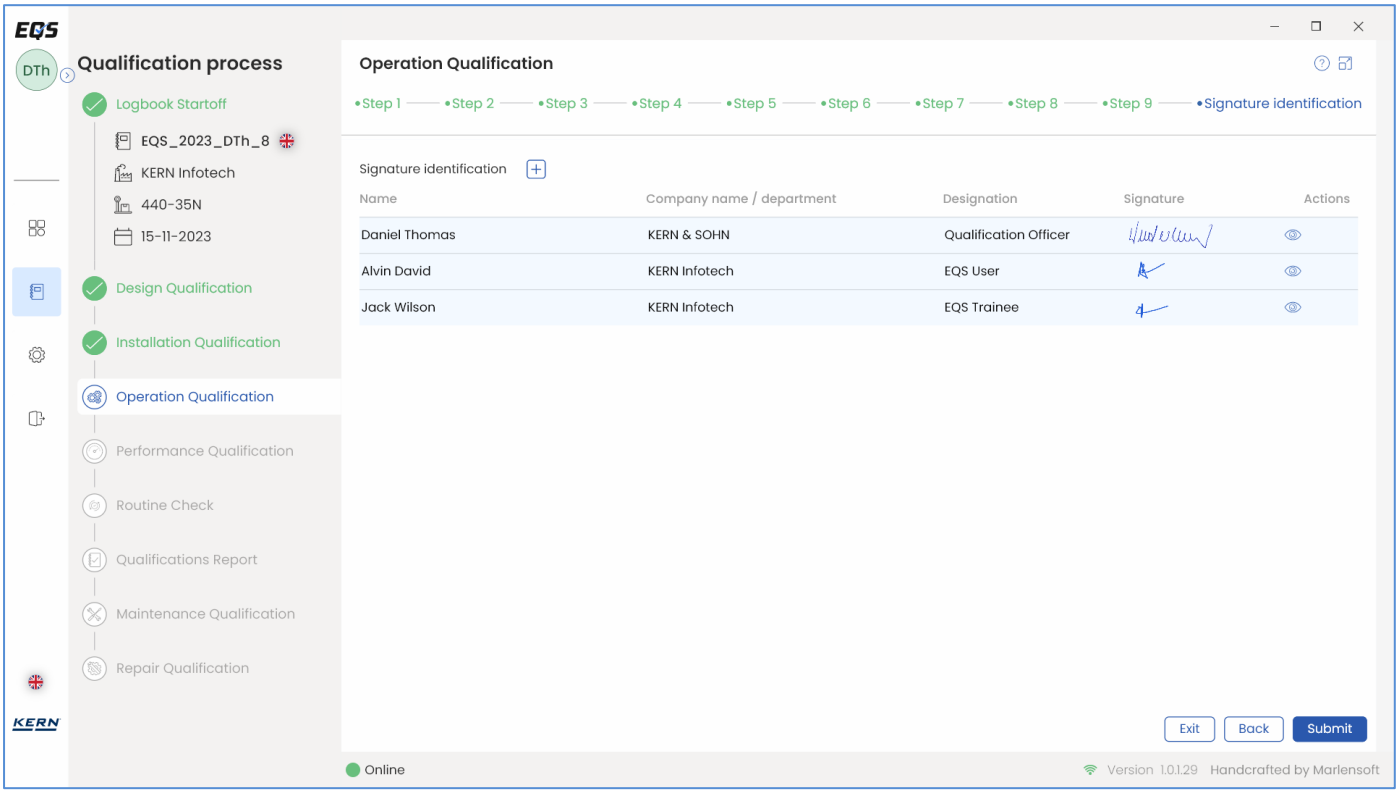
Note: Trainer and trainee data entered in step 6 gets auto populated in step 10.

English

- **Step 7(Deviations):** Please refer to Installation Qualification step 8. 7.3Installation qualification
- **Step 8(Assessment of deviations):** Please refer to Installation qualification step 9. 7.3Installation qualification
- **Step 9(Final report):** Please refer to Installation qualification step 10. 7.3Installation qualification
- **Step 10(Signature identification):** Here qualification officer and installation qualification reviewer details will be prepopulated. Can be able to add more signature identifications.

Prepopulated field:

- Signature identification – Prepopulated from Trainer & trainee entered on operation qualification step 6.

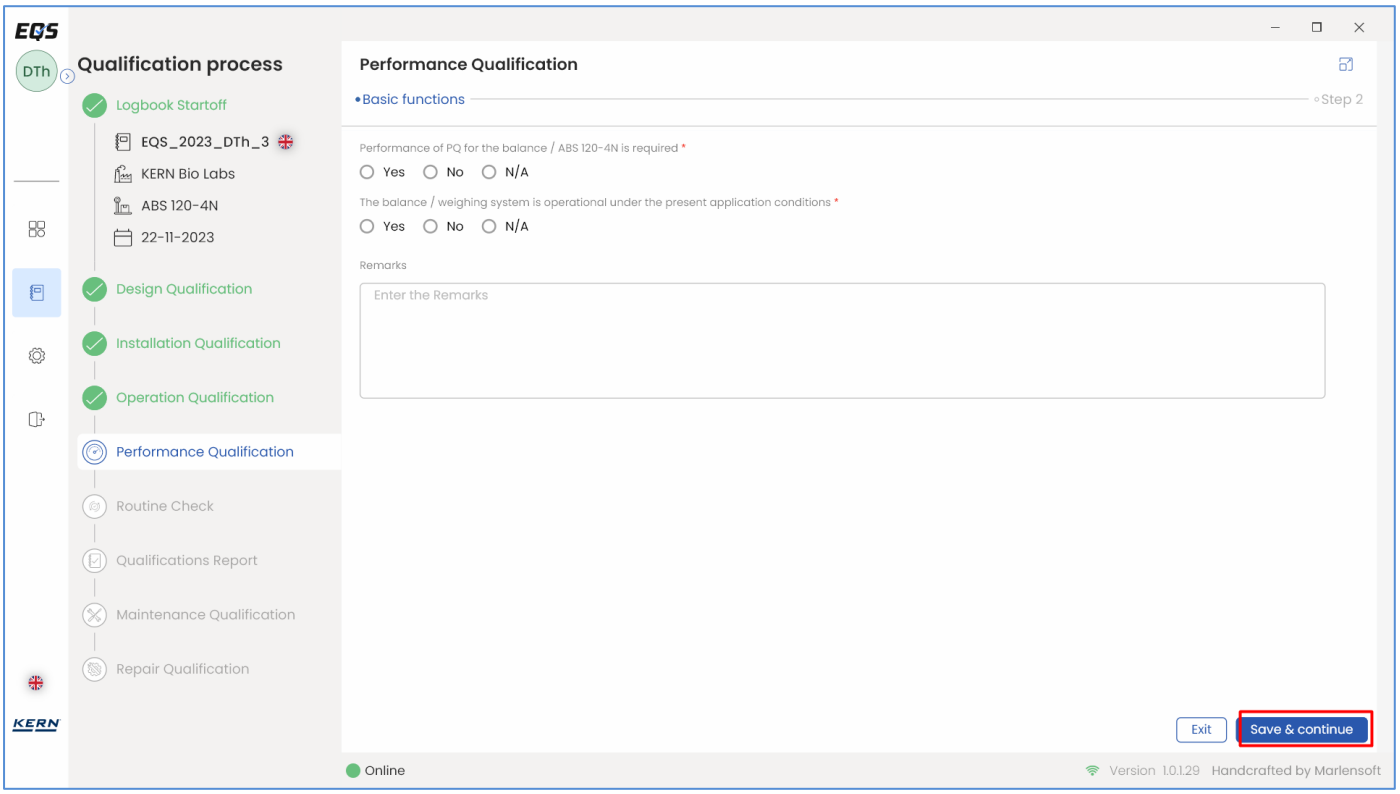


7.5 Performance qualification

Performance Qualification (PQ) provides documented evidence that the balance or weighing system operates as intended in the chosen application. This involves a qualification test under actual conditions, considering factors like surroundings and specific requirements (e.g., traceable data transmission). If the system is solely used for weighing without additional functionality, a PQ may be unnecessary, as its operational ability has already been established during the metrological test.

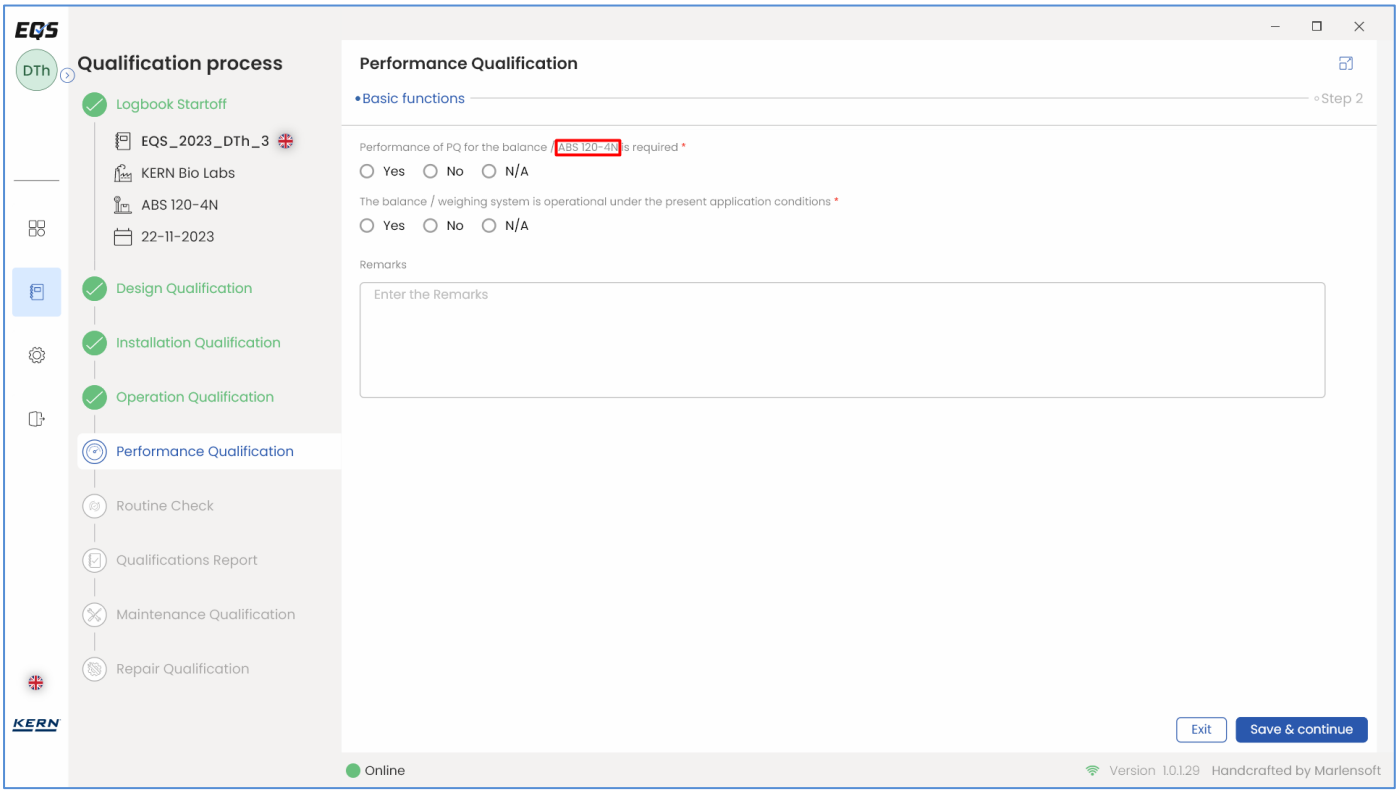
- **Step 1(Basic Qualifications):** Enter data in the mandatory fields and click “Save and continue” button. Here there are fields that have additional fields which are mandatory.

English



Prepopulated field:

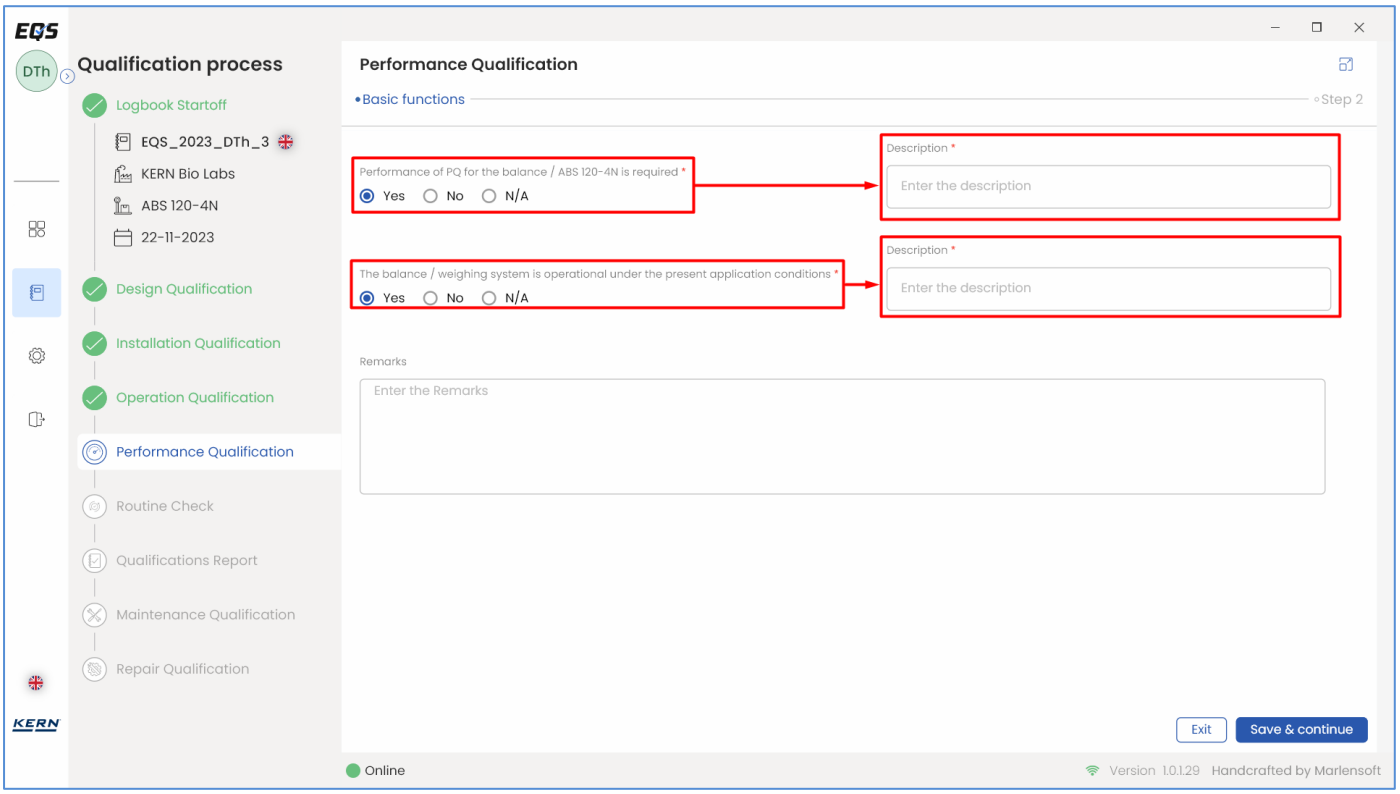
- Equipment type – Prepopulated from logbook start-off.



Additional fields:

- Performance of PQ for the balance / is required and the balance / weighing system is operational under the present application conditions (parent field) – Description (additional fields)

English

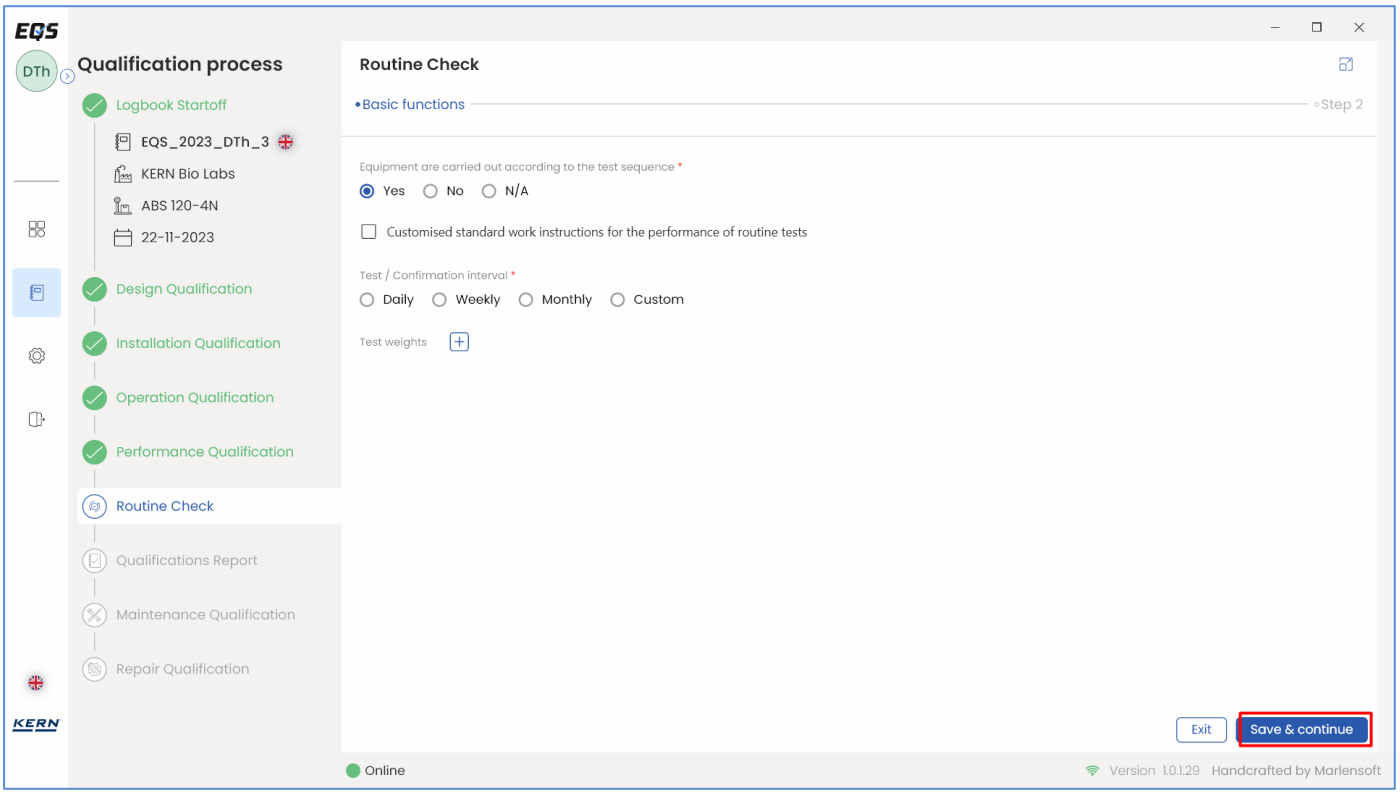


- **Step 2(Acceptance of PQ):** Please refer to Design Qualification step. 7.2 Design qualification

7.6 Routine check

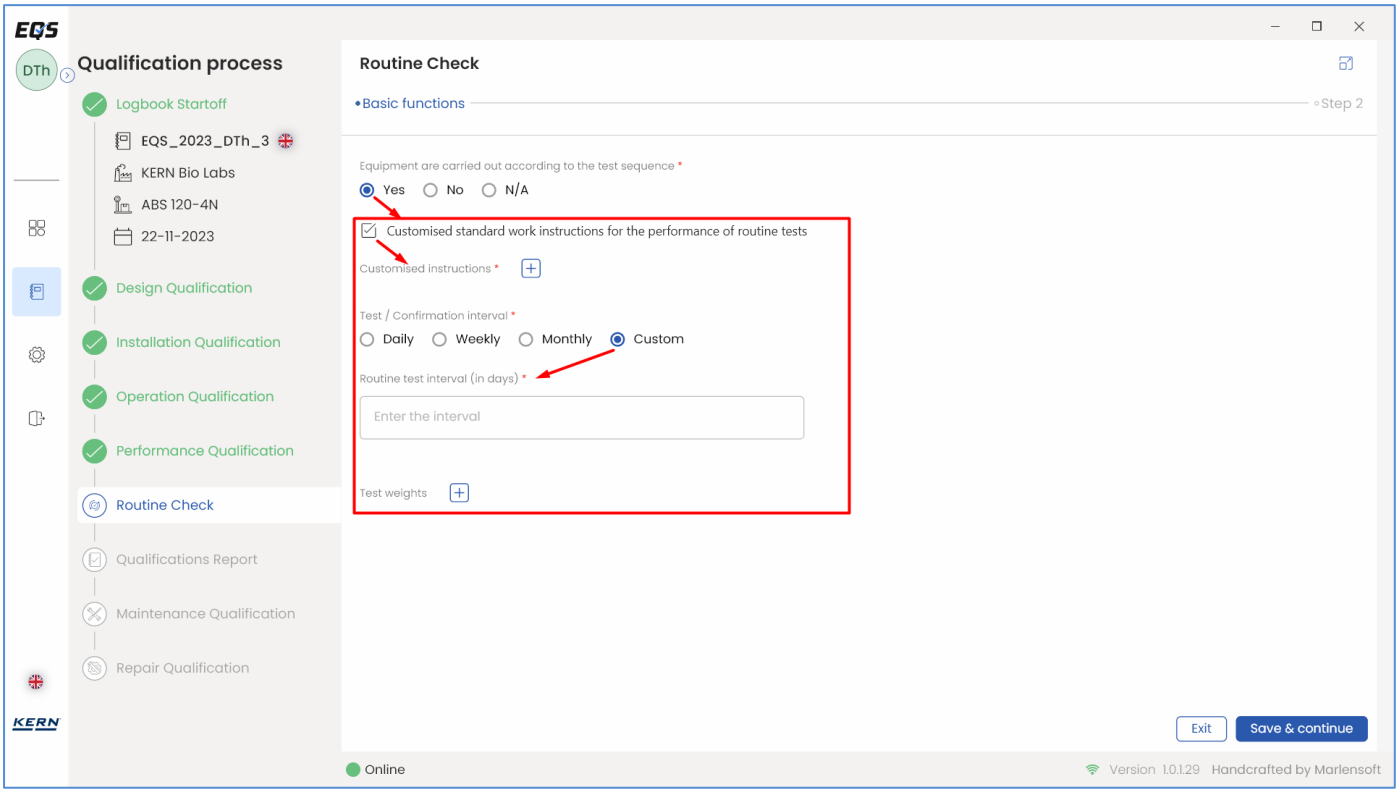
Regular calibration of the measuring instrument is essential, following a standardized procedure. This aligns with the monitoring of measuring and test equipment, ensuring that the measuring performance stays within specified tolerances. Users are responsible for conducting the test using DAkkS traceable test weights.

- **Step 1(Basic functions):** If "Equipment are carried out according to the test sequence" is selected YES then the normal process (step 2 displays) will follow with entering the interval and the test weights.



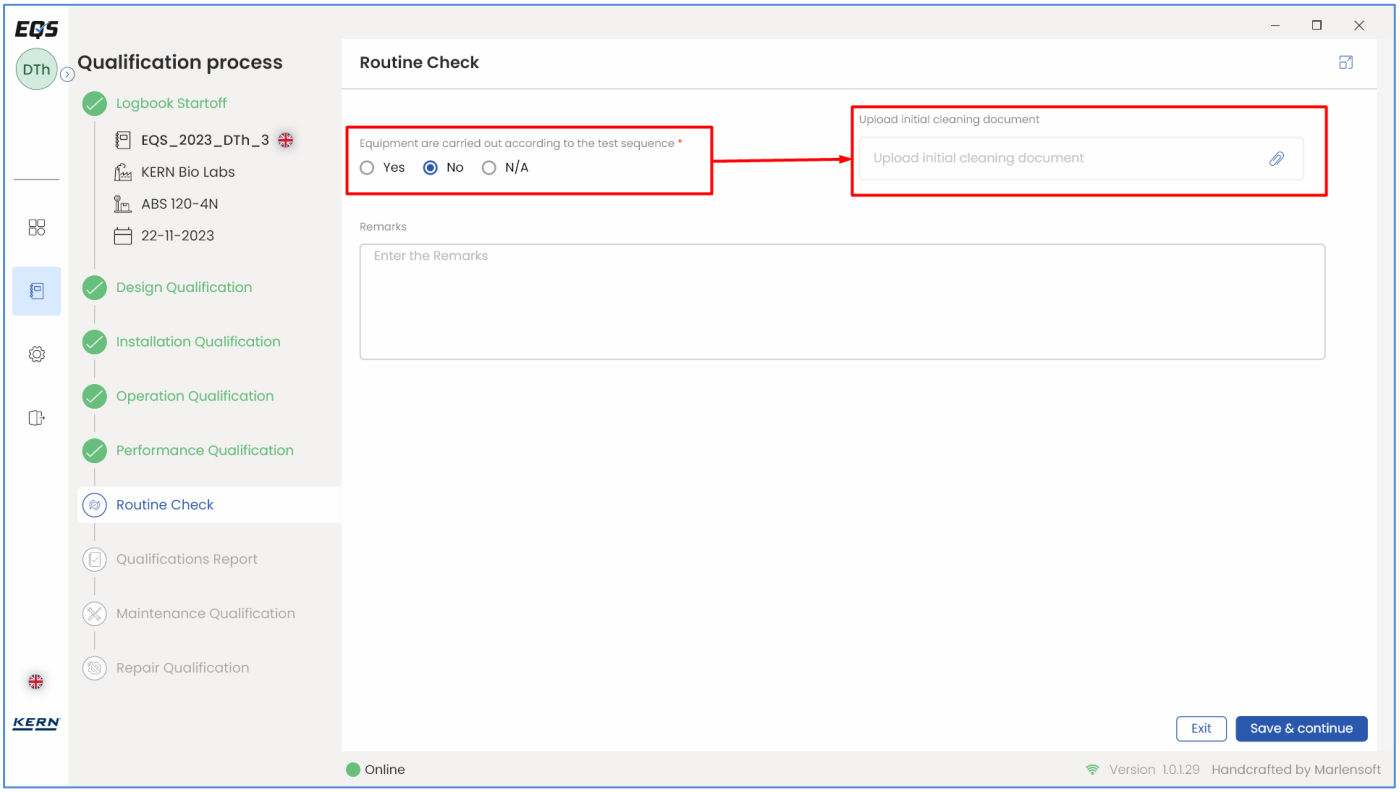
Additional fields:

- Equipment is carried out accordingly to test sequence (parent field) – Customized standard work instructions for the performance of routine test, Test /Conformation interval, Test weights (additional fields)
- Customized standard work instructions (parent field) – Customized instructions (additional fields)
- Test /Conformation interval (parent field) – Routine test interval (additional fields)



English

- If "Equipment are carried out according to the test sequence" is selected, NO or N/A and document upload field will be visible & step 2 is not required.

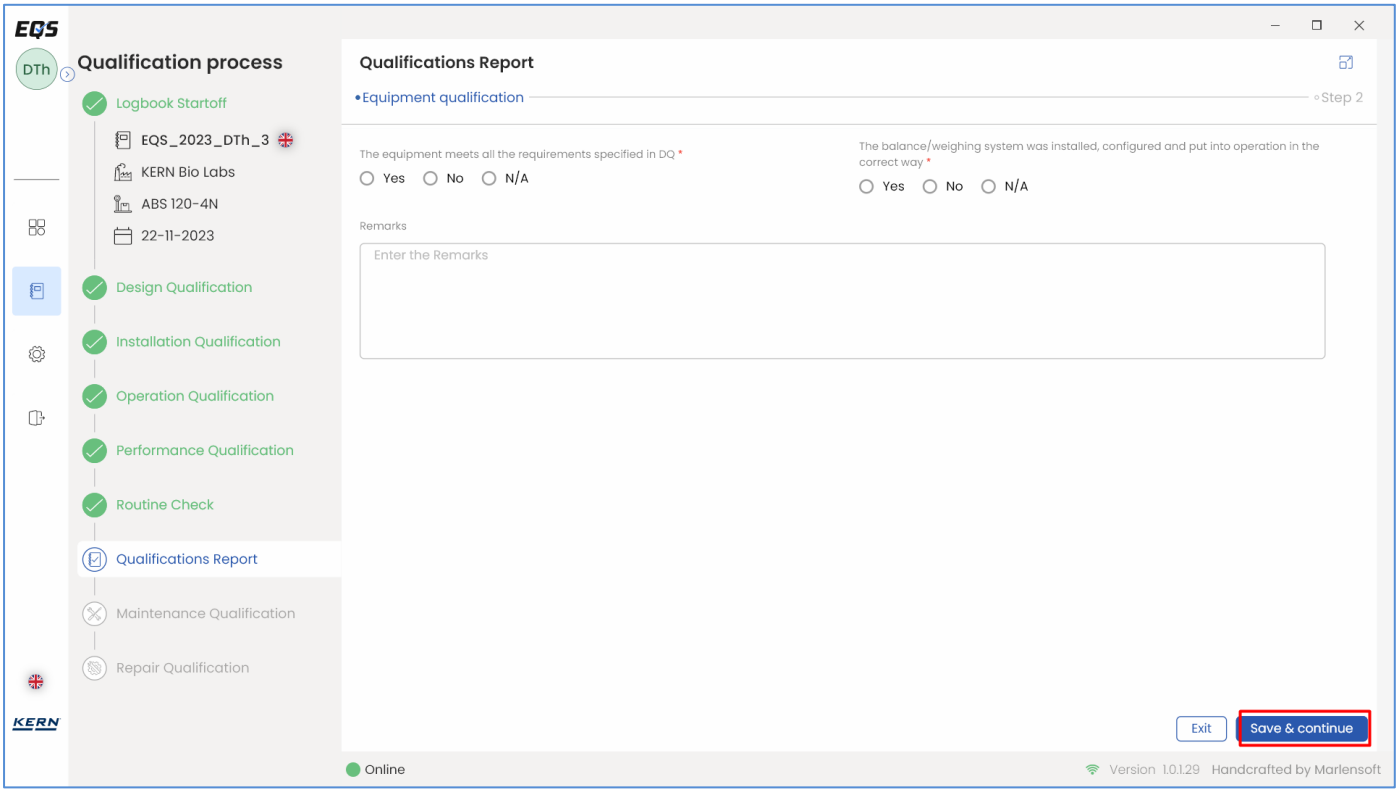


- **Step 2(Acceptance of RC):** Please refer to the design qualification step 6. 7.2 Design qualification

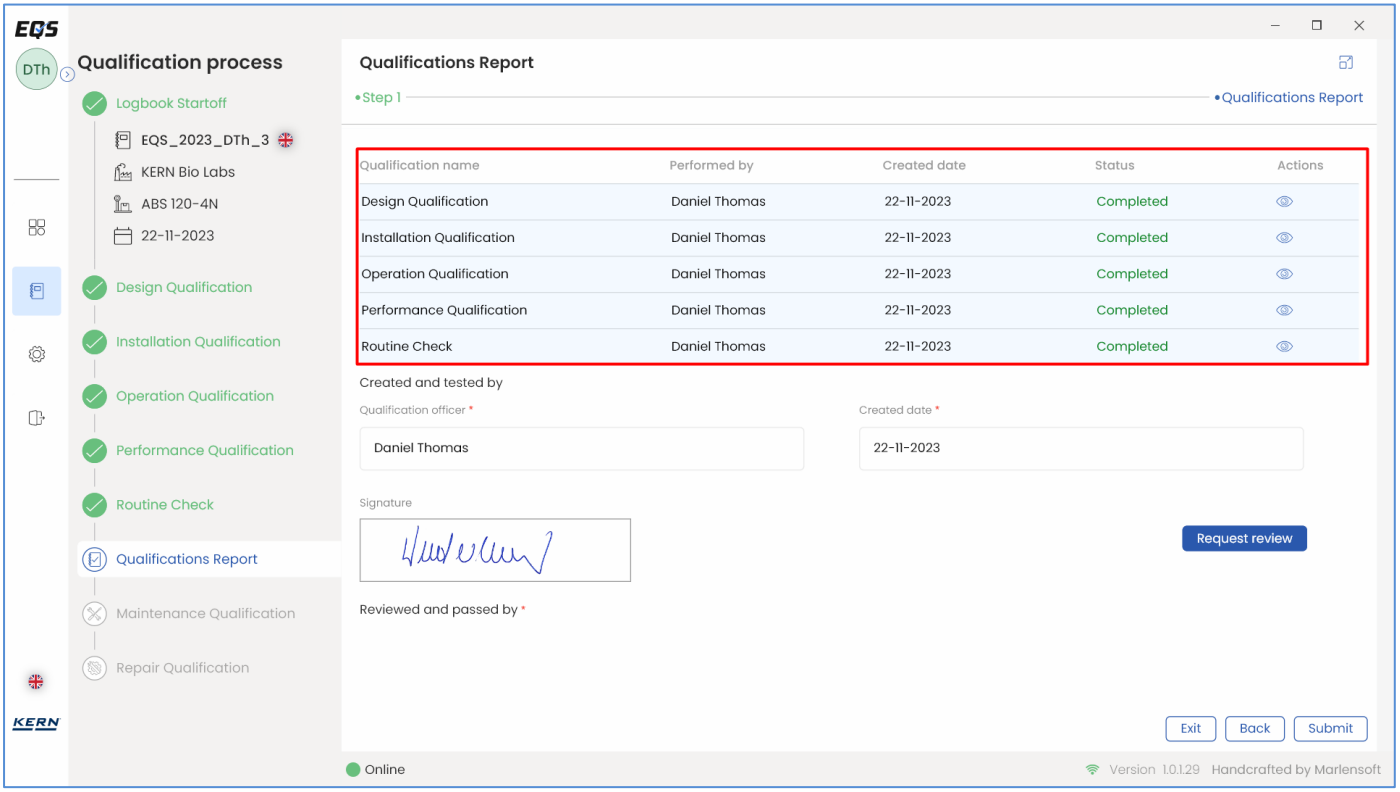
7.7 Qualification reports

The results of Installation Qualification (IQ), Operational Qualification (OQ), and Performance Qualification (PQ) can be summarized in a final report. If these qualifications are successfully completed, the measuring and test equipment is approved for use as specified in the Design Qualification (DQ).

- **Step1(Equipment qualification):** Enter data in the mandatory fields and click “Save and continue” button.

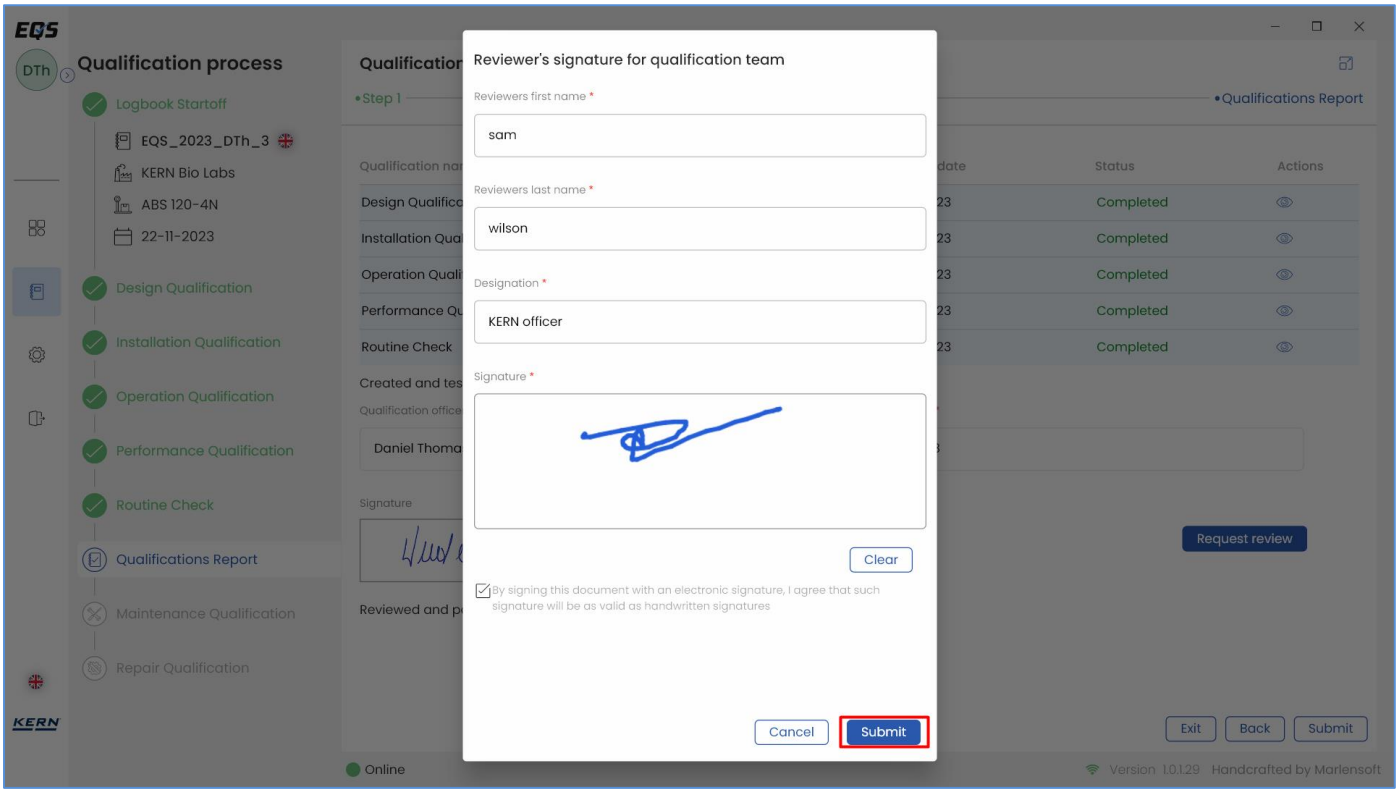


- **Step 2(Qualification report):** All the completed qualifications are listed.

