



EQulSTM Air Quality System Module

US EPA ambient air pollution and meteorological data management

The United States Environmental Protection Agency (EPA) Air Quality System (AQS) stores ambient air and related meteorological data collected from thousands of monitors across the country managed by EPA, state, local, and tribal agencies.

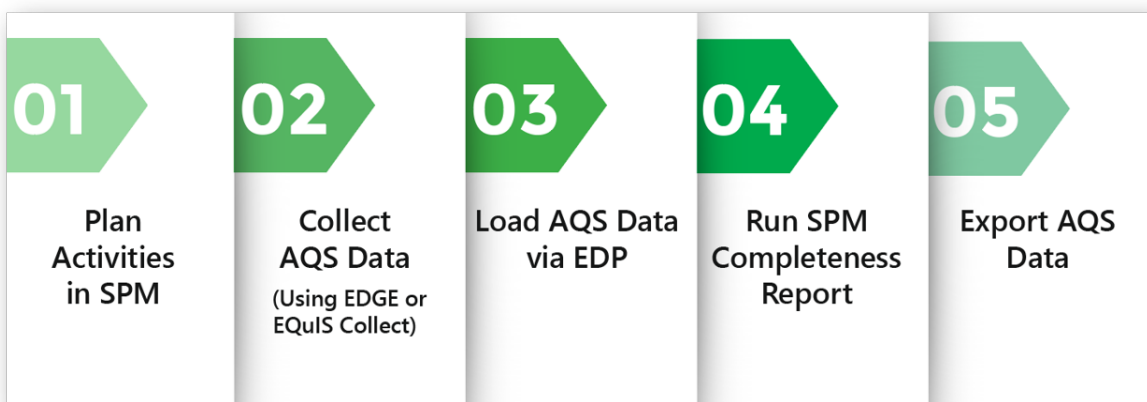
The EQulS AQS Module collects, stores, and manages AQS data for export into required file formats for submission to regulatory agencies.



AQS Module Workflow

The EQulS AQS Module is integrated with other EQulS applications, such as the Sample Planning Module (SPM), EQulS Collect, EQulS Data Gathering Engine (EDGE), and EQulS Data Processor (EDP) to manage the entire data workflow.

- Create Plans and project tasks associated with various AQS activities using EQulS SPM. See status and completeness in multiple views.
- Collect field data with EQulS smart forms using EQulS Collect or EDGE
- Verify and validate AQS data using the built-in data checker, EDP, for import and export.
- Review AQS data for trends using time series reports.



EQuIS AQS Module Components

- New EQuIS Schema and Formats support AQS data.
 - AQS Schema – Provides a basic structure to store and organize AQS data in EQuIS, available with EQuIS Enterprise Premium licensing.
 - AQS Reference Value Format – Populate the Reference Values added by the AQS Schema.
 - AQS Format – EQuIS format to upload AQS-ready data files into an EQuIS Schema. This format can load current and historical datasets.
 - AQS Format Export File – The EQuIS AQS format generates the pipe-delimited text files for upload to the EPA Air Quality System for each transaction type.
- EQuIS Collect Templates – Collect templates are available to record equipment calibration, maintenance information, flow rate data, and more.
- EDGE Example Files – Provides example data for configuring EDGE and setting up Reference Values.



Sample Planning Module

Use SPM with the EQuIS AQS Module to plan, schedule, and track AQS field activities and recurring equipment-related activities associated with each monitor, even when multiple monitors are present at a single location. Equipment quality assurance (QA), calibration, and maintenance activities can be planned and scheduled as Activities (aka equipment parameters) in SPM.

Examples of activities include cleaning air filters, taking photos, trimming flora, site maintenance, taking initial vs final readings, and calibration checks. SPM Completeness Reports can ensure all AQS activities were completed.

