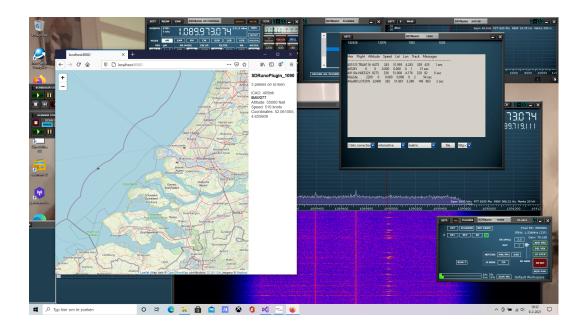
A simple adsb plugin for SDRuno

Jan van Katwijk Lazy Chair Computing The Netherlands J.vanKatwijk@gmail.com

March 12, 2021



1 Introduction

The SDRuno 1090 plugin is a simple plugin to for the reception and decoding of adsb signals, as they are transmitted on 1090 MHz.

2 Settings

2.1 Setting the samplerate

The software uses internally asamplerate of 2400 KHz, and assumes a setting of SDRuno on 3000 KHz with a zero IF. Decimation from 3000 KHz to 2400 KHz is done in the software.



2.2 Tuning

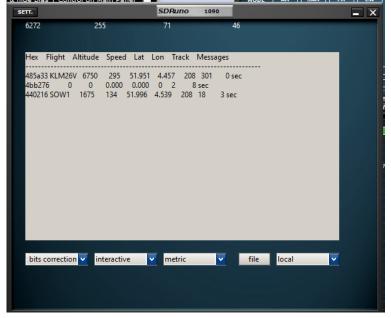
Tuning is to 1090 MHz.

2.3 Setting the map

The plugin provides as option showing the planes on a map on a web browser. In order to do so, one must place the file "gmap.html" in the *Documents* folder in the user's home folder.

3 The plugin

The plugin widget is shown in the picture



The main widget contains three segments

- the top row shows a number of figures, related to the received signal, the first one is the number of potential good frames, the other ones give the number of frames passing all tests and the number of 1 bit and 2 bit corrections applied;
- the middle part will show either the messages as received or a list of planes currently being visible, depending on the settings;
- the bottom part contains 4 comboboxes and a button:
 - the number of corrections. Default is set to no corrections, one may select a one bit or two bit correction. Of course two bit correction takes some more CPU power than 1 bit correction or no correction;
 - the view. Selected is the interactive view, showing the list of planes currently visible,
 the other view will display the messages as they are received and decoded;
 - metric;
 - the button with text file. If touched, a file menu will appear with which a file can be selected. The data, as appearing in the interactive screen, will be written to the file;
 - the selector labeled *local* gives a choice of leaving the data local or making the data visible on a map. If the *http on* option is chosen, a map and an indication of the planes on it, can be made visible on a web browser through port 8080.