AirVision Version 3.8 (build 7) Release Notes – September 5, 2018

Due to a performance related issue addressed in this release for 8872 loggers, Agilaire considers this a MANDATORY version upgrade for all 8872s

Issues Found and Resolved

1. An issue was resolved where certain work item repeat settings caused the work item editors to load slowly.
2. Updates have been made to the logic used in the Work Item editors regarding scheduling. Now each time a work item is marked "completed", the completion logic computes the new due date (if repeat enabled) and updates the work item record with the newly computed due date.
3. The Alarm to Port field has been removed from the calibration alarm configuration (non-applicable) and the 'End Alarm on No Flag' is checked by default on new alarm entries.
4. Issue resolved where Parse Config File utility would error due to a GSI send string included in a logger dump file.
5. Application logic updated to ignore leading/trailing whitespace during Parse Config File for channels, calibration sequences, phases, constants, alarms, and digital events.
6. An issue was fixed where the annotation report was not wrapping annotation comment text as needed.
7. An issue was resolved where calibration Affected Channels list did not show check marks for selected channels.
8. Composite data options removed from report criteria selections in AQS text and XML reports.
9. 'Expected Value for Auto Correct' column removed from calibration phase channel configuration area as it is an unused item.
10. An update was made to the database size check logic to avoid false positive warnings on SQL Express databases.
11. To address an EPA change, the column the null code is displayed in for calibration 1 Point QC checks was moved from column 15 to 16.
12. Logic has been changed in the file import service to address an issue with existing .bad renamed files.
13. RB records in the AQS reports have been updated to use the parameters round/truncate and precision settings.
14. Bar graph fixed on Site Health Report for secondary parameters and exclusion of the secondary parameter section if none are configured.
15. The file import logic has been updated to not truncate record times to the nearest interval IF an import template is changed from 'average' to 'sample' data type.
16. An issue was resolved where certain flag colors would cause an 'Int32' error to occur when running the Daily Parameter Report.

New Features

1. Archive and purge options have been added for audit and sample data.
2. A new index has been added to one of the database tables to improve the query times of some reports.
3. Work Items Editor has a new checkbox called "Reschedule Based On Actual Completion Time". If unchecked, the scheduled repeats always fall on the exact interval of the original due date. If checked, the next due date is one interval from the completion date instead.
4. The delete confirmation pop-up text has been updated to more specifically note what has been selected for deletion.
5. The default contract name created by the Sync Wizard is now automatically comprised of the sync route name + the sync contract type. If desired the contract name can be edited in the grid display during the Sync Wizard process.
6. 'Day Shift' backwards and forwards buttons have been added to the data editor ribbon bar. When used, the buttons will add or subtract one day from both the start date and the end date.
7. The 'repeat interval' column is now displayed by default in the Work Items Editor.
8. An additional field has been added to the asset details area of the Asset Tracking editor, 'Additional Identifier'.
9. Grid style report criteria have been added to the Asset Current Status and Asset History reports to allow more granular tuning of the report output.
10. A 'copy' option has been added to the Phases tab of the calibration configuration.
11. ADVP has been updated with a rule option to add a logbook entry when the rule conditions are met. These entries will include the message text as defined in the rule, along with a listing of the data points the rule was applied to.
12. Method Code functionality has been added to the Asset Tracking editor.

1. When editing the method code on an existing asset, if there is a parameter already assigned, that parameter will get the method code applied.
2. When assigning the asset to a parameter, if there is a method code assigned to the asset, the parameter will get the method code applied.
3. A new asset Type has been added – Cal Standard / Bottle. This asset type includes additional detail fields:

