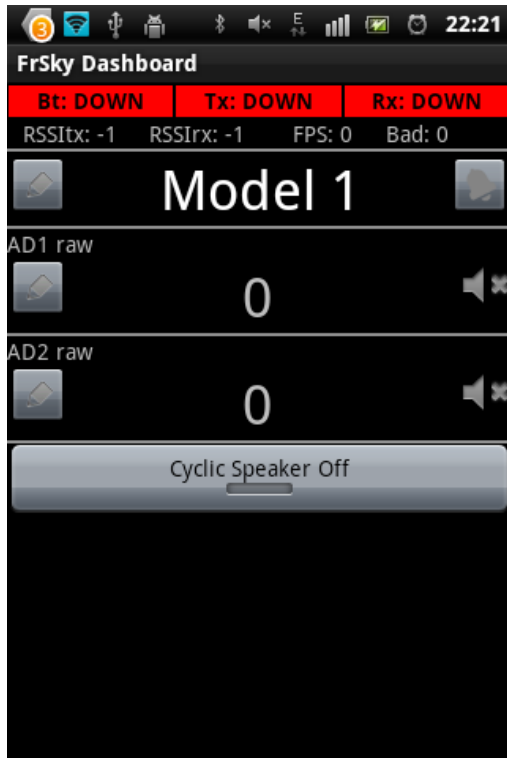


Android FrSky Dashboard - User Manual - V2.0

This page describes the functionality of the Android application for FrSky 2 way telemetry system currently under development. Please refer to [the project website](#) for the latest updates. This requires [BlueTooth](#) bridge to already work with the FrSky Tx module.

Note! If your are running version 1.x.x of this app you should check [User Manual v1 document](#).

Dashboard



When you start the application. You will arrive on the Dashboard page. This page has the following features:

- Status for
 - Bluetooth (Red when down, Green Blinking when connecting, Green when connected)
 - Connection to FrSky Tx Module (Green when connected to a FrSky Tx module)
 - Connection to FrSky Rx (Green when receiving data from a FrSky Rx)
- Status values
 - RSSItx (dBm)
 - RSSIrx (dBm)
 - FPS (Frames pr second from Rx)
 - Count of corrupt frames
- Current Model
 - Option to Edit model
 - Option to edit FrSky module alarms attached to the model
- Channels for the model
 - Option to Edit the channel
 - Option to Add this channel to the cyclic readout of channels
- Cyclic Speaker Toggle Button, used to turn the cyclic readout of channels on and off

The application is designed so that it can run in the background. Typically by locking the phone, or by clicking your phone's "Home" key.

You exit the application by clicking the "Back" button on your phone.