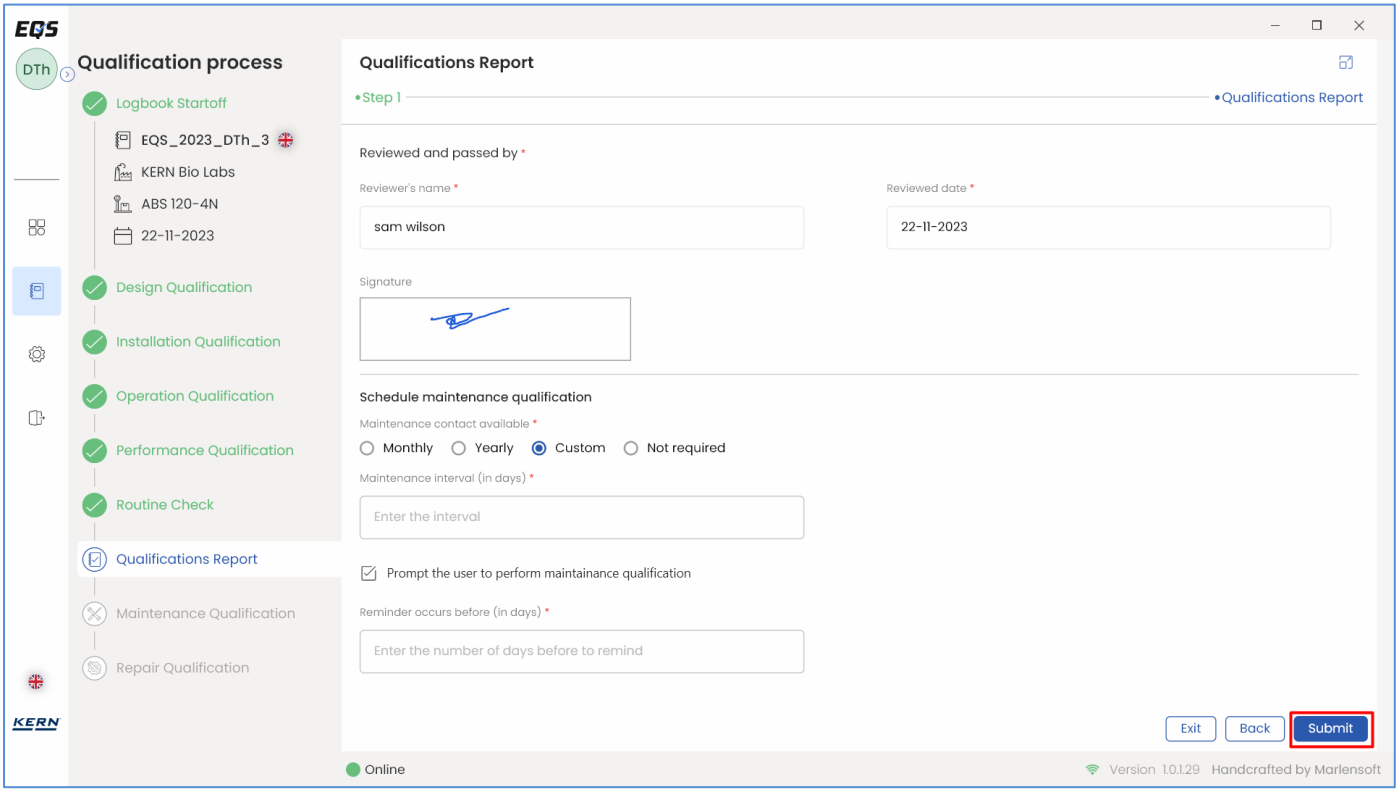


English

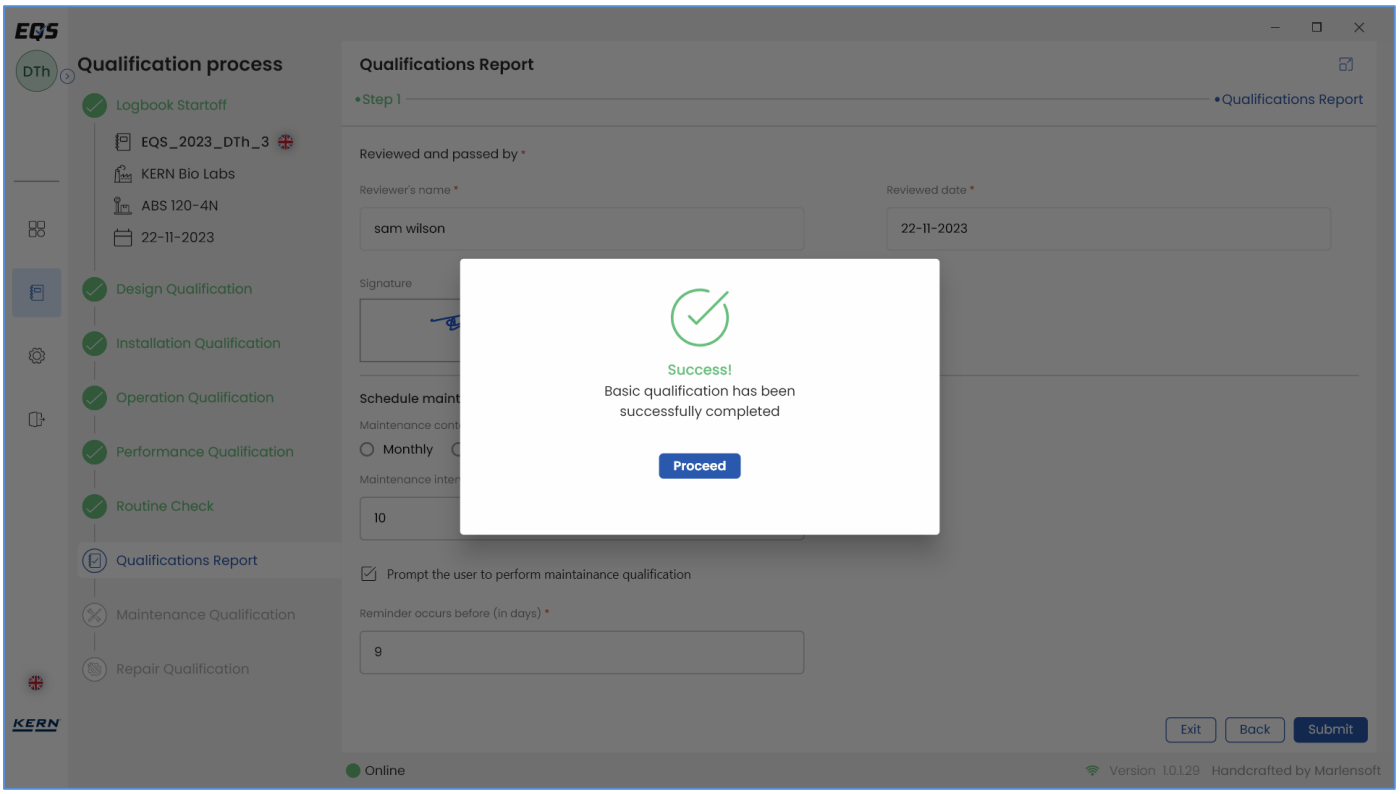
- Click the request review button, fill in the reviewer details and click “Submit” button.



- Enter schedule maintenance details and reminder details if required. So, the qualification officer can receive maintenance reminder mail.
- Click “Submit” button to complete the basic qualification process.

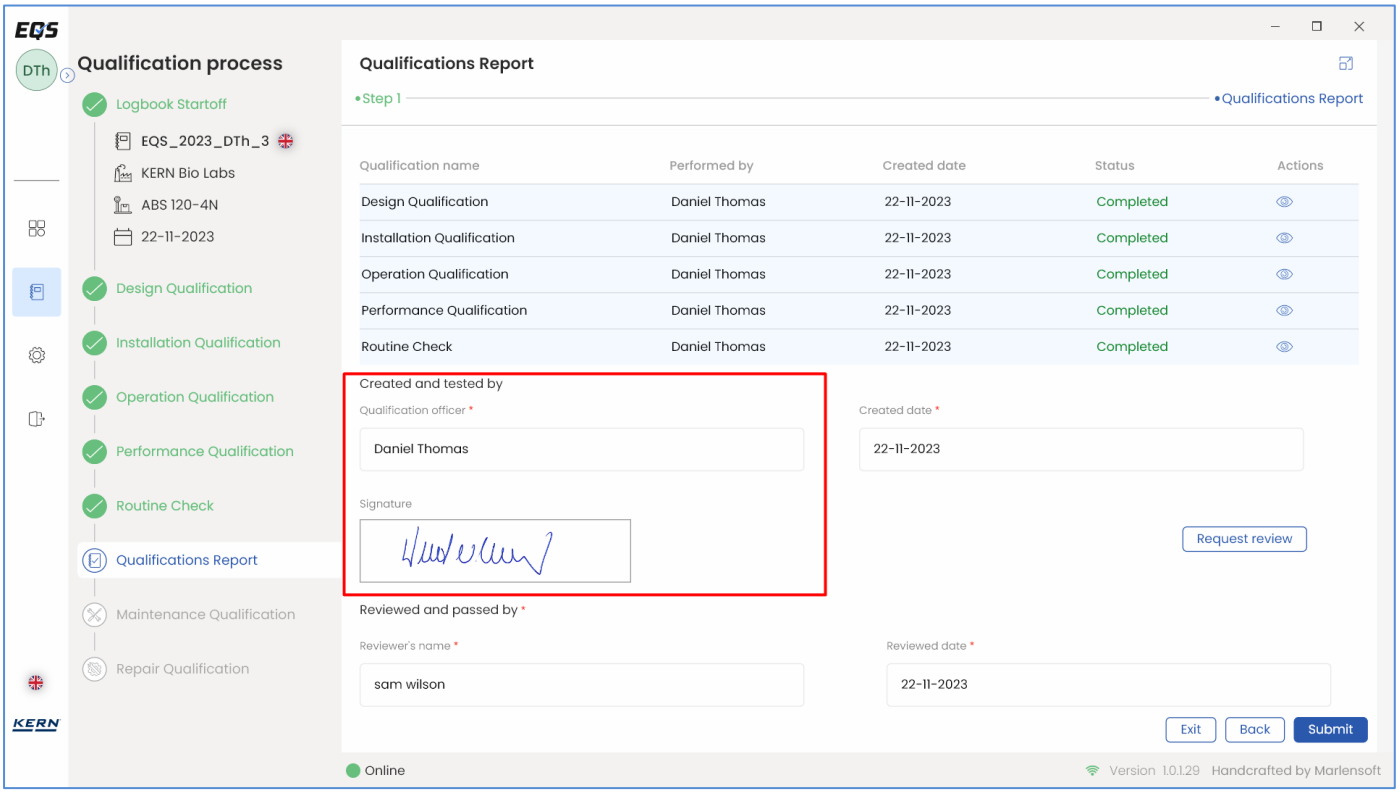


English



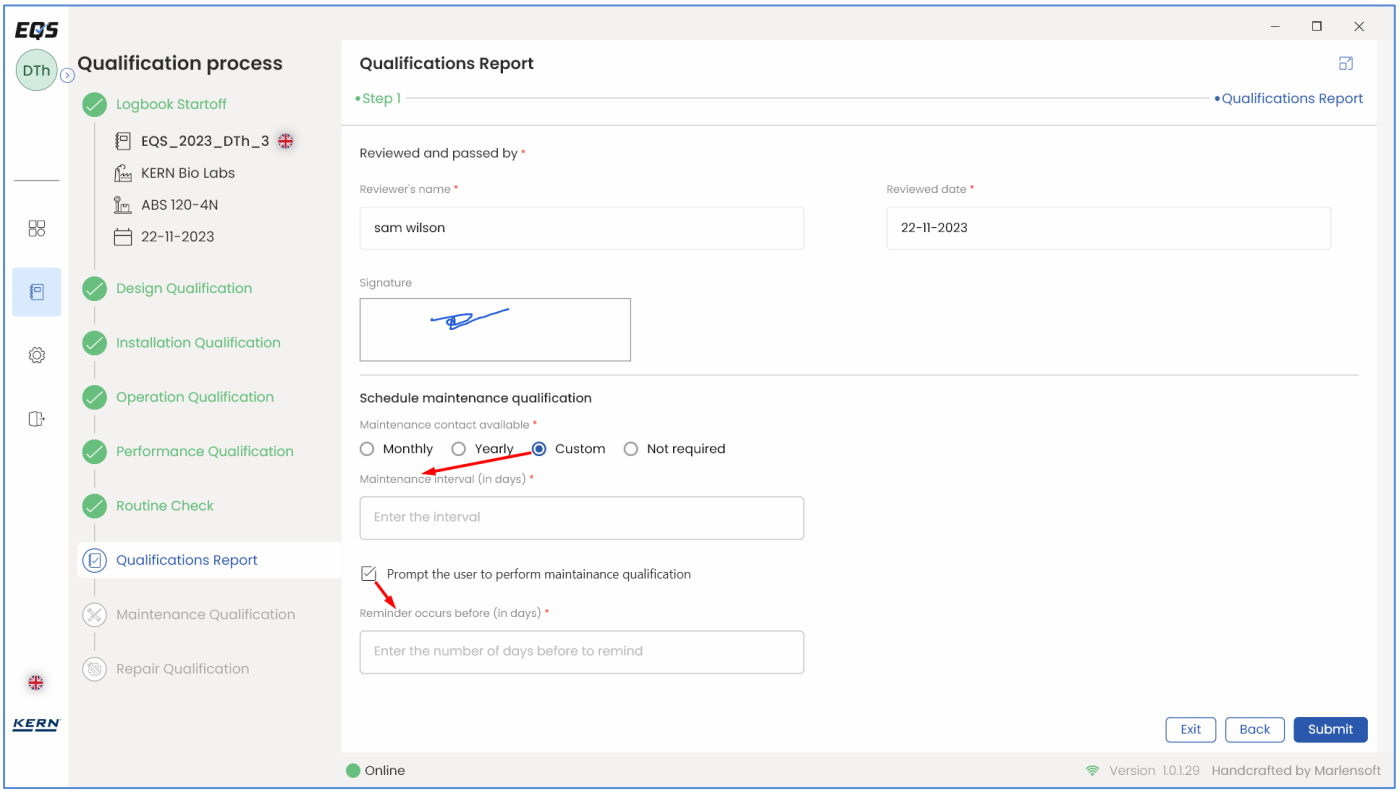
Prepopulated field:

- Qualification name and signature – Prepopulated from user information.



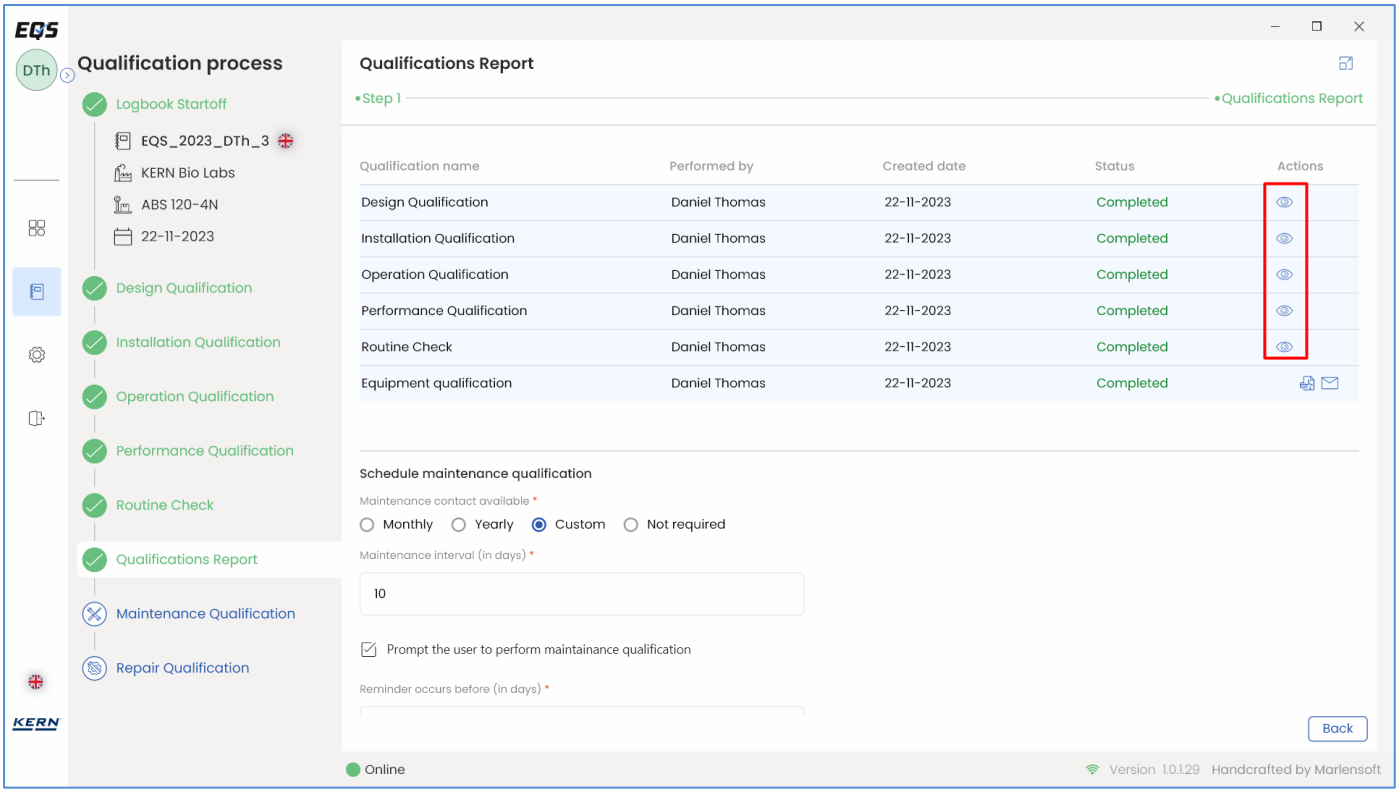
Additional fields:

- Maintenance contacts available (parent field) – Maintenance interval (additional field)
- Prompt the user to perform maintenance qualification (parent field) – Reminder occurs before (additional field)



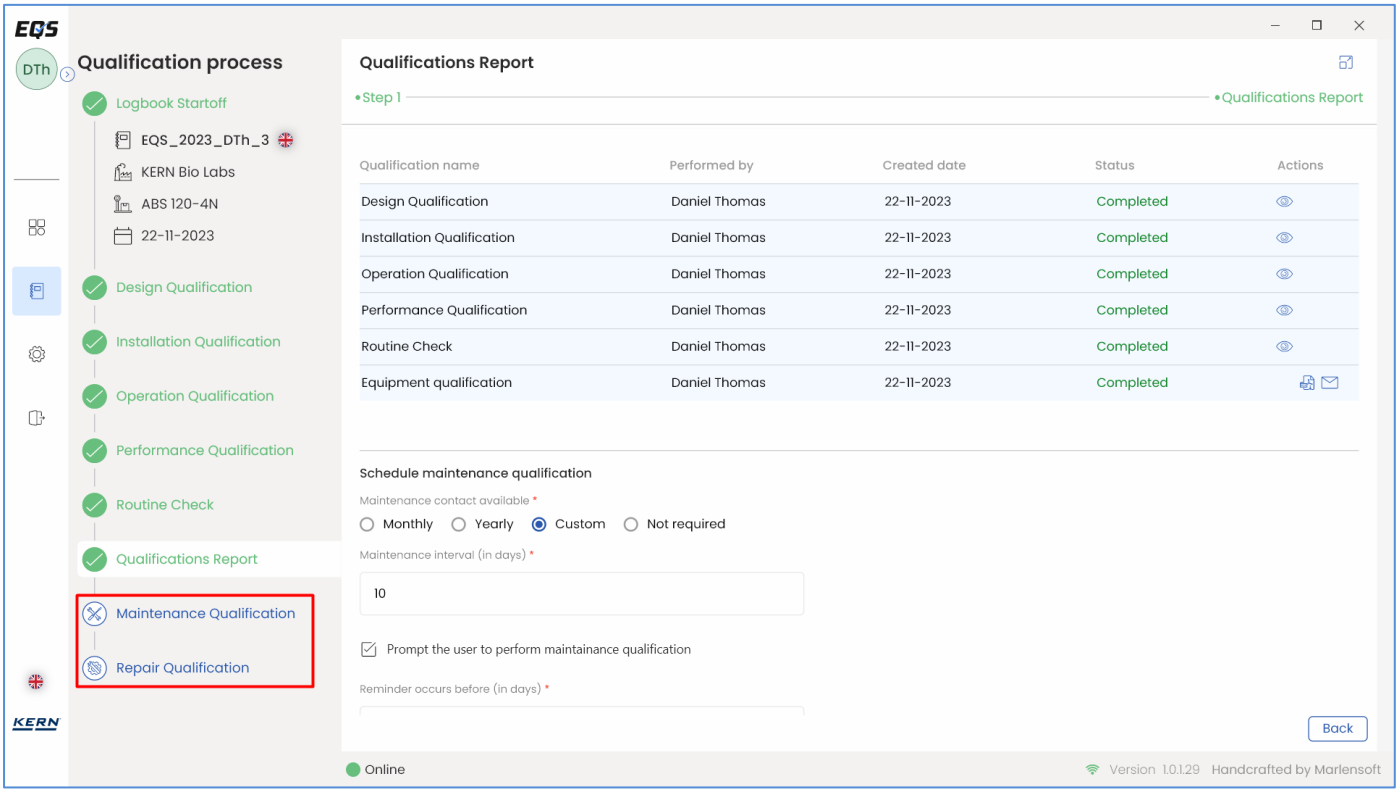
Key points:

- All the qualifications can be viewed from qualification report step 2.



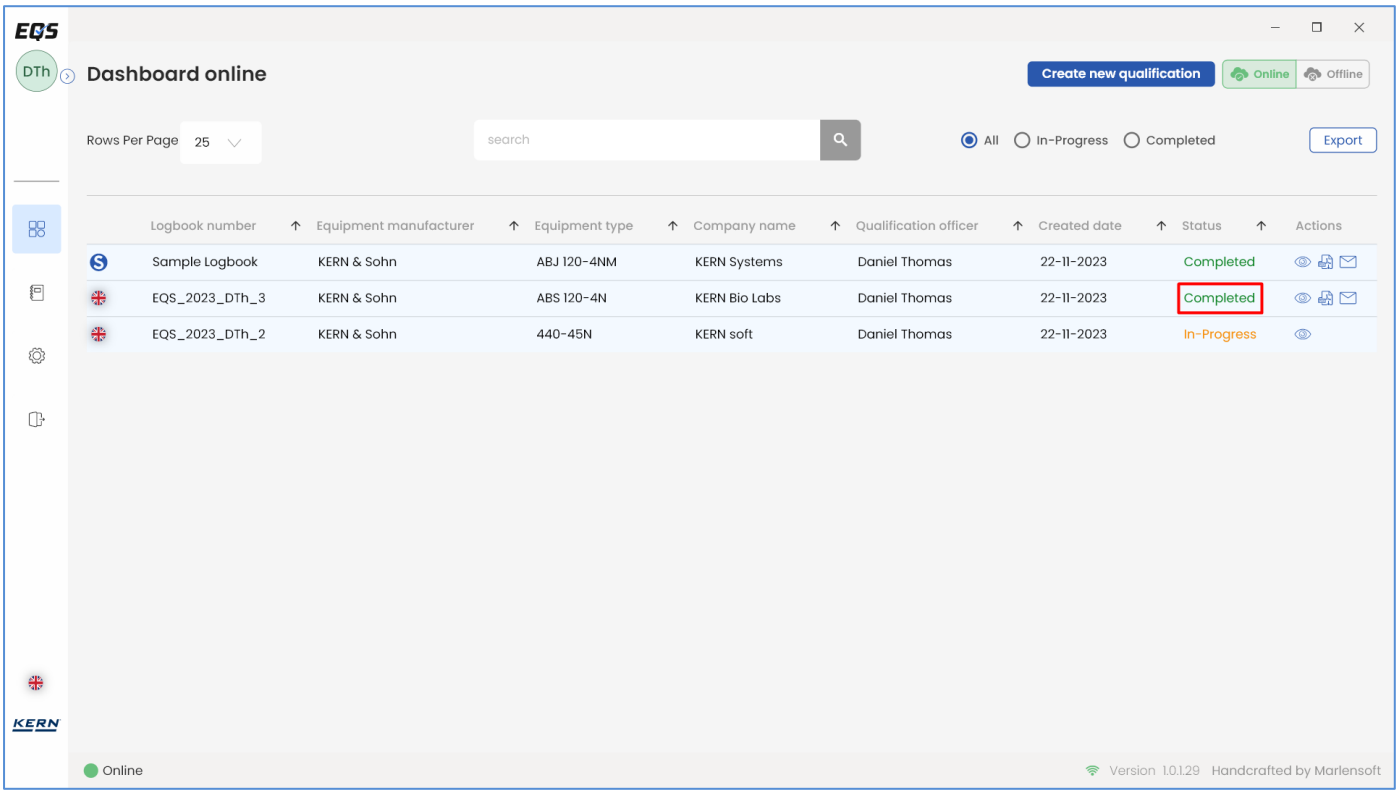
English

- The application redirects the user to logbook start off screen once basic qualification process is completed.
- Only after completing basic qualification steps, maintenance & repair qualifications become accessible.



- Once basic qualification steps are completed the status changes to “Completed” in dashboard screen and option to generate logbook PDF and sending logbook via mail is available in dashboard and qualification report step 2.

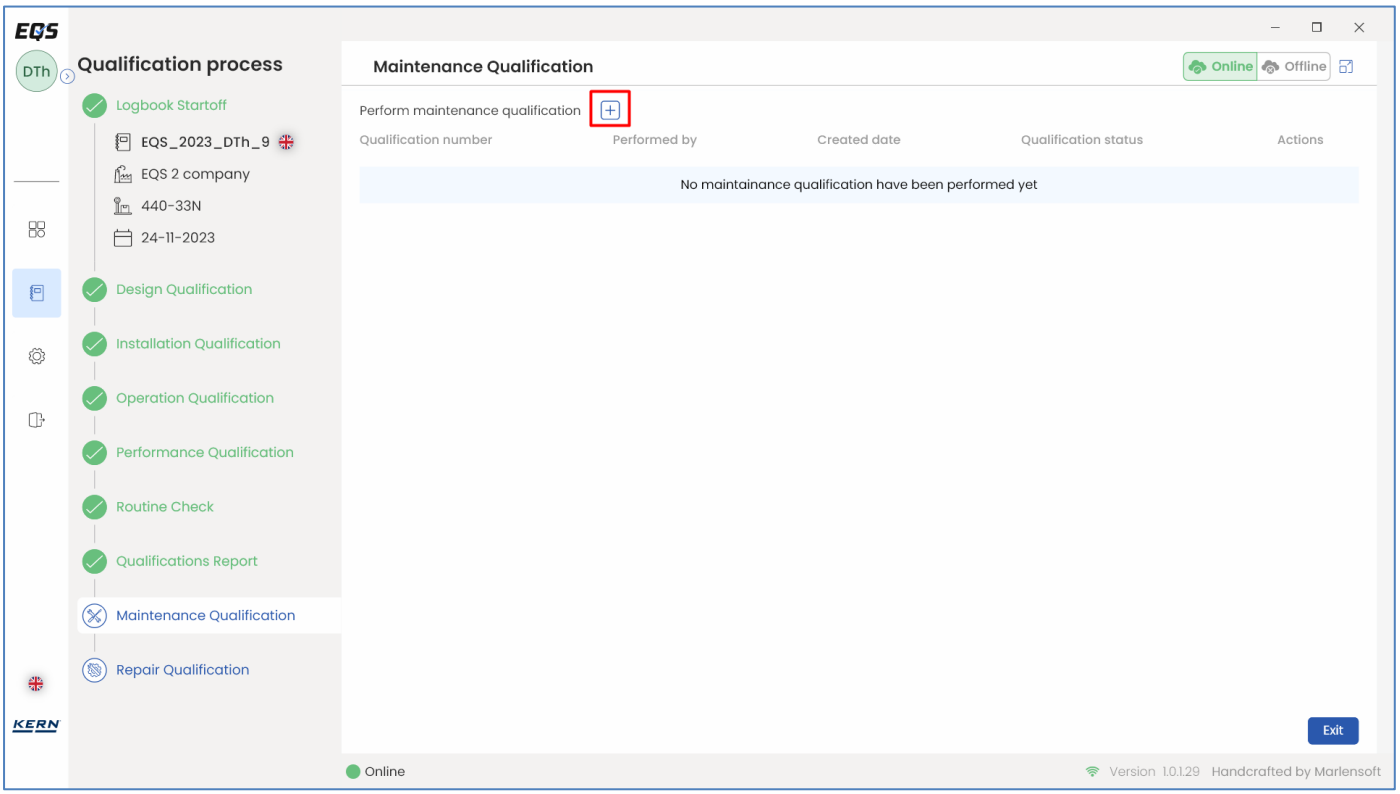
English



7.8 Maintenance qualification

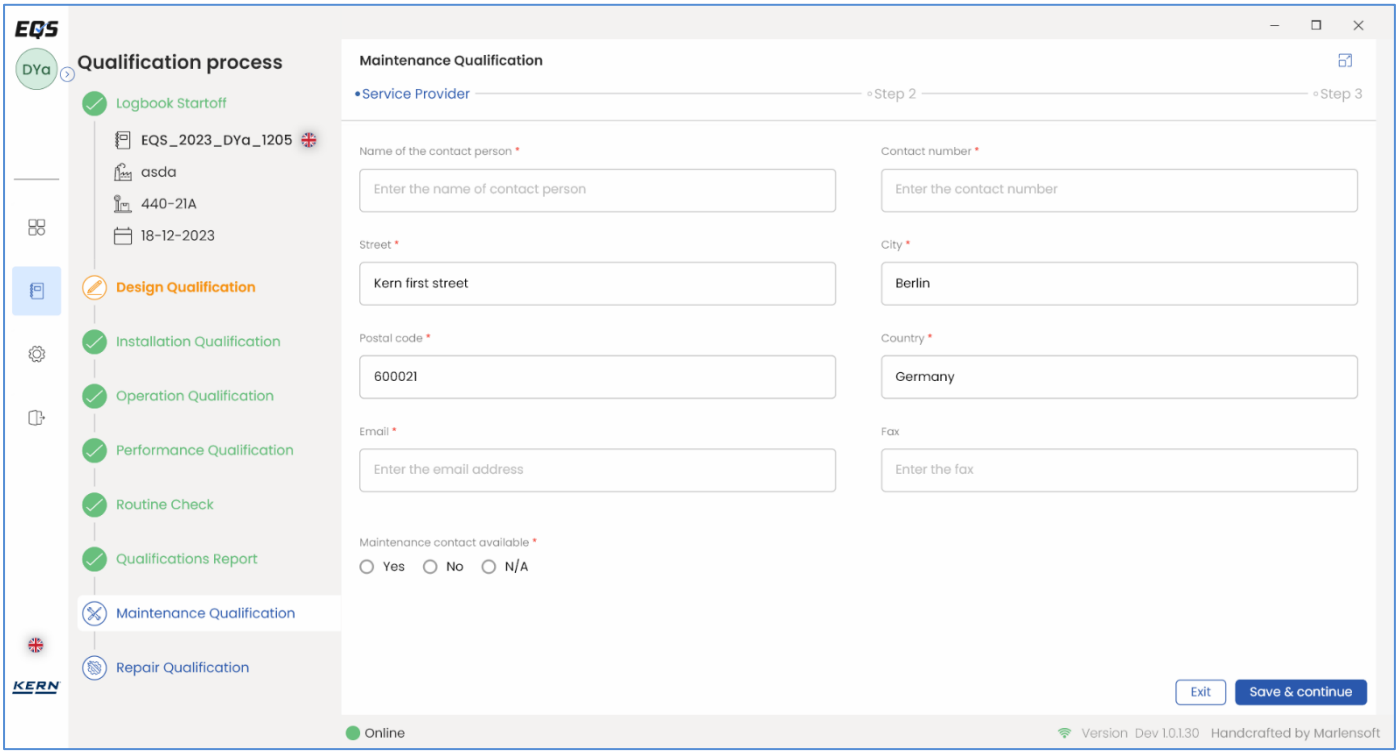
Periodic maintenance, cleaning, and comprehensive metrological testing of the balance or weighing system are documented in the Maintenance Qualification (MQ) by a trained authorized engineer. The results are recorded on a DakkS calibration certificate, and maintenance follows a predetermined schedule.

- The maintenance qualification is available in both online and offline mode.
- Click the “+” icon to add or perform the maintenance qualification.



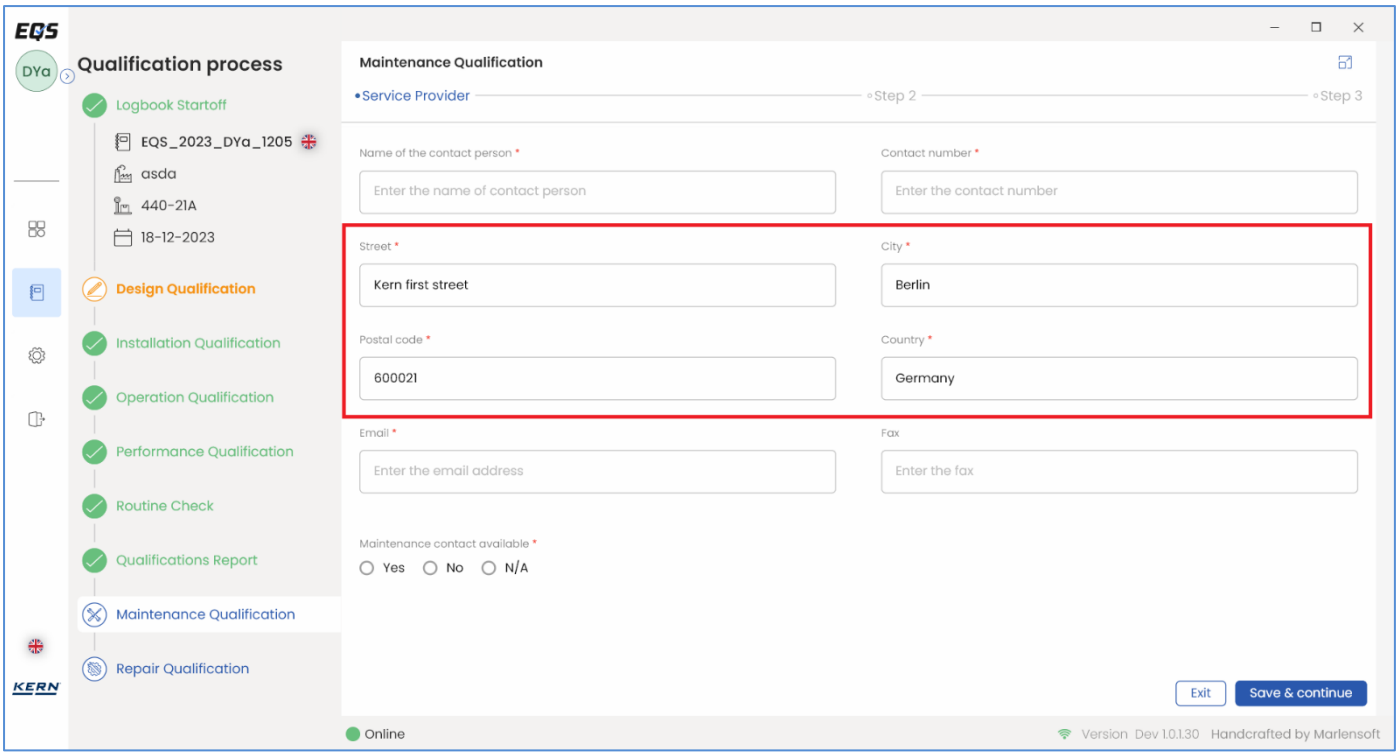
English

- Step 1(Service Provider): Enter data in the mandatory fields and click “Save and continue” button. Here there are fields with prepopulated data.



