

AirVision Version 3.1 (build 182) Release Notes – October 21, 2016

*****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. An issue was resolved for AQI calculations for PM programs using 'Forward' averaging. AQI for historical data that is < 75% will show as missing & invalid (not forecasted value), AQI for historical data that is > 75% will show actual calculated average value, and AQI for the last complete hour will use the forecasted value.
2. Performance improvements were made to the Data Recovery Report.

New Features

1. A warning message has been added to Data Source Details / Logger Channels that will advise a user if they are trying to assign a channel to a parameter that is already associated with another parameter.

Site Node Logger

1. General channel types using instantaneous values as the input were not storing enough scan inputs in buffer to support long average intervals. This has been corrected.

AgileWeb

1. Two new app key settings added to control Public and User scope web favorites:
 - <add key="FavoritesPanelDisplayPublicScopeForAllUsers" value="False" />
 - <add key="FavoritesPanelDisplayUserScopeFavorites" value="True" />

AirVision Version 3.1 (build 153) Release Notes – September 26, 2016

Issues Found and Resolved

1. An adjustment was made to the Logger ID field width on Channel Configuration Report to better accommodate some two character IDs.
2. A discrepancy between the AQI Levels Report and the AQI Monthly Report in count of days per category has been resolved.
3. The AQS reports have been updated to use precision and round/truncate as defined in parameter configuration for the value and expected value. In the case of ozone ("44201") the value and the expected value will be truncated to zero precision.
4. The graphing area of the Data Analysis tool is currently nonfunctional. This is due to a supporting software change out of our control. We will be pursuing solutions.
5. Font sizing on printed graphs has been increased for improved legibility.
6. Central Math logic has been updated to check for and apply the method code from the parameter configuration when processing math calculations.

New Features

1. The File Import Configuration editor now warns if the user configures Date only or Time only.
2. The 'Invalidates Data' in the Flags Editor now prompts the user to confirm the desired action – "If this box is checked, then any average with this flag will be considered invalid, even if it meets the normal 75% criteria. Is this what you intended?"
3. The Average Data Rollup utility now supports scalar wind direction and vector wind speed / wind direction rollups.
 - Scalar wind speed is a standard average.
 - Scalar wind direction: if output tag template name is "SWDR", "SWDR_MID", or "SWDR_HIGH" then it performs the scalar wind direction calc.
 - Vector wind speed: if output tag template name is "VWSP" and the input tag template name is "VWSP", it looks for a secondary companion tag with template name "VWDR", and performs the vector wind speed calc using both inputs.
 - Vector wind direction: if output tag template name is "VWDR" and the input tag template name is "VWDR", it looks for a secondary companion tag with template name "VWSP", and performs the vector wind direction calc using both inputs.

4. The Sample Data Editor now supports auditing in the same manner the Average Data Editor does.
5. Support has been added for the import of files from Ecotech loggers. Along with the correct 'Sample Type' being set in the import template, the site(s) needs metatags configured:
 - 004xxxxx = 1m data => meta Name="ECT_004" and Value="1m"
 - 001xxxxx = 5m data => meta Name="ECT_001" and Value="5m"
 - 002xxxxx = 1h data => meta Name="ECT_002" and Value="1h"
6. The Drill-Down Interval list available via the Average Data Editor now shows all the valid drill down interval options for the parameter set selected.
7. Favorites saved from the AQS reports now allow selection of non-continuous parameters.
8. A regression line option is now available in the Scatter Plot graphs in both the Average and Sample Data editors.
9. The Annotate Data editor now has an option to hide invalid data points in the graph display.

Site Node Logger

1. A new Logger Response File Import utility is available for customers utilizing the Push reports, improving ease of manual importation at the AirVision server. Contact Agilaire support for details and information on enabling the utility.
2. A Multi-Condition TOL Counter channel type has been added.
3. Support for Modbus Discrete Input (Command 02) has been added. A new field DiscreteInput has been added to the digital driver entry records. If True, the site node logger will use Modbus function code 02 instead of the normal 01.
4. Support has been added for Modbus over RS-232 (RTU mode function codes 03, 04, read/write coils).
5. Default settings have been added to the Controller Interface Service's serial port settings (when a new instance is created).
6. The logging shown in the Database Sync utility has been improved to show more thorough messages and results.

