



## Version 1.15.02

### New Features

- **Stick and Switch positions recorded via Telemetry Log** - The stick/switch positions are now recorded in real time when using the telemetry logging feature. These logs can be viewed using 3<sup>rd</sup> party PC programs.
- **Automatic File Backup**- Model files are now automatically backed up to internal storage when changing to another model. Also, upon initial update installation, every model file currently in-place will be backed up to the internal memory. See *instructions below to learn more*.
- **Direct access to pre-loaded BNF model files**- A BNF button has been added in the Add a New Model menu in the Model Utilities screen. This list is preloaded with all current and popular Bind-n-Fly and Plug and Play models, making it even easier to get started with new models. This list will be updated and expanded with future updates. *Please note – ALWAYS check control limits and directions for accuracy before initial flight when using model presets.*

### Corrections & Improvements

- **Power Safe Receivers**- The RX Pack Capacity/ current readings format is now displayed in amps (not mA)
- **Legacy Receiver Compatibility**- Corrected servo “glitch” problem with older 22ms DSM2 and DSMX receivers
- **Sequencer Graph issue**- When using a Sequencer in Step Mode, in some cases the channel values and switch position were not changing as expected. The graphs are now displayed correctly.
- **Register Transmitter**- At the bottom of the Product Information screen, once the TX is registered the Register Transmitter is replaced with Transmitter Registered.
- **Typo**- The "Receiver is Rebooting" screen has been corrected.
- **Sailplane Mode Motor settings**- Sailplane motor settings are now being properly transferred when imported into iX12
- **DSM2 mode**- When selecting DSM2 in the Frame rate screen and then selecting Auto the RXs no longer get stuck binding in DSM2 mode

## How to use Model Backup Feature

The backup .iSPM files are automatically saved to the `/sdcard/AirWareData/Backup` folder on the internal drive. These backups are created upon initial update and after every model change. The backup takes place in the background after model changes and will overwrite model files that match the original backup.

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The following procedure can be used to view/access the backup .iSPM files on the internal drive to verify that they are there, or to copy them to somewhere else of your choosing, such as a SD card or to back up on a cloud drive

### iX12

- Open ES File Explorer app
  - The initial path is generally `/sdcard` which is displayed in the upper right corner
  - Select the `AirWareData` folder
  - Select the `Backup` folder
  - All backup .iSPM files will be located here
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The following steps can be used to import one of the backup files, if desired: (Note: Make sure there is not an SDCard in the external slot.)

- From the Dashboard main screen in AirWare, single press the model name in the upper left.
- Long-press Proceed to enter Model Utilities
- Select the three dot menu on the upper right and select Import Models
  - The initial path should be `/storage/emulated/0`
- Scroll down the list until you find the `AirWareData` folder and select it
- Select the `Backup` folder
- Select desired iSPM file for input

## Version 1.14.11

### Features

- Dark Mode has been added
- Added the ability to adjust the volume with the Knob and Slider inputs
- Timers can now be displayed on the Telemetry Dashboard screen
- Enhanced user customization of main dashboard
- When using Vario telemetry, a button has been added to the screen allowing altitude to be zeroed
- Importing NSPM (NX Series) format model files has been added
- A Throttle Cut option is now available that requires the throttle stick to be lowered to idle after selecting throttle hold to reactivate the throttle output
- A new Frame Rate screen with enhanced options is available
- A reversing option is available in the Flap System when throttle is selected as an input

### Corrections & Improvements

- GPS Dashboard telemetry screen is now displaying metric values correctly
- Flight log telemetry warnings no longer trigger on invalid data
- If the receiver is powered off, and the last vario message received has a value higher than the minimum rate to trigger the vario tone, the tone will no longer continue to sound.
- When using an AR637T receiver and a Smart ESC, telemetry is now being properly displayed
- Entering Forward Programming mode Heli models has been improved
- Sequencer has minor display improvements
- In Heli Flight mode, throttle curves are now functioning correctly
- If the screen only is turned off (screen off, RF on), Vario telemetry tones will continue to sound
- Entering Forward Programming mode with Heli model type has been improved
- French translations have been improved
- GPS telemetry now reports correct longitude if less than -100
- AirWare now handles corrupt Smart Batt telemetry data
- Curved mixes are now properly saving Combo Switch settings
- In User Defined telemetry screens the sensors are now being displayed properly
- Updated TextGen telemetry processing
- Digital Switch Assignment screen no longer crashes if an unknown switch is used