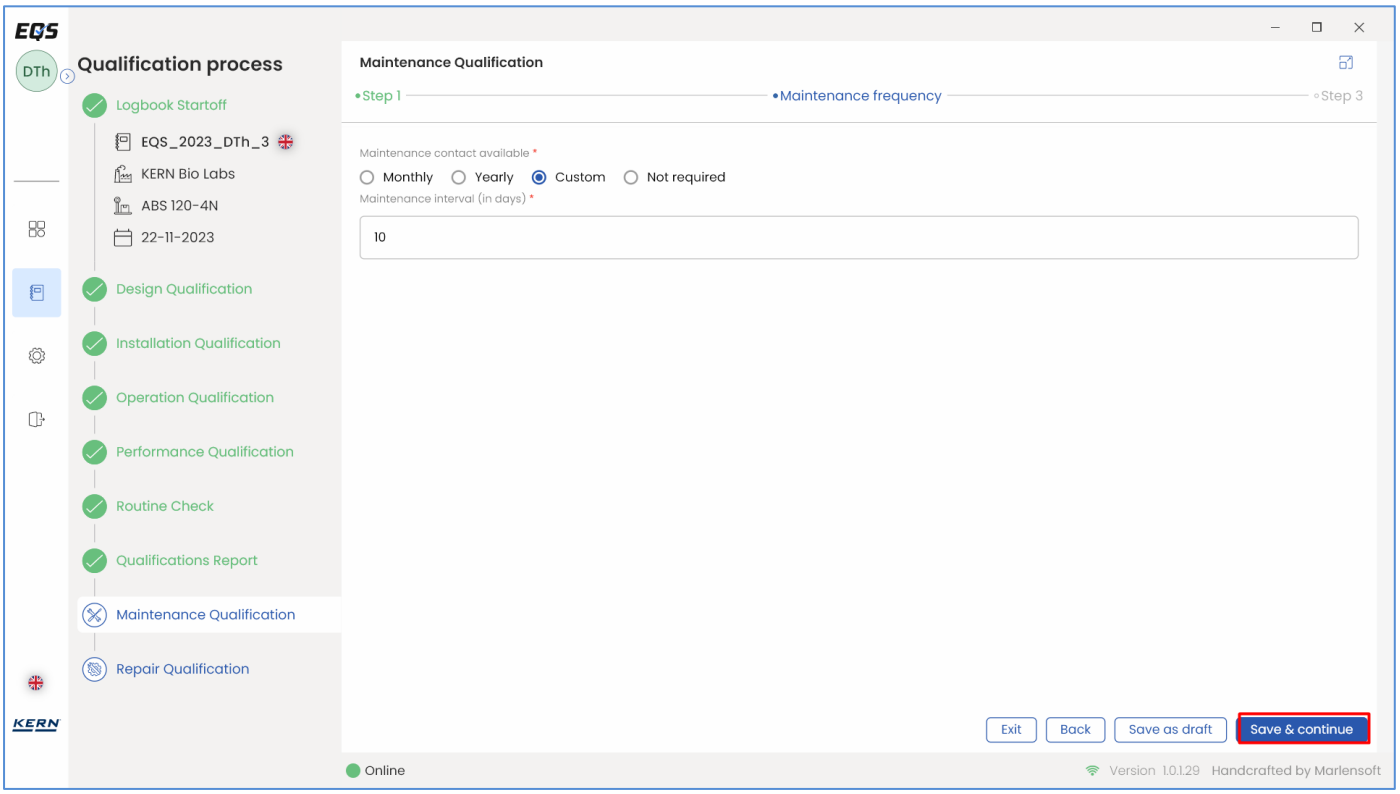
Prepopulated field:

- Street, Postal code & City - Prepopulated from Installation Qualification step 2.



English

- Step 2(Maintenance frequency): Enter data in the required fields and click “Save & continue” button. Here there are fields with prepopulated data and fields which have mandatory additional fields.



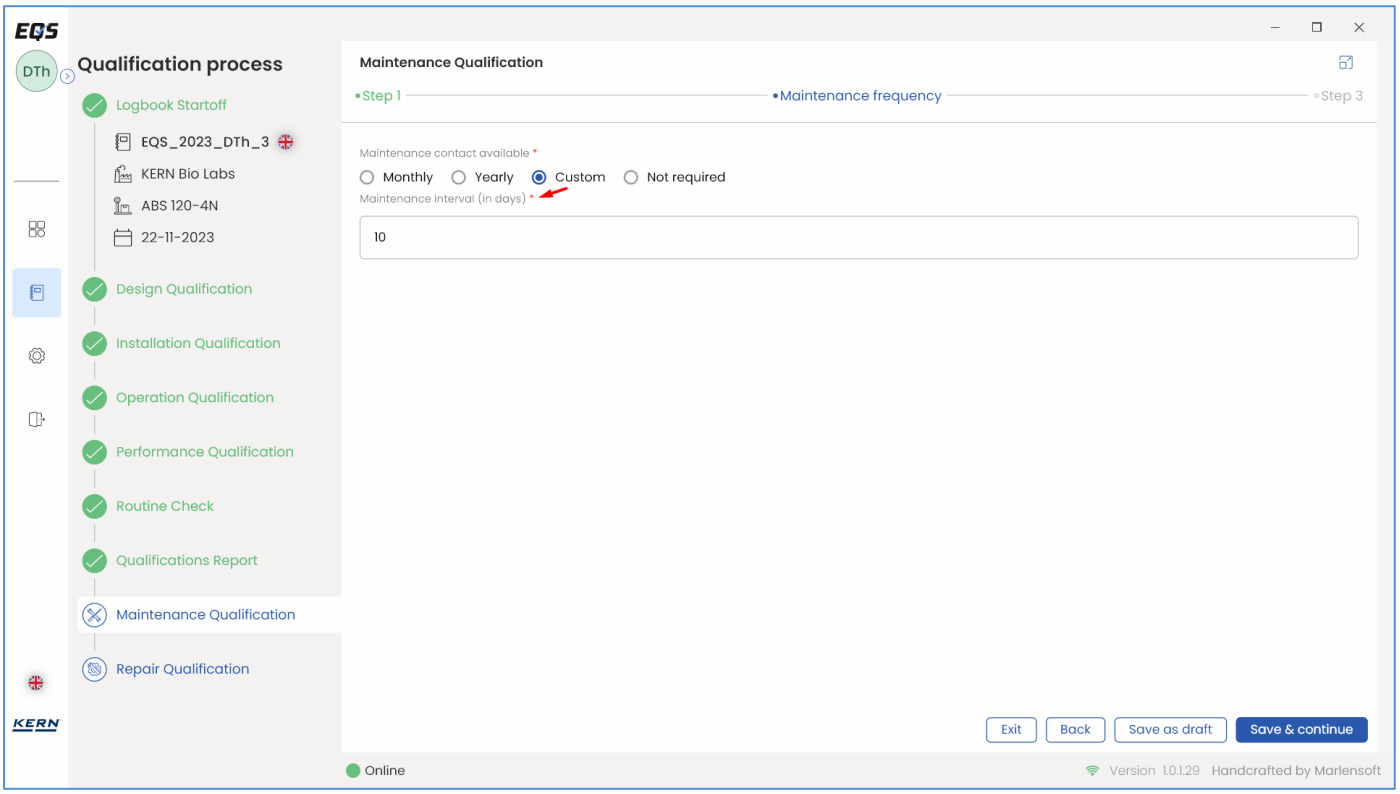
Prepopulated field:

- Data entered in “Schedule maintenance qualification” from qualification reports step2 is prepopulated here.

Additional field:

- Maintenance contacts available (parent field) – Maintenance interval (additional field)

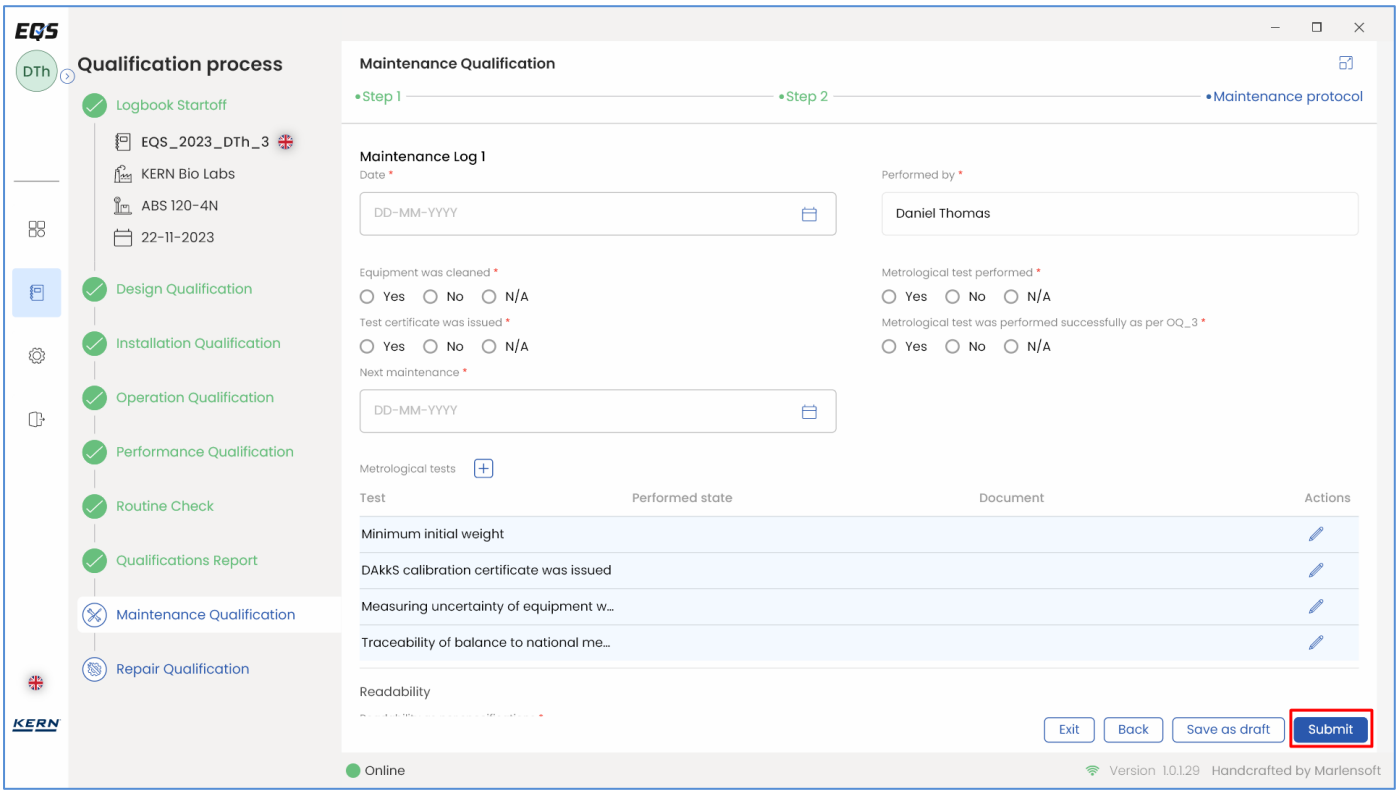
English



- Step 3(Maintenance protocol): Enter data in the mandatory fields and click “Submit” button to complete the maintenance qualification step. Here there are fields with prepopulated data and fields which have mandatory additional fields.

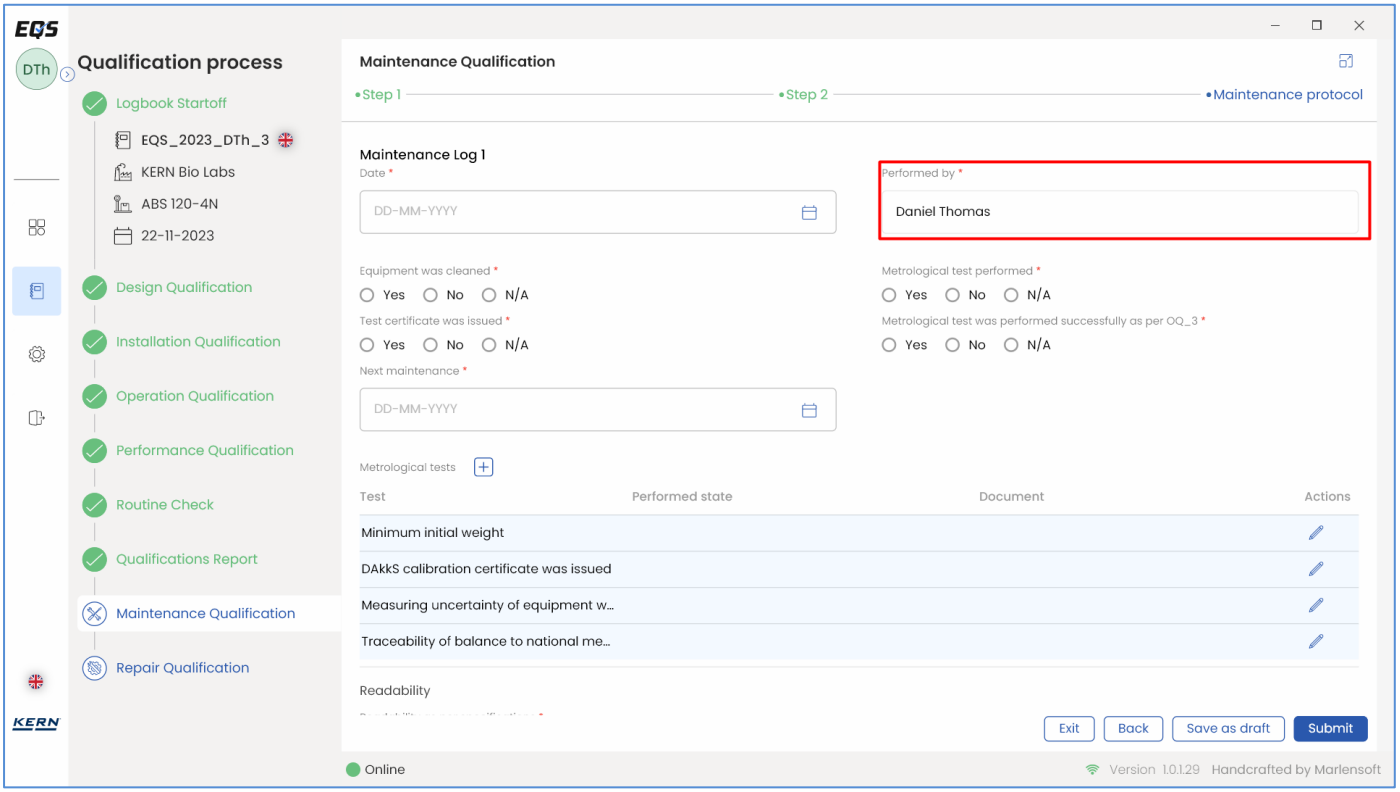
Note: Refer “Metrological test” from operation qualification step3. 7.4 Operation qualification

English



Prepopulated field:

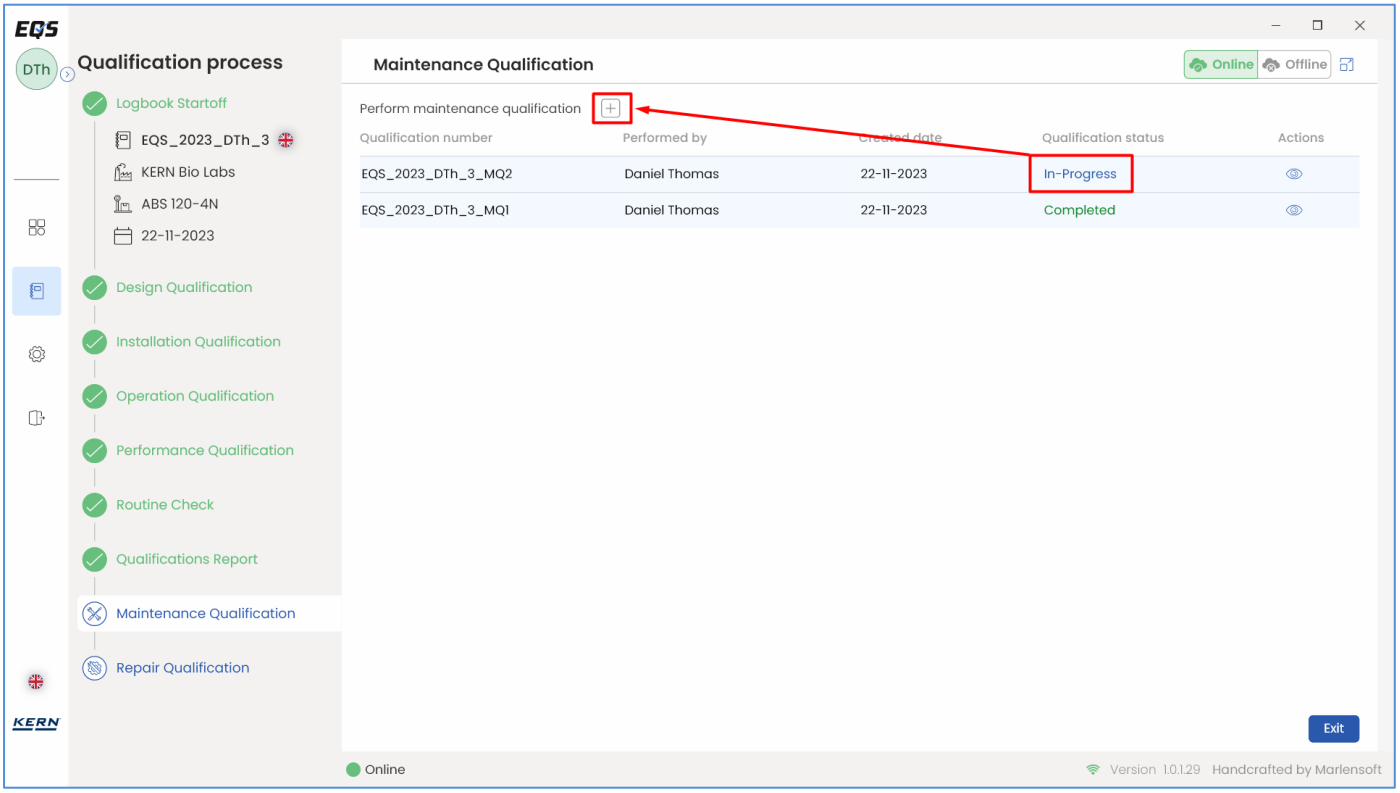
- performed by – prepopulated from user information.



Key points:

- Without completing the current maintenance qualification, the qualification officer is not allowed to add new maintenance qualification.

English

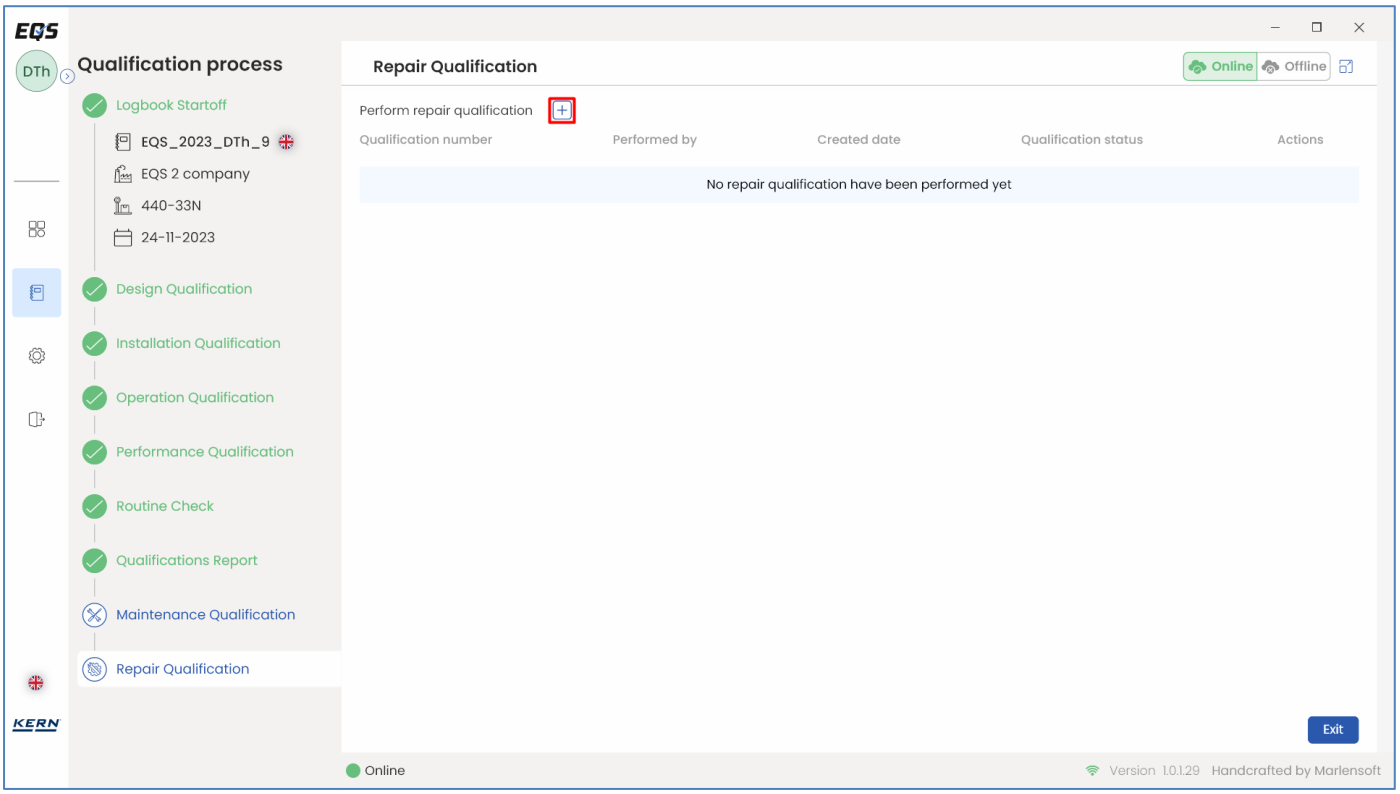


Note: The qualification number is auto generated with combination of logbook number and "MQ" + numbering in ascending order (e.g., EQS_2023_DTh_3_MQ1).

7.9 Repair qualification

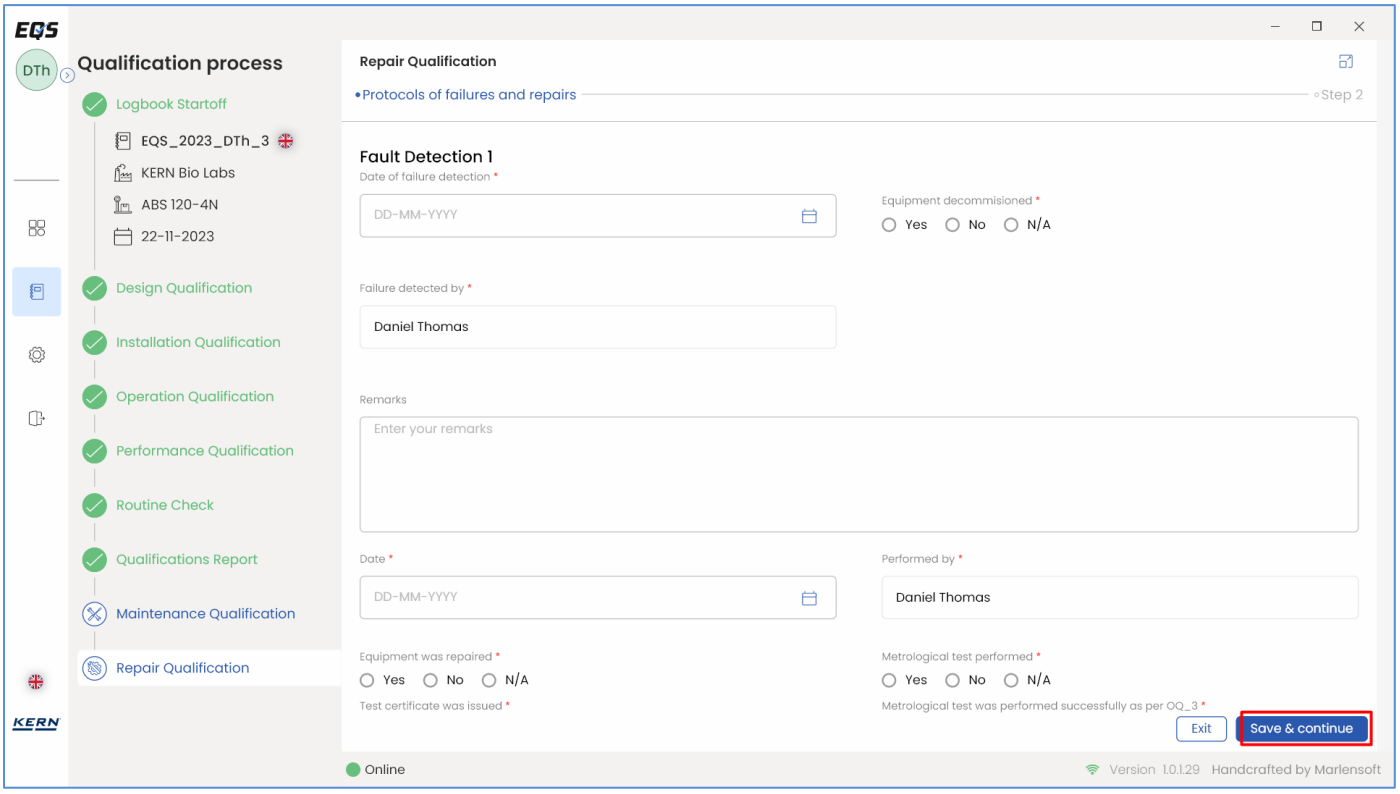
Failures and repairs of equipment are recorded in the Repair Qualification (RQ). Authorized, trained engineers must conduct servicing and repairs using genuine spare parts. After repairs, all parameters crucial for the balance's efficiency are checked, and the results are documented on the DakkS calibration certificate.

- The repair qualification is both online and offline mode.
- Click the "+" icon to add or perform the repair qualification.



- Step 1(Protocols of failures and repairs): Enter data in the mandatory fields and click “Save and continue” button. Here there are fields with prepopulated data and fields which have mandatory additional fields.

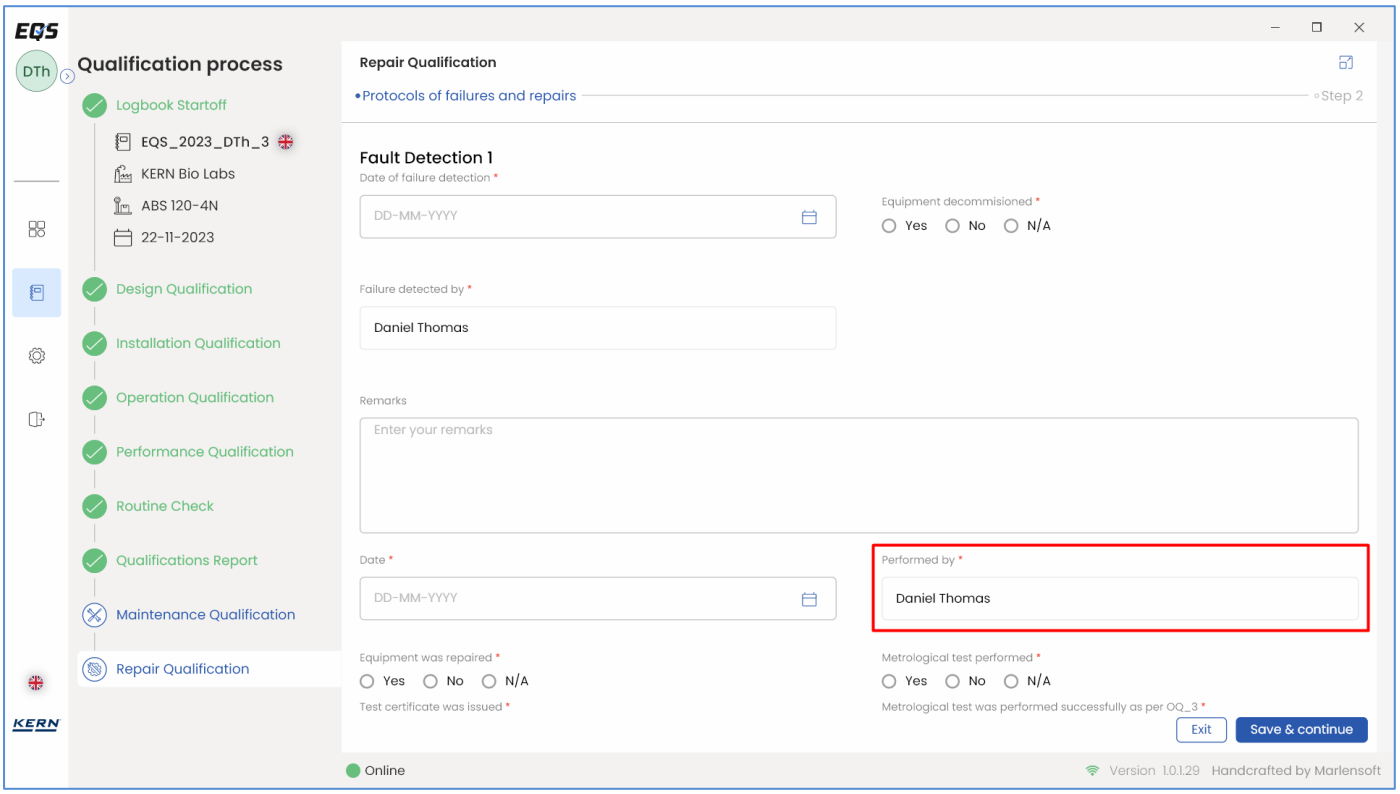
Note: Refer metrological test from operation qualification step3 7.4 Operation qualification



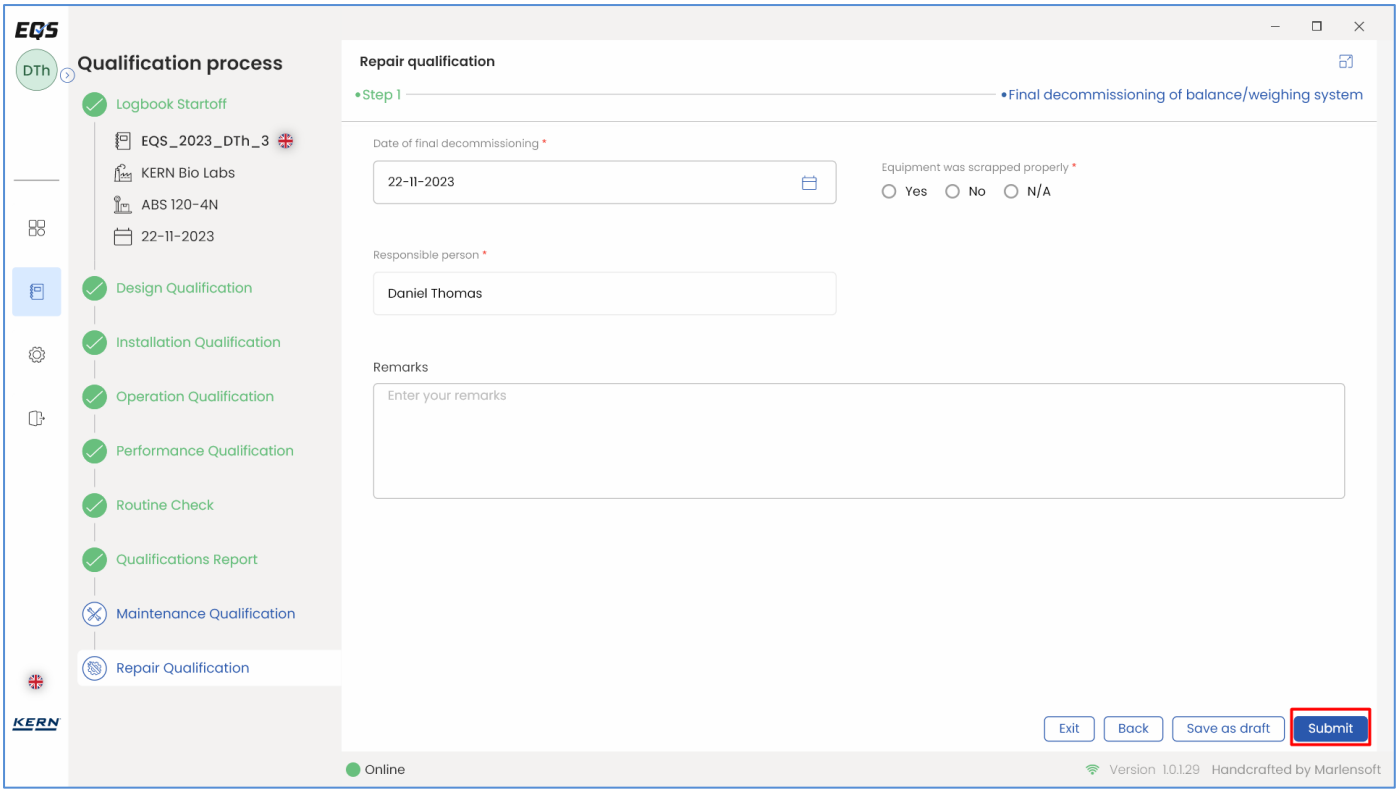
Prepopulated field:

- performed by – prepopulated from user information.

English



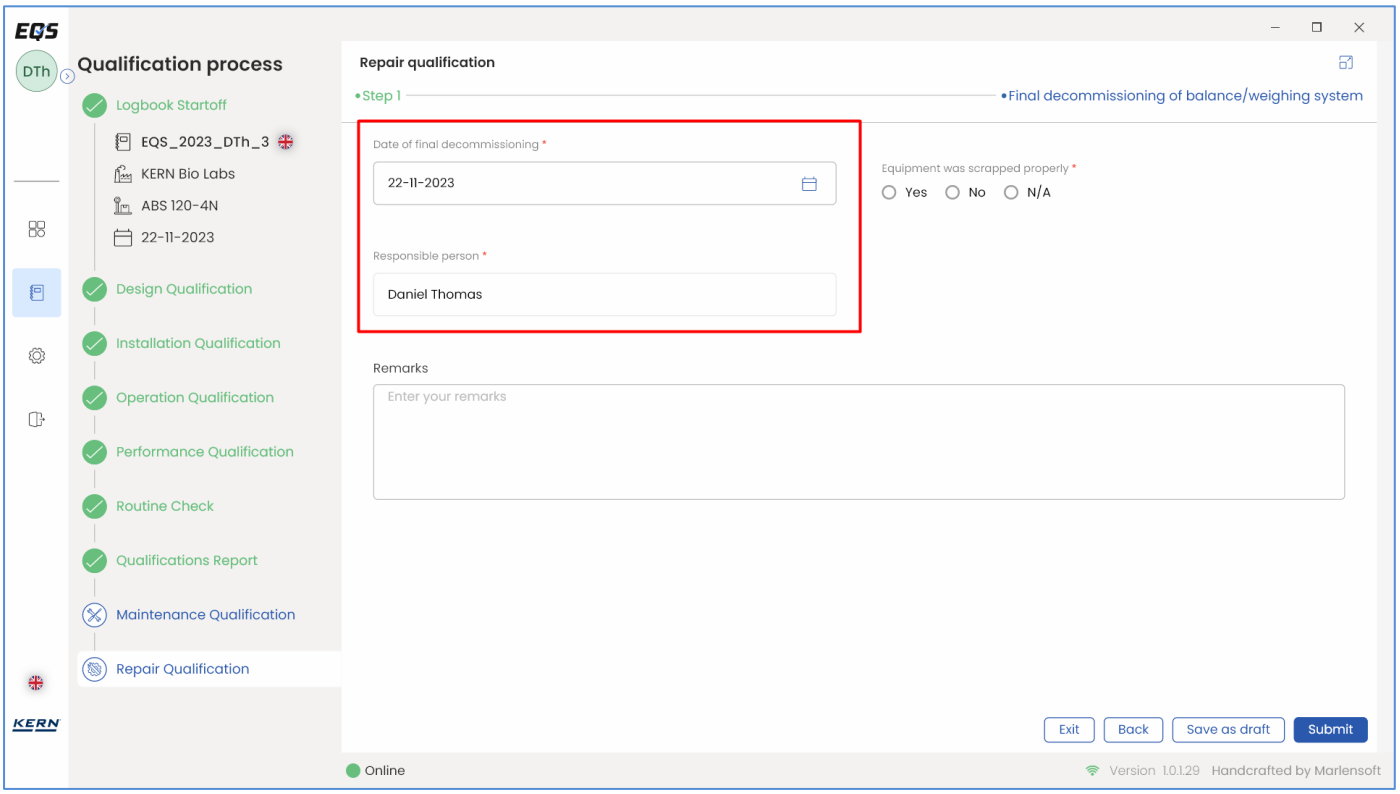
- Step 2(Final decommissioning of balance / weighing system): Enter data in the mandatory fields and click “Submit” button to complete the repair qualification step. Here there are fields with prepopulated data.



