FlightAware

PiAware 4 Setup Guide

The fully pre-configured FlightAware PiAware 4 SD card includes a default configuration file that can be edited or overridden by the user to configure PiAware settings.

Most users do not need to edit the configuration at all unless you are setting up a WiFi connection. If you are using a wired Internet connection with DHCP, then the PiAware SD card image is "plug and play" without any configuration changes.

Configurable Options

The configuration file allows the user to configure and set the following:

- Wired network
- Wireless (WiFi) network
- Automatic or manual updates
- Multilateration (MLAT) output
- Receiver type (RTL-SDR, Beast, Radarcape or other Mode S/ADS-B source)
- RTL-SDR gain, PPM, device index and other miscellaneous settings
- PiAware Feeder ID

Configuration File Format

The configuration file is a simple plain text format file. You may find it helpful to view a sample piaware-config.txt which can be found here: https://flightaware.com/adsb/piaware/piaware-config.txt

Lines beginning with a "#" are comment lines and are ignored. Blank lines are also ignored. All other lines specify configuration settings.

How to edit the PiAware 4 configuration

There are two ways to edit PiAware config settings:

Manually edit piaware-config.txt

1. After writing the PiAware image to an SD card, insert the SD card into your computer using an SD card reader.
2. The SD card should be recognized as a partition labeled "boot". Open the text file "piaware-config.txt".
3. Edit the file with your desired configuration settings.
   For example, to set your WiFi credentials, edit the lines and replace the default values:

   wireless-ssid   MyWifiNetwork
   wireless-password   s3cr3t99

4. Save your changes and eject the SD card before physically removing it.
5. Place the SD card into your Pi, power it on, and PiAware should boot with the new configuration settings.

Command line (Advanced):

1. Configuring options via the command line will require you to attach a keyboard and monitor or have SSH access to your Pi (See the "**Enable SSH Access"** section below for steps on how to do this)

2. Once you've logged into your Pi, you have two options:

   a. Use the "**piaware-config**" command to view and change settings.

      Example usage show below.

Usage	Command
Show currently configured settings	*piaware-config -show*
Show all piaware settings	*piaware-config -showall*
Set a piaware-config setting	*piaware-config <setting> value>*
Clear a piaware-config setting	*piaware-config <setting> ""*

   b. Use the nano text editor to edit **/boot/piaware-config.txt** with desired configuration settings (same as the manual step, just via the command line)

If it is not convenient to remove the SD card and command line access is not possible, an external USB flash drive containing a piaware-config.txt file can be attached to the Pi. Settings in that file override any settings on the SD card. The flash drive should be attached before powering on the Pi and should remain connected while the Pi is running.

To ensure that all configuration changes take effect, please restart/reboot the Raspberry Pi after making changes.

Advanced Configuration

Enable SSH access

For security reasons, SSH access is disabled by default on new PiAware SD card installs, starting with version 3.3. To enable SSH, create an empty file named "ssh" (no file extension) on the **/boot/** partition of the SD card. When this file is present, SSH will be automatically enabled. The default login is "pi" and password "flightaware" to connect via SSH.

Restart network

To restart the network after changing any network settings, use "sudo piaware-restart-network". Allow some time for network changes to take effect.

All configuration settings

Complete details of all configuration settings including their possible settings and default values can be found here: https://flightaware.com/adsb/piaware/advanced_configuration

Associating your PiAware with your FlightAware Account

Once you have your PiAware set up, you can "Claim" your feeder-id so you can have your own My ADS-B page to view your receiver statistics and status from FlightAware.com.

You can claim your PiAware using two options:

1. Enter the Pi's IP address in a web browser. You should see a web page with a claim link like below.

2. Visit https://flightaware.com/adsb/piaware/claim

Note: Your PiAware must be on the same network as the computer you are trying to claim from!

If after 5 minutes your device hasn't displayed as claimed, try restarting the device. If that still doesn't work re-confirm the Wi-Fi settings (if using Wi-Fi) are correct. Lastly contact us at ADSBsupport@FlightAware.com for assistance.