Spektrum™ AirWare™ Change Log

2018-Jan-18

Version 1.21.07

Changes listed below are since 2017-July-11.

For more info visit

http://spektrumrc.cachefly.net/AirwareChangelogs.html

Special Notes

- In the Telemetry menu, some sensors may not be reported properly on the display or audibly after updating. If this occurs for you, please remove the sensor from the Telemetry list, then re-add it using the Auto-Config function on the Setup sub-menu. *If you made this change to your model since October 2015, you do **not** need to make it again.*
- With this version, we have begun to note in this change log the screen names of users who reported issues with previous versions, mostly since version 1.20. Spektrum very much appreciates the feedback we get from our users via RCGroups, Facebook, e-mail, and other social media venues, and we believe we can make this even better as we acknowledge our loyal customers for their helpful comments. We made a good faith effort to connect the corrections to the original reporter; if we missed you, please accept our apology in advance.

New Features

- The SD menu now includes the ability to create folders, delete files, and rename files. This will reduce your need to access a PC for these simple but important SD management tasks needed to help maintain proper backups of your models on the card.
- In order to make it easier to register your radios, on power-up the radio now automatically writes the serial number XML file that is used during the website registration. Note that the radio will overwrite an existing file for this radio type, but leave intact files for other radio types.
- After every import, the Validate All Models tool is run in the background to ensure that corrupted models are properly eliminated.
- Flight Pack Capacity is expanded to support both A and B datasets from a single sensor. Thanks to **Kambalunga** for noting that we were only supporting Channel A data.
- Added support for modern aircraft gyros. Enable the option “3-Axis Gyro” on the Aircraft Options screen. This setting then allows access to a new Function List menu by the same name. The function allows access to assign a channel to control gyro gains, with an optional trim using the Left and Right trimmers (trim available on DX9 and higher).

- Added support for improved telemetry Text Generator.
- Added support for telemetry Attitude/Magnetometer device.
- **DX9 Only:** On the System menu is a new option called Serial Port Setup. This allows the enabling of a Crossfire RF system. The Crossfire support including information regarding the hardware modification is documented in _____. If you are not a Crossfire user, this menu does nothing for you and should be ignored.
- **Except DX6e, DX6, DX7:** Add Jet Central support as part of the Turbine telemetry capabilities.
- **DX10t, DX18, DX18QQ, DX18G2, DX18t, and DX20 only:** The X-Plus channel scheduling algorithm has been improved to provide lower latency by never transmitting unused X-Plus channels. To best take advantage of this, when adding functions on X-Plus channels start with XP+1, then XP+5, then XP+2, then XP+6, and so on.
- **Non-Tray Radios only:** On the Range Test screen, pressing the trainer switch to change between High and Low modes causes the normal click sound.

Corrections & Improvements

- In Helicopter mode, the radio was using the Elevator Dual Rate/Expo settings for the ailerons instead of the Aileron settings. This could cause a very different feel for your model if this applies to you. ***Please verify that your helicopter Dual Rate and Expo settings behave as you expect before flying it again.***
- Non-Speech radios now honor the Tone/Inh settings for Timer Start/Stop sounds.
- In order to improve compatibility when importing to older versions of radios, it does not export VTX data when VTX is disabled or a default configuration.
- VTX interface allows access to all channels, as regional compliance is now enforced by the VTX hardware.
- The VTX control screen now accepts telemetry feedback from the VTX device or flight controller. When the telemetry data is being received, the VTX screen shows a “Status” column to allow the user to confirm operation. Thanks to **AndWho**.
- Some Flight Pack Capacity channel B data was displaying incorrect fields. Thanks to **AndWho**.
- Mixing FLP > anything now works properly. In v1.20 it was using the throttle stick as the input instead of the time-controlled Flap System flap output. Thanks to **ricardo forte**.
- The Telemetry Signal Loss alarm now sounds after about 4-5 seconds vs. the nearly-instantaneous alert in version 1.20. Thanks to **pgoelz**.
- The radio will not trigger a Telemetry Signal Loss alarm when going into System Mode. Previously it would do that even though RF was disabled.