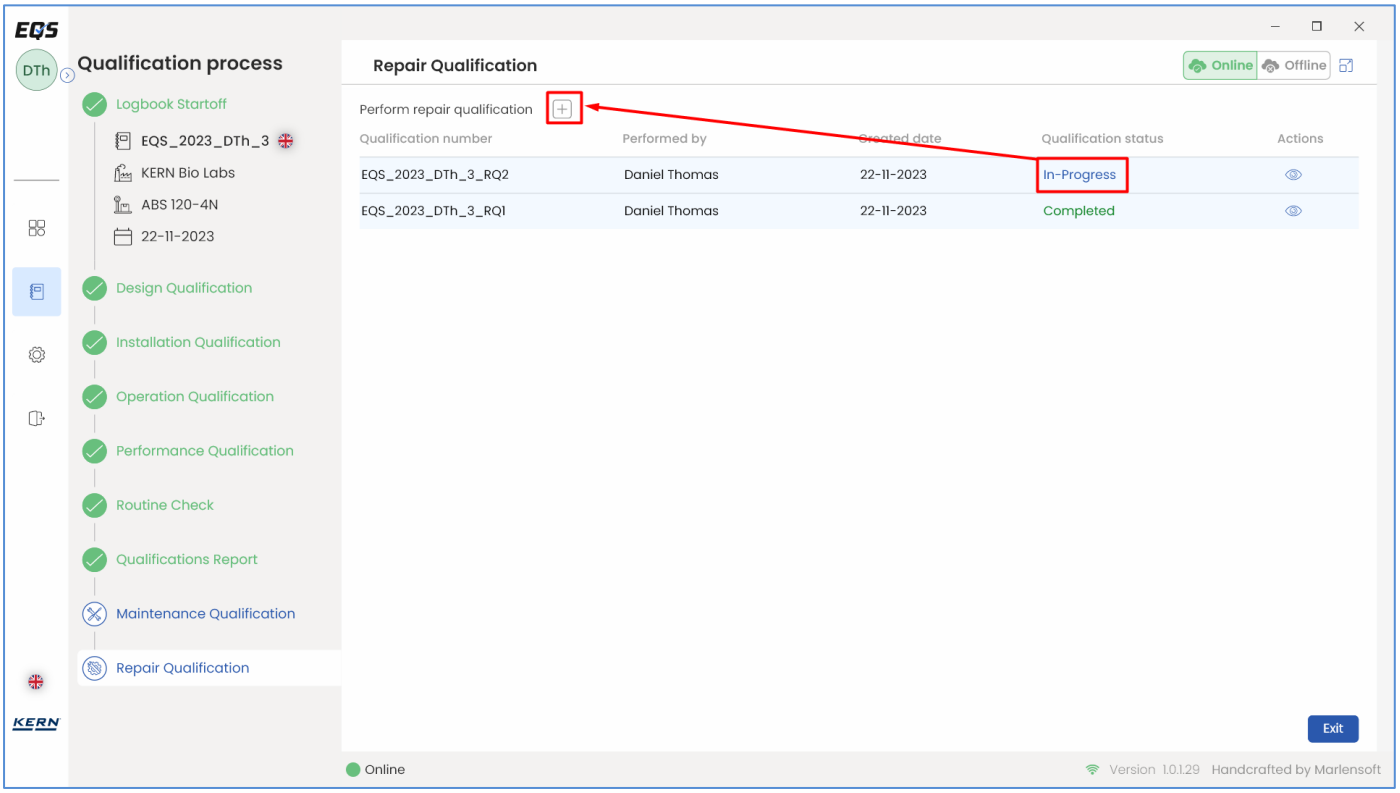
English

Prepopulated field:

- Date of final decommission – Prepopulated from previous step.
- Responsible person – Prepopulated from user information.



Note: Without completing the current repair qualification, the qualification officer is not allowed to add new repair qualification.



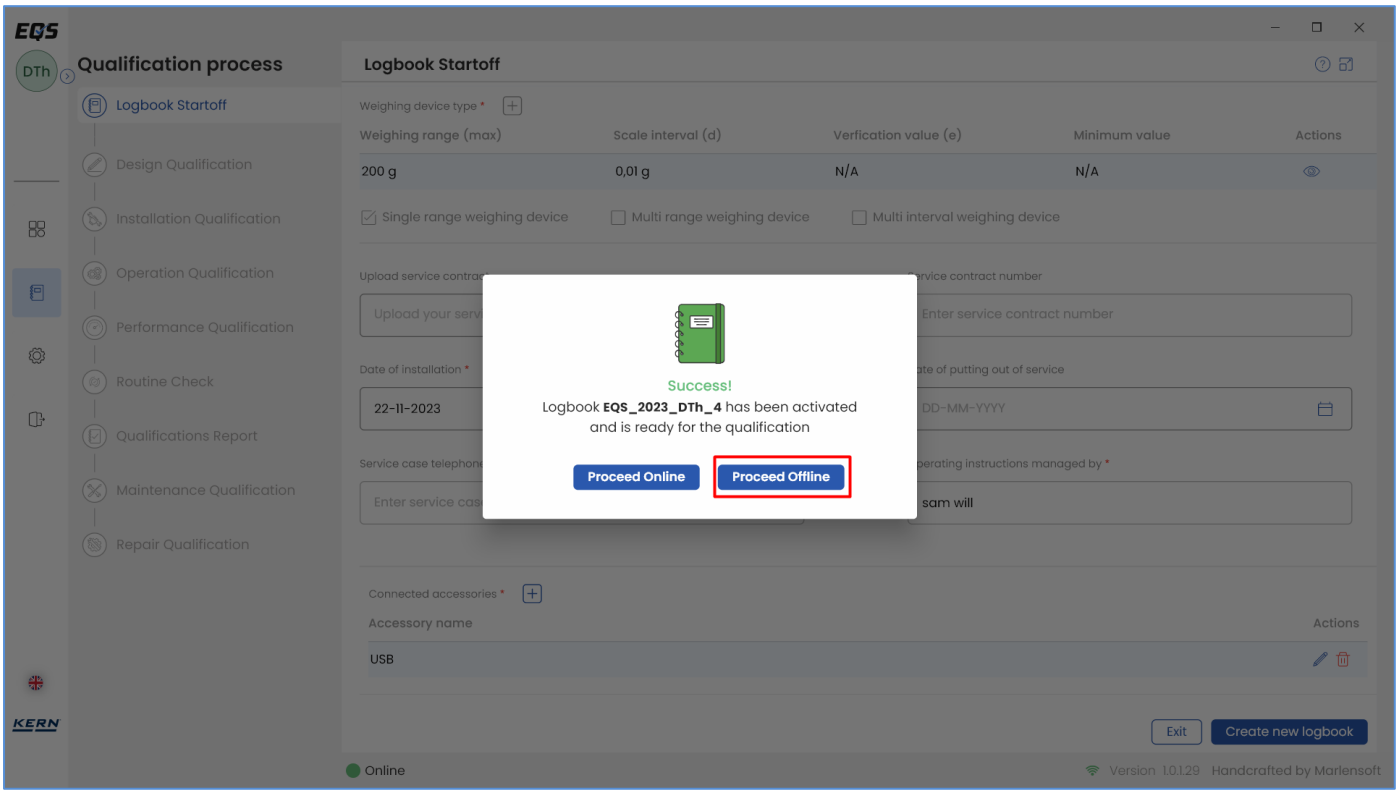
Note: The qualification number is auto generated with combination of logbook number and "RQ" + numbering in ascending order (e.g., EQS_2023_DTh_3_RQ1).

English

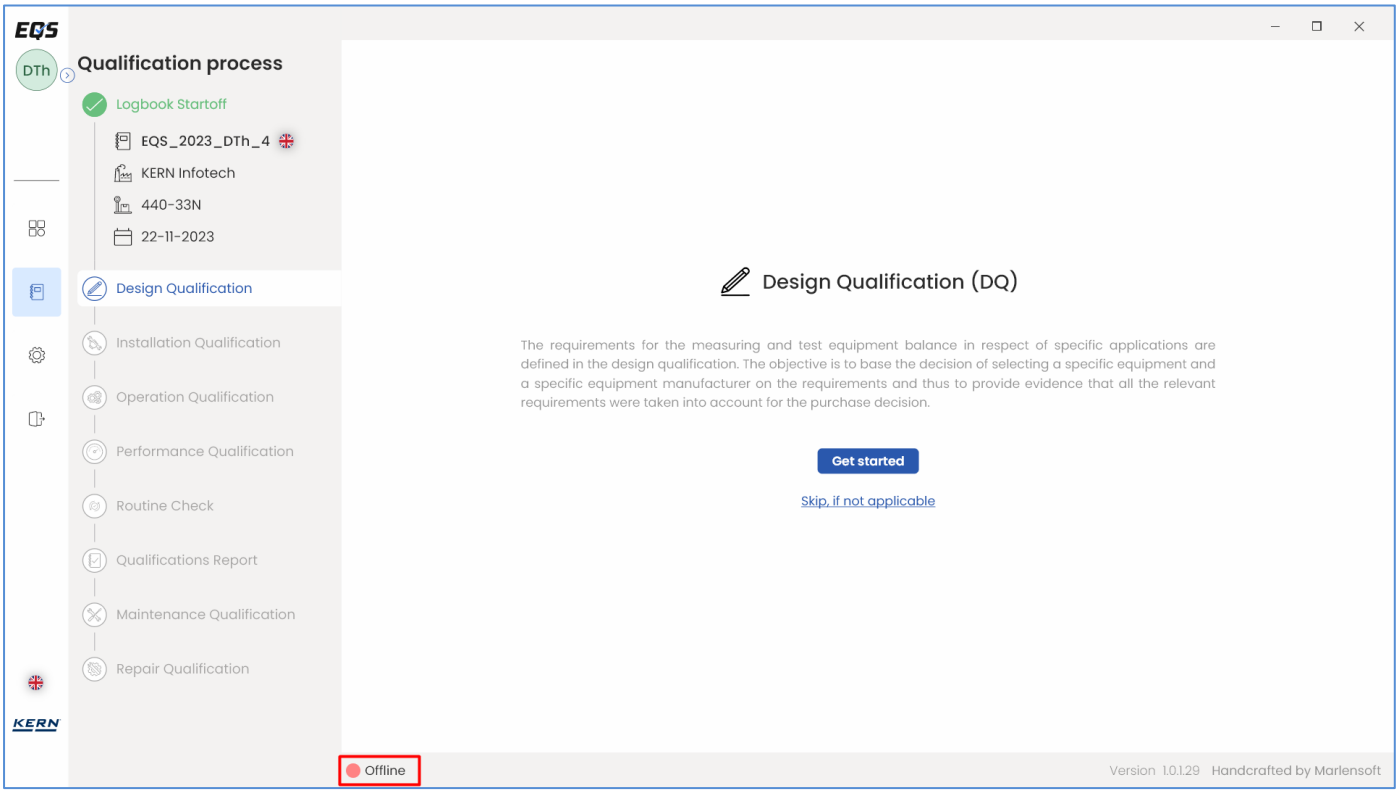
7.10 Basic qualification offline mode

In situations where the qualification officer needs to conduct basic equipment qualification in an environment lacking internet connectivity, an offline mode is employed. Offline mode allows the qualification process to be carried out without relying on an internet connection, ensuring the execution of essential qualification procedures even in offline environments.

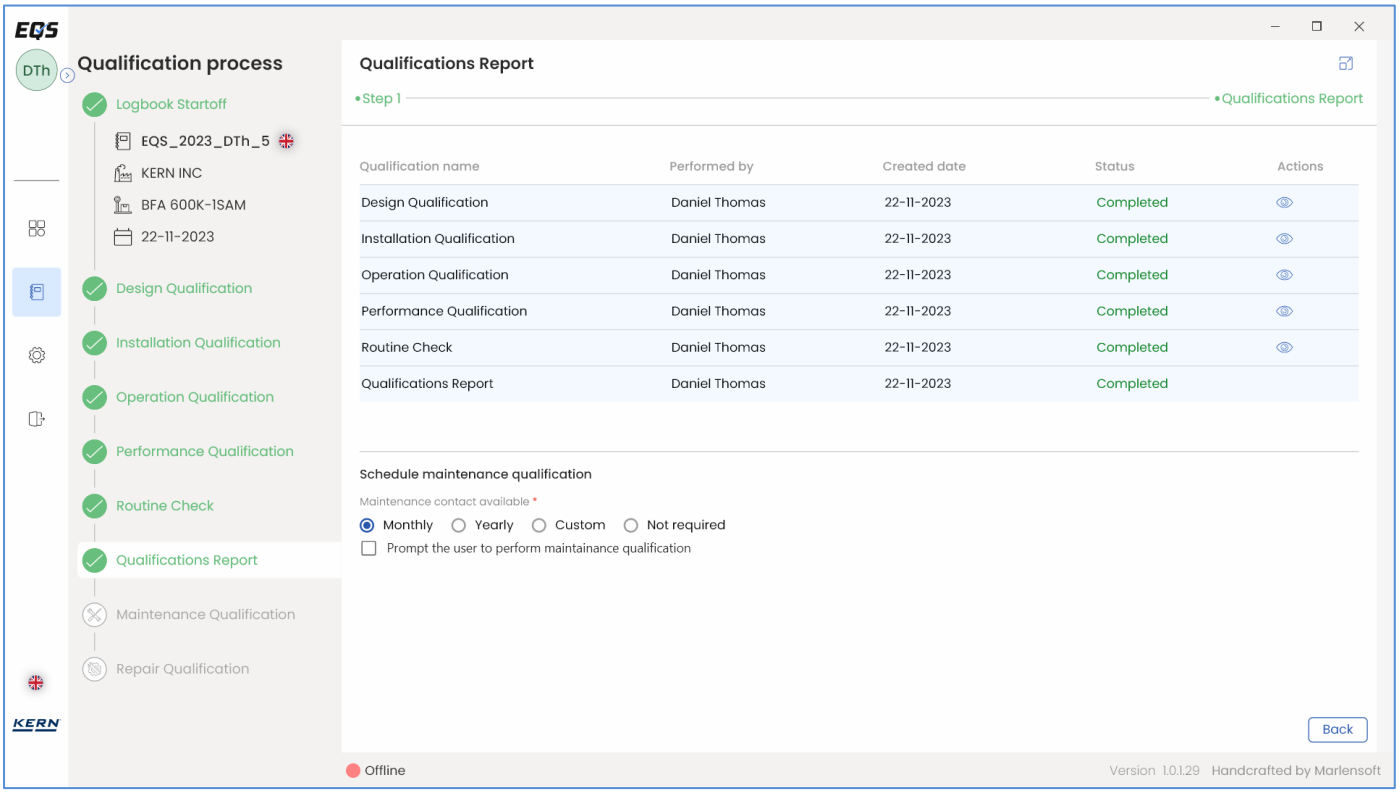
- **Step 1:** Please refer to 7.1 Logbook creation
- **Step 2:** When clicking the “Proceed offline” button the application will switch to offline mode. This is indicated by the change of color in the circle icon (green to red) and label change from online to offline.



English

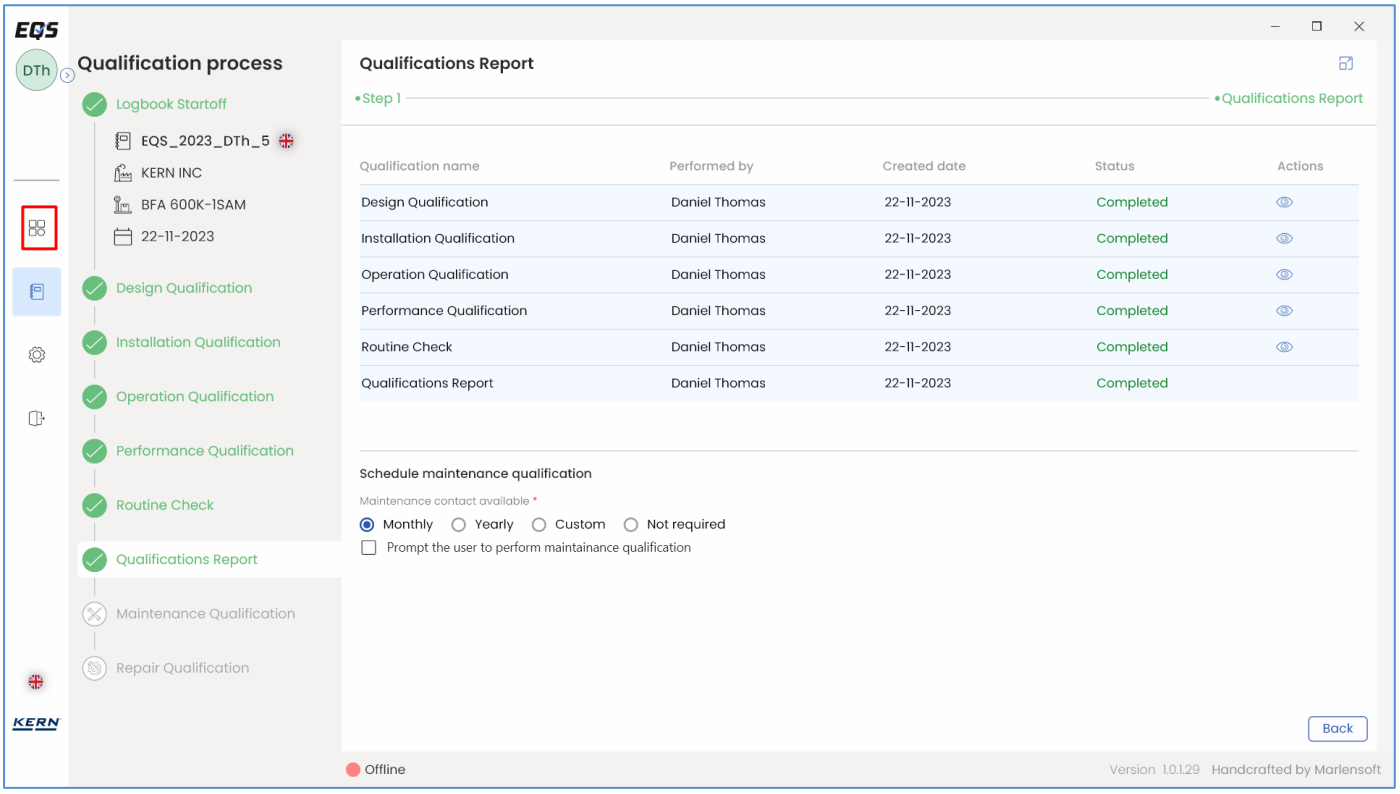


- **Step 3:** Complete the basic qualification like online mode.

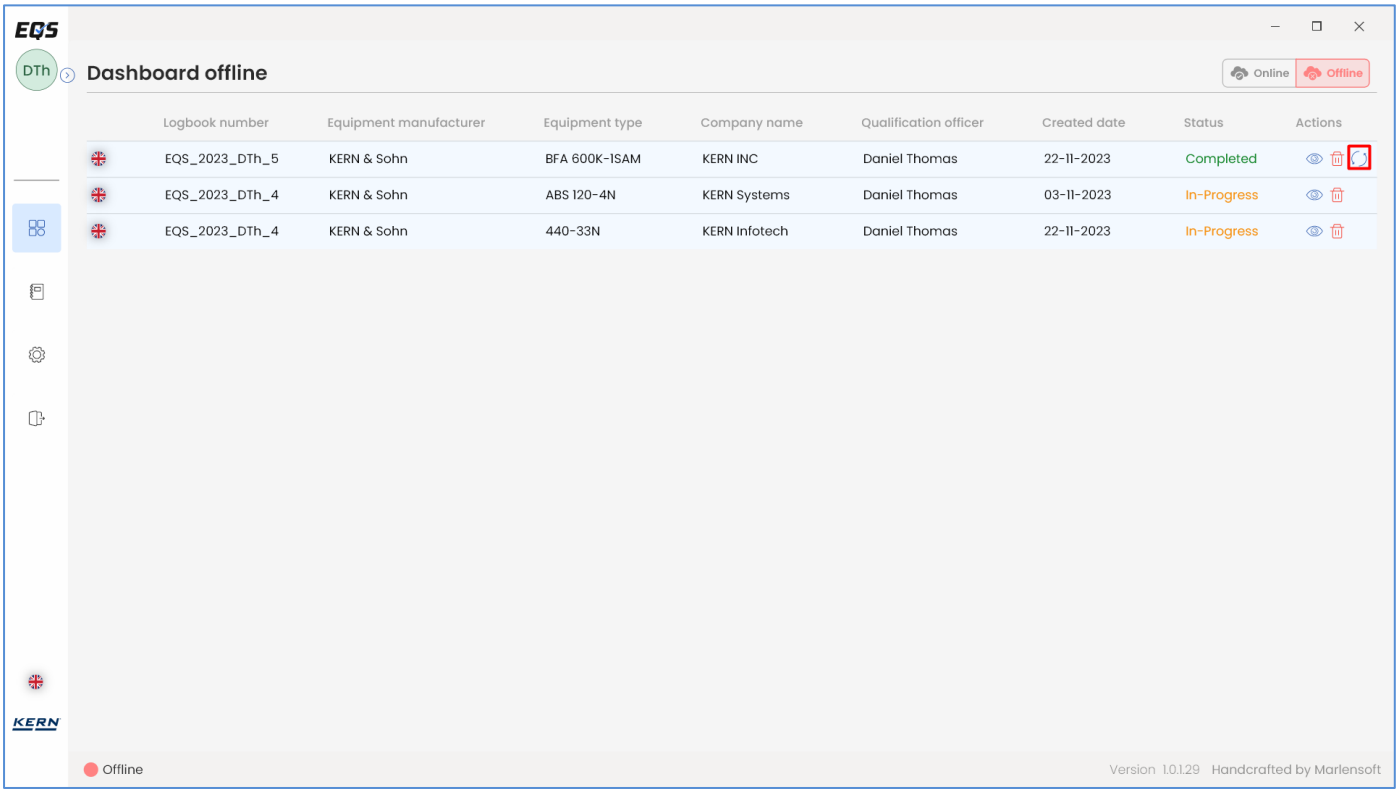


English

- **Step 4:** Click the dashboard icon the page gets navigated to the offline dashboard screen.

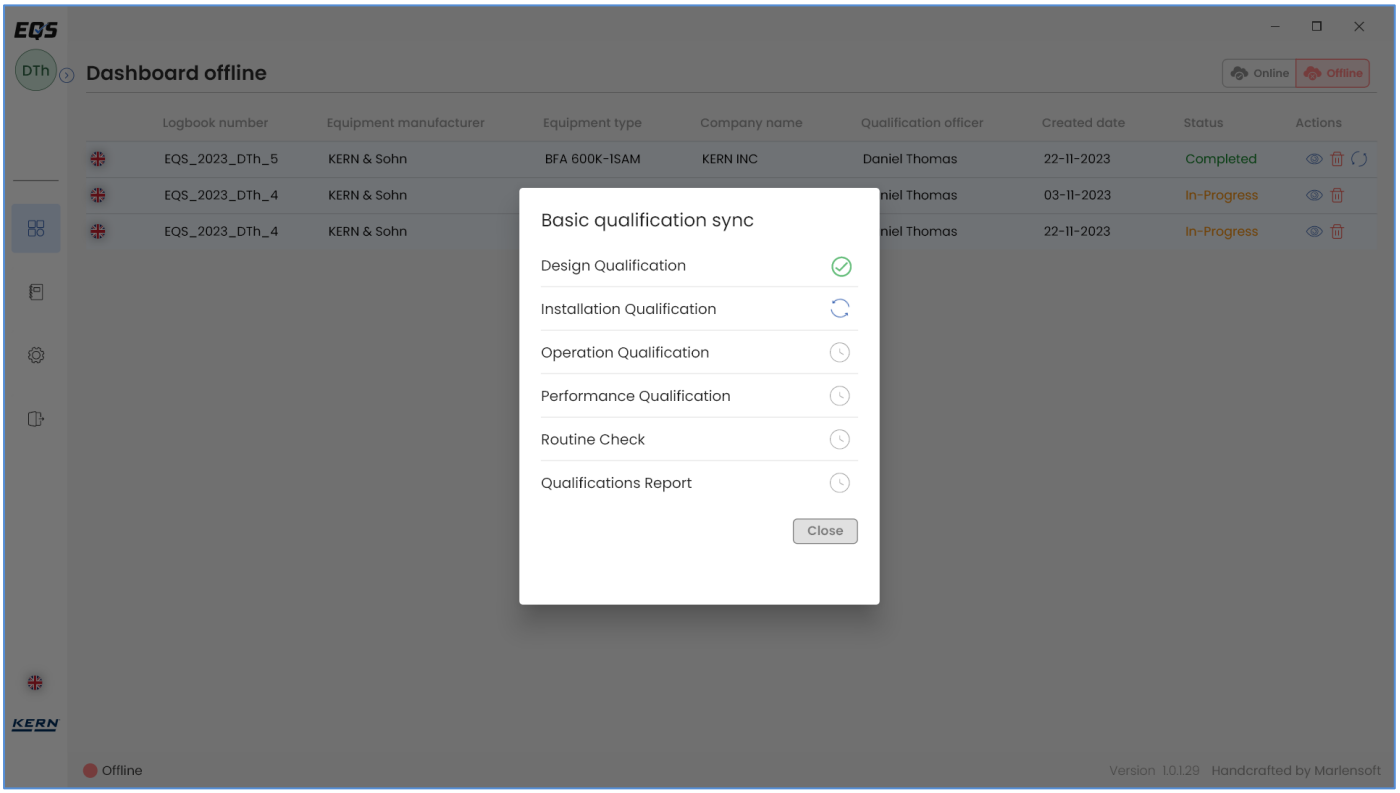


- **Step 5:** Once the basic qualifications are completed for a logbook status changes from “In-progress” to “Completed” and synchronization icon displays. When clicking the synchronization icon, the logbook starts to synchronize to server.

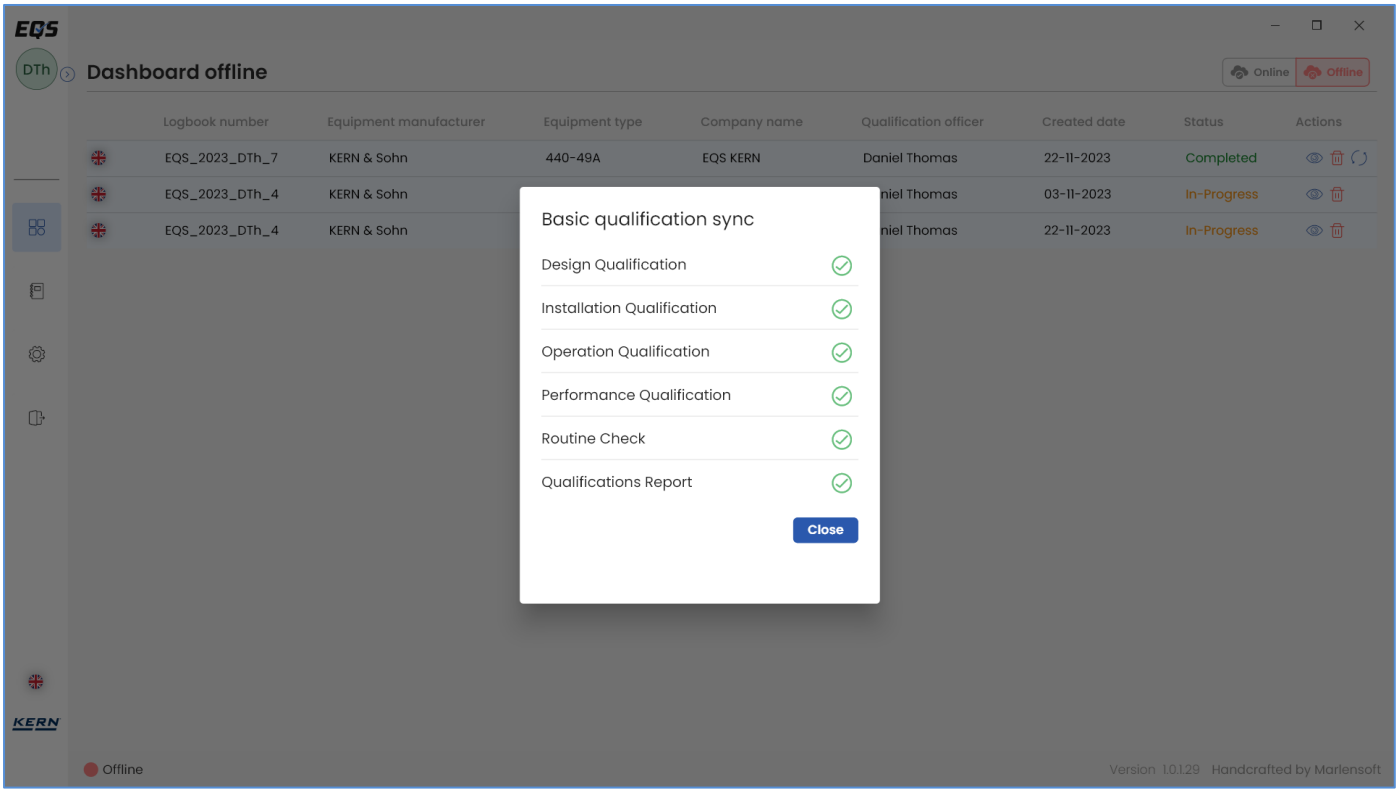


English

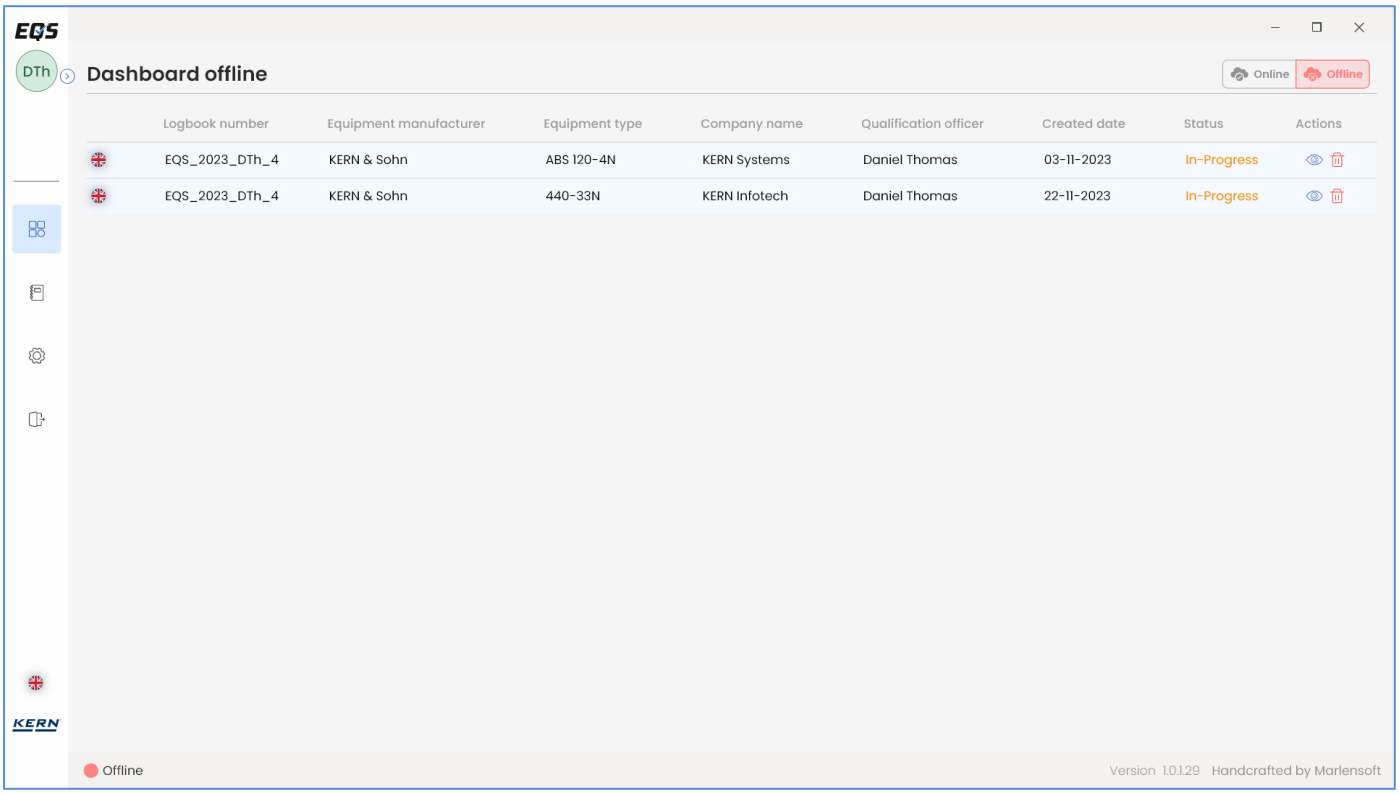
- **Step 6:** When a qualification step starts to synchronize a blue synchronization, icon displays against that qualification step.
  If a qualification step has successfully synchronized green tick icon displays against that qualification step.



- **Step 8:** Once the synchronization is completed the logbook will not be available in offline dashboard and it will be available in online dashboard.



English

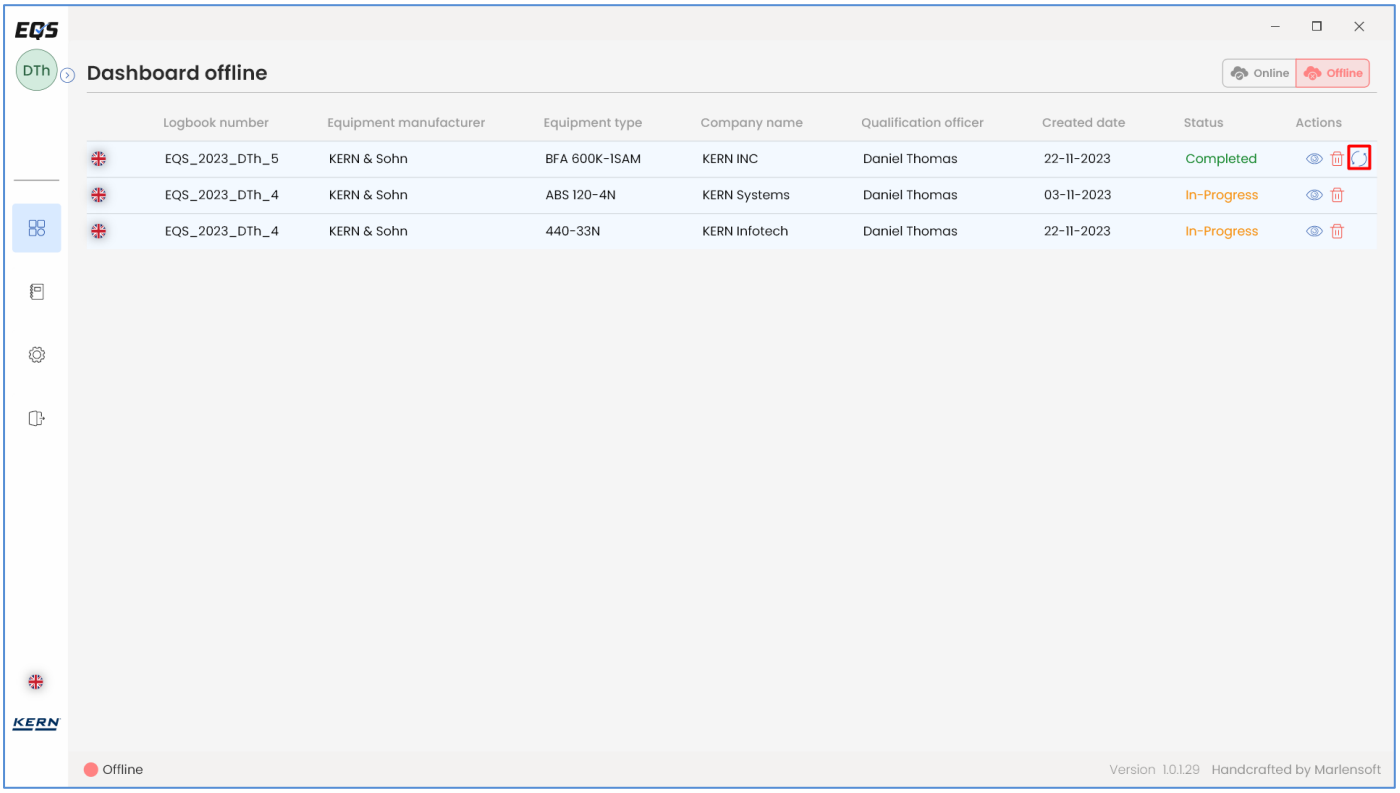


7.10.1 Re-synchronization

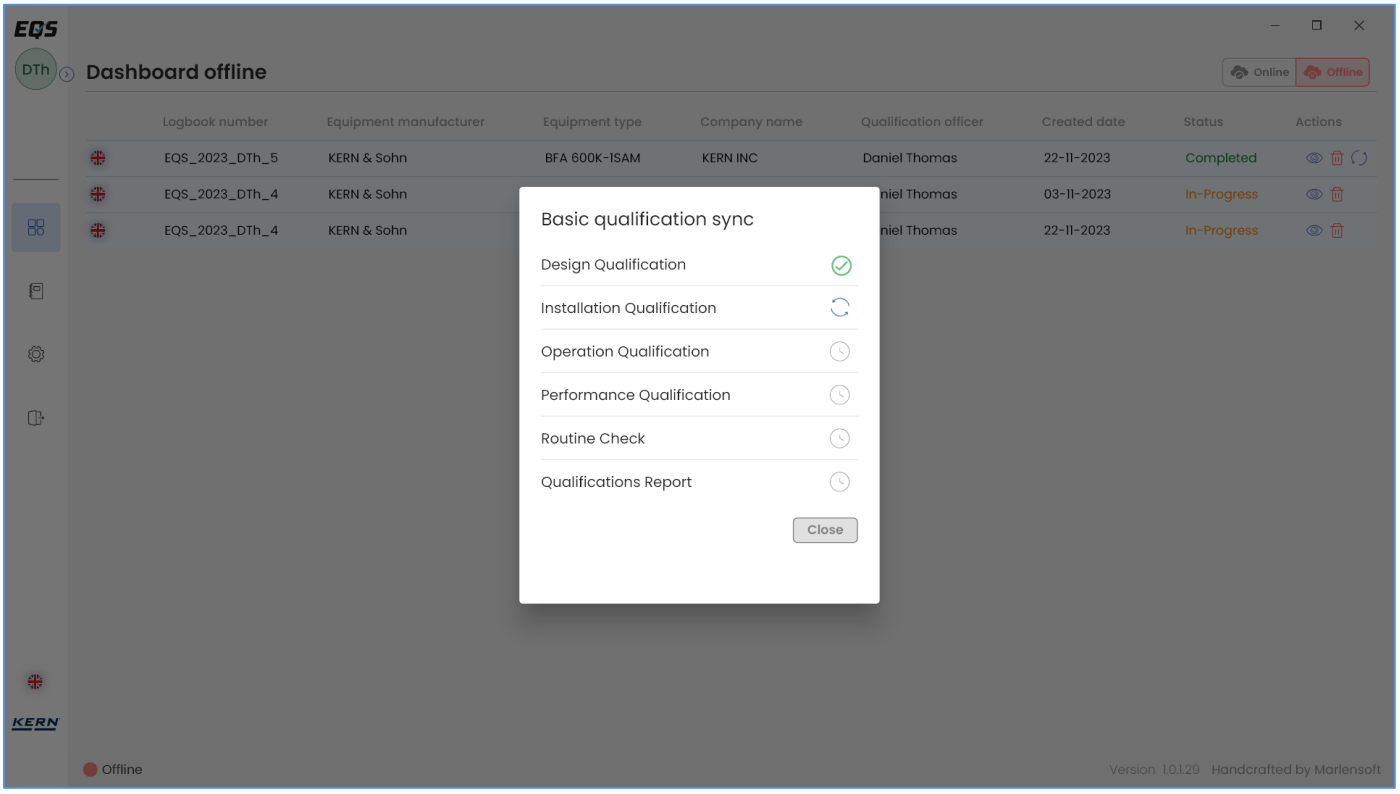
The qualification officer will have the option to retry the synchronization process if any unexpected issues occur during the synchronizing of any qualifications. During this process there is no loss of data. The data is deleted from the local database only, after all qualifications have been synchronized.