13. Functionality has been added to convert sample data values to hourly average values to support requirements of the PAMS program.   *Additional application notes are available for PAMS systems.* Using the rollup method 'Sample to 1h Average' will effectively take same data values, use them as synthesized 1m values, then do an average to create 1h values.
14. New buttons have been added to the ribbon bar of the Data Average Rollup Configuration editor to assist with ease of setup for sample rollups:
    - **Create Input Tag** is needed for Sample parameters. When you add a new record to the grid and select a sample-based rollup method, click Create Input Tag to select sample parameters and a tag interval that matches the rollup method.
    - **Create Output Parameter and Tag** is useful for creating the rollup (target) parameters, especially in the case of a sample rollup.
    - **Create Output Tag** is useful if the parameter already exists, but you just need to create a tag record for a new interval being rolled up.
15. The File Import templates now have 'Blank Type' options for CAL and ZERO. If the sample point is marked with a blank type code of ZERO or CAL, it will be set to Exclude From Reporting. This can happen in two ways: if the template is set to ZERO orCAL lank type, or if a blank type column is defined in the template mapping and the column data equals ZERO or CAL.
16. An Analyzer QA Report has been added for use with the Asset features which shows calibration results in combination with analyzer and standards / bottle information.
17. Null Code selection and comment field have been added to the One Point Quality Control monitor assessment editor and are included in the AQS text report.
18. An option to use the MDL as a comparison value has been added to the ADVP editor.
19. Annotations applied by ADVP rules will show the 'Made by:' user as 'System'.
20. An option to display raw values has been added to the 'Analyze/Export Selected' right click menu in the Average Data Editor.
21. The ability to import 1 Point QC AQS text records has been added with a selection option to import from the file as Monitor Assessment or Calibration records. *NOTE- calibration records must have existing corresponding calibration configurations with a PREC phase or the import will not occur.*
22. A new file import sample type of JSON has been added which allows JSON formatted files to be 'flattened' for processing as a CSV file (to support file type outputs from some sensors). Recommended template settings:
    - Number of Header Rows: 1
    - Sample Type: JSON
    - Delimiter: Comma (allow quotes)
    - Parameter Matching: Match Parameters from Header
    - Using Header Row #: 1
    - In each column mapping, set the Parameter Match Name to whatever the field is called in the JSON document
23. The Multi Phase Calibration report has been updated to use the phase levels of ZERO, SPAN, and PREC if no 20% level is found.

Site Node Logger
1. The display logic for digital alarms in the Realtime Tabular Display has been updated. If the alarm state is set and the current state = the alarm state, the area surrounding the status text will show as red. If current state does NOT equal the alarm state it will show as green.
2. Number of Cal Records field has been removed from calibration sequence screen for 8872 loggers as it is not applicable.
3. A toggle option is available in Site Node Logger Toolbox to display flag description rather than just the flag.
4. In Site Node Logger Toolbox, if a channel is flagged with a flag configured to invalidate data, the flag field will be highlighted yellow.
5. A toggle option is available in Site Node Logger Toolbox to hide or display child parameters in the toolbox grid.
6. In Site Node Logger Toolbox, if a channel's last reading time is greater than a minute old, the timestamp field will be highlighted red.
7. An issue was discovered and addressed where certain conditions could cause a slow building memory usage issue that could eventually result in the Site Node not collecting data.

AgileWeb
1. Security / vulnerability updates have been made to the application
    - Report viewer updated to exclude exception details, addressing possible cross site scripting vulnerability
    - use the "X-Content-Type-Options" header with "nosniff" value
    - use the "X-XSS-Protection" header with value '1' (enabled)
    - issue a "404 - Not Found" response status code for a forbidden resource, or remove it completely
    - disable debugging on Microsoft ASP.NET

AirVision Version 3.6 (build 119) Release Notes – June 5, 2018
The 'Composite' data type is being removed from the parameter configuration screen as part of this update. Any parameters or parameter templates in your system current assigned to the composite data type will be updated to the sample data type.
IF you are actively using the composite data type for some reason, DO NOT apply this update! Contact Agilaire to discuss your usage of the composite data type.

An important fix for 8872 errors after hard power failures is included in this release. It is STRONGLY recommended that customers with 8872 loggers upgrade their systems to this release.