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- Changed the text editing screen to use bold characters in the helper text, fixed the >-< (delete) and <+> (insert) characters for proper display, and corrected the left/right asymmetry issues in the 1.20 Public Beta version. This also eliminates the "jumps" that could happen when moving between different categories of characters. Thanks to **LenAlessi**, **davidmc36**, and others.
- The text editor is now easier to use. Instead of forcing you to scroll to the right set of characters every time, the radio instead inserts the last character on the left into the current position when you are changing at the end of the name. This should be a big time-saver, since most of the time you will be working with similar characters for adjacent positions of a name. Thanks to **davidmc36**, **LenAlessi**, and others.
- Corrected an issue that could cause a multi-rotor to have incorrect throttle outputs when changing from a model that had a lot of throttle trim offset. Thanks to **jayar**.
- When creating new models, the default display for signal strength is changed to % Range mode.
- Editing the Signal Strength alarm point now works properly for all display modes. In the past, you could get different results from different modes.
- The Vario screen now displays the altitude correctly. Thanks to **pgleesonuk**.
- The GPS module now reports negative altitude correctly. Thanks to **WMF Flyer**.
- GPS speed, distance, and altitude data now requires more satellites before recognizing the incoming data as valid. This will add very little time to the startup process, but should prevent or reduce the number of instances when extremely high and unreasonable values are spoken. Thanks to **Kambalunga, kallend,** and others.
- Receiver voltage was incorrectly being spoken when it should have been saying "No Data" after timing out.
- It was possible for the Bind Screen to enter a state that only turning off the power switch could recover when certain timing constraints were met. This has been eliminated by changing the sequence of operations, and by adding a 20-second "deadman" timer to report a bind failure. Thanks to **sbstnp**.
- The Digital Switch Setup screen would enter a mode that kept repeating the last two options forever when rolling to the right. Thanks to **Mukenukem**.
- When adding a new model, the channel monitor & related functions are now reset to the default for the transmitter instead of following the previous model.
- Improvements to the Lap Timer system. The Lap Timer is now available in all radios.
- Very long model names resulting in very long export names are no longer mangled when the name is edited. Thanks to **LenAlessi**.

- **DX6e Only:** Do not give option to change the type of Warning on power-up because only Tone is possible in these radios, as they have no vibe and no voice.
- **DX10t, DX18, DX18QQ, DX18G2, DX18t, and DX20 only:** When using the X-Plus Input Config screen, you could scroll beyond the PREV button which was the last available input. Thanks to **davidmc36**.
- **DX10t, DX18, DX18QQ, DX18G2, DX18t, and DX20 only:** When X-Plus is enabled and you change the monitor in one of the menus such as Mix or Throttle Cut to see X-Plus channels, if you go to the Monitor function the display now changes back to the channel monitor setting for this screen. Previously it would have allowed the X-Plus monitor to be shown in two places. Thanks to **davidmc36**.
- **DX10t, DX18t Only:** Switches S & T are functional. Version 1.20 had them blocked from operation. Thanks to **madmao**.
- **Non-speech radios Only:** Timer alerts were not generated properly. Thanks to **GadgetMart**. Note that timer alert behavior in your existing models may need to be changed on the Timer Event Alerts screen.

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Audio System Changes (Voice output models only)

- For all languages please use Sound version 1.09
- If you previously updated to Sound 1.09 there is no need to update again.

Sound downloads are always found at this link:

http://spektrumrc.cachefly.net/TransmitterSounds.html

Spektrum™ AirWare™ Change Log

2017-July-11

Version 1.20

Changes listed below are since 2016-November-15.

To help simplify and better identify Spektrum AirWare updates, ALL current generation Spektrum radios will use the same version number, starting with Version 1.20.

For more info visit

http://spektrumrc.cachefly.net/AirwareChangelogs.html

Special Note

- In the Telemetry menu, some sensors may not be reported properly on the display or audibly after updating. If this occurs for you, please remove the sensor from the Telemetry list, then re-add it using the Auto-Config function on the Setup sub-menu. *If you made this change to your model since October 2015, you do* ***not*** *need to make it again.*

