

AirVision Version 3.4 (build 15) Release Notes – July 13, 2017

*****NOTE: due to significant upgrades to the Site Node Logger service functionality for 8872 loggers, this upgrade is strongly recommended for 8872 users.*****

*****NOTE: default backup settings in the database update utility, part of every AirVision/AVTrend upgrade, have been changed. The database will NOT be backed up by default. If you wish to have the backup run, select the appropriate check box before clicking the update button.*****

Options

Backup Option

While this updater will NOT make any changes to the database if an error is encountered, Agilaire still strongly recommends a current, pre-update database backup be made. If you need assistance backing up, contact your IT support or see our backup video tutorial at: [Video](#)

Backup database before applying changes

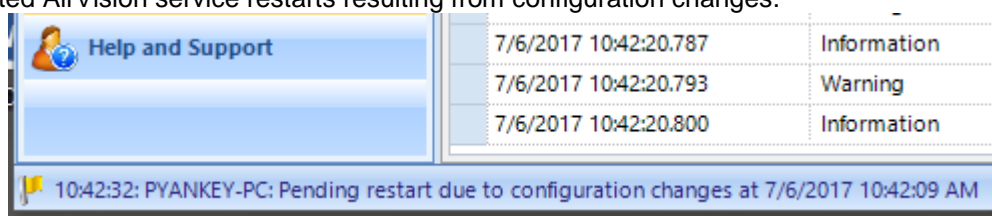
Delete old backups from previous updates

Issues Found and Resolved

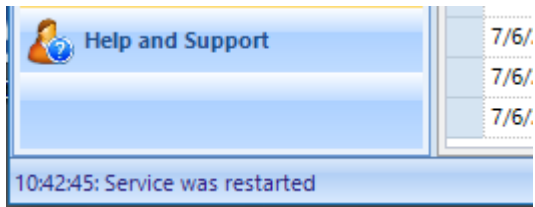
1. E-mail Notification Subscriptions now has the group members sorted alphabetically by user name.
2. Calibration error method descriptions have been updated for improved clarity; "Ambient (L)" and "CEM (S)" rather than Linearity and Standard.
3. The highest level on the wind rose report has been updated to clarify that it represents any values greater than the level 7 value.
4. An error has been resolved that was caused if a scheduled task name was over 50 characters. Note- the limit is 80 characters.
5. The Monthly Sample Data Report has been updated to show a null code from the data whether or not a value exists for the data point.
6. In the Database Sync utility, the scroll bar was not available in the lower log pane. This has been resolved.
7. Changes were made to the null code option on the Basic Data Export so that its behavior is consistent with other summary reports.

New Features

1. The Average Data Archive Loader has been updated to allow the selection of specific parameters for import rather than having to import all data points from an archive file.
2. The Calibration Graph Report now includes the units of measure with the phase and parameter.
3. Automated logic has been added to make sure that logger I/O Label columns Modbus Instrument and Modbus coil are properly completed.
4. A 'tool tip' has been added to the file output path within the task scheduler, reminding users that the path must be a UNC (not mapped drive) path.
5. Options for excluding hours per the EPAs 17 hour ozone rule and being able to sort by date rather than concentration have been added to the Maximum Hourly Averages Report.
6. Support has been added for HTTP routes for use in direct polling of instruments (such as the API T640).
7. An option for logbook polling has been added to the Task Scheduler Wizard.
8. The ability to lock and unlock data now have their own Group Permissions (Lock Readings & Unlock Readings). They are granted by default to the administrator groups 'as shipped' from Agilaire. Other groups needing the rights will have to have those permissions added to their group.
9. Notifications have been added to the left side of the client status bar to inform users of pending and completed AirVision service restarts resulting from configuration changes.



a.