AirVision Version 3.1 (build 55) Release Notes – June 16, 2016

Issues Found and Resolved

1. Changes were made to the Database Export utility to improve export performance.
2. A query selection issue with reports for journal messages was resolved.
3. Query selection issues with the Calibration Data Editor and the Manual Average Alarm Check tool were resolved.
4. All menu and report references have been normalized to "Logbook".
5. A GSI driver entry is now required in the Data Source Details->Channel->GSI tab for GSI channels. It's also required now for 8872 GSI wind channels.
6. A more detailed error message has been added for when a backup fails during an AirVision install or update: "Please uninstall all AirVision or AVTrend instances via Windows control panel, then reinstall the previous version."
7. Added JL and KK to the list of poll commands where NO DATA FOUND is not considered an error.
8. As they are no longer used, the ozone surrogate slope and intercept fields have been removed from the site configuration forms.
9. Improvements have been made to reduce import times when using the Average Data Archive Loader.

New Features

1. Added support for 0s General channel interval setting for 8832 downloads.
2. Changes made to the Data Audit Report to use intervals and allow selection of Sample data.
3. Email Settings area has been changed not to show password in plain text. Instead, there is a 'Set Password' button which requires duplicate entry, consistent with other places in the application.
4. A Standard Deviation column has been added to the Statistical Report as right most column (so as to not affect any existing customer export use).
5. The 10 minute interval has been added to the DMS report.

6. A checkbox has been added to the email alarm configuration to "Create Logbook Entry". If checked, when an alarm is triggered, a logbook entry will be created for the site (similar in format to the email message).
7. The ability to add or delete group users within the group permissions area has been removed and the default 'focus' upon launch of the permissions editor is now the 'Available Permissions' list pane.
8. A 1-Point QC Summary Report has been added (under Calibration Reports) which includes summary statistics: Site/Param Name, Parameter Code, Unit Code, Method Code, Number of Checks, CV, Bias, Upper and Lower Confidence Intervals.
9. When setting a NULL Code via the Average Data Editor, users will now be prompted asking if they wish to invalidate the selected data. If desired, this option can be turned off by updating the UtilitySetting via the SQL Execution Tool: `update UtilitySetting set SettingValue='0' where SettingKey='ApplyInvalidOnNullCodeSet'`
10. A new right-click option is available in the 'Parameter Selection' pane of the Purge Average Data utility. Select a parameter, then right-click on it, and there is an option to select all child parameters of that parameter.
11. For ease of use, the average data, sample data, calibration trend viewer, x bar r, calibration deviation, and graph reports have been changed to export in landscape mode.
12. The application client header area will now display AirVision, Model 8872, or AVTrend based on the product in use.
13. Per AIRNow changes, the Ozone Surrogate has been replaced with the Ozone Nowcast algorithm. The column title in the AQI Program Editor has been updated as well.
14. Additional details / columns have been added to the Modbus Instrument pick lists within Data Source Details.
15. Instrument polling logic was updated to provide more accurate feedback on poll results.
 - If empty/null response from instrument, task status = Error, with message including "No data found".
 - If non-empty response from instrument, but FIT does not find at least 1 valid record, task status = Error, with message including "No records imported from polled response".

Site Node Logger

1. Updates have been made to the Controller Interface Service TCP listener to address a potential buffering problem.
2. Updates were made to address an issue where the Controller Interface Service would stop listening for incoming connections in some exception cases.
3. Modbus functions have been updated to reattempt connectivity immediately upon a failed attempt, then subsequently each minute.
4. A mobile application for technicians is now available for the 8872 loggers. See our website <http://agilaire.com/techassist-mobile-app/> for more information.