- Vario graph should be always active
- 6SLipoMon telemetry sensor screen is displaying values correctly
- Telemetry log files are working correctly if an analog input is used as trigger
- Combo switch functionality has been enhanced
- Telemetry Dashboard Panels are maintaining their names when imported.
- Voice center tone import from NX to iX radios is functioning correctly
- Texts embedded within a macro expansion are now being translated

**NOTE:** We've identified an issue in this and previous code versions when using older legacy DSMX 4- and 6-channel receivers. This issue can cause servos to “twitch” every 10 seconds. We are working on a solution and expect to correct this in the next release. If you are using one of the receivers listed below, we recommend re-binding in DSM2 mode (USA only) or use an alternate receiver.

The affected receivers are: AR6110, AR6115, AR6115E, AR6210, AR6255, AR400, AR600, AR6410, AR6410L, and AR6410LBL.



### Corrections & Improvements

- When programming a Custom Report using the Combo Switch w/Throttle Stick could cause a minor user interface glitch. This has been corrected
- In Forward Programming orientation images for new receivers are now included

## Version 1.13.07

### Corrections & Improvements

- In Heli mode the Dual Rate and EXPO switch options are now selectable.
- Existing templates are no longer being lost when the system is updated.

## Version 1.13.05

### Features

- Bind N Fly and SAFE models are now supported with 2 templates for streamlined model setup.
- Switch B is now defaulted to channel 7
- Cyclic Sequencing is now supported. Used for programming continuous flashing lights, creating repeated moving accessories etc.

### Corrections & Improvements

- Left and Right trimmers are now working properly when set as Flight Mode trims
- The default frame rate is now set to 22ms
- When using Smart Telemetry, when Auto Config is applied, existing telemetry screens not in use will be removed from the telemetry screen for that model.
- Dashboard screen now allows Temp/RPM/Volts to be added after the ESC is configured
- Smart Battery & SMART ESC screens have been improved
- TextGen telemetry screen display now correctly displays the characters
- In the Curve Mixing functions, Expo has been removed from mixes 9 and above as the functionality is not supported in these upper mixes.
- G-Force Telemetry is now properly displayed
- TextGen now properly updates after telemetry is reset
- RSSI warning is now functioning correctly
- The Flap System is now handling analog inputs (mixing function) correctly



## Version 1.12.05

### New Features

- **New model images-** of the latest aircraft releases have been added
- **Startup Sounds-** An option was added to allow the startup sound to be deactivated
- **AR637T Support-** Forward Programming has been updated to support the new AR637T AS3X / SAFE receivers



## Version 1.11.05

### New Features

- **Direct Model Image Access-** Long pressing the model image on the main screen takes you to the image select screen allowing direct access to model images
- **Program Mix Reset-** A reset button has been added in program mix screens to inhibit all values and functions of the entire mix
- **Model Search Function-** A search function has been added in the model select page allowing easy access to any stored model

### Corrections & Improvements

- **Cyclic to Throttle Mix-** in heli mode now functions correctly.
- **Analog Input Warnings-** no longer cause erroneous entries
- **Telemetry Settings Units-** No longer reverts to US units if set to Metric
- **Preflight Checklist-** settings are now importing properly
- **Selecting DSM2 Mode-** now results in forcing a DSM2 bind
- **File Naming-** when exporting is now more intuitive and useful



### Version 1.10.09

#### New Features

- Full Support for Spektrum Smart ESC and Battery Technology
- Forward Programming updates for new AR6610T receiver
- After binding, the system automatically enters telemetry auto-config activating all active telemetry screens

#### Corrections & Improvements

- Throttle Cut default values for new models created are now -100% (rather than 130%). Note that with currently programmed models the throttle cut value will not be changed when updating.
- Telemetry Display Setting functions now operate correctly
- Corrupted model iSPM files are now being identified and handled appropriately when importing. Severely corrupted models will now fail to import
- ESC RPM display data is now updated / refreshed more rapidly
- In the Smart screens Capacity has been replaced with % remaining under the Battery icons
- In Heli Governor Mode screens the servos no longer twitch immediately after selecting a switch.
- In the Heli Mix menu Spoiler is no longer an option
- Start timer "Throttle Out" now works correctly even when the throttle channel is reversed.
- In the Heli Mix menu, when changing mix values, the servo outputs also change in real-time instead of having to wait the OK button is pressed.
- Added customizable power button support to the iX12 to allow single click for Sleep mode.