- b.
10. The AQS Import tool will now check for additional sites with the same identifier if the parameter attempting to be imported isn't found on the first site match the importer encounters.
 11. A new UtilitySetting has been added (LogMonitorAssessmentEntries) which if configured to a value of 1 (true) will create a logbook entry with date/time, user, type of form, date/time of record on form any time a MA form is saved.
 12. Two new CEMS reports have been added, 12 Month Rolling Average and 12 Month Rolling Total
 - a. For the Total report, the Site/Parameter setting "Totalize in Reports" is used to define what parameters appear in the report and a Parameter Metatag of "12MonthRA_Tons" with a value of "true" will result in the total being converted to tons

Site Node Logger

1. Multiple changes have been made to improve the manner in which the 8872 executes scheduled events and times its data capture activities.
2. An issue was found where some configuration changes would not trigger an automated restart of the AirVision service. This has been corrected.
3. To allow customers to adjust the precision displayed in the Site Node Logger Toolbox, SNLT will look at the value in the Round Precision field of the channel. IF that field is null, the current logic of using the Site/Parm precision settings will be applied.
4. Code updated to perform basic P75 time online based validation. Configured on the validation tab in the 'CEM Validation' field. Channel intervals MUST be configured as: Base=1m, Ext1=15m, Ext2=1h.

AgileWeb

1. Microsoft is ending support for Bing maps V7 API. Any customer using a Bing map for their AgileWeb implementation should upgrade to this (or a later) version prior to June 30th.

AirVision Version 3.3 (build 16) Release Notes – May 10, 2017

Issues Found and Resolved

1. Negative values during the generation of the AQS reports will no longer trigger warning log messages.
2. Assessment value labels have been corrected on the Annual Performance Evaluation report.
3. The Calibration Graph report has had the parameter information added to the graph legend.
4. Application logic has been added to ignore any whitespace in IP address fields.
5. The 'mean' column on the Statistical Report has been relabeled to 'geometric mean' to better clarify the calculation methodology of that column.
6. When the database sees a PC name change (e.g., restoring database on a new server / logger with different serial number), if there is only one executive, the system will just rename it, and will not create a new executive.

New Features

1. The Monitor Assurance records are now available for selection and inclusion in the AQS 2.2 Text Report.
2. An option has been added to the Basic Data Export to include flags and null codes in the report.
3. Instrument polling has been updated to use the frequency code from the associated import template when determining the number of records to request for non-continuous samplers.
4. ADVP has been updated to not send out exception messages, if they occur, in place of the normal ADVP email text. If notification of ADVP task exceptions is desired, the task notification settings should be configured as desired.
5. Additional date/math functions have been added for use within central math processing - MONTH(), DAY(), YEAR()
6. The Site Health Report will no long include parameters that are disabled.
7. The Daily Parameter Report will now color the cell backgrounds in the flag color if a flag is present on the data.

8. The Monthly Sample Data report will now exclude sample data marked with a null code.
9. A new utility setting (ImportAQSDDataOverwrite) is available to enable data overwrite when using the AQS import utilities (text or XML). The default setting is to NOT overwrite. Note that the primary fields are all overwritten and flags are reset, but extended sample fields, annotations, etc. are not reset.
10. Two new average data rollup methodologies have been added that will find the highest sub-average or lowest sub-average in the rolling/block interval range. The 'Method Key' field of the rollup method must contain "Minimum" or "Maximum" to trigger the new calculations. A min-to-hr max and min-to-hr min rollup method have been added by default.
11. The format of the Asset Current Status report has been revised for improved organization of information.
12. Instrument polling logic for sample data has been updated to use the frequency code from the template to more accurately determine the number of records to request when direct polling the instrument. This does not apply to 'irregular' intervals (random, seasonal, etc.).
13. For CEMS systems / sources that fall under the old 40CFR60 rules, a new min-to-hr rollup method has been added - Minute to Hour (40CFR60) – for valid hour calculation.
14. Support for IPv6 has been added to several areas of AirVision; Executive remote interface (main client/server endpoint), Controller Interface Service, Modbus Slave Service, and Logger Manager (Link to Logger relay service).

Site Node Logger

1. Additional date/math functions have been added for use within the 8872 math channels - MONTH(), DAY(), YEAR()

ATTENTION:

As our customers' AirVision databases increase in both age and size, the topic of SQL database maintenance should be reviewed by each customer and their respective IT support groups.

Proper regularly scheduled database maintenance is essential to the long term performance and stability of any SQL database. From an AirVision client user perspective, lack of maintenance can result in slower performance of reports and data retrieval. Long term neglect of database maintenance can lead to data queries timing out and not returning the requested values or report.

Please note that database maintenance is the responsibility of the owner. However, Agilaire does offer a script that adds some database items and a scheduled task into AirVision for monthly reindexing of the database (when the script is applied, the task is disabled by default).