AirVision Version 3.0 (build 34) Release Notes – March 24, 2016

---- **** IMPORTANT! **** ----

*AirVision 3.0 requires .NET Framework 4.5.2 or greater. This is **not** compatible with Windows XP. AirVision 3.0 and beyond will not run on XP-based systems.*

Issues Found and Resolved

1. An exception has been addressed that was caused by using the forward and back data buttons in the Average Data Editor if the parameter selection grid had been 'grouped'.
2. An issue where an ADVP rule delete did not delete associated scheduled tasks has been resolved.
3. For GSI VWS/VWD channels (this is download command 79 with subtypes V and W), the download logic has been corrected so that the 8832 and 8864 loggers can properly process the string.
4. When a channel has a secondary GSI driver, the downloader code has been changed to send the primary's autosendrepeatinterval for the secondary drivers.

New Features

1. Several menu items have been moved / renamed in order to match functionality with location and to improve organization.
 - Annotations Report, Audit Trail Report, and LogBook Report moved to folder "Notation Reports"
 - Average Data Graph Report, Basic Data Export, and Data with Flags moved to folder "Average Reports"
 - 24 Hour Averages Summary, 8 Hour Rolling Average, Daily Parameter Report, Daily Summary Report, Monthly Report moved to folder "Summary Reports"
 - Multi Phase Calibration Report moved to folder "Calibration Reports"
 - Moved Service Status from "Utilities" to "Status Displays"
 - 'EDAS Import' renamed to 'EDAS Ambient Conversion'
 - 'GSI Driver Editor' renamed to 'GSI/Modbus Drivers'
 - 'Scheduled Task Status' renamed to 'Task Status' and moved to "Status Displays"
 - 'Calibration Expected Values Editor' renamed to 'Cal Expected Values'
2. An option has been added to the Basic Data Export report allowing users to select display of a flag column.
3. Code has been added to purge AirVision log files (NOT related to database records) older than 30 days to avoid drive space issues on servers over long periods of time.
4. File import logic has been updated to handle imports where no date/time are in the file. If the import template configuration does not specify date/time column information, then it will default to the current site time for the incoming data.
5. An Audit Change Viewer has been added to the Internal Reports subfolder. This will allow AirVision configuration changes to be tracked to a date and time (from date of ver 3 install forward). Agilaire has pre-selected certain areas for tracking, additional items can be configured via the new Audit Table Enable Tool. **To best utilize this feature, every individual user should be using their own unique login for AirVision.**
6. AirVision has been updated to store the Method Code with calibration records and use them in 1-point QC Transactions (AQS).

Site Node Logger

1. The Analog Output tab / configuration now supports multiple instance of the same channel being written to multiple registers.
2. The Controller Interface Service now supports single channel average data (56NN) requests (in line with the 8832).
3. Several changes were made to improve sync processing and error handling, especially for 8872 database restores after a sync with the AirVision server had previously occurred.

AgileWeb

2. Several menu items have been moved in order to match functionality with location in the menus as well as reduce the menu pick lists size to better suit mobile and small form factor devices.
3. Updates have been made to better support section 508 accessibility compliance. A custom.config app key is available to enable a more screen-reader friendly mode: <add key="EnableAccessibilityCompliant" value="True" />

AirVision Version 2.14 (build 130) Release Notes – January 5, 2016

---- **** IMPORTANT! Preparing for AirVision 3.0 **** ----

*In preparation of our Tech Assist mobile app (as well as other product improvements), AirVision 3.0, our next release, will require .NET Framework 4.5.2 or greater. Note that .NET 4.5.2 is **not** compatible with Windows XP so AirVision 3.0 and beyond will not run on XP-based systems.*

Users with Windows XP can continue to run this last version of 2.14 on their system until they can upgrade. This should be a fairly rare occurrence as XP has been obsolete for many years and most IT departments no longer allow XP because of the ending of security patches.