## Version 1.09.12

### New Features

- The VTX systems now display current values on the telemetry screen on the TX
  - Only supported with Bi-Directional Telemetry systems
  - Currently only supported via recent Betaflight Firmwares
- Improved model file image support - assigned custom model images are now written to the iSPM file, and will retain even if original image file is deleted
- The TX now exports model images as part of iSPM model file
  - **\*Please note\*** Systems running older firmware (pre v1.09) that have not been updated will not directly import iSPMv2 v1.09 model files. Make sure that both systems are updated using v1.09 or higher before transferring.

### Corrections & Improvements

- Updates to prevent reported model corruption issues
- Additional checks have been added to ensure a corrupted model doesn't get written to disk or applied to the CP
- The displayed telemetry screens have been re-organized in a more logical and intuitive order.
- In Helicopter mode, when changing from the 4 servo swash to a different type, the 'ELE' label throughout the system is now properly displayed
- Vario Audio is defaulted to off when performing auto-config function
- The TX battery warning now functions properly
- The trim setup for the left and right trim switches for selecting normal, 2-pos, 3-pos is now properly labeled
- TextGen Telemetry screen now uses a single column for text
- When selecting a Curve in the GYRO menu on a ACRO model, the AirWare app no longer crashes
- When Telemetry Warning Pop Up is disabled, the voice alerts will remain active
- In the telemetry setup pages, when you select NONE for a warning parameter it prevents any pop up messages from appearing
- Forward Programming is functioning correctly for PowerSafe receivers
- Forward Programming fields now have a reset button to reset a value to the default
- Forward Programming dialogs now close when communication times out
- Forward Programming now uses flight mode names configured in the current model
- In 3 axis gyro, when you set the values, exit the 3 axis gyro menu, and then return, the values now remain instead of being reset to 100%

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- At the end of a successful bind, the system closes the bind information screen without pressing ok
- Model Start Stick Warnings now display the correct channel assignment
- Audio for Trainer Student Control or No Student Signal operate correctly
- The Digital Switch Setup screen now allows a range of +/-150%

## Version 1.08.02

### New Features

- Added Korean translations
- Added Czech translations

### Corrections & Improvements

- Model Start Warning names/ switches are now properly being displayed. i.e. Switch H
- The Vario triggering switch selection was not being updated correctly from iSPM v1 to v2 causing white screen crashing. This has been corrected.
- When rare white screen crashes occur, the system now completely closes AirWare insuring a full recovery. Note the Channel processor is unaffected and full control will be retained throughout the reboot.
- The Telemetry reset button on the dashboard was causing the unit display (US vs. Metric) to change. This has been corrected.
- Temperature telemetry warnings are now working correctly in F\* and in C\*.
- Telemetry dashboard now properly displays ESC motor current as Amps and are labeled A for Amps
- Telemetry data previously displayed “Not Bound” and was is confusing. Now when telemetry data isn’t present, “No Data” is displayed.
- Pitch curves in ACRO can now be moved to a different output in Channel Assignment
- The Travel Adjust for the throttle now properly scrolls when the + or – buttons are held down
- In the mix functions the channel being mixed to would not function when the channel assignment was changed after the mix was created. This has been corrected.
- Timer Clear is now being imported properly from v1 to v2
- The Throttle Curve screen no longer causes crashing if Throttle Stick is specified as switch
- The Vario Display Graph now displays the time scale on the bottom of the screen.
- Telemetry RPM now displays 0 when the motor stops
- Crossfire telemetry is now being properly supported.
- Telemetry Auto Config will now pick up new sensors if it has already been run once.