- **Step 1:** Please refer section 7.10 Baisc qualification offline mode

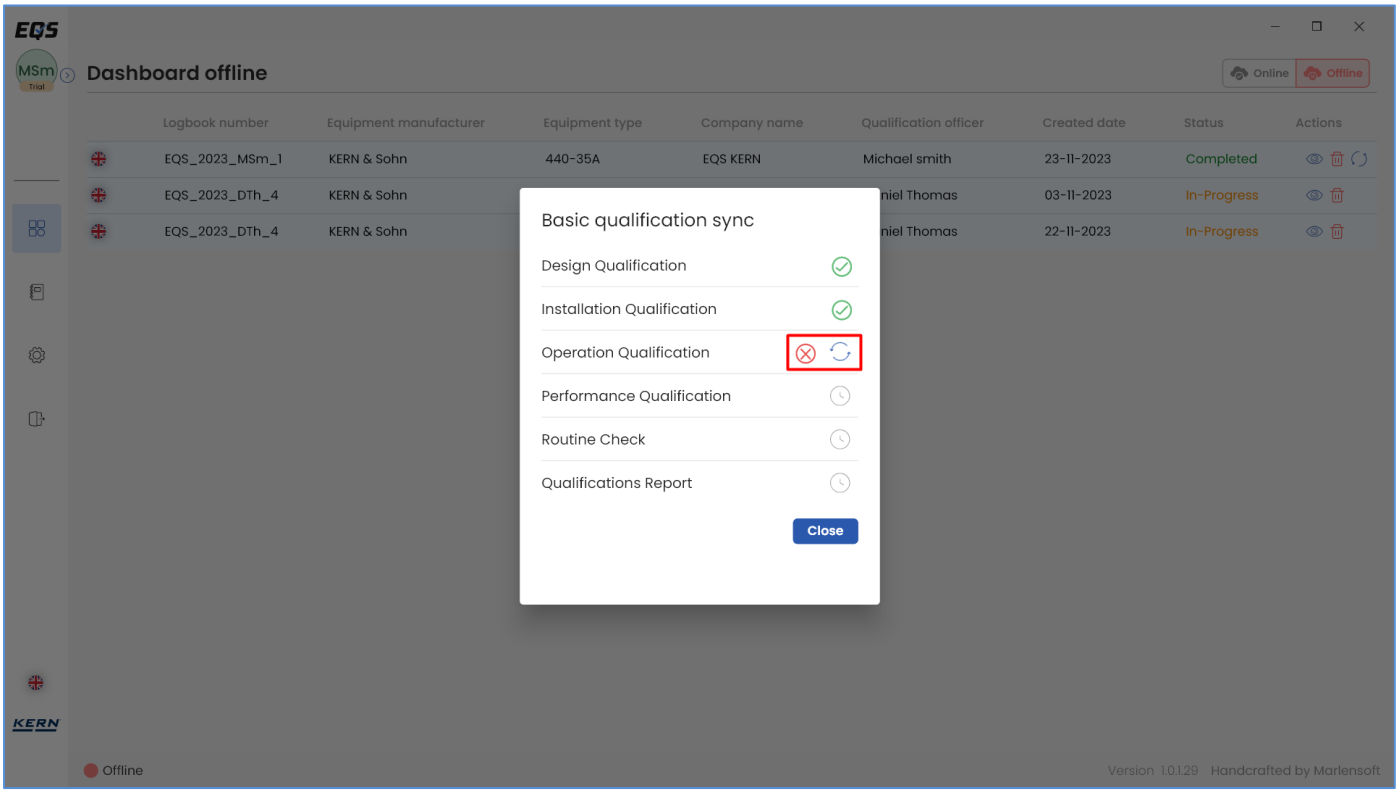
- **Step 2:** Click the synchronization icon to synchronize the logbook after connecting to the internet.



- **Step 3:** The synchronization progress popup appears after clicking the synchronization icon.

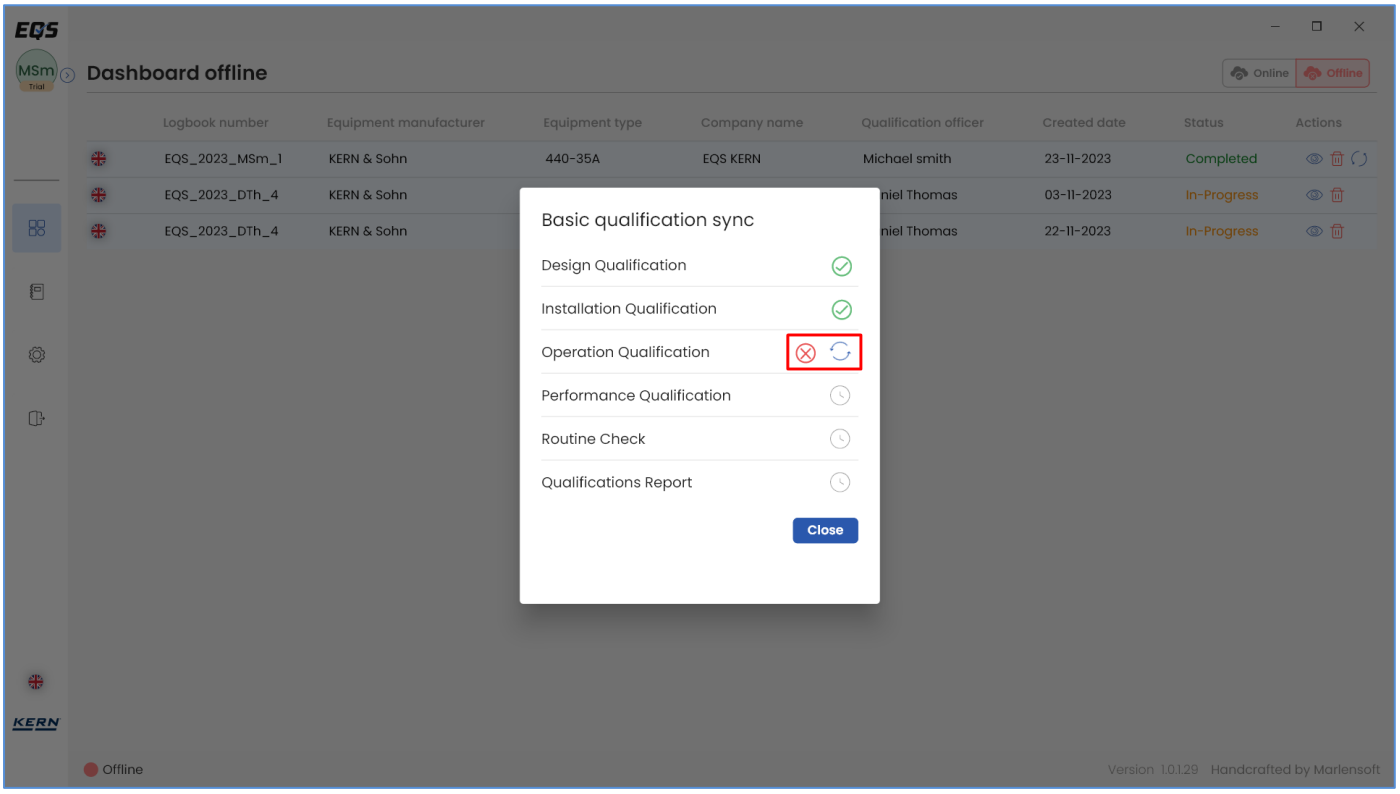


- **Step 4:** If an unexpected error (Example: internet connected issue) occurs during synchronization of a qualification step red color “X” icon displays.

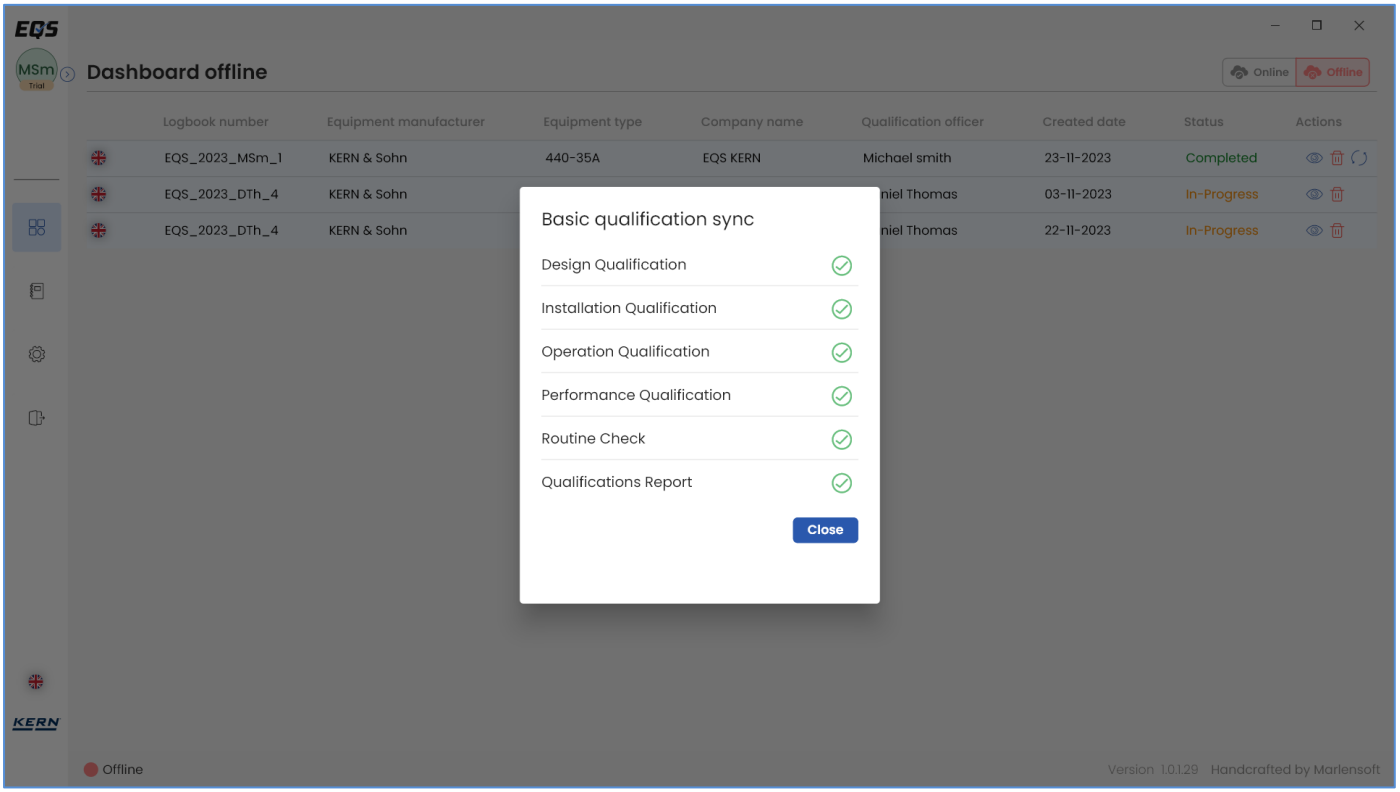


English

- **Step 5:** Now a re-synchronization option is available, to synchronize qualification step.



- **Step 6:** When clicking the resynchronization button, the failed step starts synchronizing again from the qualification step where the synchronization process stopped.



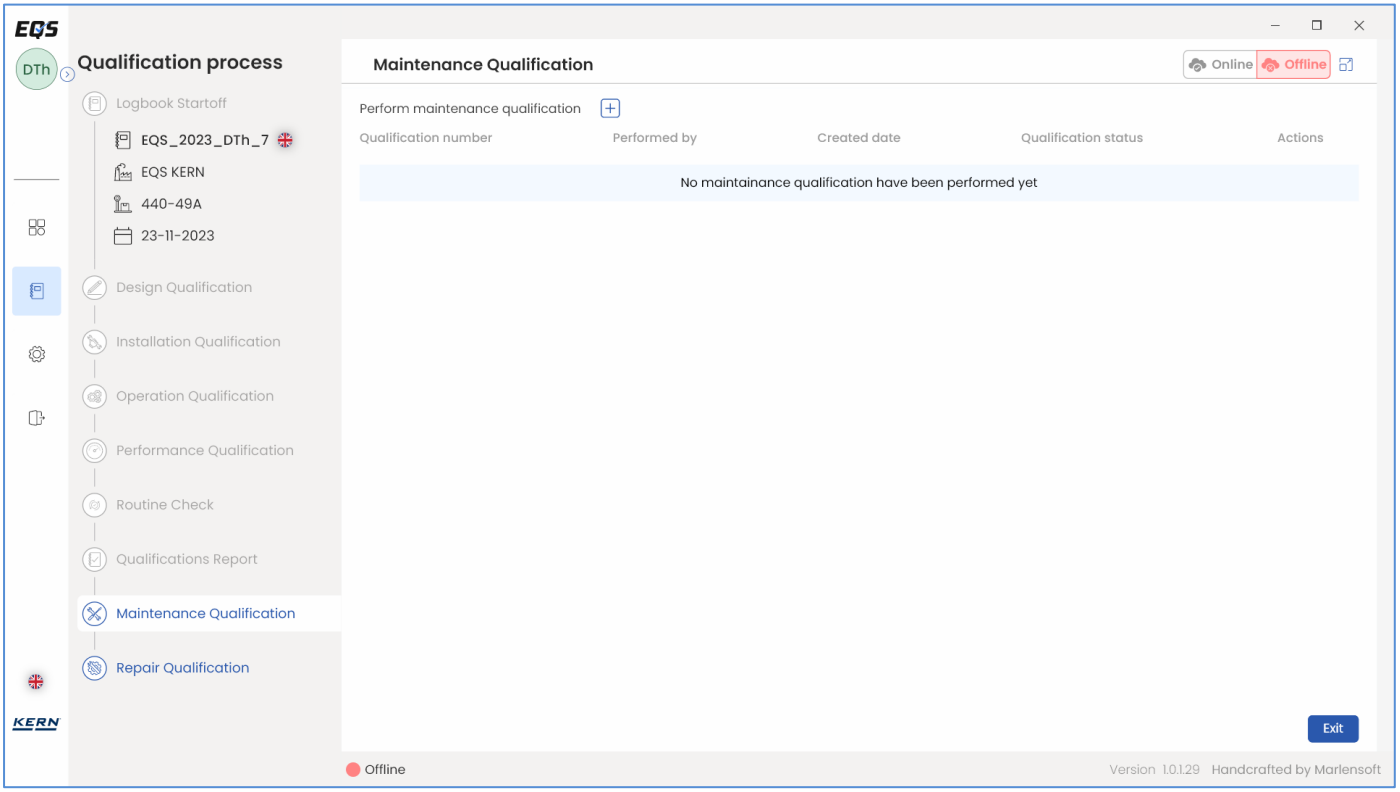
English

Key points:

- The re-synchronize function is the same in MQ & RQ steps as in basic qualification.
- If the resync continues to fail the qualification officer can move to other screen or even close the application, once proper internet connection is established the user can start the resynchronization process.

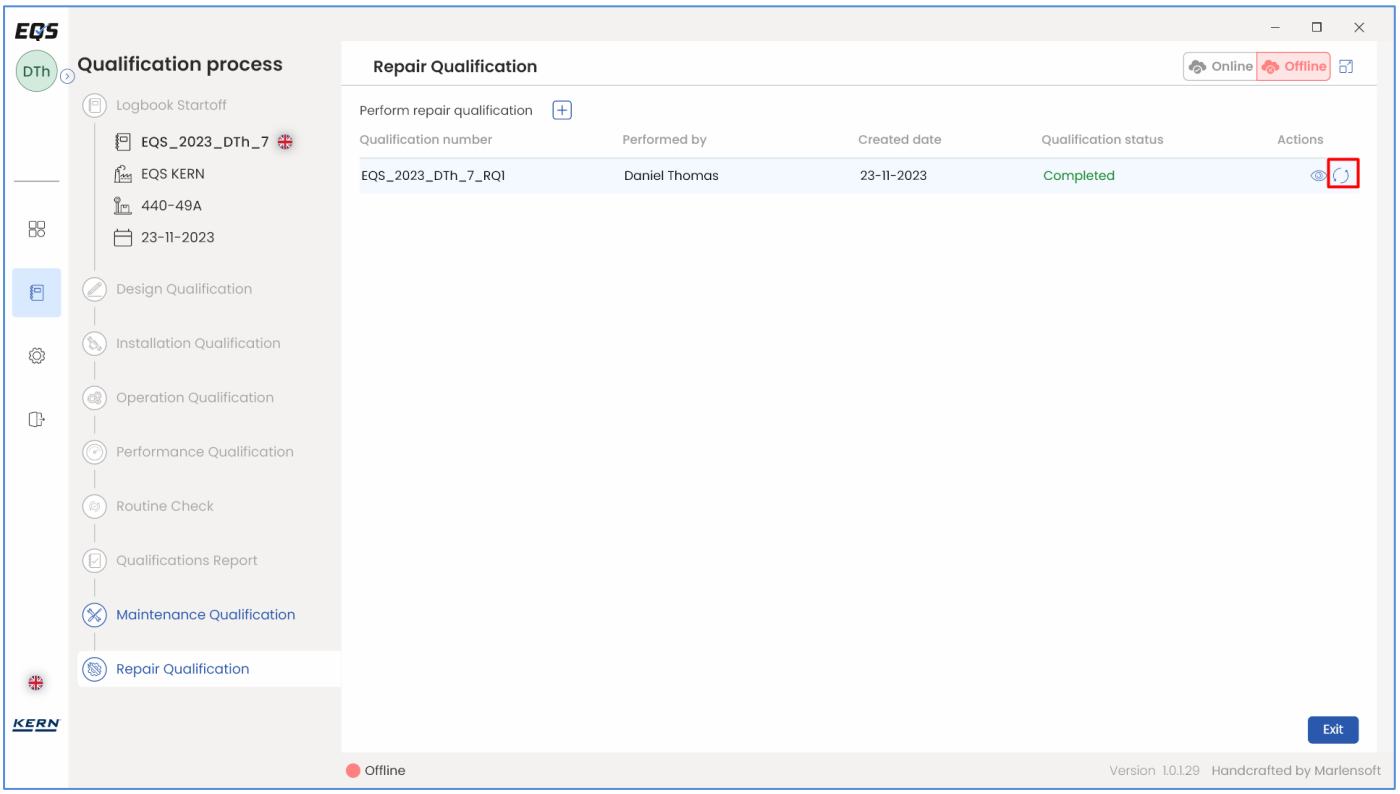
7.10.2 Maintenance & Repair Qualification offline mode

- Step 1: Adding of record in MQ and RQ in offline mode is similar online mode.
- Please refer for maintenance qualification offline mode 7.8 Maintenance qualification
- Please refer for maintenance qualification offline mode 7.9 Repair qualification

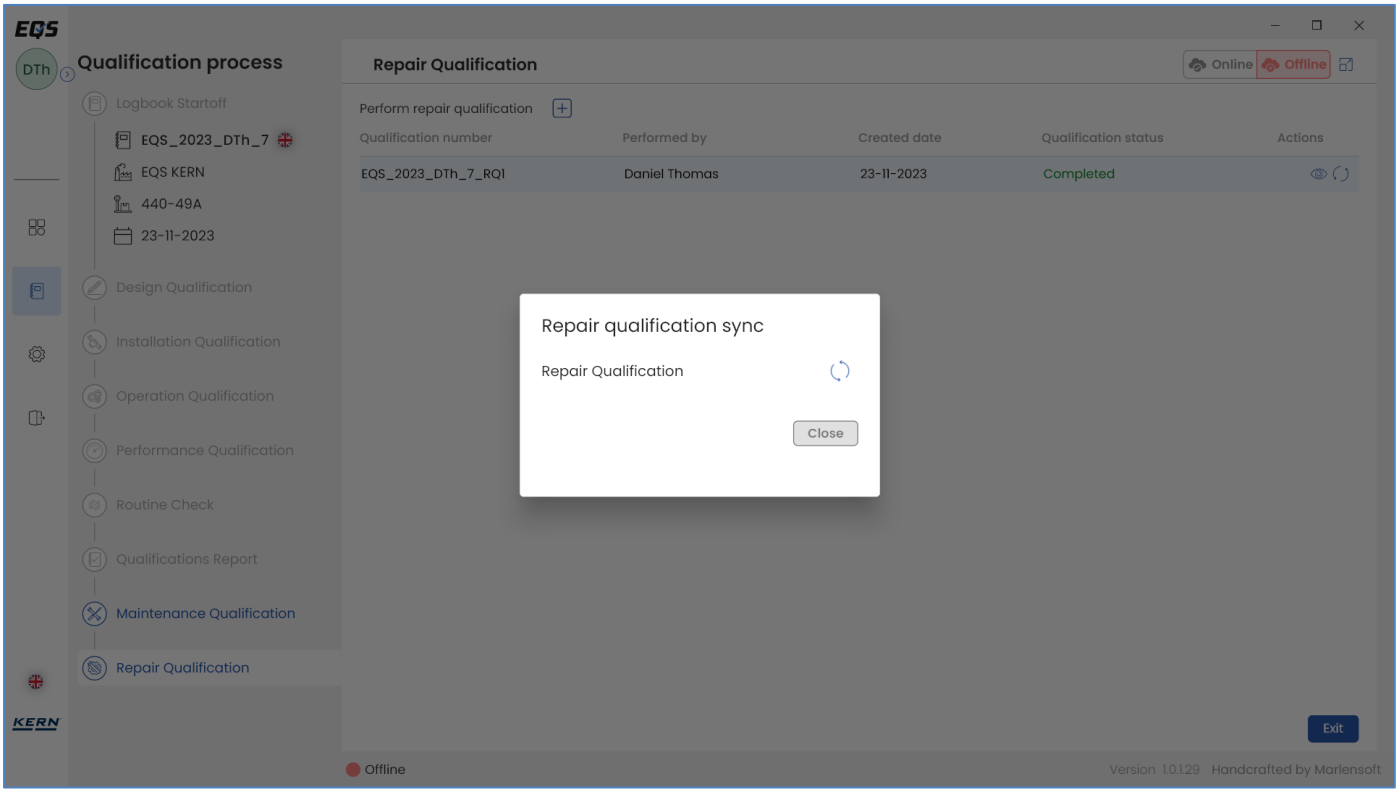


English

- **Step 2:** Once the maintenance qualification and repair qualification are completed status changes from “In-progress” to “Completed” and synchronization icon displays. When clicking the synchronization icon, the qualification starts synchronizing to server.

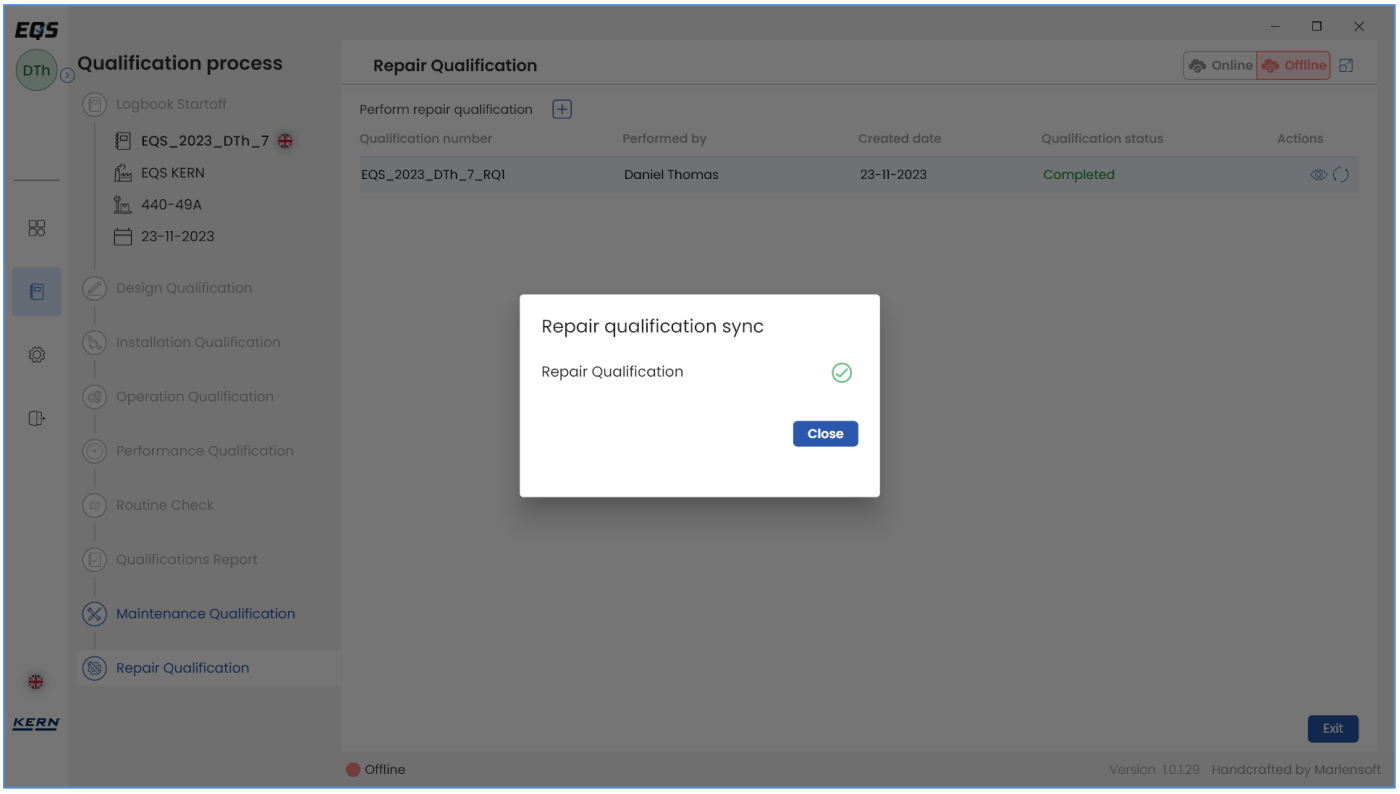


- **Step 6:** When a qualification starts to synchronize a blue synchronization, icon displays against that qualification.

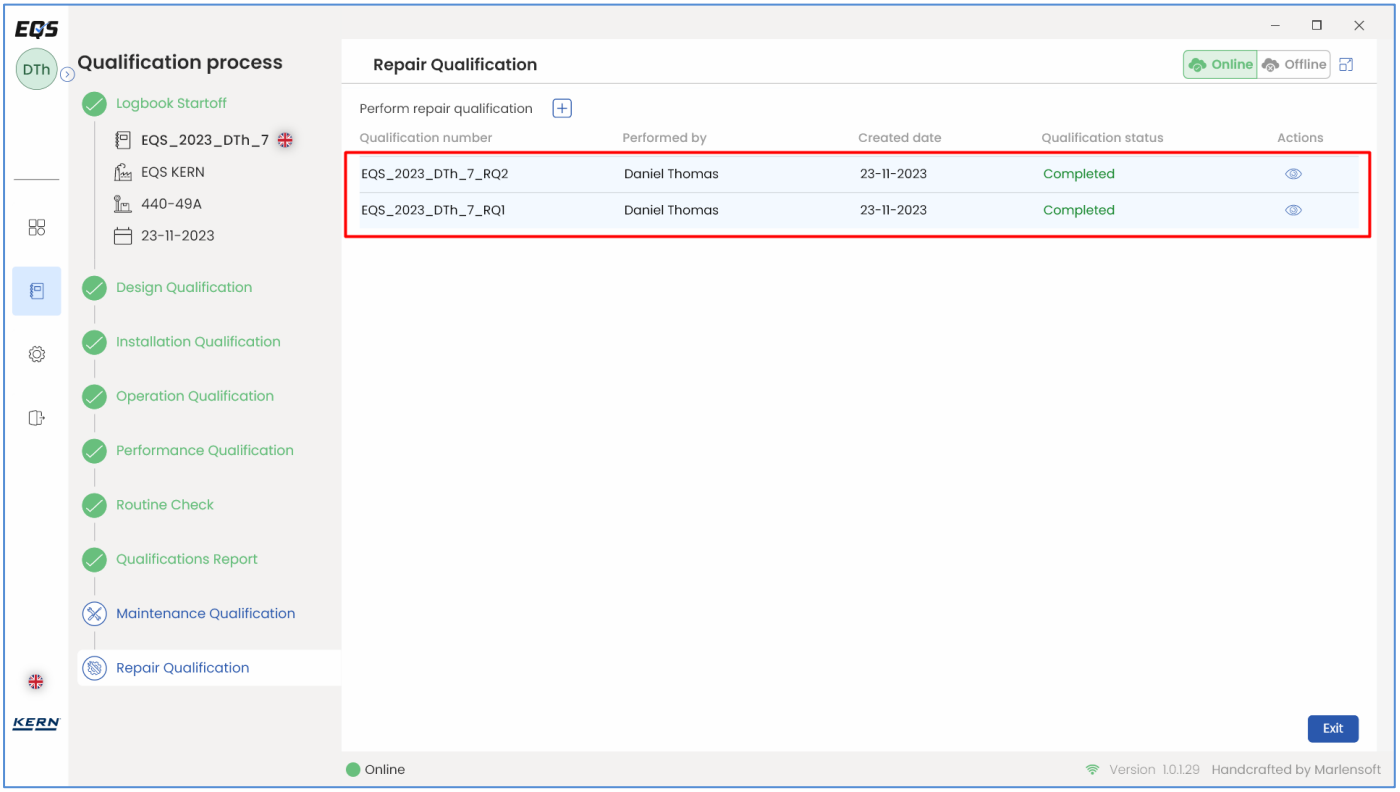


English

- **Step 7:** If a qualification has successfully synchronized green tick icon displays against that qualification step.



- **Step 8:** Once the maintenance qualification and repair qualification synchronization are completed the qualifications will not be available in offline dashboard and it will be available in online dashboard.



Note: In Offline mode, the qualification officer cannot view any other qualifications.

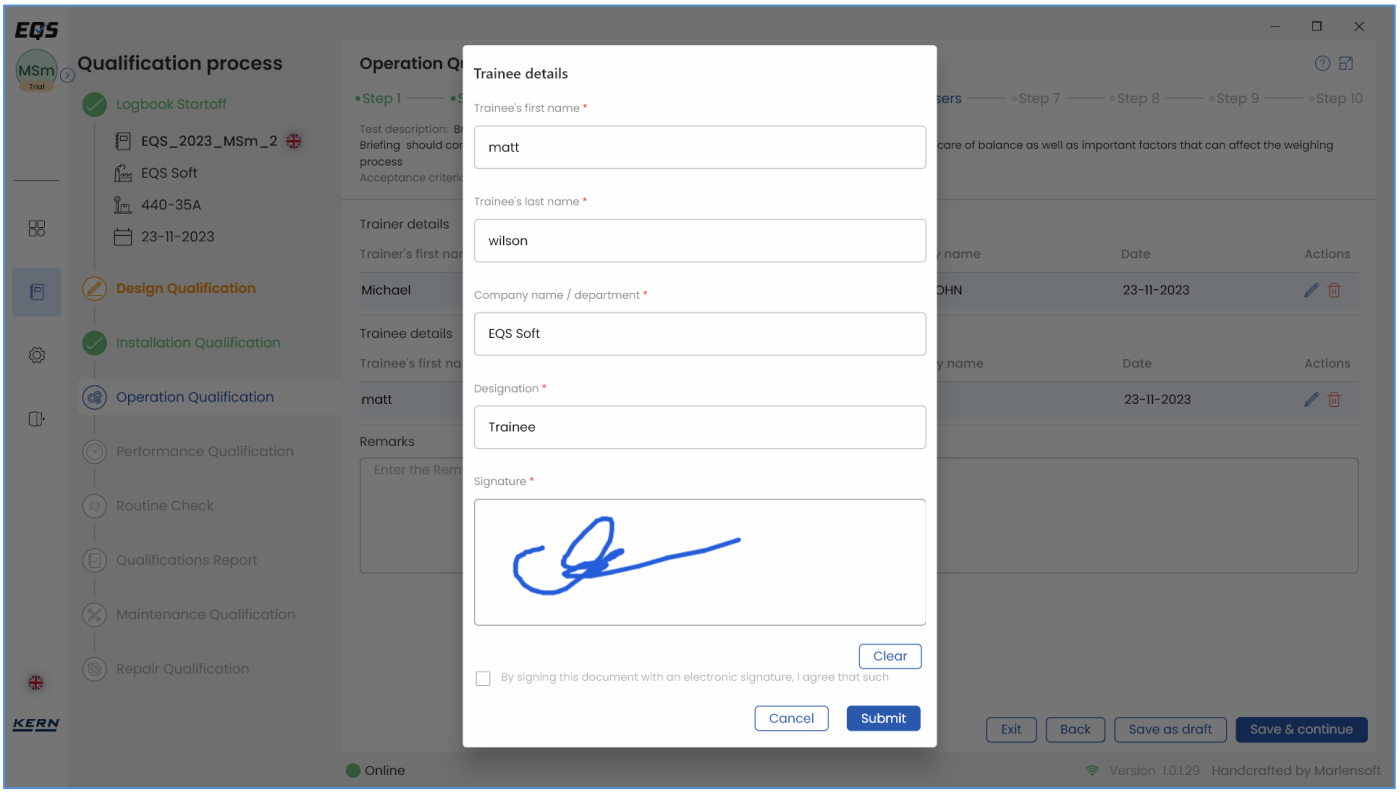
English

7.10.3 Advantages of offline mode

- Equipment qualification process can be done in places where there is no internet connection.
- Session time out for EQS application is 8 hours.