Facility Code:		Plan Code:		2020 Operations	
Activities					
		Scheduled		Unscheduled	
Task		Activities Completed (%)	Locations Count	Activities Count	Locations Count
0101_Bi	SPM - Activities Manager				
0101_Hi	Activity Types				
0101_Lo	Add Activity Type Remove Activity Type				
0101_Qu	Drag a column header here to group by that column.				
0201_Lo	Activity Type Code	Activity Type Description	In Use	Status Flag	
0301_Lo	1 Point QC	QA-1 Point QC		A	
0401_Hi	Annual PE	QA-Annual PE		A	
0401_Lo	Flow Rate Verification	QA-Flow Rate Verification		A	
0401_Qu	Semi Annual Flow Rate Audit	QA-Semi Annual Flow Rate Audit		A	
0401_Lo	Flow Rate Verification for PM10	QA-Flow Rate Verification for PM10		A	
0501_Lo	Semi Annual Flow Rate Audit for PM10	QA-Semi Annual Flow Rate Audit for PM10		A	
0601_Lo	Duplicate	QA-Duplicate		A	
0601_Lo	Replicate	QA-Replicate		A	
0701_Bi	Pb Analysis Audit	QA-Pb Analysis Audit		A	
0701_Hi	Activities				
0701_Lo	Add Activity Remove Activity				
Drag a column header here to group by that column.					
Activity Code	Activity Type	Activity Description	Display Order	Field Type	Unit
Assessment_Conc	1 Point QC	Assessment Concentration		EDGE_Decimal	
Monitor_Conc	1 Point QC	Monitor Concentration		EDGE_Decimal	
L1_Assess_Conc	Annual PE	Level 1 Assessment Concentration		EDGE_Decimal	
L1_Monitor_Conc	Annual PE	Level 1 Monitor Concentration		EDGE_Decimal	
L10_Assess_Conc	Annual PE	Level 10 Assessment Concentration		EDGE_Decimal	
L10_Monitor_Conc	Annual PE	Level 10 Monitor Concentration		EDGE_Decimal	
L2_Assess_Conc	Annual PE	Level 2 Assessment Concentration		EDGE_Decimal	
L2_Monitor_Conc	Annual PE	Level 2 Monitor Concentration		EDGE_Decimal	
L3_Assess_Conc	Annual PE	Level 3 Assessment Concentration		EDGE_Decimal	
L3_Monitor_Conc	Annual PE	Level 3 Monitor Concentration		EDGE_Decimal	
L4_Assess_Conc	Annual PE	Level 4 Assessment Concentration		EDGE_Decimal	
L4_Monitor_Conc	Annual PE	Level 4 Monitor Concentration		EDGE_Decimal	
L5_Assess_Conc	Annual PE	Level 5 Assessment Concentration		EDGE_Decimal	
L5_Monitor_Conc	Annual PE	Level 5 Monitor Concentration		EDGE_Decimal	
L6_Assess_Conc	Annual PE	Level 6 Assessment Concentration		EDGE_Decimal	
L6_Monitor_Conc	Annual PE	Level 6 Monitor Concentration		EDGE_Decimal	
L7_Assess_Conc	Annual PE	Level 7 Assessment Concentration		EDGE_Decimal	
L7_Monitor_Conc	Annual PE	Level 7 Monitor Concentration		EDGE_Decimal	
L8_Assess_Conc	Annual PE	Level 8 Assessment Concentration		EDGE_Decimal	
L8_Monitor_Conc	Annual PE	Level 8 Monitor Concentration		EDGE_Decimal	



EQuIS Collect

Use EQuIS Collect for AQS data capture and import into EQuIS. Numerous out-of-the-box EQuIS Collect templates for AQS transaction types are available with the EQuIS AQS Module. The Collect AQS templates can be used to record equipment calibration, maintenance information, priority pollutant data, flow rate verification and audit data, and more.

The screenshot displays the EQuIS Collect application interface. On the left, a 'Templates/Forms' menu lists various templates such as 'Add New Equipment - AQS (AQS)', 'Annual PE - AQS (AQS)', 'Calibrations - AQS (AQS)', 'Flow Rate Verification - Hi Vol - AQS (AQS)', 'Flow Rate Verification - Lo Vol - FEM-BAM - AQS (AQS)', 'Flow Rate Verification - Lo Vol - FRM-Partisol - AQS (AQS)', 'Maintenance - AQS (AQS)', and 'PZS - AQS (AQS)'. The main area shows a map view with a 'Location' field and a 'Marker' button. A 'Maintenance' form is also visible, containing fields for 'AQ5 Site ID', 'Serial Number', 'Date', 'Time', 'Field Qualifier', 'AQ5 Transaction', 'Parameter', and 'Assessment Number'. The form includes a list of maintenance tasks with checkboxes for completion.



EQuIS Data Gathering Engine

Capture data for the AQS activities with the EDGE Equipment Parameter Form or Activity Form. EDGE Forms for various AQS QA Transaction Types are provided.