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- Text Gen sensor for forward programming of helicopter gyros is now properly displayed after an Auto Config

## Version 1.07.14

### New Features

- Faster Model Switching - new implementation of the model file format (iSPM v2) Greatly reduces time to switch between models
  - **\*Please note\*** Systems running older firmware (pre v1.07) that have not been updated will not directly import iSPM v2 model files. Make sure that both systems are updated using v1.07 or higher before transferring.
- Unique Volume Levels – Each category in the Audio Events Menu now has its own assignable volume level
- Model Category Edit - In the Model Setup menu, users have the ability to switch models between the 4 categories
- Custom Telemetry Dashboard – Multiple user scalable and customizable telemetry dashboard screens now available
- Updated D/R Expo Menu – a custom setup option was added to simplify standard setups or allow users to fully customize
- Expanded Combo Switches - Custom Audio Events can now use the Combo Switch function
- Improved Telemetry Configuration Screens – layout is improved with a more consistent look and feel
- Quick Telemetry Data Clear – Touch button has been added to the Dashboard that resets all stored active telemetry data (minimums and maximums on RPM, temp, voltage, etc.) and flight log data. Long press the signal icon “bars” on the top of the screen to reset the flight data
- Improved Model Import and Export function – improved User Interface for Import and Export function
- Swiwin turbine sensor telemetry now supported

### Corrections & Improvements

- Telemetry file logging is now functioning properly
- 6 Aileron wing type now includes all available tail types
- Center Tones are no longer mistakenly included in SPM file export
- Inactivity Alarm is now more sensitive to small stick movements
- Elevator to flap mix in sailplane mode is now working correctly
- Analog Switches are now available in Switch Change Reports screen
- Switch and stick macros have been added
- Voice prompt is now present when override by the instructor is performed in Trainer mode
- Sequencer Gear selection is now working correctly.

2019-May 3



- Exporting Model crashes have been corrected.
- Telemetry Temperature display now displays "----" when the temperature sensor is not hooked up to the receiver. Previously with some receivers it read -129\*.
- Vario telemetry tones have been improved with graduated tones for ascent and descent
- Telemetry display has been updated to correct several display bugs (fragment data, mislabel, etc.) for various telemetry options



### Version 1.06.02

#### Corrections & Improvements

- In the previous build Version 1.06.01, a change was made that unintentionally prevented the ability to enter negative numbers in Telemetry Warning screens (RSSI, G Force, etc.), causing warnings to not function in these cases. This has been corrected in version 1.06.02.



### Version 1.06.01

#### New Features

- The Model Adjust and Model Setup menu lists have been re-ordered with more frequently used functions located closer to the top.

#### Corrections & Improvements

- Wireless Trainer Instructor mode now maintains its bind even after the system is put into a full sleep.
- The "No Student Signal" trainer alert is now properly canceled when changing to a new model.
- In rare cases the RF would be modulating but LED would not be on. This has been corrected.
- In European languages, the Telemetry warning values can now use the comma separator for values like voltage, etc.
- Telemetry and Audio Event frequency values are now being maintained properly in languages other than English.
- In Aircraft Type the differential option has been removed in 1-Aileron 2-Flap configuration as only 1 aileron wing type should not allow for differential.
- The Signal Strength in the Flight Log tab would occasionally display RSSI although configured to display dBm. This has been corrected.
- The text on the Reset button in the System Settings screen has been changed from "Reset All Models" to "Reset Spektrum AirWare"
- The Telemetry Tab is no longer improperly being displayed after a Model Reset
- In the Digital Switch Setup screen the Reset buttons for Pos 0 and Pos 1 are now working properly.
- The Left/Right Sliders have been removed from the available options in Digital Switch Setup screen as they are not applicable to this function.
- The RF and CP processing is now handled more seamlessly when using Wired Trainer in Student Mode.
- The initial drop-down value in the Digital Switch Setup screen now says "Select" instead of "Inhibit" to help avoid confusion.





### Version 1.05.03

**Note:** A bug has been identified that can cause an unusually long time (up to several minutes) to change models when using the quick model switch function from the Dashboard. Additional issues can include seeing a white screen during a model switch or in the Model Utilities screens. This issue only occurs if the “Dim the Display” function found in the Model Detail screen is set to anything other than “Never”. In addition when the “Dim the Display” function is set to anything other than never, the screen is not being properly dimmed. ***\*This update corrects this issue.\****

#### Corrections & Improvements

- The “Dim the Display” function that was causing the delay and crashing issue has been removed.
- The Screen Brightness function has been moved to the System Configuration screen in System Settings.