AirVision, AVTrend / 8872s, and AgileWeb should ALL be updated to the same version whenever an update is applied.

Issues Found and Resolved

1. Added feedback during AQS import, as well as fixes to some data types that were not being imported in the XML import
2. Fixed ADVP: Variance > X% trips incorrectly on negative values.
3. Fixed Data Rollup Utility to handle the European dd/mm/yyyy time format
4. Improved Modbus communications where analyzer might skip response and send responses 'out of sync' with the data requests.
5. Average Data Rollup logic adjusted so that the end stamp is inclusive.
6. Logic updated to confirm any GSI driver attempting to be set as a 'Primary Driver' has a configured autosend string.
7. An issue was resolved where if "truncate" was selected for the parameter and values were negative whole numbers (e.g., -2, -3), they would appear in reports as one value higher (e.g., -1, -2).
8. An issue was resolved where using the "Data Forward" and "Data Backward" buttons in the data editor the times would sometimes not line up on midnight/top of hour after repeated scrolls.
9. An issue was resolved in the Sample Data Editor where the data "back" didn't refresh the graph.
10. The Sample Data Editor now shows annotated data as a colored cell.
11. An issue was resolved with an error returned on the Monthly Report when the option to show qualifier codes was selected.
12. ADVP editor logic updated to clear any AND or OR operator if set on the last condition.

New Features

1. Added Site to Alarm / ADVP Email subjects (when only one site associated).
2. Parameter setting doesn't allow illegal combinations of Reported / Analyzer Units.

Site Node Logger

1. Modified 8872 code to take Expected Value From Constant at end of each phase
2. Modified 8872 code so calibration phase will update constant values even if cal results are not set to be stored.
3. Updated GSI async parse logic to better handle partial data from incoming events.
4. Performance improvements have been made to the average data push report.
5. A change was made to allow secondary GSI channels to have lower channel numbers than the primary GSI channel.
6. An issue was addressed so that sequential calibration phases could use the same output lines without a phase getting skipped (limited version was affected).
7. Output lines during a calibration phase now only trigger once at the beginning of the phase.
8. A correction was made so that the full 4 bytes of an analog output 'float' value would be written.
9. Multiple improvements and refinements have been made to Modbus transaction handling.
10. Improvements were made to the calibration data logic that writes records from temporary files into the database. Current calibration results should now consistently write at the end of the phase.
11. The trend refresh time has been updated to 3 seconds after top of the minute.
12. Support has been added for writing coils via the Modbus Slave configuration. Both functions 5 (single coil) and 15 (multi coils) are supported.

AgileWeb

1. Code change was made to better handle AQI calculation errors due to incorrectly configured AQI programs.
2. A change was made to better handle logout requests on the web site.

Issues Found and Resolved

1. An issue was resolved where scheduled emailed AQI reports did not display the precision of values the same as disk saved copies of the report.
2. A change was made to the Violations of Standards report so that a report will be returned even if there are no violations.
3. Email notifications were ignoring the retry attempt setting. This has been corrected as well as the retries now only attempting for the failed recipient.
4. Revisions were made to the Basic Data Export and Data with Flags reports to improve generation times.
5. Several AirVision Client actions have been streamlined to better handle situations where the AirVision server has a NAT'd IP address.
6. Changes were made so that when an ADVP rule is deleted, it will also be removed from any scheduled tasks.
7. The AQS Text report has been modified to match the XML report so that the agency code is retrieved from the System information.
8. An issue was resolved where some reports reflected incorrectly truncated values if the decimal precision matched the truncate limit.
9. An issue existed with the download command 79 (subtype V and W) for 8832 and 8864 loggers. The character padding has been corrected to resolve the issue.
10. For GSI entries configured as secondary drivers, an issue was addressed where the incorrect AutoSendRepeatInterval was downloaded to 8832s.
11. An issue was corrected where AirVision had a problem processing RSP files when a value had an exponent greater than two digits (due to the 'E' being dropped from the response string).
12. Extremely large log messages (32k and greater) caused the Log Viewer to error with a large red X and the log report would simply show 'text too large'. Code has been implemented to cut any messages that are too large to a reasonable size and stop the viewer crash.
13. A correction was made to the logic of scheduled data rollup tasks so that for block rollups the task will only look back to the start of the last successful start (rather than going back an extra interval and causing possible overwrite of flags or other edits).