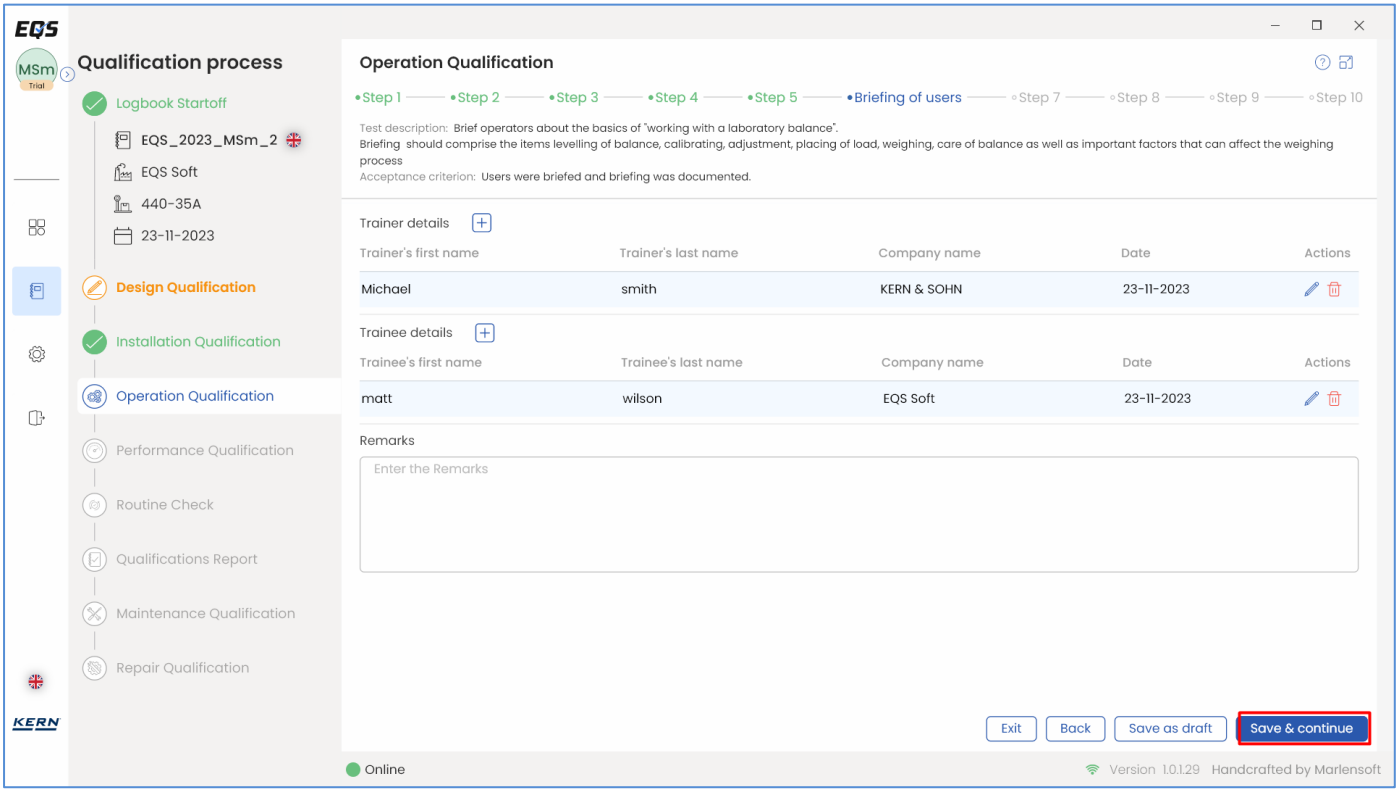
7.10.4 Save data locally in online mode.

- **Step 1:** For example, the qualification officer is entering data in online mode (OQ step6).

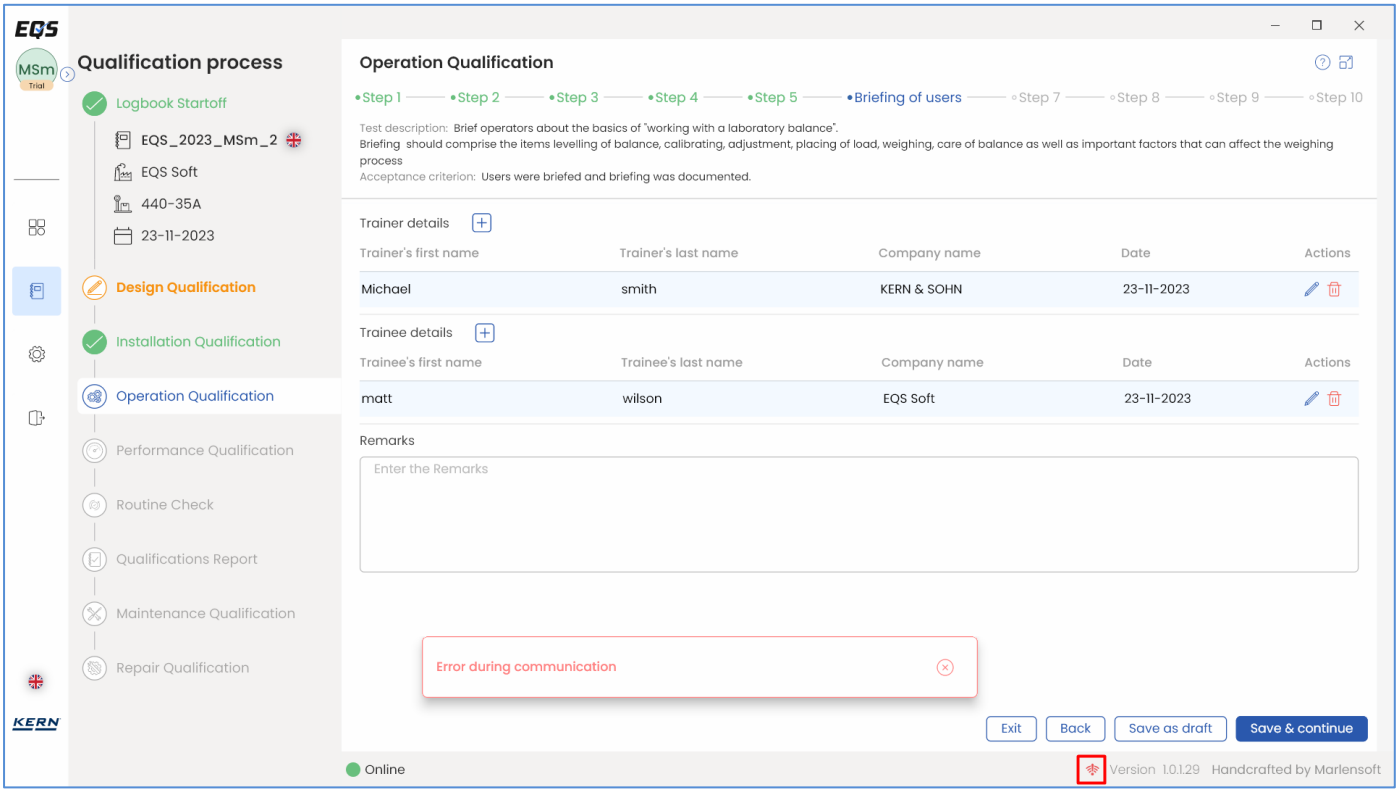


English

- **Step 2:** After adding the data (trainee details) the qualification officer clicks “Save & continue” button and internet connectivity is lost.

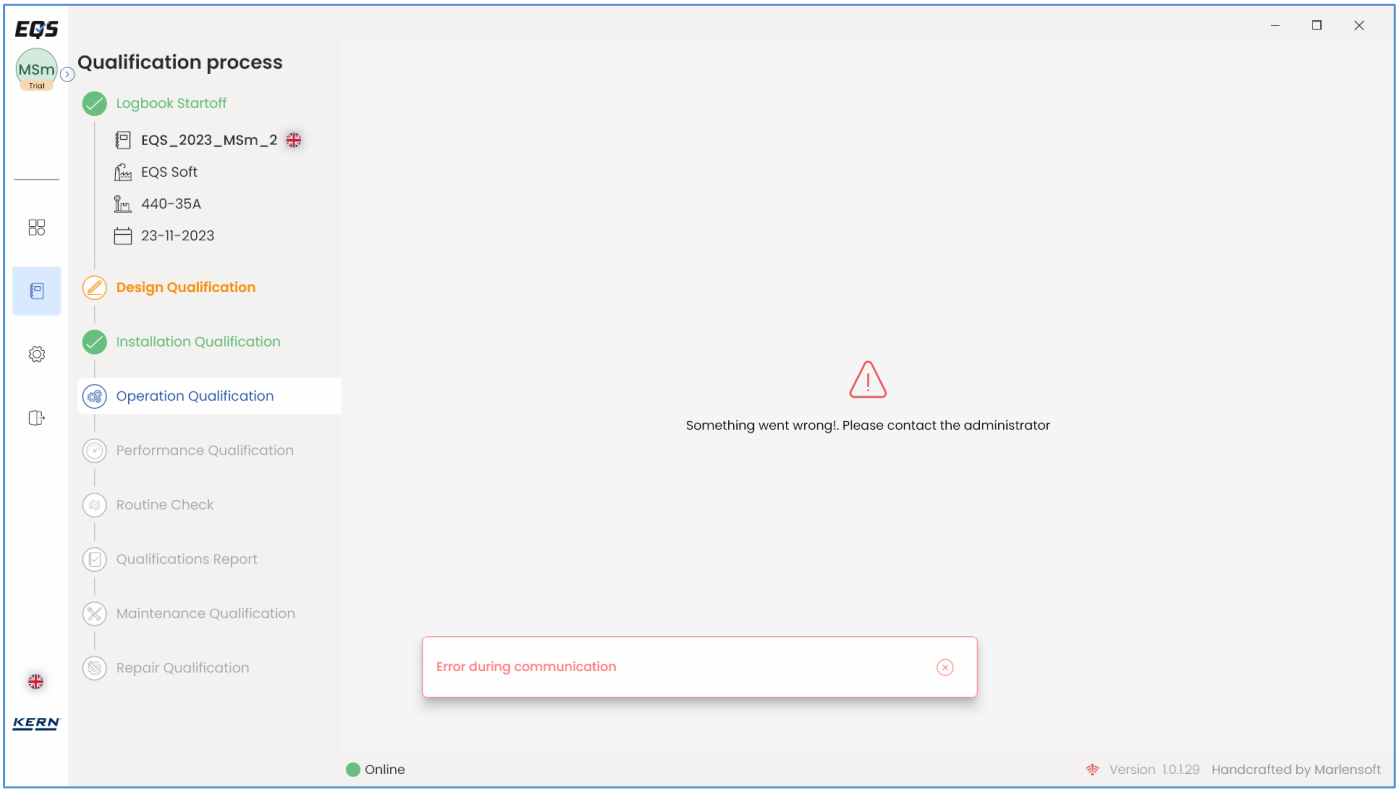


- **Step 3:** The qualification officer gets “Error during communication” and the data gets saved local DB.

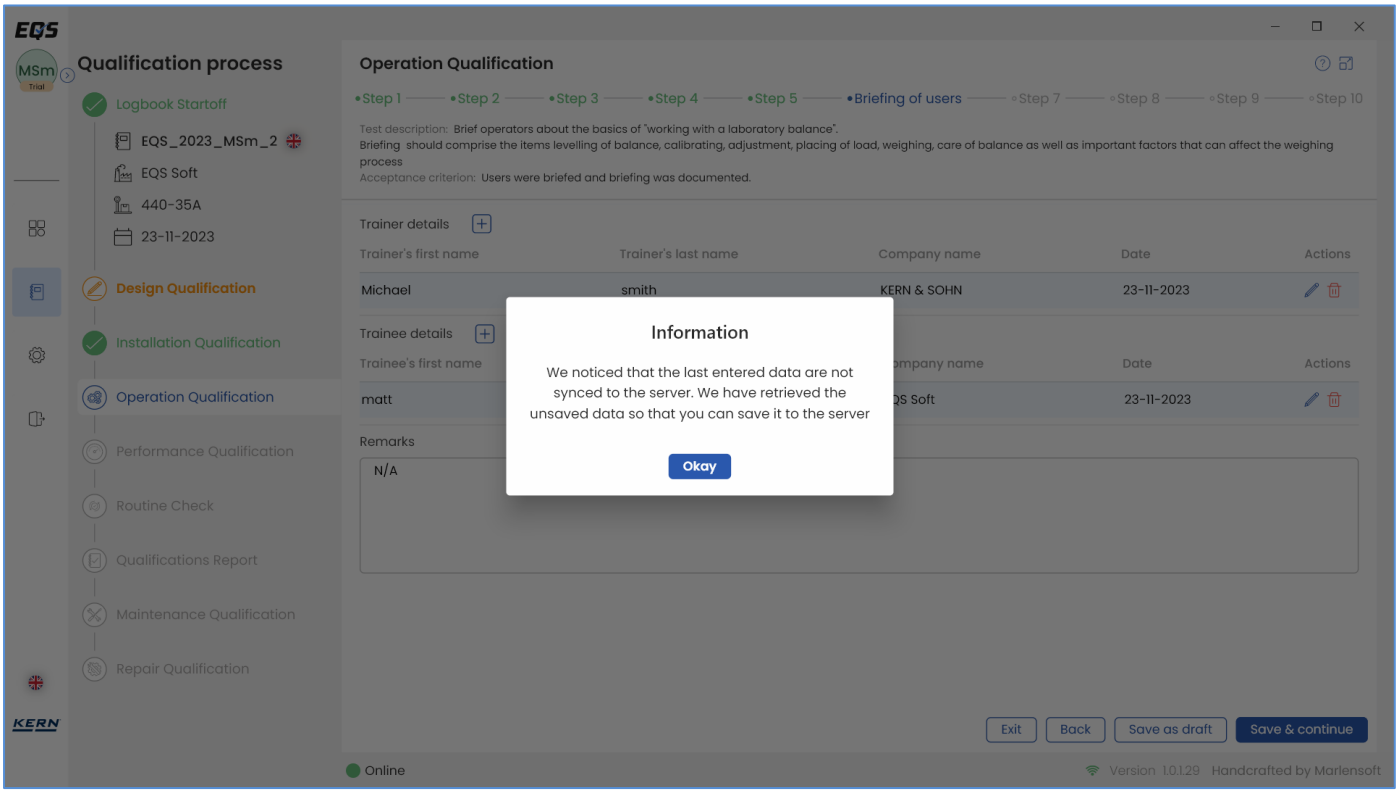


English

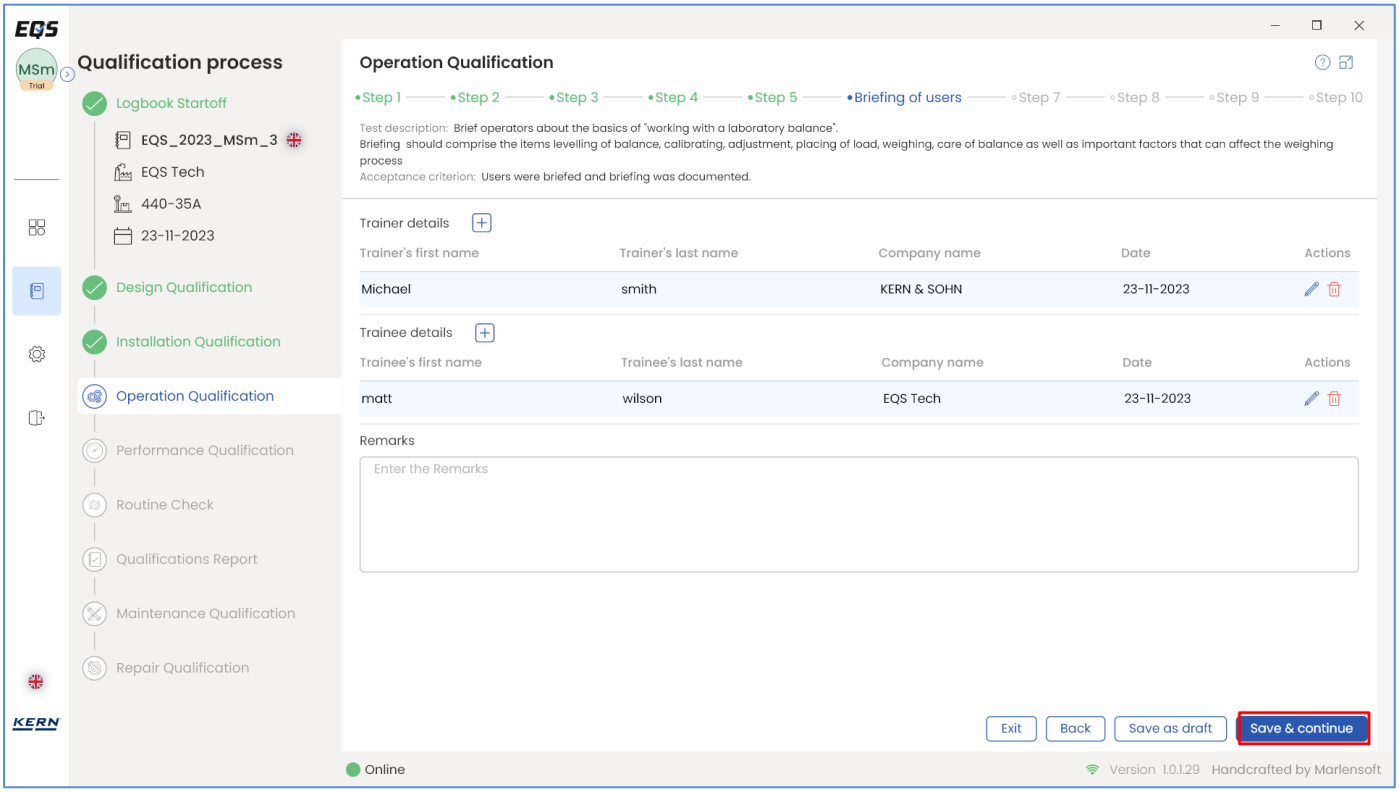
- **Step 4:** The qualification officer moves to another screen, logs out of the application, or closes the application.



- **Step 5:** Once internet connectivity is established the qualification officer revisits the same screen and sees an information popup.



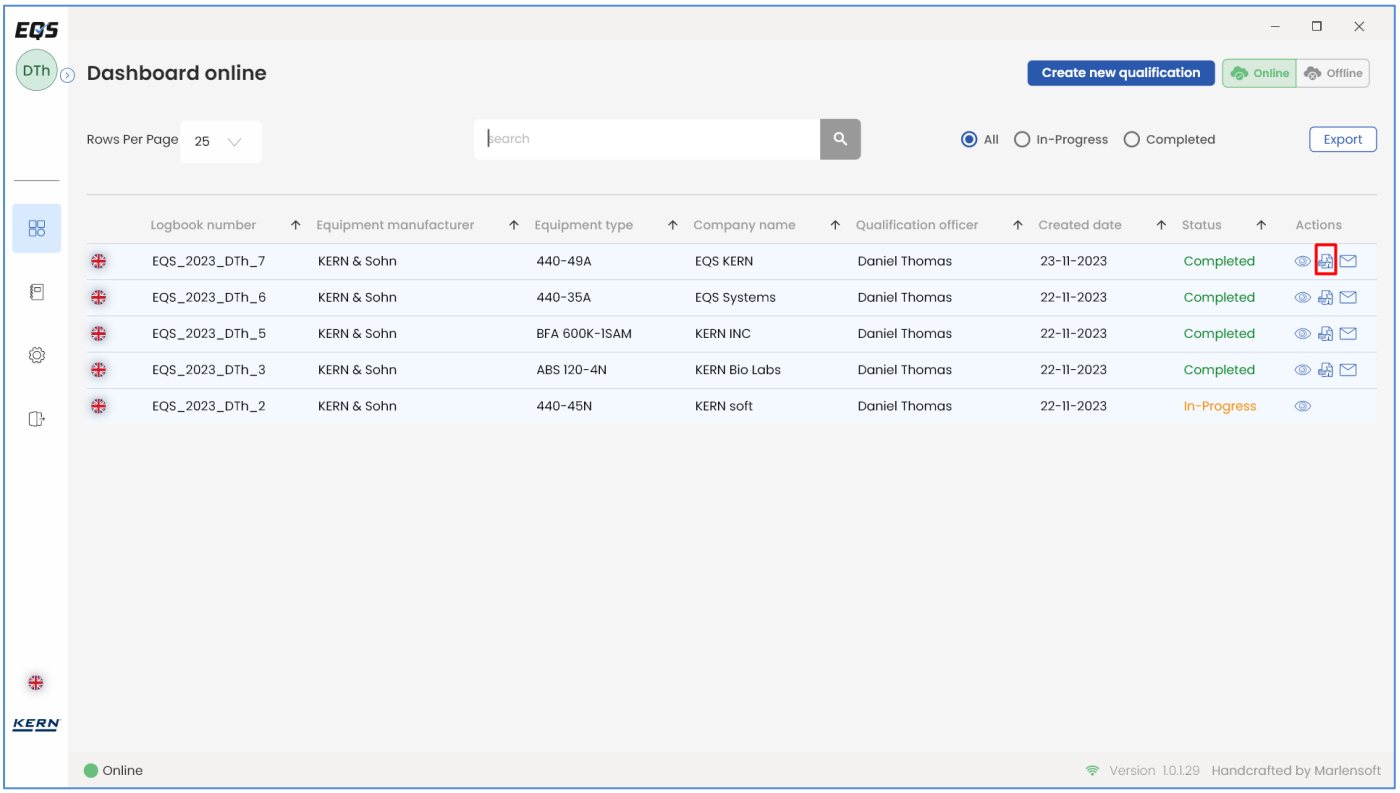
- **Step 6:** The qualification officer can see the retrieved data and click “Save & continue” to save the data in server.



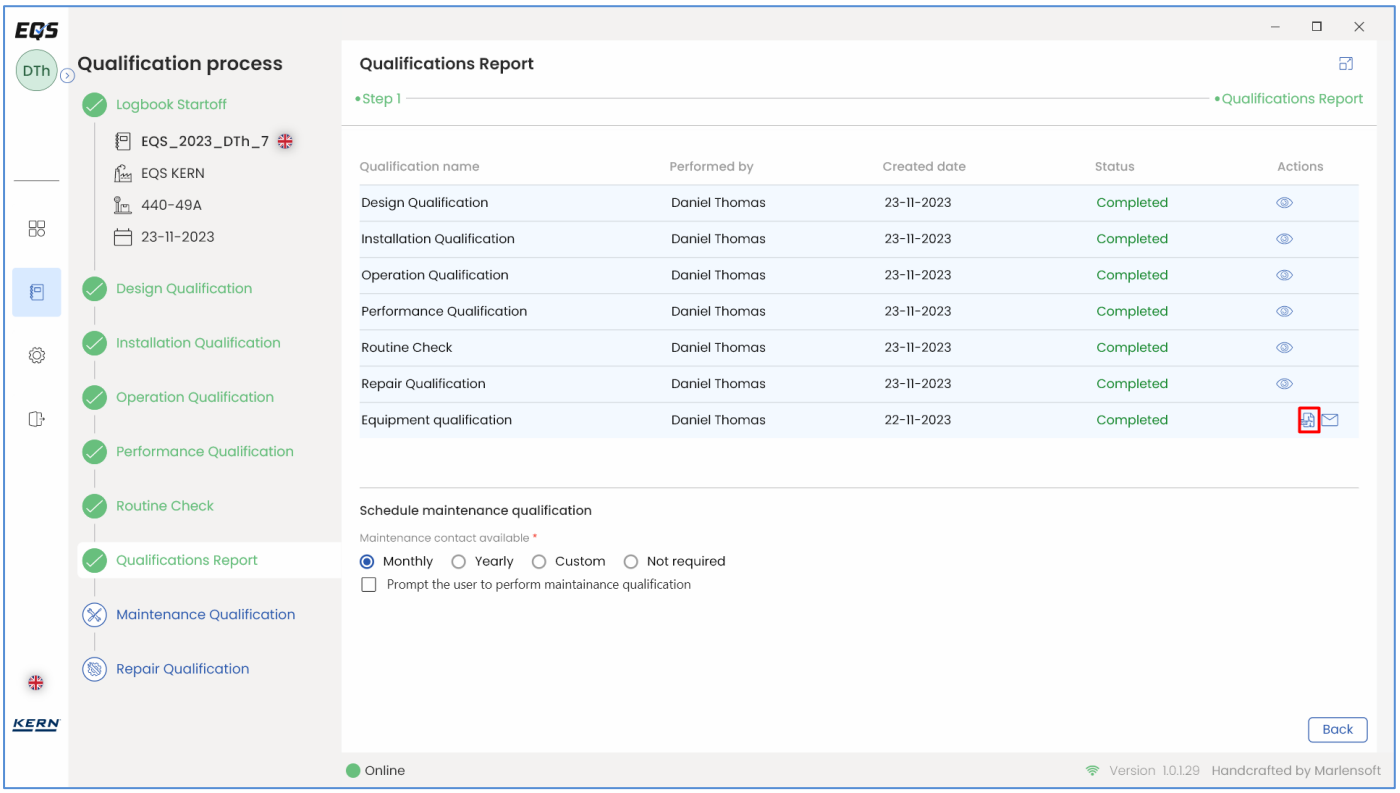
8. 8.0 Logbook Management

8.1 Generate Logbook PDF

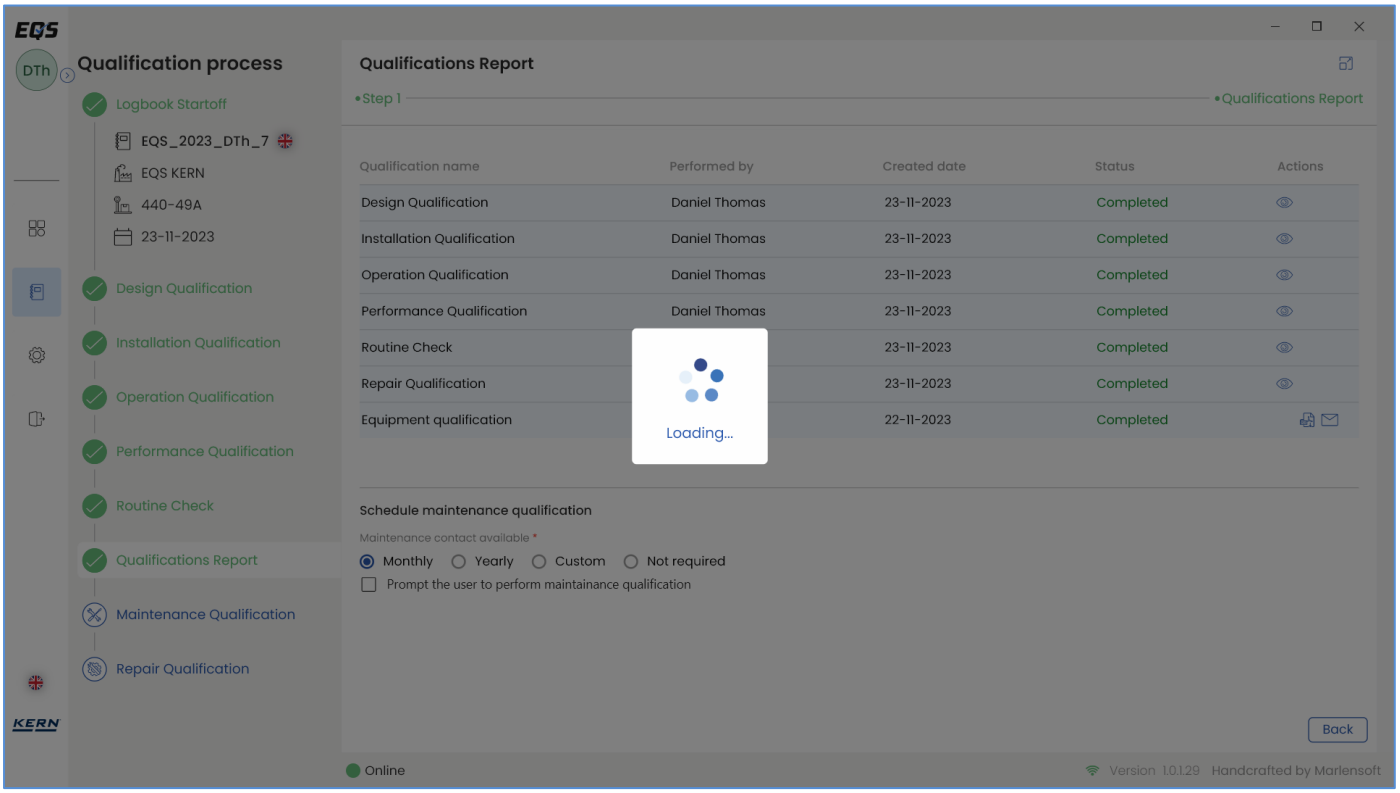
Options to generate logbook PDF are available in dashboard and qualification report step 2.



English



- When the qualification officer clicks the generate logbook PDF icon logbook generates in PDF format and opens in the default PDF reader.

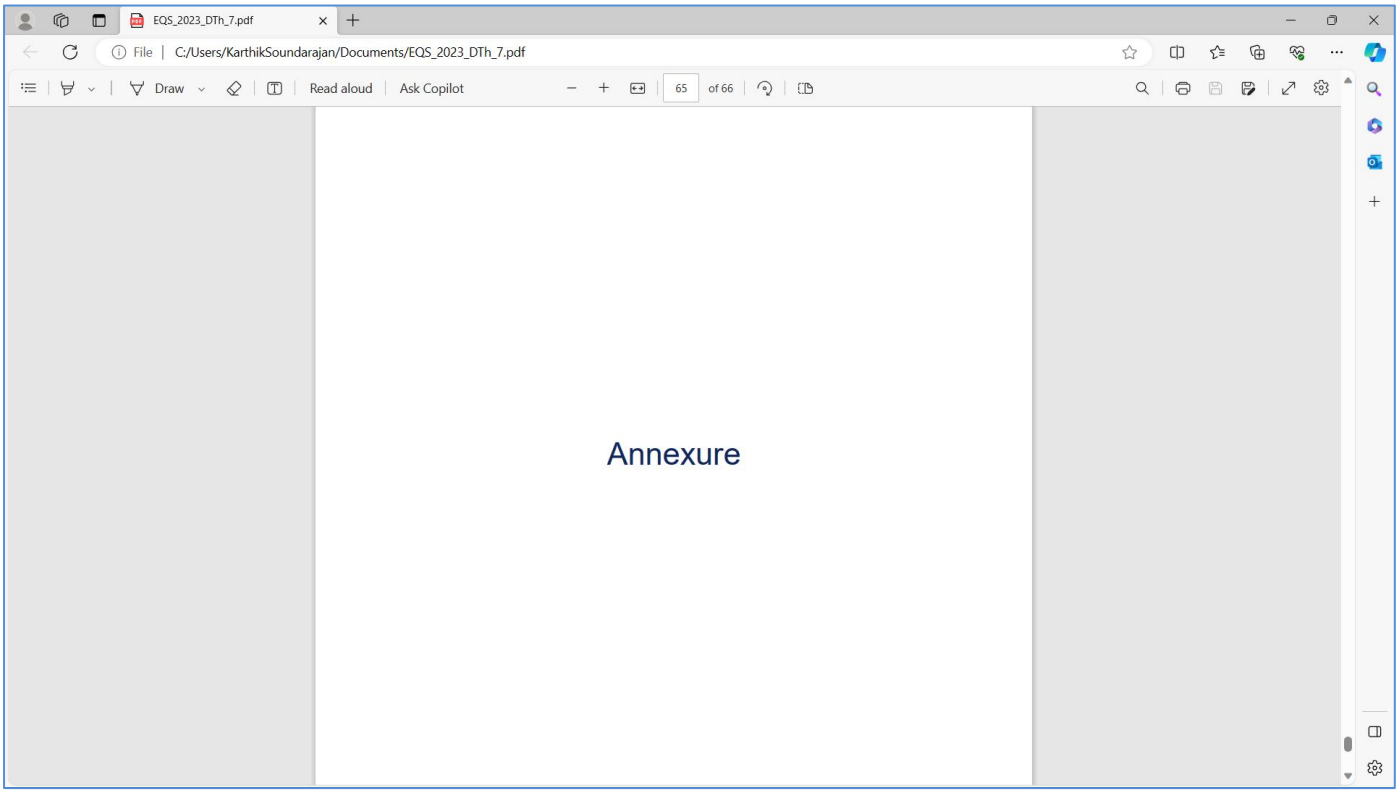


English



8.1.1 Annexure

The files that are attached during logbook creation are displayed under the annexure section of the logbook PDF.

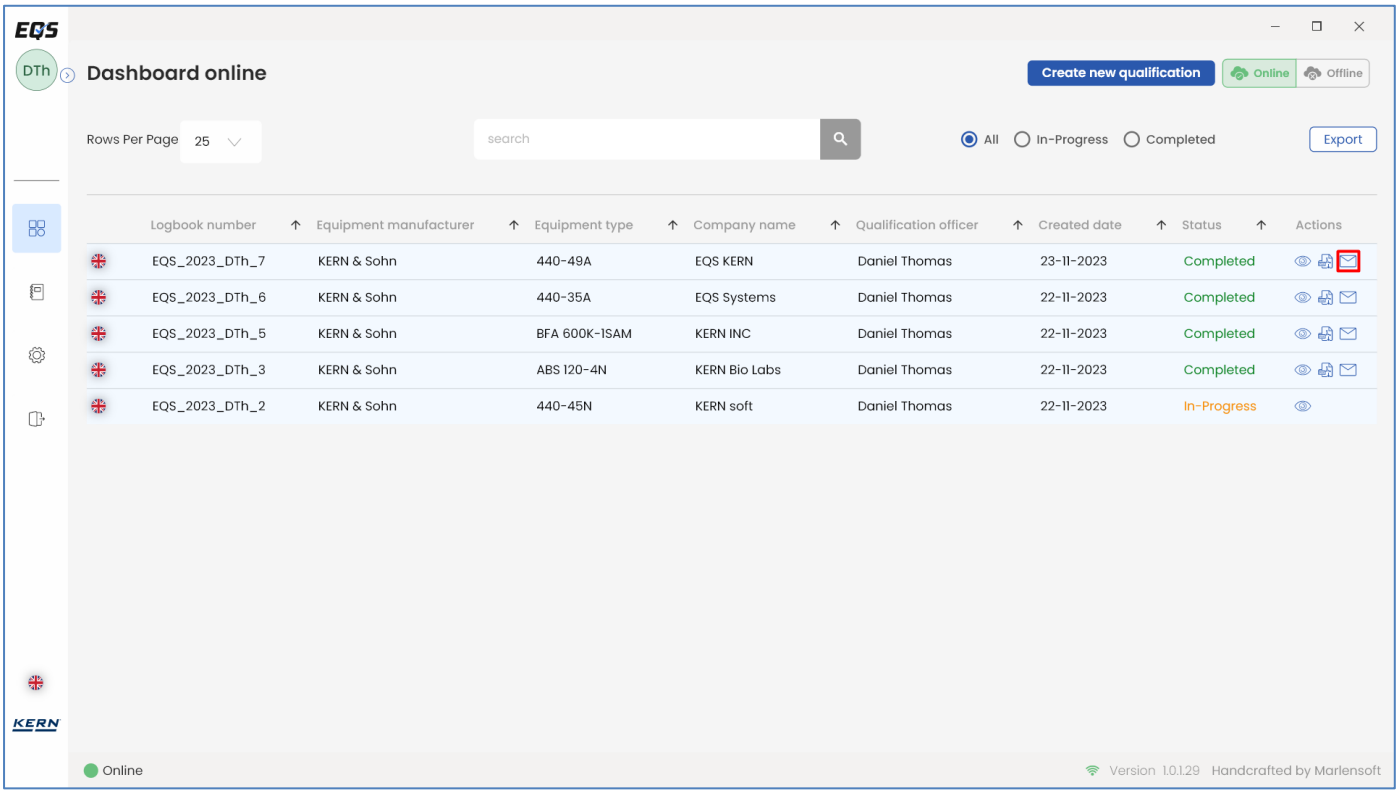


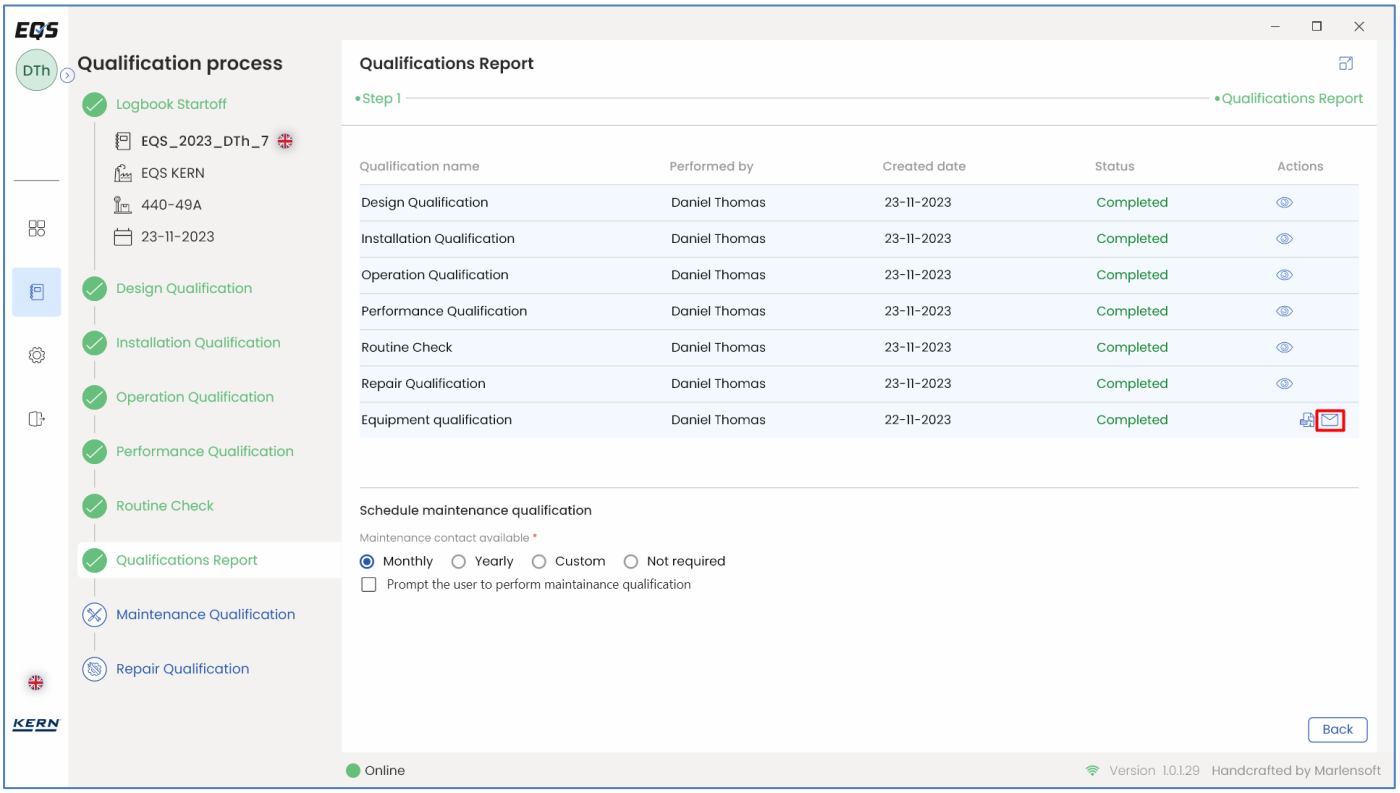
English

8.2 Email

8.2.1 Send qualification report.

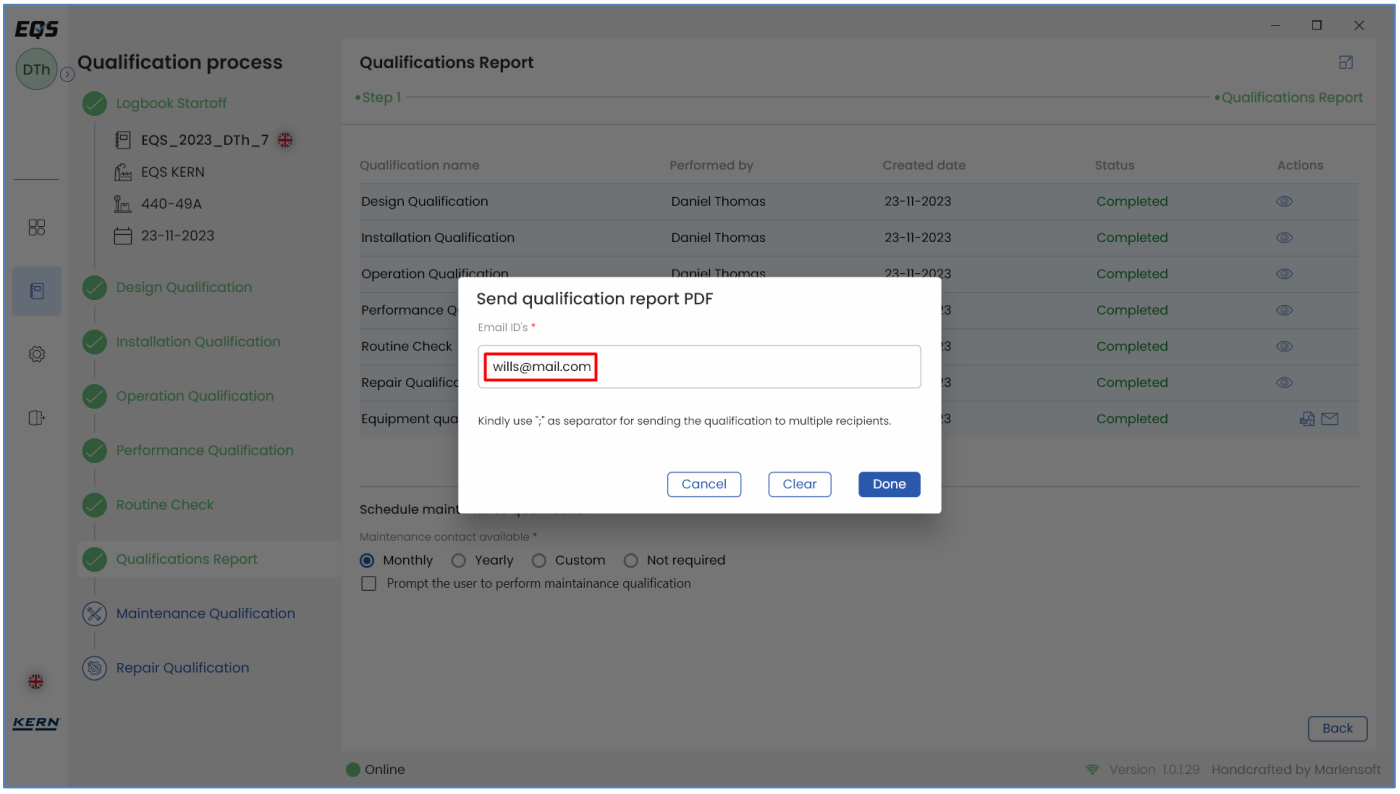
- The option to send logbook PDF via mail appears only when the qualification officer completes the basic qualification.
- It is available only in dashboard screen and qualification report step 2.



