



# EQUS<sup>TM</sup> Data Qualification Module

*Validate and Qualify data against rules-driven quality checks*

The EQUS Data Qualification Module (DQM) is an automated data validation tool used to ensure sample data meet established data quality criteria. DQM allows data comparisons to both configured and/or calculated criteria. Data quality checks can be added and modified to meet client requirements and enables project-specific rules, quality assurance/quality control (QA/QC) limits, and data qualifiers. These checks include holding times, blank contamination, surrogate recoveries, precision, accuracy, reporting limits, and more. DQM is available with EQUS Professional PremierD and PremierDG Library licenses.

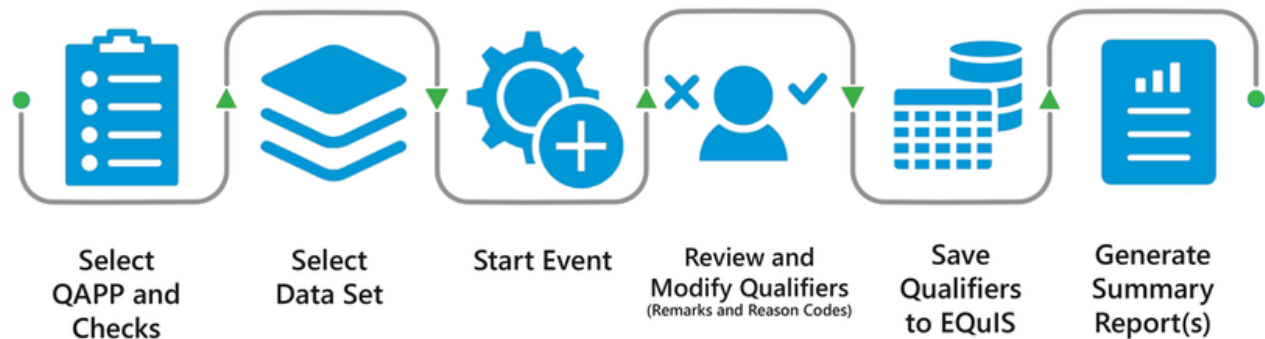
## Advantages

- ✓ **Configurable** – Every project has its own data quality objectives and DQM is configurable to meet project needs! Once configured, the settings can be saved and reused. Copy an existing configuration to leverage time savings for new project setup.
- ✓ **Flexible** – Sample grouping reported by the laboratory may not be the ideal grouping for data validation. DQM allows users to easily select the samples to run in DQM. Select samples from an individual field sample delivery group, a chain-of-custody record, or analytical batch. Add associated samples to your selection.
- ✓ **Interactive** – Review DQM output for a data set using filters by the check, results, and samples to validate and qualify the DQM Event. Change qualifiers, remarks, and reason codes assigned to the data by DQM to account for additional project-specific criteria by filtering on the exceptions, the results, or the samples.
- ✓ **Efficient** – Save time and money by using DQM to perform data validation. For large sites with routine regulatory reporting requirements, configure the project DQM Quality Assurance Project Plan (QAPP) once and then re-use for each new sampling event. DQM event processing allows data qualifiers to be applied in batch. Use out-of-the-box reports or configure your own to facilitate reporting.

The screenshots illustrate the DQM software interface, which includes several key components:

- Events In Process:** A table listing events with columns for Event ID, Created Date, Chain of Custody, Field SDG, Lab SDG, and Test.
- Event Summary:** A summary table for a specific event, showing details like Check Name, Type of Sample or Result Reviewed, Total Number of Results, Number of Results Reviewed, Number of Exceptions, Method used to Find Associated Results, and Number of Results Associated.
- DQM EVENT:** A screen for configuring and reviewing a DQM event, including fields for Event ID, Created Date, Chain of Custody, Field SDG, Lab SDG, Test Batch ID, Task Code, and Sample Code.
- Event Summary:** A summary table for a specific event, showing details like Check Name, Type of Sample or Result Reviewed, Total Number of Results, Number of Results Reviewed, Number of Exceptions, Method used to Find Associated Results, and Number of Results Associated.
- Results from Above Selected Sample:** A table showing results for a specific sample, including columns for Sample ID, DQM Status, Type, Value, Units, DQM Y, Sample, Reason Code, Sample Type, Method, and Method ID.
- Select Event Dataset:** A screen for selecting a dataset for review, including columns for Selection Type, Code, Description, Validation Results, and Total Results.
- Facility:** A screen for entering facility information, including Facility Name, Event ID, Created By, Created Date, DQM QAPP Code, Field SDG(s), Lab SDG(s), and Test Batch ID(s).
- Checks and Options:** A table showing the results of various checks and options, including columns for Check Name, Type of Sample or Result Reviewed, Total Number of Results, Number of Results Checked, and Number of Exceptions.

## DQM Workflow



### Select QAPP and Checks

Qualification rules for a project Quality Assurance Project Plan (QAPP) are tailored by setting up a corresponding DQM QAPP that contains the checks, rules, and parameters needed to perform data validation in DQM.

### Select Data Set

Easily select analytical results requiring qualification in DQM by Chains of Custody (COCs), Field Sample Delivery Groups (SDGs), Lab SDGs, Test Batch IDs, Task Codes, and/or Sample Codes.

### Start Event

Each data validation effort is performed as a distinct event in DQM. A DQM event is a review of analytical results dataset(s) that are run through the automated checks for the selected DQM QAPP.

### Review and Modify

Data validators then exercise professional judgement to review the DQM generated flags by check, sample, or other filters. DQM events can be saved and re-opened as needed.

### Save Qualifiers to EQulS

Save the validated results, data qualifiers, remarks, and reason codes directly to the EQulS database. No need to re-load an EDD. Additionally, users can make selections for which field in the database to save the qualifiers, whether to mark the data as validated, and if data will be considered “not-reportable” for reporting purposes.

### Generate Summary Report(s)

DQM makes data reporting easy. Export summary information, exceptions by check, and all analytical results and associated qualifiers to a Microsoft Excel spreadsheet. Leverage the automated reporting functionality of EQulS Information Agents (EIAs) and deliver the DQM Exceptions Report to the validator’s inbox for review anytime new data is received.