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

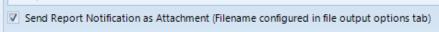
1. The display logic for digital alarms in the Realtime Tabular Display has been updated. If the alarm state is set and the current state = the alarm state, the area surrounding the status text will show as red. If current state does NOT equal the alarm state it will show as green.

AirVision Version 3.6 (build 4) Release Notes - February 12, 2018

- 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.

		•
System Settings		
5 5	Audit Configuration	
5 \$	Change Annotation User	Allows the user to change the assigned annotation user.
5 \$	Delete Annotation	Allows a user to delete annotations.

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 <.

AirVision Version 3.5 (build 137) Release Notes - January 19, 2018

NOTE: due to required code changes in this release, updating from an older version to this version (or beyond) will require all AirVision client installations to be updated manually. The automated client update process WILL NOT work for this transition.

Issues Found and Resolved

- 1. Annual Performance Evaluation Report has been corrected to allow / display blank record values.
- 2. An issue has been resolved where ADVP would not apply rule actions when the conditions were met IF the conditions spanned multiple sites.
- 3. The AQS Text report will now display zero values in 1-Point QC records.
- 4. The Maximum Hourly Value report would return an error when run on parameters not linked to a ParameterTemplateKey, this has been resolved.
- 5. An issue was resolved with the Monitor Downtime Report returning 'no data found' when data was available.

- 6. An issue was resolved with the Daily Opacity Report repeating values across sites with common parameter names.
- 7. An issue was resolved where the Transfer button for the AQCSV Report was grayed out / not operable.
- 8. 'Help' menu items had their web links updated to reflect new locations on Agilaire's website.
- 9. An issue has been resolved that caused the graph/chart area of the Data Analysis report not to function.
- 10. Updates were made to logger download strings for V and W channels (Vector Wind Speed/Direction GSI) to support the 8864.
- 11. Several items not being properly handled by the 'Parse Config File' tool for 8832 imports have been addressed.

New Features

- 1. A serial number column has been added to the Asset Current Status Report.
- 2. The site name has been added to the header of the Cylinder Gas Audit report.
- 3. The AQS Text Import Tool will now handle the insert of records with the same date/time and site/parameter but different blank types.
- 4. The Daily Opacity Report has been updated to show zero values rather than blank cells on the report.
- 5. Efficiency improvements have been made to the file import tool logic.
- 6. The file import logic now supports capture of codes from multiple Qualifier Code columns OR multiple, space separated qualifier codes within a single 'column'.
- 7. Polling code has been updated so that for direct polling of average data, a 'no data found' condition will return as an error, while for 'sample' data, it will return a warning.
- 8. User login tracking ability has been added to AirVision along with two related reports, Login Event History and Login Session History.
- 9. New UtilitySetting options have been added to allow for management of failed user logins. The logic is-If 'X' number of failed logins occur with 'N' minutes, then lock out that client for 'M' minutes.
 - LoginRateLimitAttempts (default value 5). This is the "X" value.
 - LoginRateLimitLookbackMinutes (default value 1). This is the "N" value.
 - LoginRateLimitLockoutMinutes (default value 1). This is the "M" value.
- 10. A new column is available in the Calibration Data Editor, AQS Null Code. This is to support applying the 1C null code to 'invalid check' data and correctly report in the AQS reports.
- 11. Two new monitor assessment editors have been added, Speciation Flow Rate Verification and Speciation Semi Annual Flow Rate Audit.
- 12. The CEMS 7 and 30 day rolling average reports have been updated to retrieve time online automatically and to include operating parameters if they are configured for the site (these are based on Parameter Template names STARTUP, SHUTDOWN, UPSET, and SU_SD_UPSET).

Site Node Logger

- 1. An issue with extremely long decimal values used in math channel equations has been resolved.
- 2. An issue with the Site Node service was caused by channel intervals being set at 000s (except for General ch), this has been resolved and the 000s interval removed as an option for all non-General channel types.
- 3. Input pattern forms were updated to default to 'AND' to avoid unexpected results.