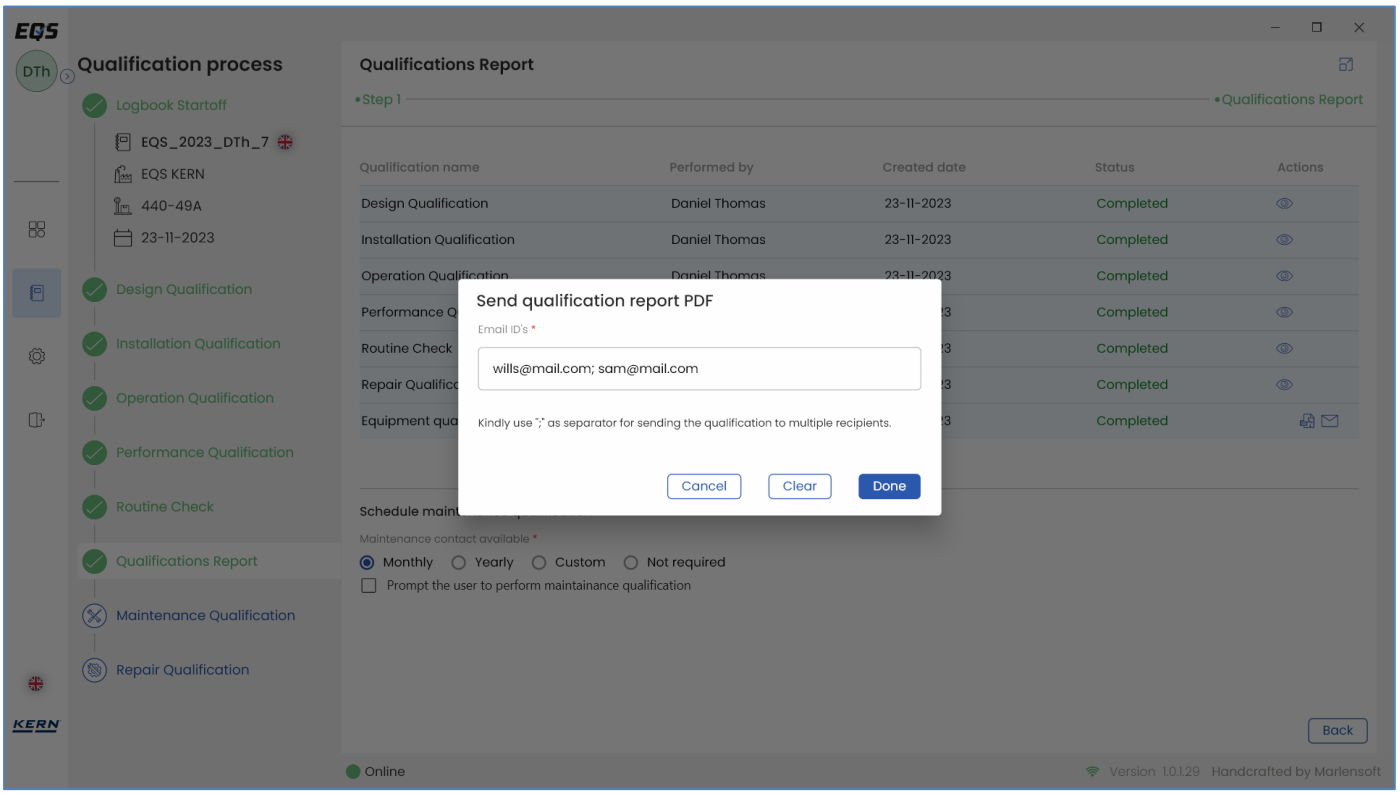


English

- Once the qualification officer clicks the mail icon option to send mail appears. Where email address that was entered in the logbook start off screen auto populates.

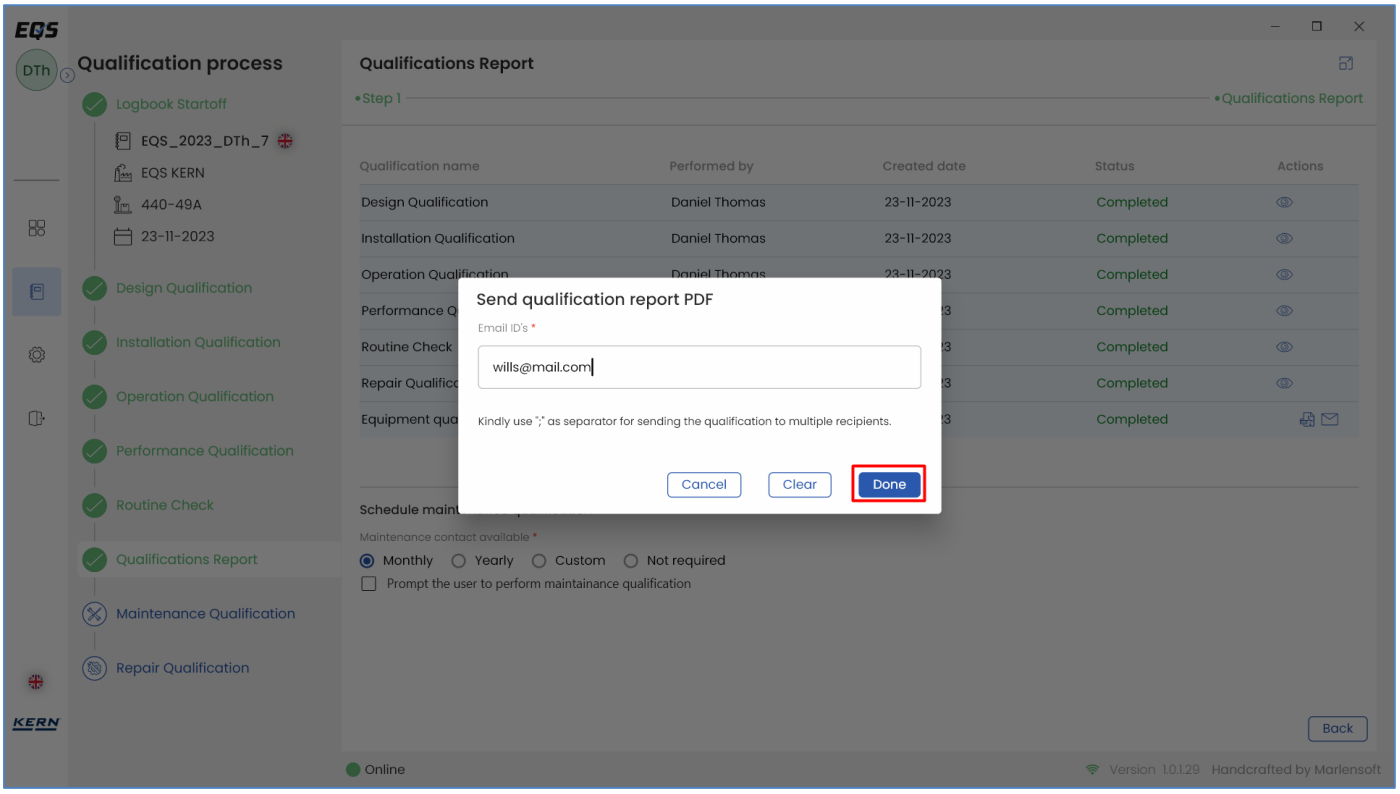


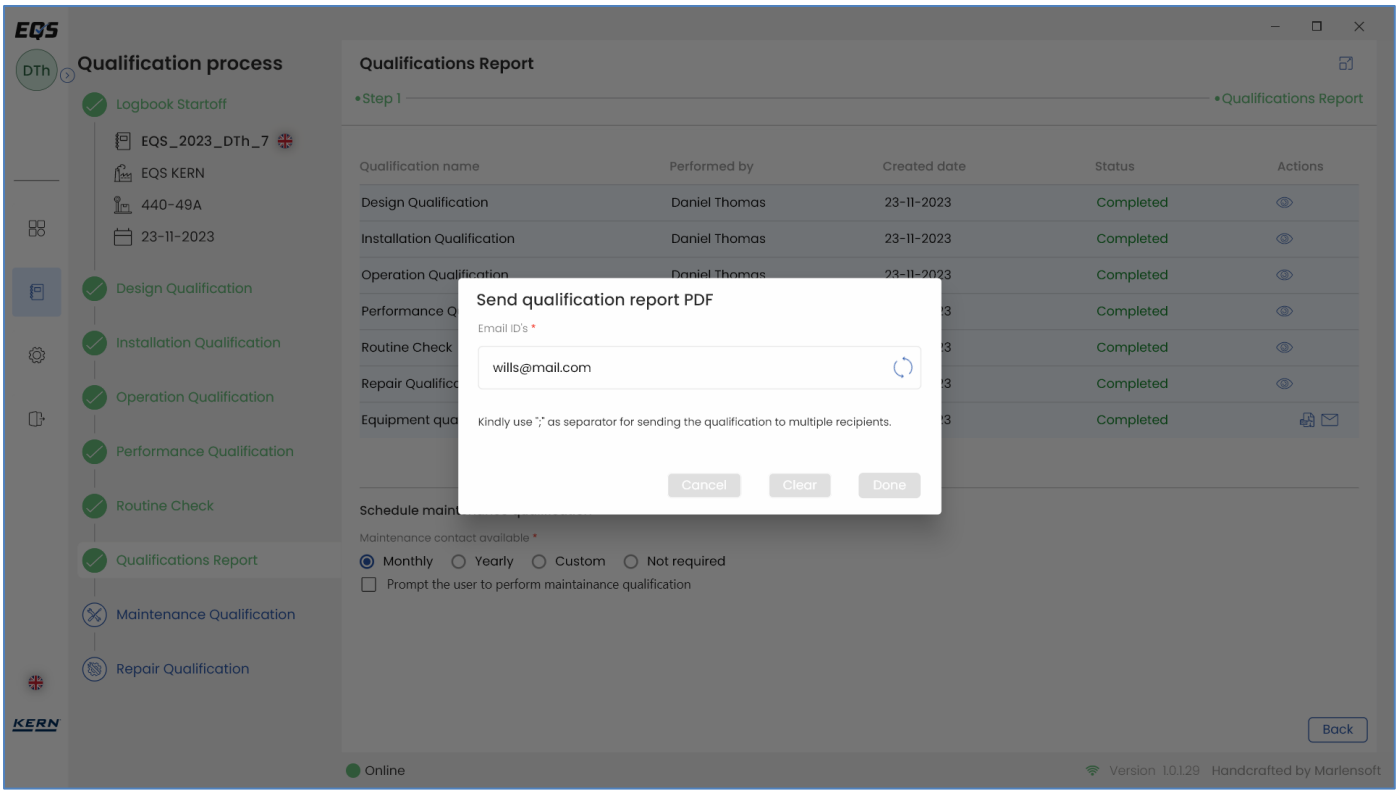
- The qualification officer can add additional email address by entering ";"



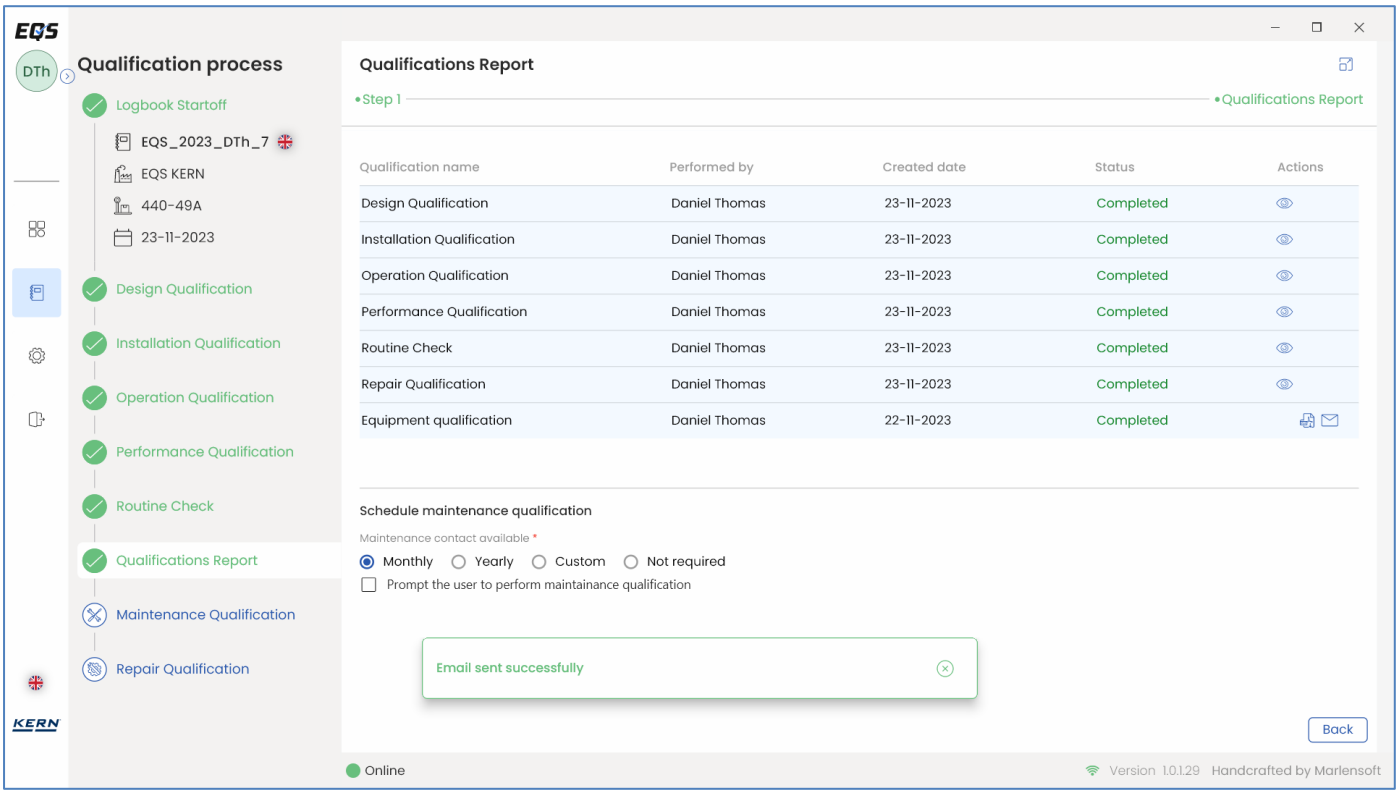
English

- Once the qualification officer clicks the “Done” button mail is sent.





English



Note: The option to send mail is not available for qualification officers who are using the trial version of the license.

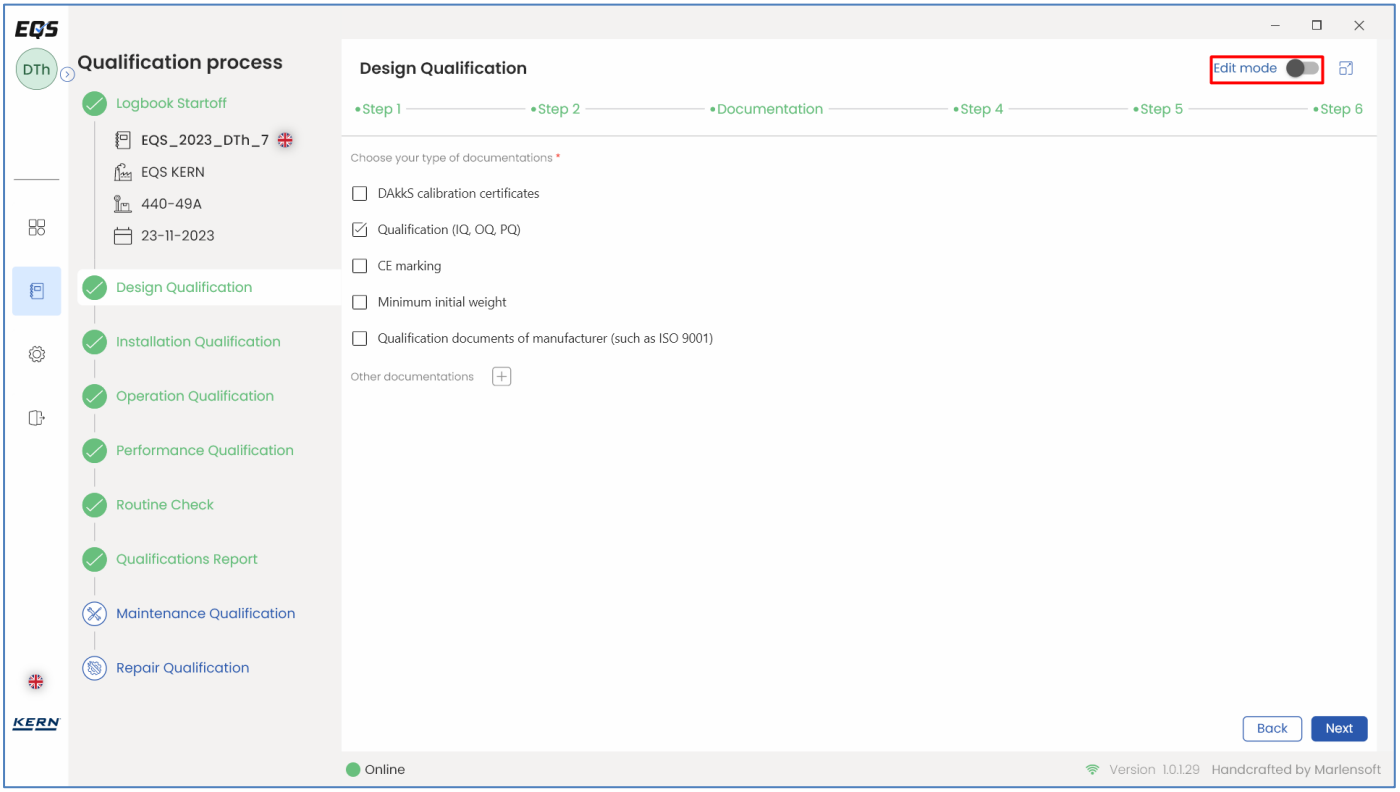
8.3 Edit

- The qualification officer can use the edit option to make changes if there is a mistake in the completed step.
- Edit mode is available both in Online Edit & Offline Edit (DQ, IQ, OQ, PQ, MQ & RQ)

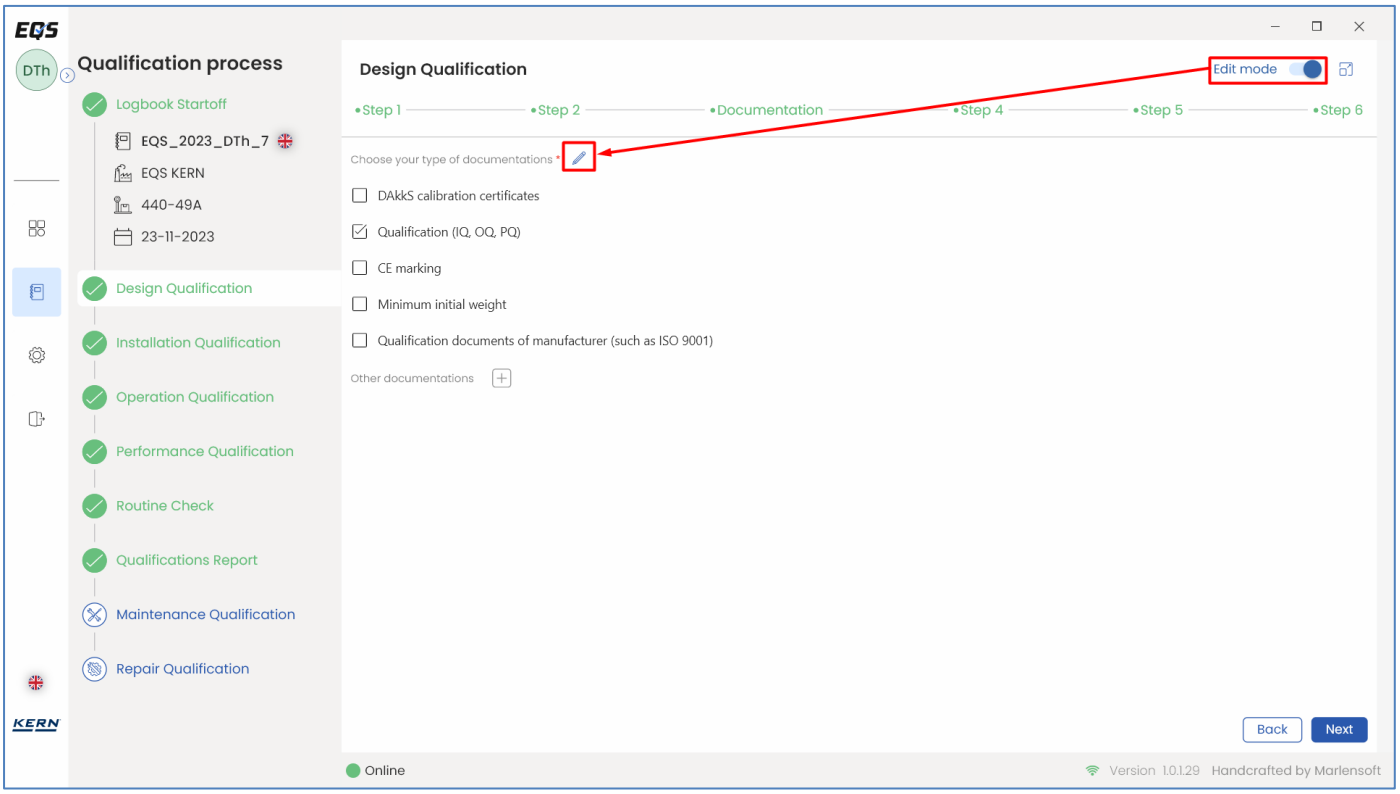
English

8.3.1 Edit Function

- After completing respective qualification “Edit mode” toggle button gets activated in the top right corner of the screen.

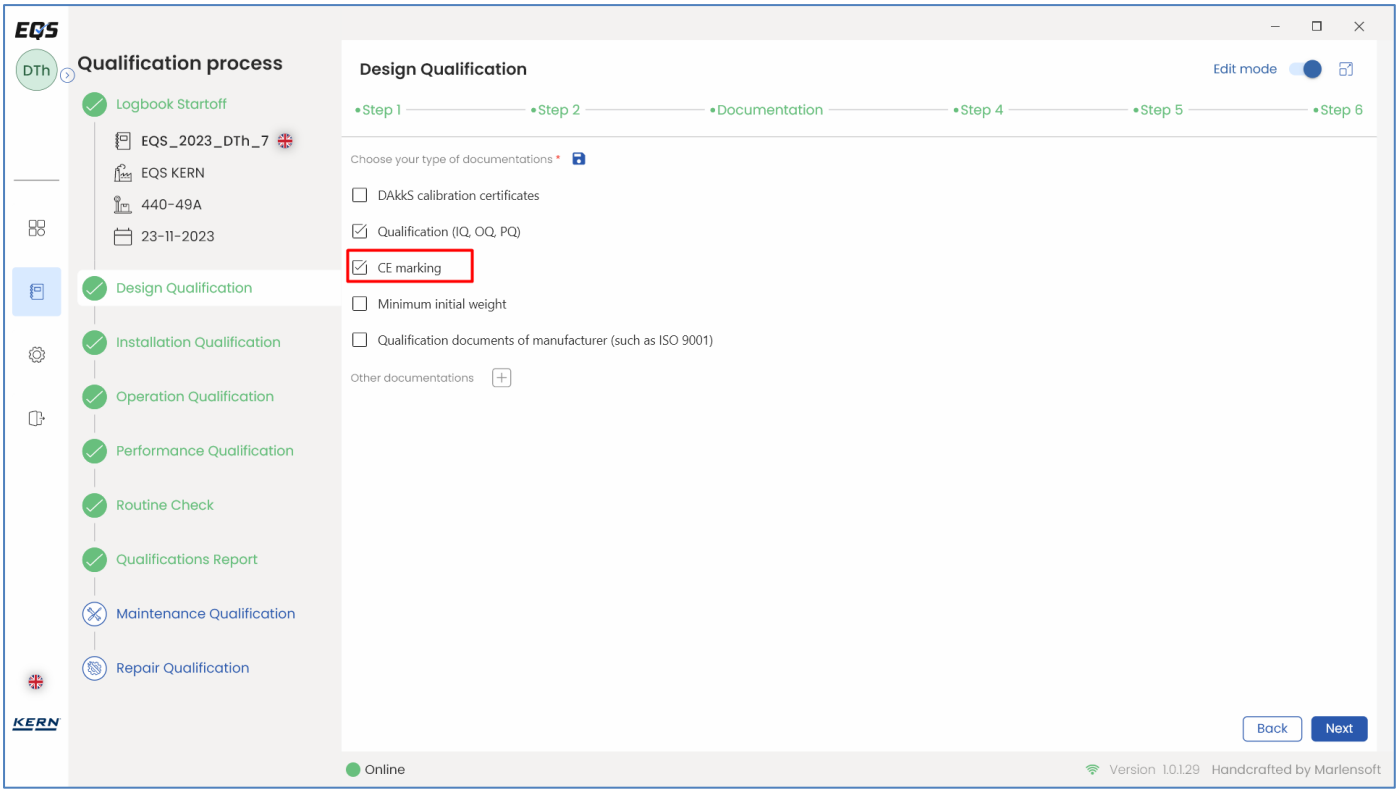


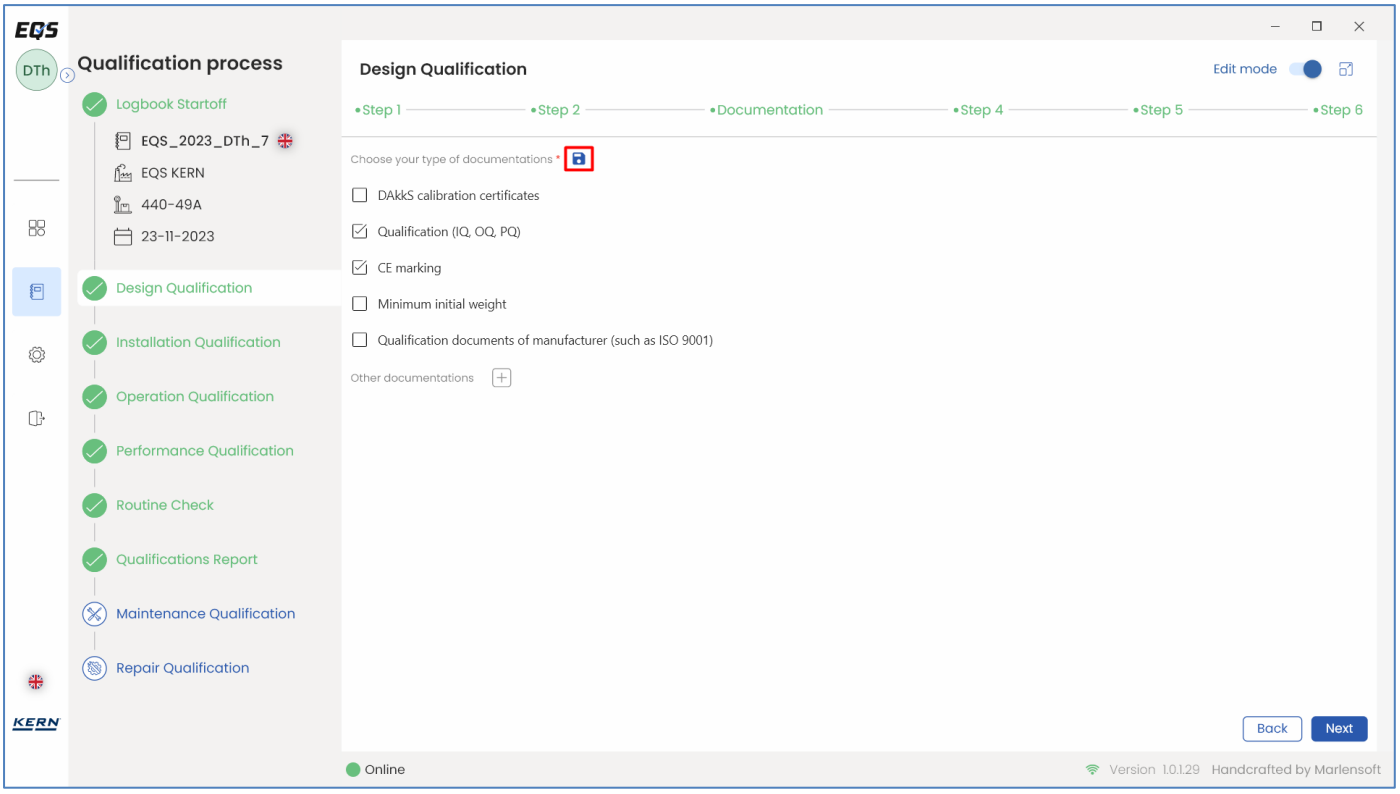
- When clicking the “Edit mode” toggle button, edit icon gets activated all fields as mentioned in the below screenshot.



English

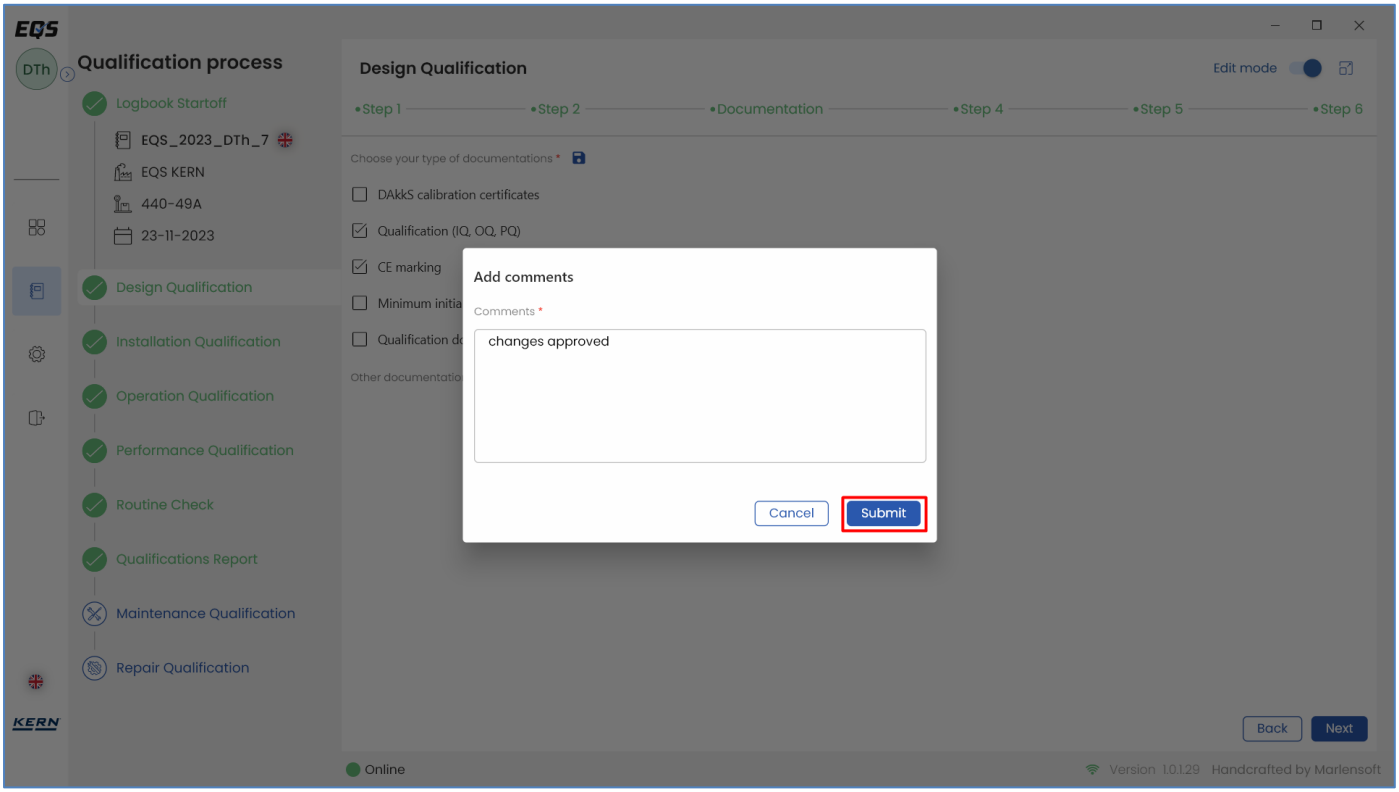
- Click edit icon, making changes in the field and clicking save icon. Add comment popup appears with mandatory comment field.