These scripts address index fragmentation and the update of table statistics after checking the fragmentation levels and only act if warranted. Agilaire does not guarantee they will work with every system as some security policies may block the scripts from working, nor does Agilaire maintain or support the tasks.

It is also extremely important to have scheduled database backups in place. Database backups serve several purposes; they provide an option to restore your configuration and data in the case of a catastrophic failure and the backup action results in maintenance action against the database log file. Backups can be scheduled from within the AirVision Task Scheduler, contact Agilaire Support if you need information on creating a scheduled backup task.

For more information about database maintenance, a link below leads to a Microsoft TechNet article that more thoroughly discusses this topic.

<https://technet.microsoft.com/en-us/library/2008.08.database.aspx?f=255&MSPPError=-2147217396>

AirVision Version 3.2 (build 37) Release Notes – February 8, 2017

Issues Found and Resolved

1. An issue was addressed where an ADVP rule with two conditions connected by 'AND' was taking action on data when only one of the conditions was met.
2. Between versions 2.14.62 and 3.2.1 a background code change impacted the formatting of the CSV format of the Calibration Export. This has been corrected.
3. Header and operational issues in the Monitor DownTime Report were resolved.

New Features

1. A new UtilitySetting has been added for CEMs customers to be able to edit the THC Monthly Report header: `update UtilitySetting set SettingValue='text here' where SettingKey='THCMonthlyTitle'`

Site Node Logger

1. The 'Disable' column of the Site Node Logger Toolbox has been renamed to provide a clearer intent of its action. The column is now titled 'Collection' with the option for each row to choose ON or OFF.

AirVision Version 3.2 (build 1) Release Notes – November 23, 2016

Issues Found and Resolved

1. The authentication password set for the Email Service in AirVision will now be encrypted in the database. NOTE this only affects passwords entered from this version on. Previously entered passwords would need to be re-entered and saved to be changed to encrypted storage.
2. The audit tracking table has been removed from the Database Export output to keep the resulting zip file size more reasonable.
3. The Notification table has been removed from the default audit tracking as this is 'data' (actual notifications sent out) and not configuration related.
4. An issue where the EDAS Ambient Conversion utility did not display configuration information after clicking the 'Load Config' button has been resolved.
5. An issue was resolved where the Inter-command Delay field wouldn't save a value below 100.
6. An issue was resolved where an error would stop the importing of AQS text sample data with qualifier codes.

New Features

1. *The process of restarting the AirVision Server service after configuration changes that require a restart has been automated. Users will no longer be prompted with a restart pop-up message after saving changes. Background logic will record when a change has been made that requires a service restart. It will then schedule a restart and after a short wait period (in case other changes are saved) initiate the restart. Monitoring the Log Viewer during this process would result in seeing something like this:*

11/22/2016 11:26:34.390	Shutdown	24	Config change detected, restart pending... [LoggerDriverConfig.xml]
11/22/2016 11:26:34.450	Shutdown	24	Config change detected, restart pending... [EmulationServerConfig.xml]
11/22/2016 11:27:05.120	Shutdown	24	ExecutiveController is restarting Executive PYANKEY-PC [a807d77f-cb2c-e111-b106-005056880041]

2. The "ThreadID" column now displays in the Log Viewer by default. This column can be useful in watching the messages ONLY for a particular task, letting the user temporarily filter by the desired ID.
3. Calculated slope, intercept, and correlation coefficient have been added to the Multi Phase Calibration Report. These are based on the calibration 'levels' of Zero, 20%,40%,60%,80% and are calculated on a per-day basis.

Site Node Logger

1. The 'Disable' column of the Site Node Logger Toolbox has been renamed to provide a clearer intent of its action. The column is now titled 'Collection' with the option for each row to choose ON or OFF.

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

8. 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.
9. Performance improvements were made to the Data Recovery Report.

New Features

13. 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

5. 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

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

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

Issues Found and Resolved

1. The file import logic has been updated to address an issue where some import handlers (LoggerNet, CSI, etc.) would error if the 'Minimum Number of Columns' field was left blank.
2. An adjustment was made to the Logger ID field width on Channel Configuration Report to better accommodate some two character IDs.
3. A discrepancy between the AQI Levels Report and the AQI Monthly Report in count of days per category has been resolved.
4. 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.
5. **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.**
6. Font sizing on printed graphs has been increased for improved legibility.
7. 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 ode, 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.