## Version 1.05.00

### New Features

- The ability to assign a switch to cancel a timer has been added
- In Audio Events menu, the Macros for Rx Voltage functions now have their own group. Previously, RX Voltage was in the QOS group and was difficult to find.

### Corrections & Improvements

- Assigned RSSI warning values are now properly being displayed
- Telemetry Warning Pop-up screens are now clearing more reliably
- Sequencer Default for Speed now properly defaults and resets to 5.0 seconds



## Version 1.04.05

### New Features

- **Forward Programming-** provides complete setup and adjustment of the AS3000 AS3X system when used with the PowerSafe Telemetry receivers. (Note that the Power Safe receiver firmware must be updated to 1.6 or above)
- **DX18 Compatibility Configuration** –supports upper channels (13-18) when transferring model files
- **Telemetry Flight Data Reset-** Provides ability to reset telemetry Data from the transmitter via on screen button
- **Telemetry Warning Screen-** displays when a telemetry warning threshold is exceeded. Clear button allow the alarm to be silenced.
- **Added Model Images-** More ready to use model images available for Acro, Heli and Multi

### Corrections & Improvements

- **RSSI/Signal Strength-** is more accurately being displayed for Spektrum and CRSF receivers
- **Duplicate Audio Events-** Bug has been corrected
- **Direct Model Access-** selecting current model returns directly to Dashboard instead of reloading that model

## Version 1.03.07

### New Features

- **Quick Sleep Mode-** Battery life has been greatly enhanced in Quick Sleep Mode.
  - From the Sleep mode screen, access is available to turn WiFi and Bluetooth on/off. Long pressing the 'Quick Sleep' button will turn all options off and the system will enter "Full Sleep" mode in about a minute.
  - To minimize current consumption the LED will no longer have the 'heartbeat' indication of sleep mode. A single press of the power button returns to normal operation, and any options in the sleep mode screen that were turned off by entering Sleep Mode will be turned back on.
  - Note that the system will not enter Sleep mode if the system is connected to a computer's USB.
  - Note that in some cases the system will not enter "Full Sleep" if an SD Card is in the radio, a warning will appear if a SD card is detected.
- **Auto-Sleep** – After a prescribed amount of time of no user interaction, the iX12 will automatically enter Sleep Mode
  - Inactivity warning will take place first, then after user assigned time Sleep will start
  - This is adjustable in the System Settings > System Configuration Menu
- **Direct Model Access** – Long pressing the model select button at the top left hand corner of the dashboard now directly accesses the model change list. Then select the desired model and long press the Proceed button. The model will be loaded and the system will return to the Dashboard.
- **TBA Crossfire 2** w/ telemetry is now supported

### Corrections & Improvements

- Telemetry File Logging is fully operational
- In App Battery Percentage – The in app percentage is now based purely on voltage of transmitter battery, not what is report via Android OS
  - This is much like what users are used to with non-smart transmitters
  - When users are running a Crossfire Modules, current draw is increased and will likewise show a drop in battery %
  - For best battery life when running external modules, tap power to turn off screen and or turn off 9.6v out when module is not in use
- When Voice settings are programmed in Audio Events and then the selection option is changed to Tone or Vibe, Voice settings are retained and are implemented when re-selection Voice or Voice Vibe.
- In Sailplane mode "mixing" Spoiler Stick has been added as an Input allowing greater flexibility in programming Camber changes.