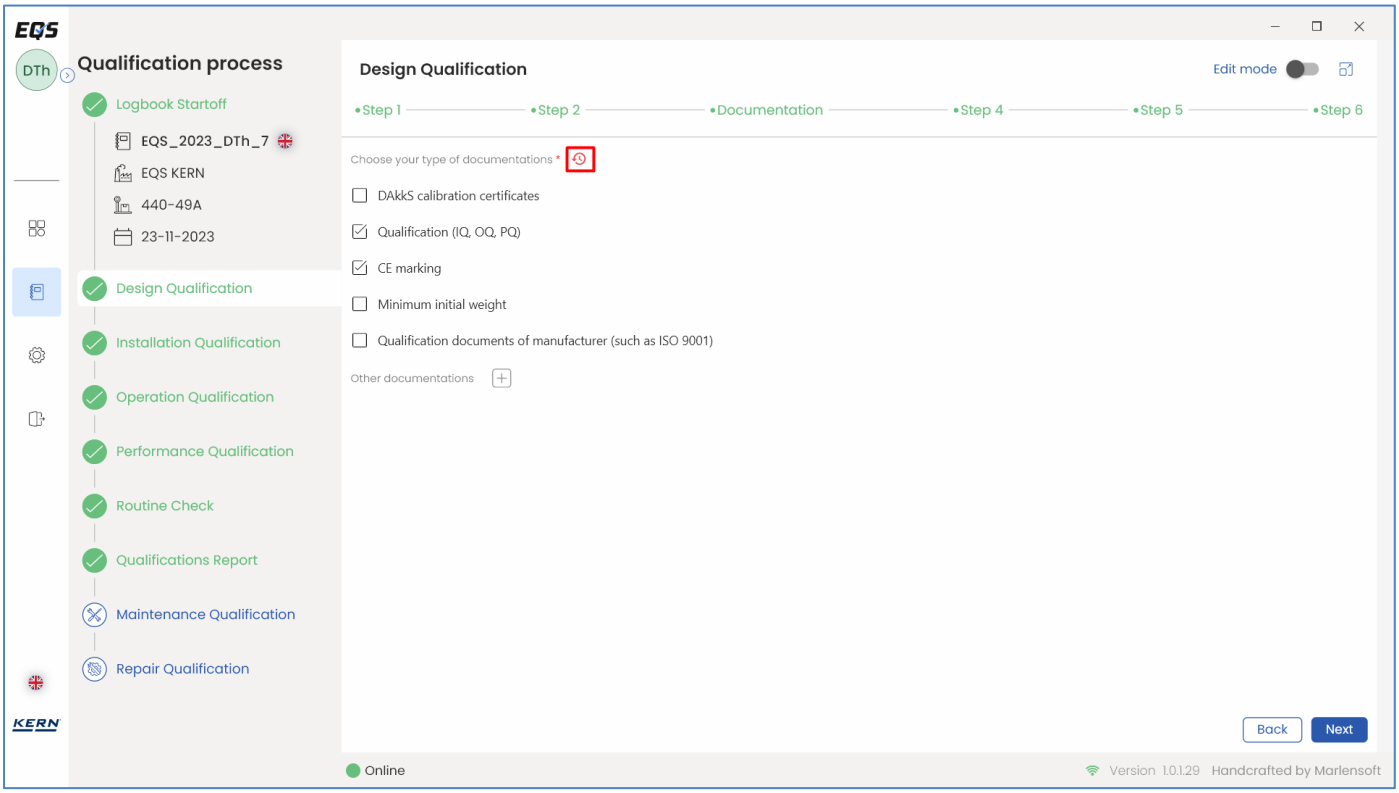


English

- After entering valid comment and clicking “Submit” button, the changes made are saved and the screen moves to non-edit mode.

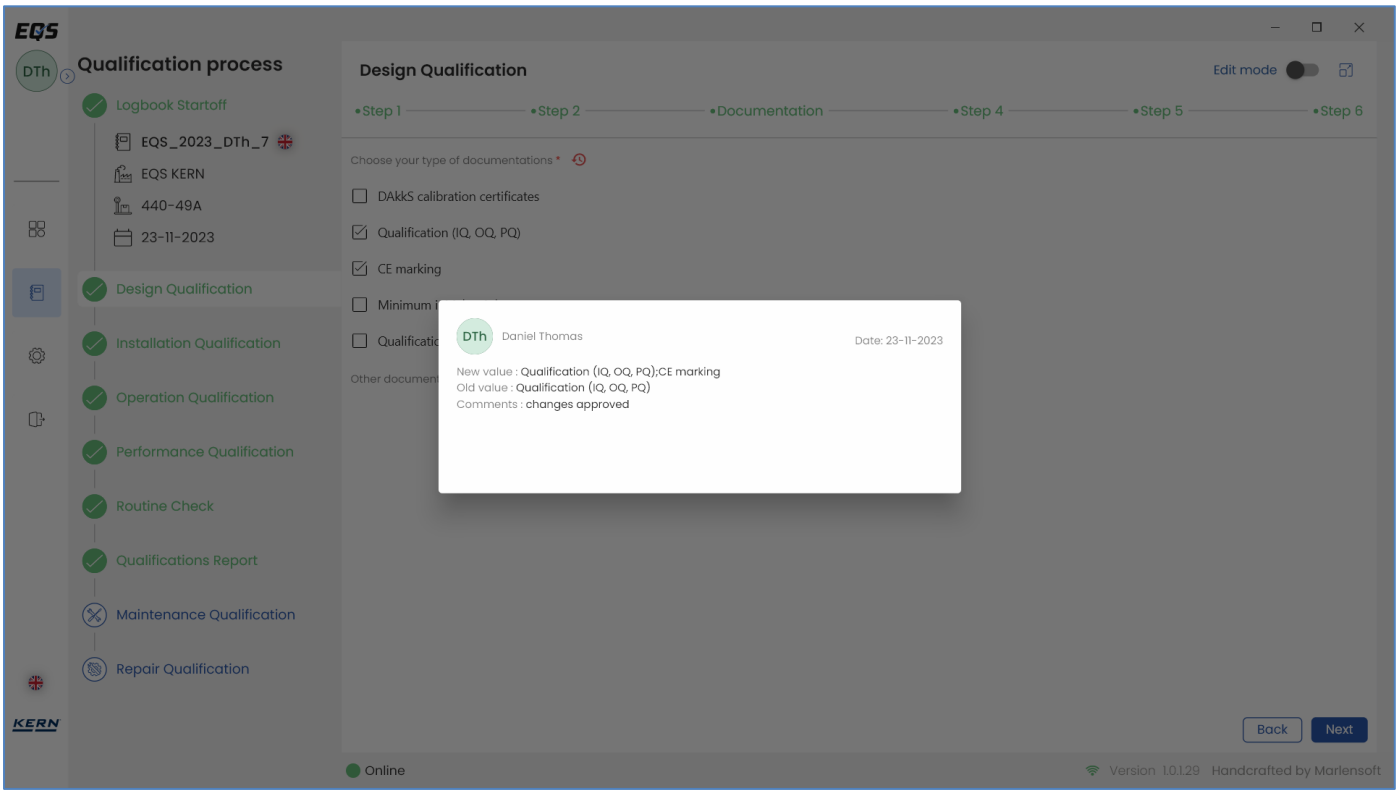


- In the non-edit mode screen a history icon displays near the edit field.

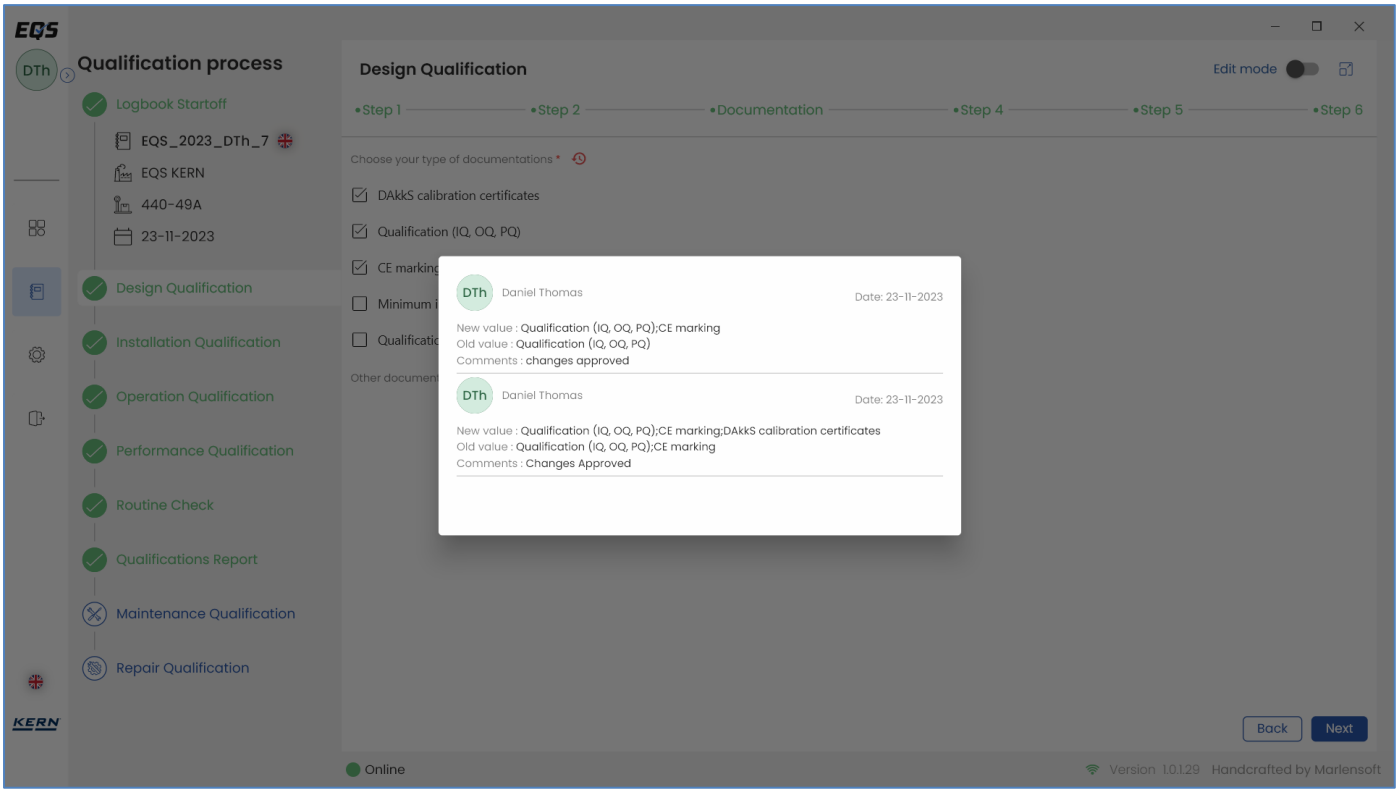


English

- When clicking the history icon, edit history popup opens and it will display data such as new value, old value, comments, date and visa/name of the qualification officer who made the change.



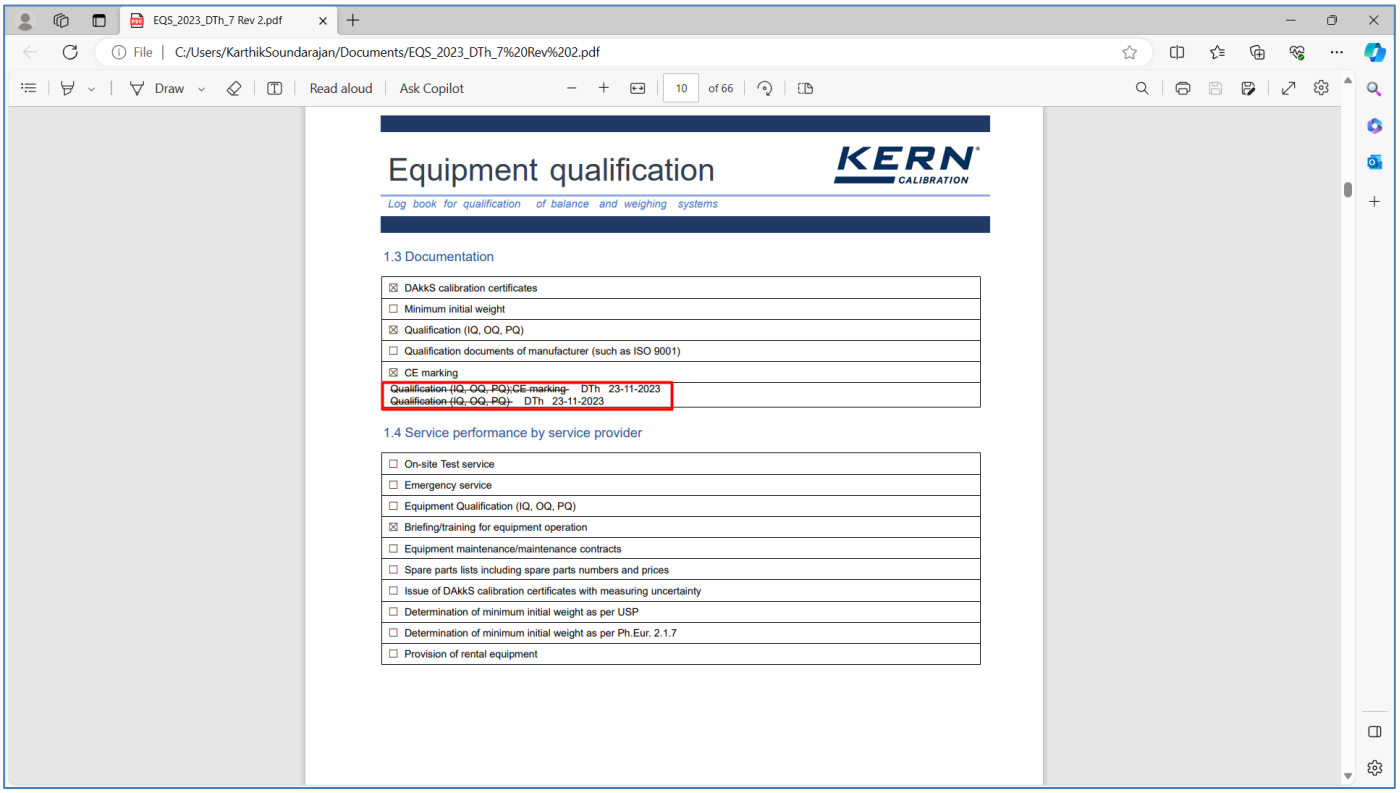
Note: The above-mentioned steps can be followed for maintenance qualification and repair qualification for editing.



Note: A field can be edited multiple times, and those changes are visible in history popup.

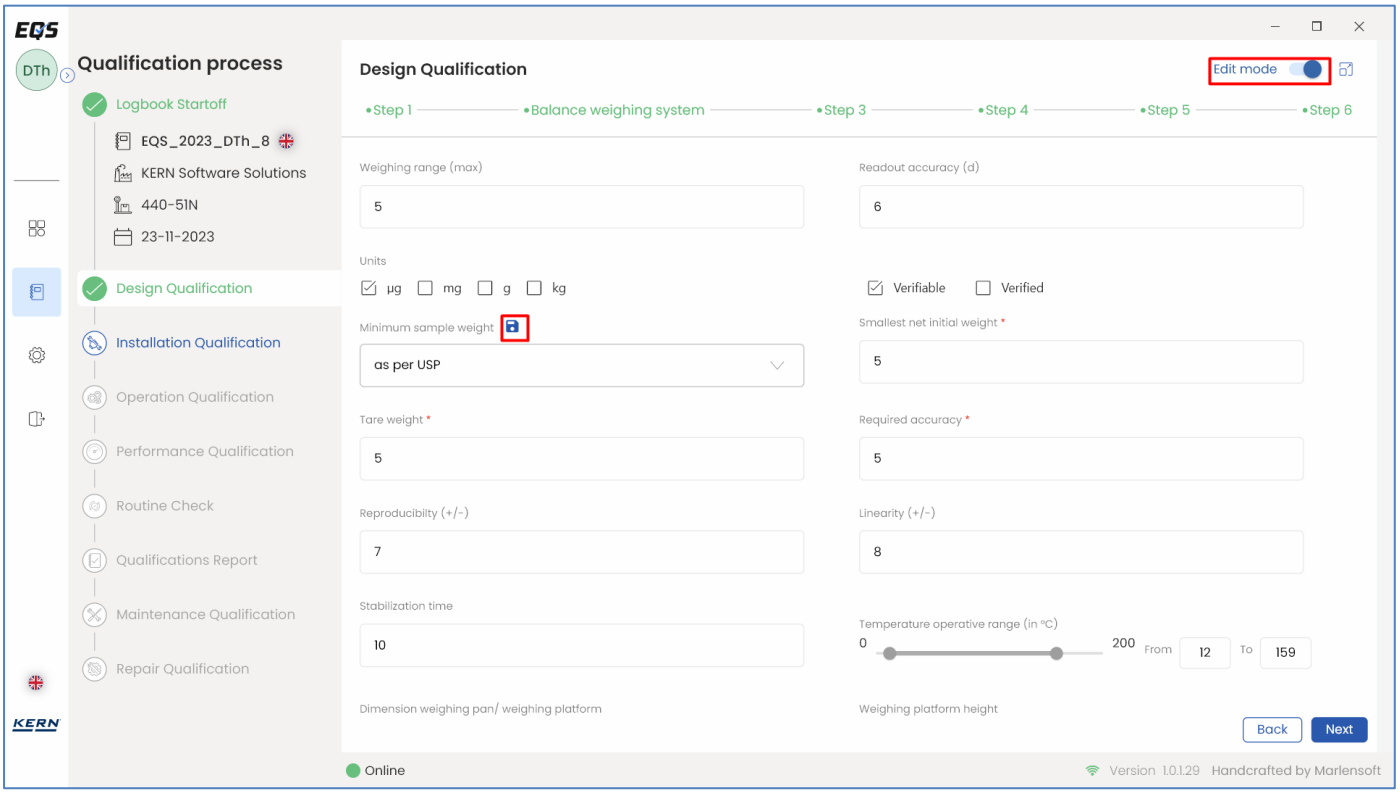
English

- Edited changes also in Logbook PDF with edit history.



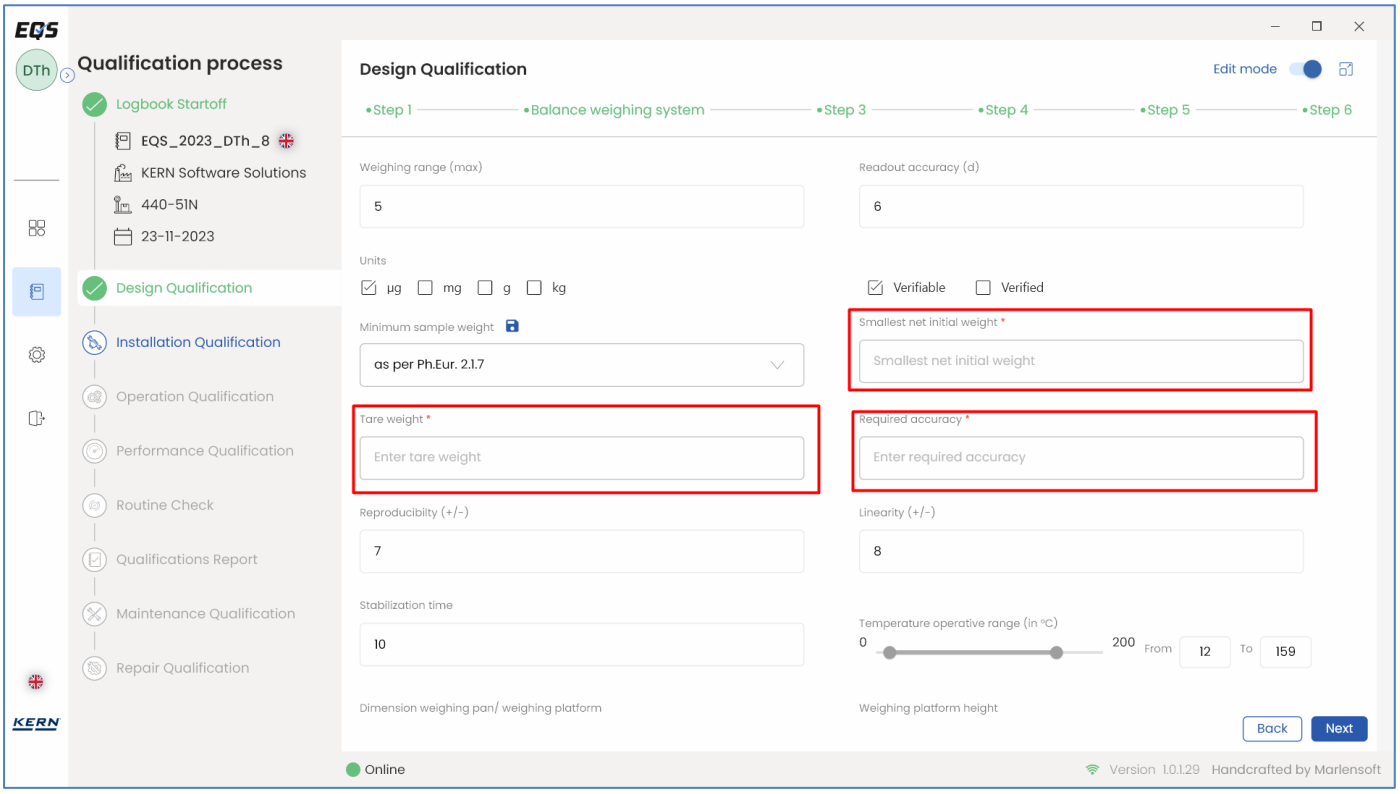
8.3.2 Additional field edit

- **Step1:** Click on edit icon and change the content in the parent field.

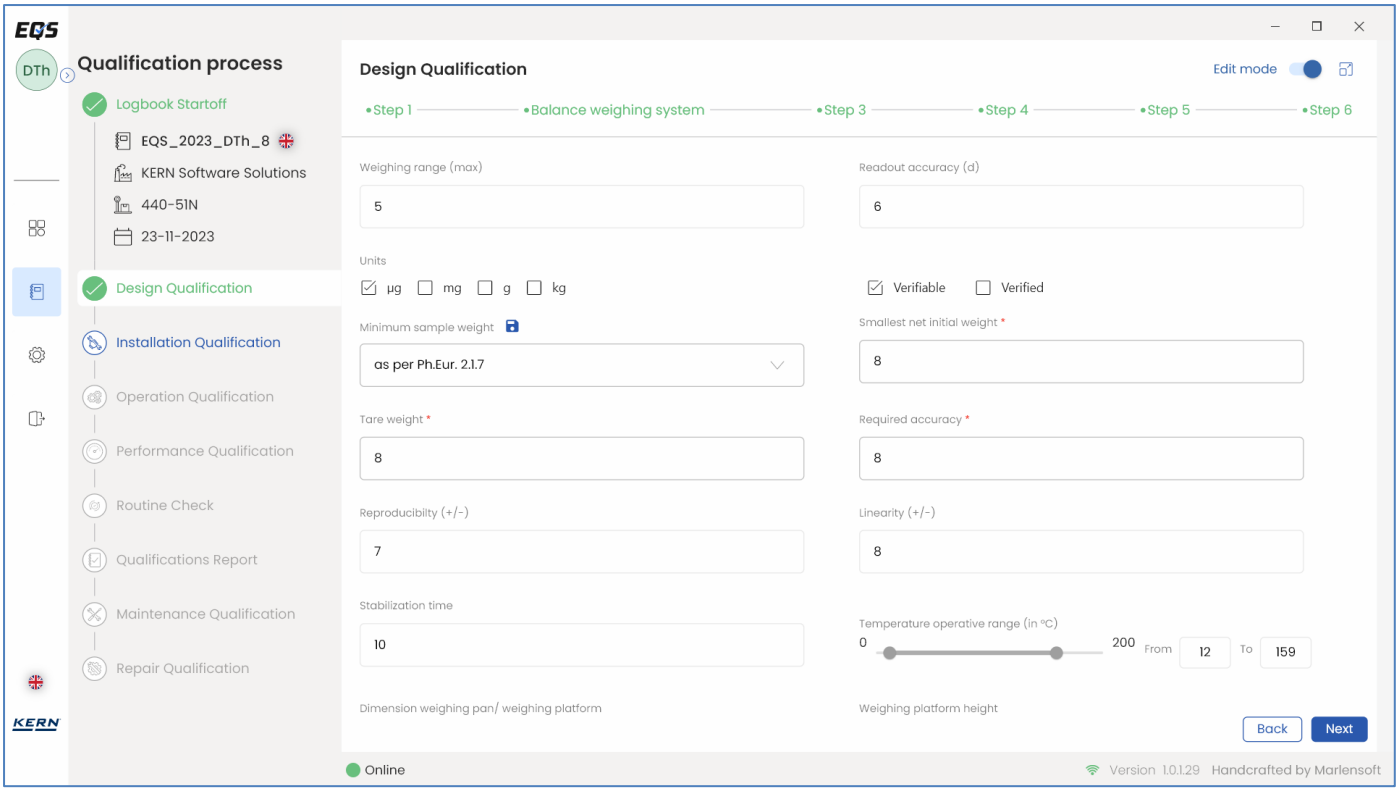


English

- **Step 2:** When changing data in the parent field, data gets cleared in the additional field.

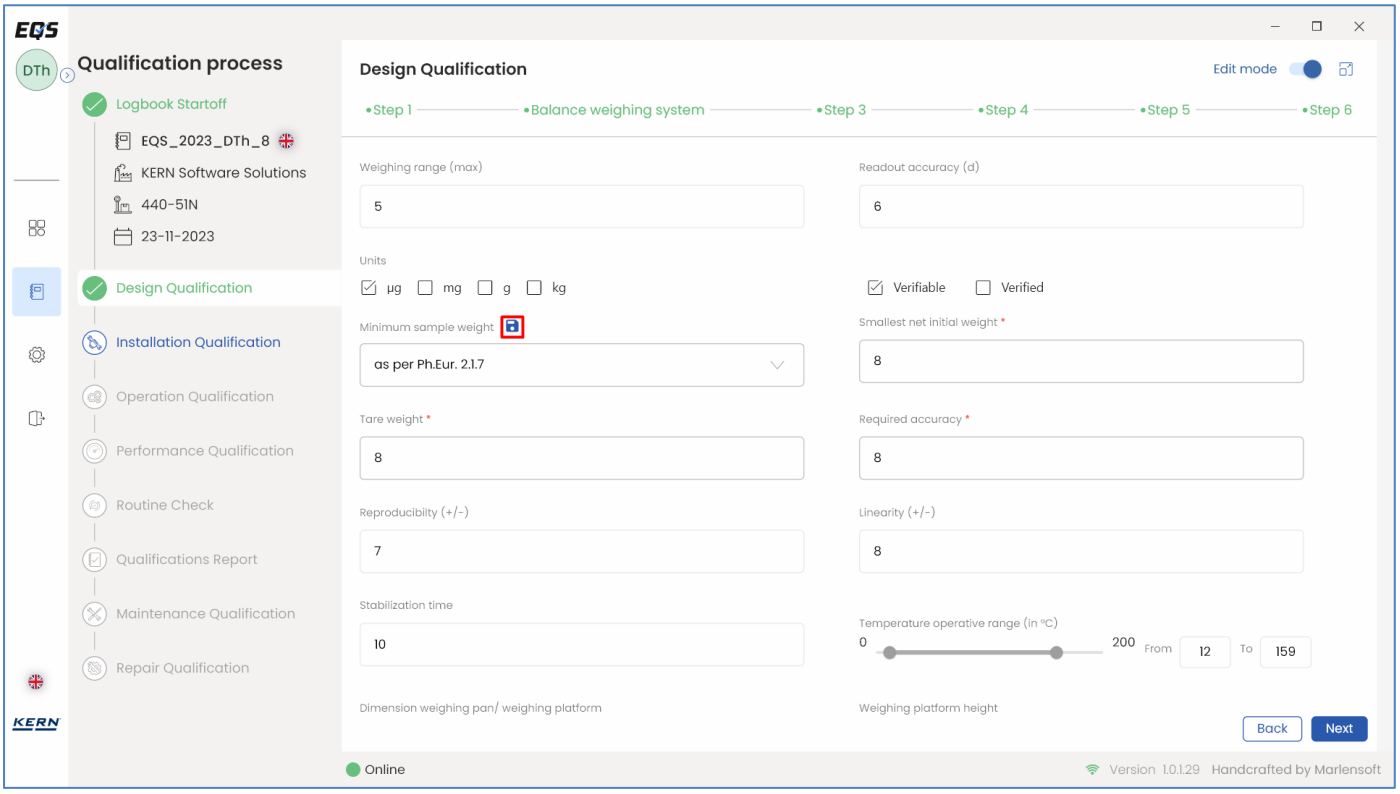


- **Step 3:** Add new data to the additional field.

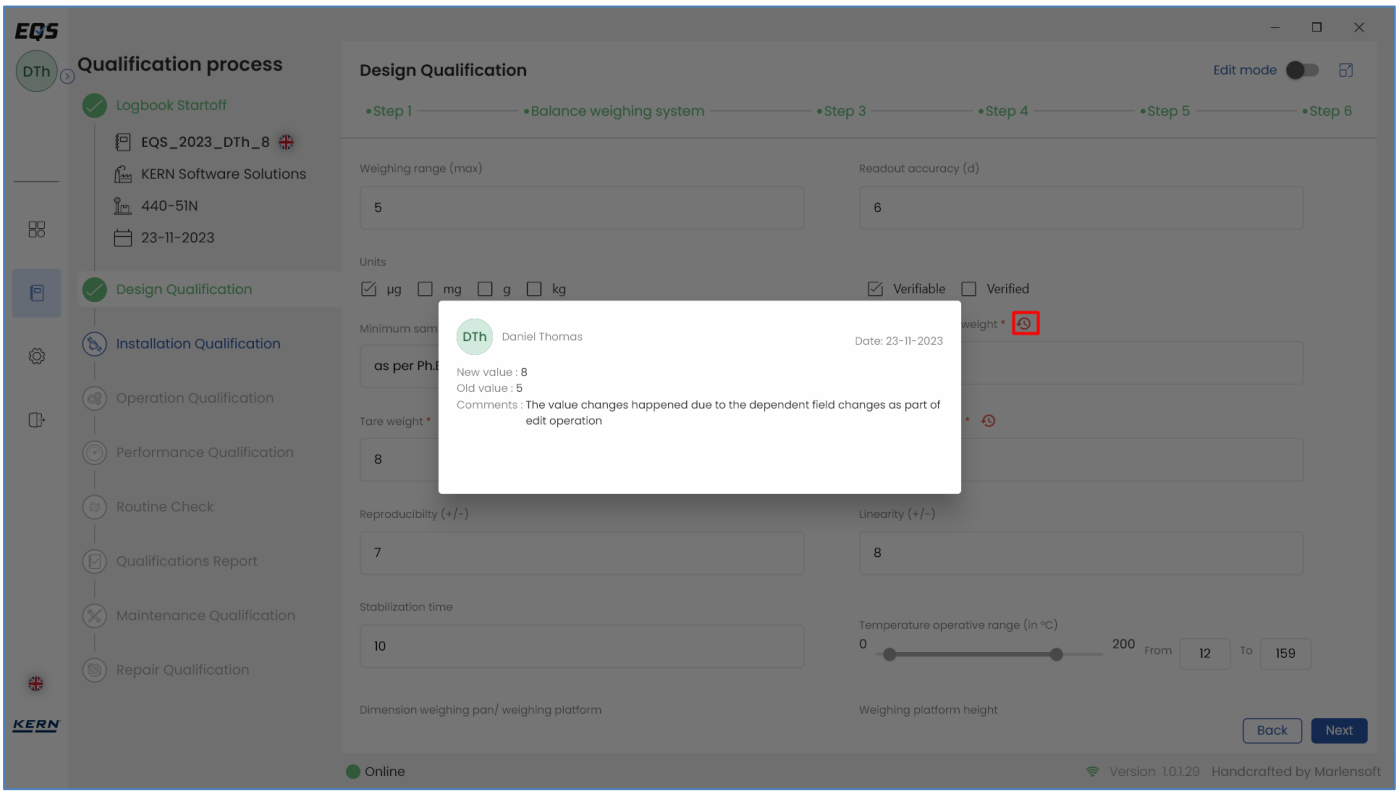


English

- **Step 4:** Click save icon and save the changes.



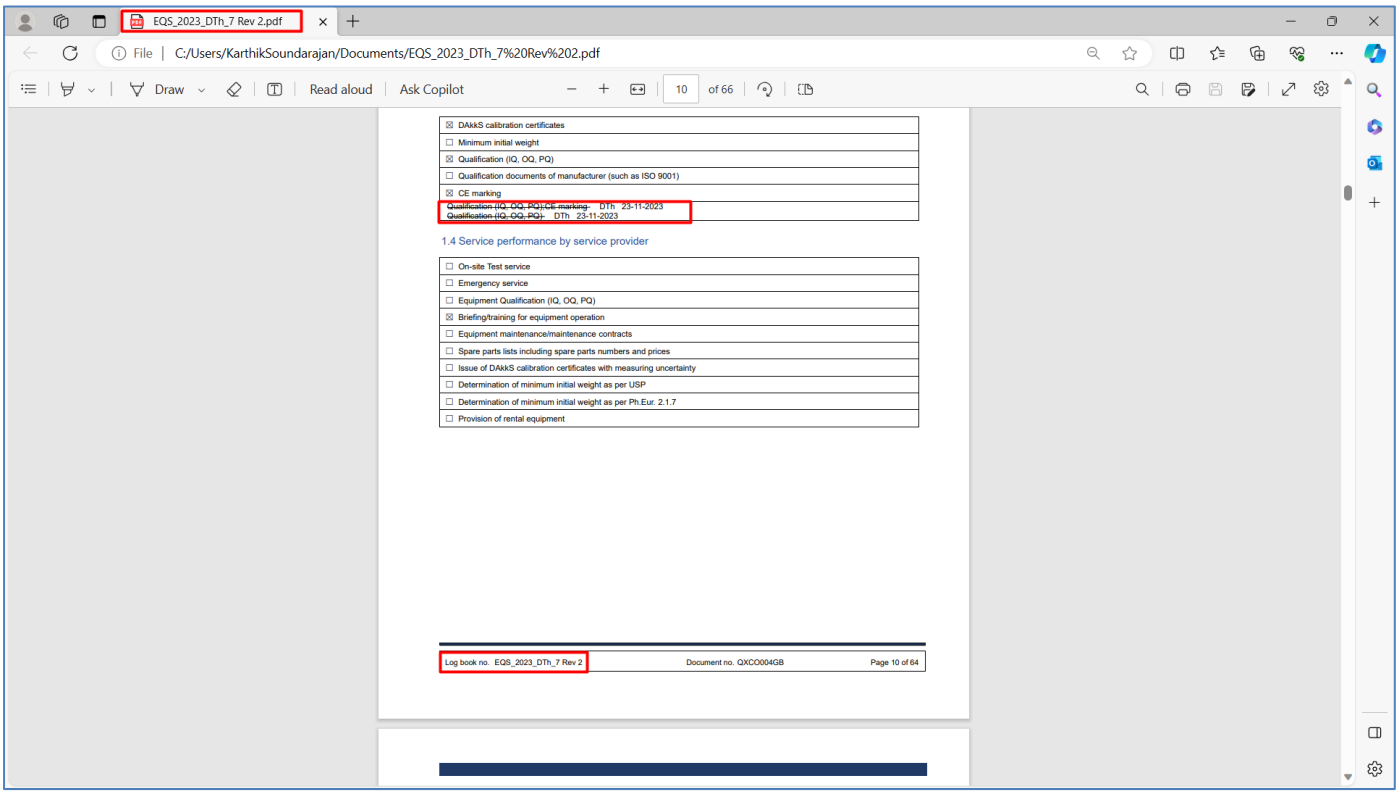
- **Step 5:** When clicking the history icon, additional info is displayed regarding the changes in additional fields.



English

8.4 Audit

- After completing all the qualification steps with edited content, click the generate PDF icon. The generated PDF will show the number of editing changes made in the logbook as “Rev 1” next to the PDF file name. (the revision count will increase every time a change is made, and PDF is generated)



- This “Rev” count will also be seen in PDF logbook when sent via email. Please note the generated PDF logbook number will also have the revision number in the footer. [E.g., “EQS_2023_DYa_782 Rev 2”]
- When editing an additional field, it considered as one revision.

9. Appendix