Issues Found and Resolved
1. The average and sample data type labels have been updated for clarity.
2. The Annotations Report will now show a single entry with a start and end time span for ranges of data selected and annotated in a single action.
3. A code change was corrected to remove padded blank space in the graph area of the Average Data Editor Time Series Graph.
4. In the AQI Program Editor, the 'Use Reff Forecast' column has been more appropriately renamed to 'Use PM25 Nowcast'.
5. An issue was resolved where the parameter selection grid in some scheduled task types couldn't be fully viewed / scrolled.
6. The 'Set to Minimum Detectible Limit' logic has been updated to meet current EPA guidance.
    - Value < MDL : flag with null code "MD"
    - Value >= MDL but < Quantization Limit: flag with qualifier code "SQ"
    - NO change to the data value itself
    - ADVP will now use the report value (which includes application of the parameter's round/truncate setting) when doing value based rule logic.

New Features
1. The Advanced Normalization Tool (ANT) for AirVision is now available. Details can be found at http://agilaire.com/advanced-normalization-tool-ant-for-airvision/ *(This is an added cost feature)*
2. The Database Update Utility, upon encountering an error, will now generate the AirVision exception pop up window which will allow customers to save the error report and provide it to Agilaire to assist with troubleshooting.
3. The Database Update Utility, upon successfully completing required database updates, will be automatically closed out after the OK button on the success window is clicked.
4. An 'Export Grid to Excel' button is now available in the Asset Tracking editor, allowing export and sorting / filtering as desired outside AirVision.
5. New keyboard shortcuts are available to AirVision users within the Average Data Editor:
   a. Control-L to load
   b. Control-N Next (shift forward one interval)
   c. Control-P Previous (shift back one interval)
   d. Control-F5 refresh form (usable throughout client)
6. The Cylinder Gas Audit report now includes the site name in the report header and also will limit reported values to three decimal places.
7. The GCA/Opacity Audit Editor now has the option to remove the 'high level' entry from existing or newly added audit records.
8. The Monitor Assessment editors no longer preload all existing entries but allow the user to specify date/site/parameter criteria before loading the historical records.
9. The Monitor Assessment editors now applies site restrictions as configured within group permissions.
10. Average Data Rollup logic will now carry Method Codes to the rolled up interval. If more than one Method Code exists in the sub interval data, the last one will be used.
11. A new 'Calibration Precision' field has been added to Site/Parameter. This will allow users to specify more or less precision as desired for calibration data. It applies to cal reports, cal calculations, and the AQS output for 1 Point QC records. ***NOTE- the logic to truncate ozone ppb to zero precision has been removed***
12. The file import tool can now ingest .xls and .xlsx files.
13. The Speciation monitor assessment editors will now automatically populate the Sample Identifier field if the parameter has a meta tag defined with name 'SamplerIdentifier'.
14. A right-click menu option has been added to the Parameter Selection grid for report and editor criteria to 'Show Disabled Parameters'.
15. New Site Group and Parameter Group editors are available in the List Editors. These allow for user customizable groupings of sites and parameters to be used in the Parameter Selection criteria grid.
16. An option has been added in the file import configuration of 'sample / non-continuous' data types to allow the entire imported file to be assigned a blank type (field, lab, or trip).

Site Node Logger
1. The Average Data and Calibration data push reports have been updated to adjust for Analyzer Units if they are configured on the parameter and the ConvertToAcquiredUnits UtilitySetting is enabled.
2. Coding has been added to better handle the instances when a hard power failure causes a temp .dat file corruption.
3. The poll command for Poll Site Node Logger Status has been added to the scheduled task wizard.
4. Support for Modbus function code 06 has been added to the Site Node Logger, allowing Modbus instruments to write a value to a register.
5. New columns are available on the IO Labels tab of the logger configuration for the 8872 that allow users to define open and closed state text for digital inputs and outputs.