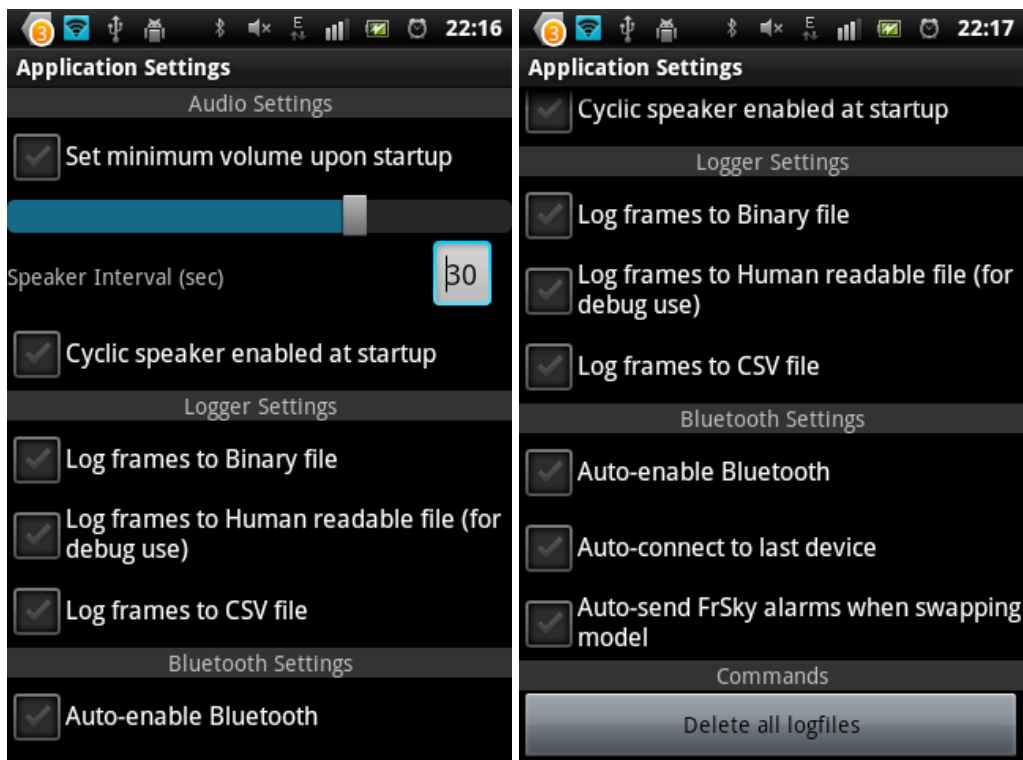
Menu



If you hit the "Menu" key on your phone, you will get access to the following menu:

- Settings...
- Models...
- Set FrSky Alarms...
- Simulator...
- Connect... / Disconnect...
- About...

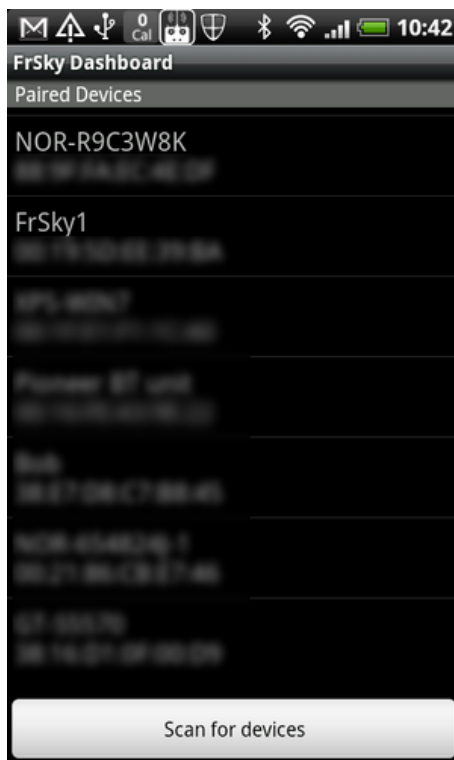
Settings... Application Settings



The Application settings page controls the operation of the application and preferences. You get access to the following options:

- Audio Settings: Settings controlling the audible aspects of the application
 - Set minimum volume upon startup: You can force the application to change the volume if it is below a certain level upon startup. The slider below is used to set the volume level. This option has no effect when not set.
 - Speaker Interval (sek): How often should the cyclic readout of channels happen
- Logger Settings: Settings controlling what gets logged to file (Location: SDCard/Android/data/biz.onomato.frskydash/files)
 - Binary: Incoming frames is logged directly to binary file
 - Human readable: Incoming frames is logged as an ASCII representation of the hex values. This is for debugging only, and has limited value.
 - CSV: Channel Values will be logged to a CSV file that can be read by other programs.
- Bluetooth Settings: Settings controlling the Bluetooth functionality
 - Auto-enable: If toggled, the application will automatically enable bluetooth if it is currently disabled. If not set, it will request the user to enable bluetooth when not enabled.
 - Auto-connect: If this option is set, the Application will attempt to automatically connect to the previously connected device.
 - Auto-send FrSky alarms when swapping model: If this option is set, the application will automatically reprogram the FrSky module when you select a model.
- Commands
 - Delete all logfiles: will remove all logfiles from SDCard/Android/data/biz.onomato.frskydash/files