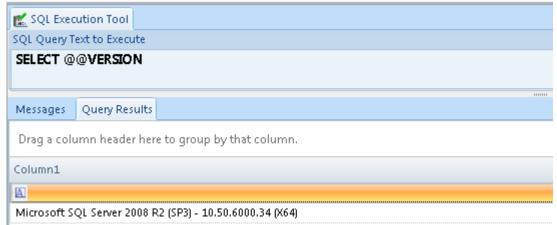
AgileWeb

- **NOTE: due to changes listed below, AgileWeb **MUST** be upgraded at the same time AirVision is in order to maintain website functionality**
 - A new Web Settings Editor has been added to the AirVision client. This editor will allow client users to make changes to almost all of the configuration settings that were previously handled through the custom.config file. Setting details can be found in the AgileWeb manual: http://agilaire.com/manuals/AgileWeb.pdf
 - 2. Any customer using the ThinkGeo contour license will need to contact Agilaire regarding an upgrade process necessary when upgrading to this AgileWeb version or greater.
 - 3. An issue was addressed where instrument controlled calibrations would error due to duration values.
 - 4. For the historical concentration graphs, logic has been changed to apply autoscaling by default. This is to avoid the graphs not showing a full 24 hours along the X axis due to the Site/Parameter configuration for the parameter not having zero included in the range between Graph Minimum and Graph Maximum.

AirVision Version 3.5 (build 8) Release Notes - September 27, 2017

NOTE: Due to new logic for monitoring of database size and drive space, all AirVision servers and 8872s must be running SQL 2008r2 SP1 or greater BEFORE installing this release. Agilaire will have SP3 posted for download on our FTP site with this new release.

To check your SQL version and service pack level, run the query SELECT @ @VERSION from the 'SQL Execution Tool' in AirVision/AVTrend (X86 denotes 32 bit version, X64 denotes 64 bit version):



If you are running SQL Server 2012 or greater, the above is not applicable.

NOTE: A future release (date TBD) will require AirVision, AVTrend, and client systems to be running .Net framework 4.7 – a standalone installer is available from our FTP site. If applying SQL SP updates to any 8872s or site PCs, it may be a time save to do the .Net framework update at the same time.

Issues Found and Resolved

- 1. Updates to log constant values have been excluded from the change audit tracking as they were contributing to excessive logs. If a customer needs this tracking reinstated, contact Agilaire support.
- 2. An issue was resolved where scheduled AIRNow FTP tasks would give a 'results empty' error but the report did contain records and was successfully transmitted.
- 3. The warning criteria for AIRNow report generation has been updated to accept parameters from multiple systems as long as the agency, country, and timezone codes are all equal.
- 4. An issue was resolved where the logger 'Parse Config File' utility would improperly ignore unused inputs and insert all labels one directly after the other.
- 5. The template list column in the Parameter Template Editor now allows for resizing to improve viewing of long template names.
- 6. Report Criteria selection areas have been reviewed and updated to provide consistent resizing and display.
- 7. An issue was resolved where an instrument poll task might lose its poll type if multiple tasks were set up prior to a save.

New Features

- 1. The AQCSV Report has been updated so in a scheduled task an option is available to mark the records as updates instead of inserts.
- 2. The AQCSV Report has been updated to allow selection of sub-hourly data and present the number of minutes in the interval into the duration column.
- 3. A new utility setting (AddLeadingZero) has been added that, if enabled, will place a leading zero before the decimal point for values less than 1 for the reports Daily Summary, Monthly, and Daily Parameter.
- 4. The sorting order of the Calibration Export report has been updated to allow for easier tracking of trends for sequences (Site -> Parameter -> Cal Sequence -> Cal Phase -> Date/Time).
- 5. A Site Node Logger Status Report has been added which can be viewed on the 8872 logger or the AirVision server and displays the polled status of logger database and drive space (see item 4 under Site Node Logger below).

Site Node Logger

- 1. Merge and Average Merge channel types have been added for the 8872.
- 2. An issue was found where the Floor Limit and Ceiling Limit was being used as both the limit AND the value, this has been corrected.
- 3. An issue was found where some operators from 8816 logger dump files could not be handled by the SNL logic, this has been corrected.
- 4. New logic has been added to monitor both the hard drive free space and SQL database size on 8872 loggers. This information can be polled via the AirVision server [Poll 8872 Status ("XS")] and if there is a drive space or database size warning, the task will return an error and a descriptive status message. If desired, customers can set up notifications on the tasks along with emails to receive notice.
- 5. Code was updated to better retain customized tabular display layouts.
- 6. An issue was resolved where an instrument controlled calibration with the same phase running twice wouldn't report the proper zero values.
- 7. An issue was resolved where an invalid channel configuration would stop the Site Node Logger service from successfully running.