## Version 1.02.08

### New Features

- Signal Strength can now be set to display Percentage, dBm or RSSI in the Flight Log telemetry screen
- In Sailplane mode, Throttle Stick has been added as an option in Flap to Elevator Mixing
- In Heli mode the pitch and throttle curve graphs now display the flight mode name such as Hold, Normal, Stunt 1, ect. instead of 0,1,2,3,4, allowing for easier identification of the selected flight mode
- Left and right sliders are now available as a switch option in the Switch Change Report
- In Heli Mode when active trims are selected for governor trim and/or Gyro Trim, the combined gain value (base gain + trim gain) is being displayed in the ( ).
- The option is available to have audio events announce first-in first-out or on demand

### Corrections & Improvements

- Utilizing Crossfire Module, turning off the Display leaves the Crossfire RF ON.
- In Heli mode when Governor and/or Gyro active trim is programmed, the screen response has been improved
- Corrupted model files can no longer cause the App to enter a crash loop
- Voice/ Vibe options have been removed from the Trim Reports (but remain in the Trim Release reports)
- In Telemetry Warnings, ESC Motor Max current is now properly being displayed
- In Sailplane mode, when a Priority switch is programmed, the correct flight mode is now properly being announced when selected
- In Sailplane mode, when assigning flight modes to the Flap stick the mix values are now being properly retained
- In Sailplane mode when accessing the Telemetry dashboard, occasional crashes no longer occur
- During binding the Telemetry prompt voice announces at the correct time
- In many screens the Reset button resets the data back to the default rather than just 0
- When programming the flight controller gain on Blade helicopters like the Blade 180CPX, the selected value now properly displays - - -.
- Video Transmitter (VTX) settings are now functioning correctly and remain when exiting and re-entering that model.

2018-Jan-30



## Version 1.01.03

### Corrections & Improvements

- German Language Support- When selecting German as a Language, Spektrum AirWare is now stable.

## Version 1.01.02

### New Features

- When saving a model file as a Template, a message appears confirming that the model was successfully saved
- Telemetry Shortcut - On the Dashboard, when a telemetry screen is selected, long pressing the telemetry ICON at the top of the page will return to the Dashboard screen
- In Sailplane mode, when on the Flight Mode screen changing the flight display name also changes the name in the flight mode matrix for easier identification.
- Telemetry warnings for receiver voltage and Flight log are now displayed on the Audio Events Telemetry warnings screen
- **Update:** Vibe Duration- When Vibe is selected in the Audio Events or Timer Alerts, the option is now available to select the duration of the vibration. This allows discernable differences to be programmed for various alerts. (i.e. Short duration for 1 minute intervals and long duration for time expired.)

Vibe L= short duration

Vibe M= medium duration

Vibe H= long duration

### Corrections & Improvements

- When switching to stick modes 1 or 3 the trim boxes displayed on the dashboard now properly switch to the correlating position of the trim switches
- The on screen response when adjusting the Dual Rate and EXPO values when using the sliders and + - buttons has been improved.
- Programmed mixes are now properly reset to defaults when inhibited.
- In Throttle Curve, the Throttle Delay button has been removed. Throttle Delay is only available in Throttle Cut. It was mistakenly displayed in the Throttle Curve screen in version 1.00.03



- Several timer issues have been corrected including the 1 minute timer announcement
- When using a Curve Mix the mix values now properly correlate to the servo output values on the servo monitor
- When using headphones or speakers, the audio is only output on the device and not the transmitter
- Several issues with the Sequencers have been corrected
- In Servo Setup - Speed, the right and left directions adjust the speed in that proper direction regardless of the servo reversing position
- In screens where the keyboard is available, the Cap lock defaults are now consistent.
- Battery transmitter voltage now displays in 1/10 volt increments at 4.0V.
- Model Timers now correctly trigger when reassigned to various switches and buttons.
- The Inactivity Alarm is no longer active when using other applications.
- Analog Switch setup now resets values correctly
- In the Model Start Alerts Servo Output screen all switch and stick options are now available
- When switching models, un-commanded random audio warnings no longer occur
- After setting up a Startup Warning, the system will now allow that model to be stored as a template
- In the Preflight Checklist, the option of Per Session now properly causes the checklist to activate only when the system is first powered on or a new model is selected and the RF is activated
- TBS Crossfire now properly turns on/ off during all phases including during charging





- Model Reset now resets the Model Name
- The startup tone now occurs when the AirWare Application is up and ready to use
- When changing languages from another language back to English, the text for the TX battery and Inactivity alarms returns to English
- Telemetry RPM Macros now properly announce the RPM value
- In Helicopter Mode, when reversing the collective type the throttle warning now properly warns high throttle setting

# iX12 Spektrum™ AirWare™ Change Log

2018-January-17



**Version 1.00.03**

Initial Release