Connect... Connect to Bluetooth device



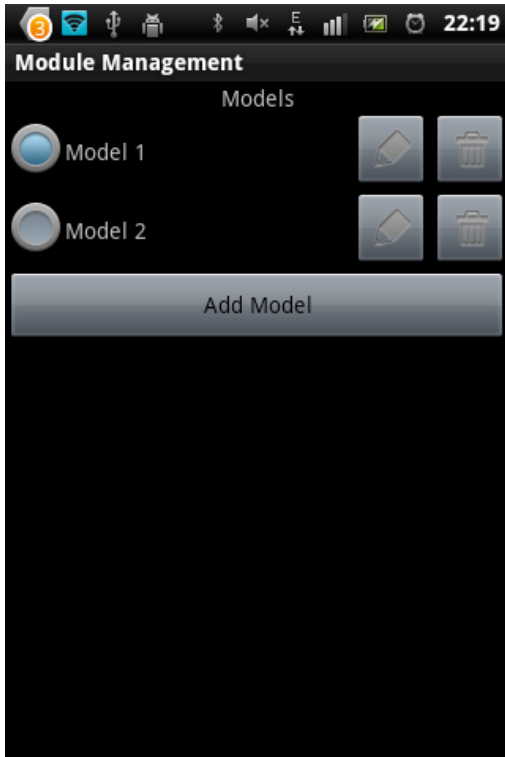
From here you can connect to a previously paired device, or scan for new devices. A pairing dialog will come up if you try to connect to a paired device.



When you have connected to a bluetooth device, the Bt status indicator will turn green. The application will then attempt to communicate with the FrSky Tx module.

When the application receives frames from a Rx. The Rx status indicator will turn green.

Models... Manage your models



You can configure different Models in this application with specific settings. This makes it easy to switch to the right configurations based on the module you're currently flying.

- Select Current Model

Using the radio button in front of the existing models you can easily switch the currently active Model.

- Update Model

If you want to update a model you can use the edit button on the row of that specific Model. The screen for editing a Model is similar to the screen used to create a Model. This will be handled in the next chapter.

- Delete Model

To delete a model use the last button on the same line of the Model name. You will receive a confirmation. Think twice because once you delete a Model there is no way to recover the information assigned to that Model.

- Create new Model

The button at the end of the list can be used to create a new Model from scratch. In the next chapter you will see what settings can be done per model and how you can create and modify models.