AirVision Version 3.6 (build 26) Release Notes – March 8, 2018

Issues Found and Resolved
1. An issue was found where an "Object reference not set to an instance of an object" exception occurred on scheduled report task emails send via notification configuration. This has been resolved.
2. The work item reports have been updated so that if saved in XLS or CSV format the report header is included where page breaks would normally occur.

New Features

1. A new report has been added, the Calibration Zero/Span Graph Viewer. This report includes 2 panels:
   - top = chart of actual and expected (2 traces) for SPAN level phase
   - bottom = chart of actual and expected (2 traces) for ZERO level phase
2. A 'Site' column has been added to the Work Item Editor pick list for the 'Asset' field. It will display the site that the asset is currently assigned to (if any).
3. In support of NATTS, MDL values, IF included in the sample data record, will be included with the record in the AQL 2.2 Text and 3.0 XML report.
4. Columns for S/N and Tag number have been added to all asset tracking reports.
5. Math equations can now support including parameters from multiple sites and specific parameter references (vs. prior Parameter Template only). Example entries/formatting:
   a. AMBTEMP - template name or constant (existing logic, same as before)
   b. [AMBTEMP] - template name or constant (existing logic, same as before), the brackets are required if any special characters in name
   c. [$AMBTEMP] - logic queries by parameter name "AMBTEMP" instead of template/const name
   d. [$AMBTEMP@SITE1] - parameter name AMBTEMP at site SITE1
   e. [AMBTEMP@SITE1] - template name AMBTEMP at site SITE1
6. To assist with possible 'hung responses' during direct instrument polling, the "Timeout (ms)" setting in the Instrument Command, if configured, now applies regardless of how many individual TCP read buffers are processed (rather than each read buffer resetting the timeout).

Site Node Logger
1. The display logic for digital alarms in the Realtime Tabular Display has been updated. If the alarm state is set and the current state = the alarm state, the area surrounding the status text will show as red. If current state does NOT equal the alarm state it will show as green.
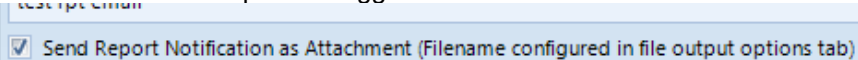
AirVision Version 3.6 (build 4) Release Notes – February 12, 2018

Issues Found and Resolved
1. The Parse Config File tool within Data Source Details can now correctly process logger dump files that have the CR/LF line terminators transposed.
2. An issue was addressed where the AIRNow Report included placeholder values and flags for future hours when run for the current day.

New Features
1. An option is now available to send scheduled report task output as an attachment rather than within the body of the email. This option is toggled via a check box on the task's Notification Options tab:

2. A 'Change Calibration Type' button has been added to Data Source Details, allowing for similar type changes as the 'Change Channel Type' feature. *NOTE: after doing a type change, always review all the settings for the changed object to make sure it is configured as desired.*
3. The UtilitySetting entries for 'AllowAlternateAnnotationUser' and 'AnnotationDeletesAreAllowed' have been removed. Rather than offer these as global settings, they have been moved into Group Permissions so that the abilities can be assigned selectively and deliberately. By default these will not be assigned to any groups.

Site Node Logger

1. A new button has been added to the Site Node Logger Toolbox utility. The 'Show All Channel Types' button can be toggled in the ribbon bar as desired. Channel types affected by this toggle are: General, Rolling, Avg Math, Avg Merge, External, Sigma Theta, Linear Sigma
2. To reduce confusion, the 'off' selection option for digital output patterns has been removed so that only 'on' outputs would be selected in the configuration.
3. An issue was addressed where upon service startup, pseudo inputs associated with 'Normally Closed' outputs would not be in a closed state.
4. Logic was added to calibration alarms to ensure all required settings are completed before saving so that alarms function as designed.
5. The validation logic for channel types 'General' and 'Rolling Average' has been updated to reflect 8832 logic.
   - If percent validity is met, use only valid readings to determine the final result. Will be marked > if some data missing.
   - If percent validity is not met, use all readings to determine the final result, and mark the result invalid <.