New Features

1. An enable/disable option is now available in the Violations of Standards Editor. This will control whether or not a standard is included in the violations report.
2. Additional Monitor Assessment reports have been added to reflect each MA editor.
3. The logic handling AirVision / AVTrend client errors when the AirVision Service is not available have been improved for a cleaner user experience.
4. The File Import logic has been updated to handle situations where no date/time are included in the response string. If the import template configuration does not specify date/time column information, then it will default to the current site time for the incoming data.
 - It uses current "site time", which is adjusted based on the site timezone information, etc.
 - It rounds the timestamp down to the even interval boundary if average data is specified. If sample/composite is specified, the timestamp is not rounded since there is no interval.
 - All lines are assumed to be the same time stamp within the file.
5. A 'Minimum Number of Columns' field has been added to the File Import Configuration.
 - By default (null/empty), all configured columns are required (as per previous behavior), so incoming lines with fewer columns are skipped and a warning is logged.
 - If a value is set, incoming lines with at least that number of columns will be attempted. Most common use case is optional flags at the end, but it could be any columns omitted at the end.
6. The File Import logic can now support hex code. The Parse Format column now has choices for Float or Hex (with normal floating point being the default if null).
7. An option has been added to the Particulate Sample Calculator to allow for calculation without pressure/temperature correction.

8. Support for single hour time formatting (h:mm) has been added to '24:00' time logic (hh:mm) with regards to the file import tool.
9. A new 'Sample Type' is available in the File Import Configuration. "SampleIDKey" will use the Sample Identifier column to look up an existing sample record by that ID, and update the values pulled from the file. Note the following configuration options should be used:
 - Parameter Matching = Match Parameters From Row
 - Sample Type = SampleIDKey
 - Overwrite Existing Data = True
 - Parameter Data Type = Particulate Sample
 - Must have a column mapping with Data Field = Sample Identifier
10. A new asset report is available (for users with the Asset feature) that lists the most recent location of each asset (vs. a full history).
11. For the zero drift report, CO logic has been extended to include parameters with a parameter template of CO TRACE (case and spacing sensitive).
12. A new option is available on email alarm configuration, allowing the system to create a logbook entry when the alarm is triggered – the entry will be in a similar format to what is sent out in the email.

Site Node Logger

1. ****NOTE**** *Significant changes have been made to how a new / replacement 8872 should be sync'd with AirVision beginning with this release. New documentation and related files will be available when you download from our FTP.*
2. A change was made to how the 8872 handles asynchronous GSI so that the logger now clears only the portion of the buffer that was parsed.
3. A 10s interval was added to address a purge error within the preconfigured database maintenance tasks.
4. Various improvements have been made to the sync logic to reduce failures.
5. Triggered GSI Events will now allow serial port selection up to 99.
6. The General Channel type of 'Difference' has had its logic corrected to compare against the input interval preceding the current duration interval.
7. The KK poll command will now handle up to 2000 characters of message text (vs 80 previously). This **ONLY** applies to 8872s (not 8816 or 8832).
8. An adjustment was made to address a rare occurrence where a rate of change flag (R) wouldn't trigger a < flag.
9. To limit response file sizes and to be in line with 8832 responses, the 8872 now limits its response to the DD poll command to the most recent 128 records/changes.
10. A correction was made so the correct value from a constant will be obtained when a calibration phase is configured to use a constant as an expected value.

AgileWeb

1. Code change was made to better handle AQI calculation errors due to incorrectly configured AQI programs.