**Introduction**

This bit of software is designed to sign the IGC output files created in a Kobo running either LK8000 or XCSoar. It does so by reading the NMEA sentences as they are output from your Kobo and writing them to a new folder (SignedIGCTrackLogs) outside either LK8000 or XCSoar. The software automatically senses take off and landing so there is no need to further process the files when you want to upload them to any online contest. (Including the UK XCLeague). The software will also record the C records for a declared task.

**Installation**

The software is installed via a package called KoboRoot.tgz just the same as installing either LK8000 or XCsoar – before you start make sure your familiar with how you reset your Kobo and reinstall from the start. There is no official support and we are not liable or in anyway responsible for any issues from this install – going ahead with the install, you agree to this.

* **1)**Connect you Kobo to your PC or Mac and open Nickel on the Kobo so that you can view the files on the Kobo.
* **2)** Place the KoboRoot.tgz into the .Kobo folder on the Kobo. Now safely disconnect the Kobo from your PC or Mac and it should unpack and install the software. Both XCSoar and LK8000 will have been installed afresh along with the new software. The menu screen on the Kobo at start up allows you to chose to run either LK8000 or XCSoar
* **3)** Now connect your PC or Mac back up to the KOBO and run Nickel so you can see the Kobo's folders.
* **4)** In the root of the Kobo's folders you will see 2 files gpsdump.cfg and serialport.cfg you need to edit both of these before running the Kobo for flying.
* **5)** Edit serialport.cfg to change the Baud and GPS Port so that it is exactly the same as the config inside LK8000/XCSoar in the Kobo

- If you have a single GPS attached e.g. Gofly4 etc) it's usually /dev/ttymxc0 and 9600

- AirWhere&Bluefly is /dev/ttymxc0 and 57600

It should end up looking like this (the part in red should be the only part you may need to change)

GPS\_BAUD\_RATE:9600:

GPS\_SERIAL\_PORT:/dev/ttymxc0:

GPS\_EXTRA\_PARAM:-ignbrk -brkint -icrnl -opost -isig -icanon -iexten:

If you have a USB GPS then you will need to edit the file to be ( check your current config in LK or XCS )

GPS\_BAUD\_RATE:9600:

GPS\_SERIAL\_PORT:/dev/ttyUSB0:

GPS\_EXTRA\_PARAM:-ignbrk -brkint -icrnl -opost -isig -icanon -iexten:

* **6)** Edit gpsdump.cfg to set up yourPilot Name and Glider type. Note if you have a space in either your name or glider type you need to enclose it in inverted commas. If you don't want to include a line put a ; before it and it will be ignored. Your Pilot name needs to be exactly the same as your name on the xcleague.

IGC\_PILOT\_NAME: "YOUR NAME" ; Text put on the HOPLTPILOT line.

IGC\_GLIDER\_TYPE: "YOUR GLIDER" ; Text put on the HOGTYGLIDERTYPE line.

IGC\_GLIDER\_ID: 123 ; Text put on the HOGTYGLIDERID line.

IGC\_SITE\_NAME: UK ; Text put on the HOSITSITE line.

IGC\_COMP\_CLASS: serial ; Text put on the HOCCLCOMPETITION CLASS line.

* **7)** Disconnect you Kobo from your PC/Mac and start up the Kobo. Enter either LK8000 or XCSoar dependant on the flavour of software you want to run and edit the Device Settings (Config/Config 2/ LK8000 Setup/Device Setup or Config/Devices/Edit in XCSoar. In the port setup chose /dev/ttymxc01then Select and Close. You shouldn't need to change the baud. Wait for your GPS to make a connection and you should be good to go.

**Notes**

Please don't use any strange characters in waypoint names - i.e.don'tuse ?!\_@:; etc.

A C Record (Record of your task waypoint in the IGC file) will only be generated while the instrument is at rest, changing your declaration once flying will not change the C record – if this is an issue, change your task and restart your kobo, this will restart the logger and create a new C Record.

**Coding**

Stein Sorensen - [stein.sorensen@multinett.no](mailto:stein.sorensen@multinett.no) – Author of GPSdump – if you find this software useful then do buy this man a pint as he has put countless hours into this.

Phil Colbert – Initial Idea, setup, build, testing and general all round tea boy ☺

**Testing**

Thanks to Martin Butcher, Bryan Hindle and Pete Logan for testing in flight and for the advice from John Stevenson.

Any problems please bring them up in facebook group :-

<https://www.facebook.com/groups/1064989610272994/>

Enjoy !

Phil Colbert.