New Features

- Added and improved support for telemetry sensors introduced over the past year.
- Support the ability to import/export User Defined telemetry devices model settings, including more fields in the import/export for Flight Log data.
- The barometric altitude sensors can be “zeroed” by pressing the CLEAR button while on the Altitude telemetry status screen. If the Telemetry Log is enabled, when the user uses this function the log will report this event.
- Added a new Telemetry Signal Loss alarm to the Flight Log setup screen. This will generate the desired alarm when the transmitter stops receiving Flight Log data for about 4-5 seconds. On speaking radios, the voice warning is “Telemetry No Data.”
- Added Taileron tail types to Acro mode. These are “always on” tailerons – if you want a switch to turn it on/off, you need to set your Tail Type to Dual Elevator and then create a mix of AIL > LEL.
- In Multi-Rotor mode, the default frame rate is changed to 11ms.
- In Sailplane mode, the Dual Rates/Expo screen allows the user to define curve 4. To inhibit rates and expo, the user must change the switch to Inhibit.
- Spacing on Curve mixes is now possible at about 7% steps. This allows the use of finer spacing between control points.
- The radio now waits 30 Seconds (previously 10 seconds) before reporting low transmitter battery. This helps alleviate users from accidently changing battery type and having difficulty changing back to the correct battery type.

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- **DX6e Only:** Added the ability to configure Timer Alerts that allow tones and alarms at user configured timer intervals. Found on the last page of the Timers Menu
- **DX8 and higher only:** Added support for new telemetry sensor offered by Smoke Systems which provides sensor data (Battery voltage G-Force, CutOff) from the Smoke Driver. Available from www.smoke-el.de .
- **DX8 and higher only:** Turbine telemetry support has been completely revised. Includes improved support for taxi tank usage by:
    - Fuel consumption countdown can be reset by:
        - using either the CLEAR button on the Turbine status screen, or
        - linking it to the timer (Timer 1) so that pressing CLEAR on the main screen to reset the timer will also reset amount consumed to 0, or
        - starting the timer before takeoff once the taxi tank is removed.
    - Added alarm for invalid fuel tank size (set the ECU tank size to 1000mL + aircraft tank size)
    - Added alarm for fuel completely gone (< 1% remaining).
    - The Status and Fuel displays are automatically displayed depending on the ECU interface used.
    - In Acro mode the model image is automatically replaced with ECU and receiver battery data. This only occurs when a Turbine sensor is defined.
- **DX20 only:** Added support for Dual Elevator/Dual Rudder when using 6-Aileron wing type.

Improvements

- Properly resets the Left trimmer when changed in Flap System configuration.
- Some import error messages were being displayed with the wrong text.
- Improved resilience when flaky SD cards are inserted while radio is powered on.
- The Digital Switch Setup screen now works properly when there are gaps in the available Flight Modes.
- In Sailplane mode, added FLP(Flaps) as an allowable mix input.
- When selecting FLP as a mix input, the radio now uses the output of the Flap System rather than the input to it. This allows mixes to gradually change according to the speed programmed in Flap System.
- Warning modes are properly saved when exporting a model to the SD card.
- The Lap Timer system has multiple corrections that provide more-accurate timing and display.
- Throttle Cut again allows CLEAR/BACK/Roller and trimmer as throttle-cut inputs.
- Trainer mode no longer resets to 4 configurable channels if a particular sequence was followed.

- Disabling a Gyro assigned channel in Acro mode no longer locks out that channel.
- Corrected translation and spelling in assorted screens.
- Timers with modified “clear” inputs will now export and import correctly. In previous versions the imported model would return to the default CLEAR button.
- Flight Mode alarms no longer trigger after Flight Modes have been disabled.
- Multi-Rotor “Gear” alarms are now properly working based on channel input.
- Restored Flight Mode as allowable sailplane motor control option.
- 11ms Throttle in Multirotor model type is now assigned more predictably.
- **DX10t/DX18t-only:** The default outputs for the 3-position stick-tip switches are now for +100%, 0%, and -100%. This will be set only when a new model is created – existing models are unchanged.
- **DX20-only:** Selection boxes for multi-engine models are located more intuitively.

Audio System Changes (Voice output models only)

- For all languages please use Sound version 1.09
- Version 1.09 adds speech for several new sensors (LiPo Monitors) and Autonomous Mode for GPS-enabled models.
- Signal strength is now spoken. This feature will be further improved in future versions as more receivers support this feature. Only the SPM4649T currently supports Signal Strength in the telemetry. The data can be viewed either as dBm (the way RF strength is measured) or in a distance-relative mode (RSSI Percentage).
- The sound item “Flight Mode” in the past spoke the number of the current flight mode. Now it speaks the name of the flight mode as found in the Spoken Flight Mode setup screen.
- The scroll speed in the All Sounds category has been improved. In the previous two versions it got slower and slower as you moved farther down the list. This is no longer the situation.
- Corrected speaking of 100, 101, 102, etc. in Italian.

Sound downloads are always at this link:

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