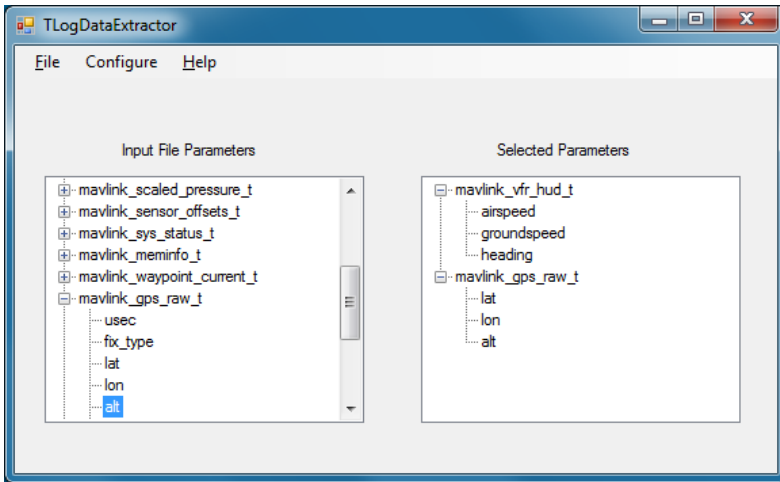


Extracting data from tlog files for plotting in Excel

Posted by Andrew Fernie on May 11, 2012 at 6:00pm



I wanted to analyze some data from a tlog file and figured that Excel would be the most flexible way so I created a little utility to extract the data I was interested in and save it as a comma separated value (CSV) file. Each selected parameter is in a separate column, and Excel can open the csv directly.

Note that it can't open the tlog file directly. You must use the Mission Planner to convert it to txt format. so:

1. From the APM Mission Planner Flight Data page select "Telemetry Logs", then "Tlog > Kml or Graph", then "Convert to Text".
2. Select the tlog file you are interested in, and the Mission Planner will create a txt file in its log folder.
3. Open the txt file in this program and it will parse the file and list the available parameters in the left tree control. Double click on the parameters you are interested in and they will be selected and displayed in the right tree control. If you want to remove a parameter from the selected list, double click it.
4. "Save As" and provide an output file name. This will produce the csv file that you can open in Excel and plot as desired. The file will look like this, where each row was produced from one packet in the input file that contained at least one of the selected parameters.

	A	B	C	D	E	F	G	H	I	J
1	Date	Time	mavlink_gps_raw_t.eph	mavlink_raw_imu_t.xmag	mavlink_raw_imu_t.ymag	mavlink_raw_imu_t.zmag	mavlink_attitude_t.yaw	mavlink_vfr_hud_t.airspeed	mavlink_vfr_hud_t.groundspeed	mavlink_vfr_hud_t.heading
2	02/05/2012	7:27:09	0	0	0	0	-2.744607	0	0	0
3	02/05/2012	7:27:09	0	0	0	0	-2.744607	0	0	202
4	02/05/2012	7:27:09	0	-82	64	289	-2.744607	0	0	202
5	02/05/2012	7:27:09	7.813966	-82	64	289	-2.744607	0	0	202
6	02/05/2012	7:27:09	7.813966	-82	64	289	-2.745121	0	0	202
7	02/05/2012	7:27:09	7.813966	-82	64	289	-2.745121	0	0	202
8	02/05/2012	7:27:09	7.813966	-85	61	289	-2.745121	0	0	202
9	02/05/2012	7:27:10	8.87957	-85	61	289	-2.745121	0	0	202
10	02/05/2012	7:27:10	8.87957	-85	61	289	-2.745434	0	0	202
11	02/05/2012	7:27:10	8.87957	-85	61	289	-2.745434	0	0	202
12	02/05/2012	7:27:10	8.87957	-82	62	289	-2.745434	0	0	202
13	02/05/2012	7:27:10	9.617817	-82	62	289	-2.745434	0	0	202
14	02/05/2012	7:27:10	9.617817	-82	62	289	-2.745587	0	0	202
15	02/05/2012	7:27:10	9.617817	-82	62	289	-2.745587	0	0	202
16	02/05/2012	7:27:10	9.617817	-86	62	288	-2.745587	0	0	202
17	02/05/2012	7:27:10	8.652532	-86	62	288	-2.745587	0	0	202
18	02/05/2012	7:27:10	8.652532	-86	62	288	-2.747233	0	0	202
19	02/05/2012	7:27:10	8.652532	-86	62	288	-2.747233	0	0	202
20	02/05/2012	7:27:10	8.652532	-86	62	287	-2.747233	0	0	202
21	02/05/2012	7:27:11	6.307695	-86	62	287	-2.747233	0	0	202

If you want to re-use the list of parameters you can save and re-load them from the "configure" menu. These are simple text files you can edit directly if you like.

I am not familiar with the deployment process for C# programs, so I have placed the entire project folder [here](#).