Model Configuration

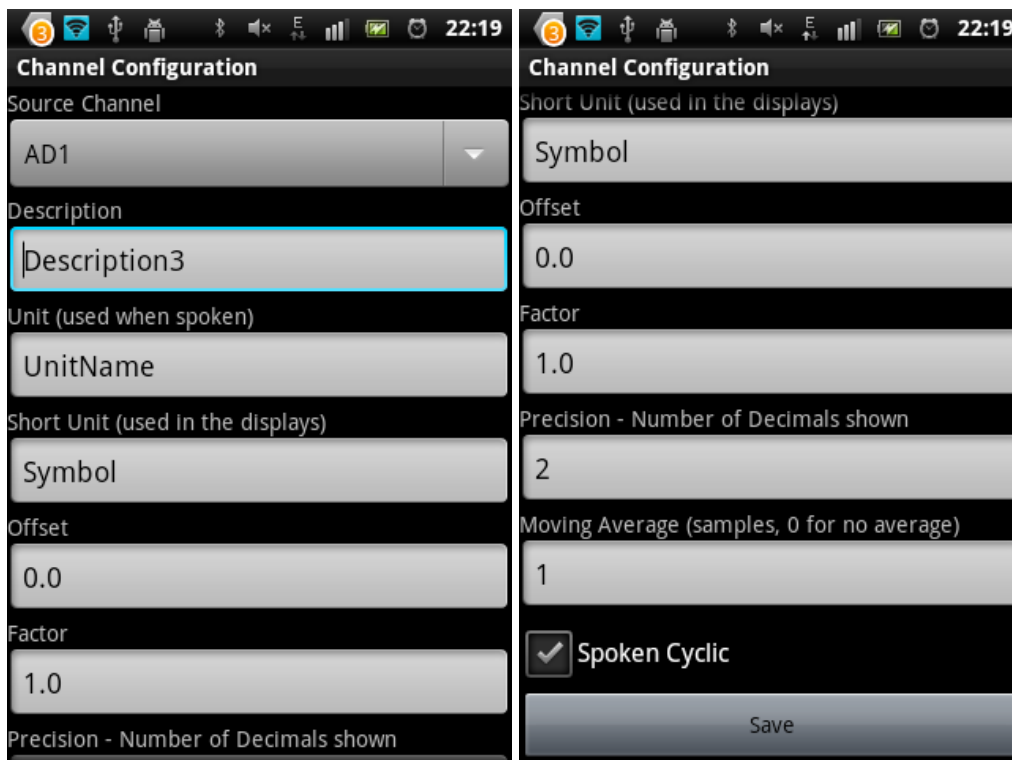


On this screen you can pick a name and type for your Model. Once that is done you can configure the active channels on this model and manage the alarms for this specific Model.

Also new in this release is that you can define FrSky Module Alarms per Model. On selection of a model the alarms you previously had configured are transmitted to the FrSky Module.

For safety the alarms on the Module are compared to the alarms set in the app for the current selected model. This happens on startup of the application. In case these values mismatch a warning will show.

Channel Settings



By clicking the "pencil" button for a channel in the dashboard or in the model configuration, you can define various settings for the channel:

- Source Channel: Select one of the FrSky channels that this channel will listen to. Select "None" to disable the channel. Possible source channels:
 - The FrSky Analogue Channels
 - RSSI Channels
 - Previously configured channels. (E.g. Make a "Pack Voltage" channel showing total voltage, then a "Cell voltage" channel using pack voltage as source channel)
 - *Hub Channels (when enabled)*
- Description: Shown on dashboard, and used while reading
- Unit: e.g. "Volt", used when reading, and in CSV file
- Short Unit, e.g. "V", shown on dashboard
- Offset, Used for scaling, see below
- Factor, Used for scaling, see below
- Precision: Number of decimals after decimal point
- Moving Average: Used to "smooth" the numbers. Number of frames being averaged. Set to -1 to disable Moving average
- Spoken Cyclic: Include this channel in the readout when set
- Save: Save the channel settings

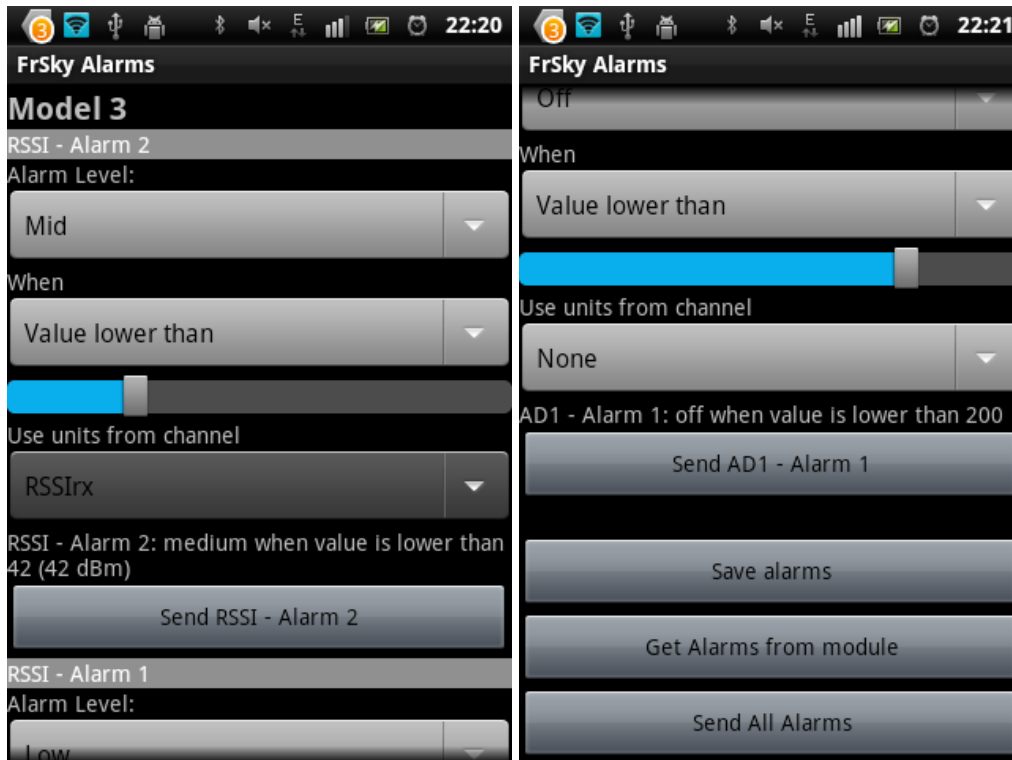
Scaling

The application allows scaling of the incoming values to user desired unit. The formula used is:

Y: Shown Value x: Incoming Value f: Factor o: Offset $Y = (x*f)+o$

I typically need to set offset to 0, and tune the factor until i get the desired result. E.g. Cell Voltage to 4.17V at fully charged battery.
These numbers will also affect the Threshold values for the Internal FrSky alarms.

Set FrSky Alarms... - FrSky Tx Module settings

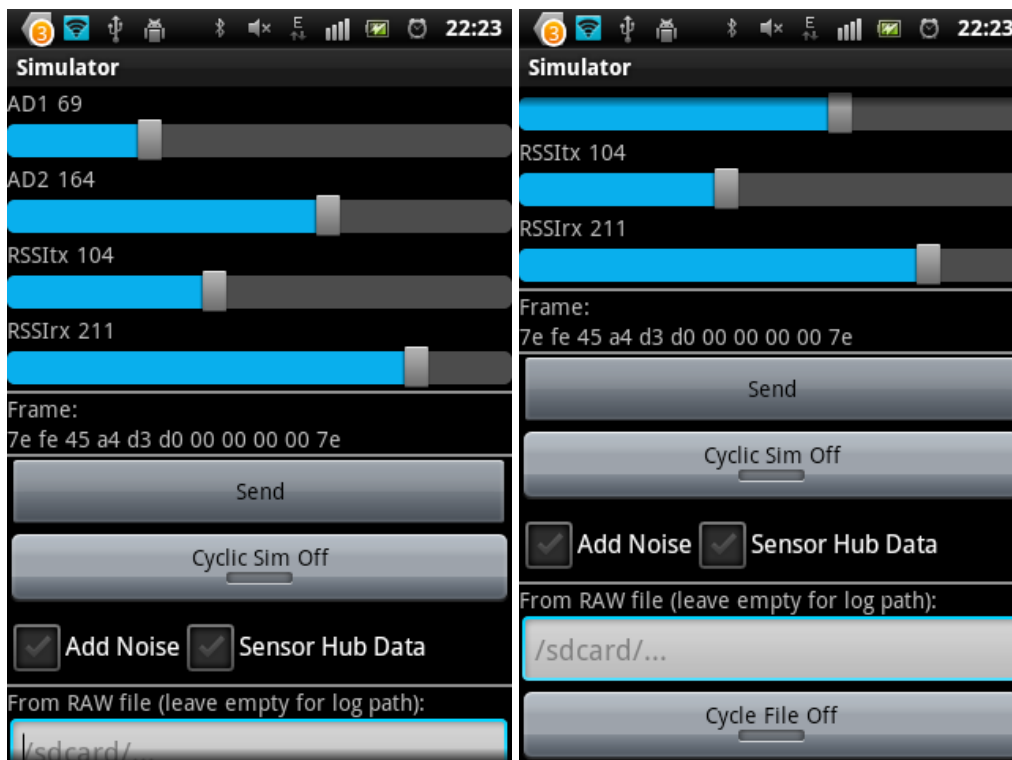


This page allows you to see and program the internal FrSky alarms.

Note! the Application can not read the current state of the RSSI alarms. These will therefore always show the default FrSky settings

For each alarm, you can set if the alarm should trigger when the current value is "Lower than" or "Greater than" the threshold. You can also set the alarmtype/volume of the alarm.
The threshold will show you the threshold in the proper unit if you have already set up the channel in the Channel Configuration.

Simulator...



This page is primarily used for debugging. It allows the user to send either single frames, or cyclic frames to the main application. Limited value for a user, but might assist in setting up scaling of a channel.