VINC – the free Visualisation of your Pedal Stroke.

The free VINC app is mainly for visualisation – for riding indoors on your trainer when you want to check and modify your pedal stroke, ride with steady cadence/power or do perfect short intervals.   See descriptive outline of VINC here.

VINC can also record your session for later analysis. This is quite different to the expensive data logging of VINC Pro, but suitable for checking various aspects of your session.   The difference with VINC is that is retaining every normal ANT+ report from your cranks. (Your head unit regardless of brand only retains a small percentage of the messages – the remainder are gone forever).

Below are the instructions for recording.   Remember if you want to do sophisticated post-analysis, then you may need the subscribe to the VINC Pro.

The process of recording is fairly easy:

- Make sure that VINC is connected to your cranks.
- Enable the menu option Record/Stop.
- Data is now recording.
- When finished, Disable the menu option Record/Stop.
- Your files will be stored in the Downloads directory on the phone.

Each recording session will produce 5 files like:

00002864_20190515090440_LSP.csv
00002864_20190515090440_LWF.csv
00002864_20190515090440_Power.csv
00002864_20190515090440_RSP.csv
00002864_20190515090440_RWF.csv

If no files are produced, then you probably haven't given the app permission to write the SD card. You must grant this permission to the app under Settings->Apps->VINC->Permission->Storage.

The file names start with the crank serial number, followed by the year, month, day, hour, minute, second.

LSP and RSP are the left and right splines respectively generated by the torque streaming. You can ignore these files. We don't publish information that allows the user to generate the torque data from these files.

LWF and RWF are the left and right waveforms respectively. You can ignore these files. We don't publish information that allows the user to generate the waveforms from these files.

Power is the ANT+ Bicycle Power Data. It is decoded into a comma separated values (csv) file that can be imported by any spreadsheet program. The columns have a heading row so can easily be interpreted. Here is an example:

Date	Time	Message	Event	Rotations	Cadence	Power	Balance	Torque	Left TE	Right TE	Left PS	Right PS	Hardware	Manufacturer	Model	SW Major	SW Minor	Serial Number	Hours	Volts	Status
2019/05/15	09:04:54	BROADCAST Torque:[12][44][1B][3C][00][D0][E6][00]	68	27	60	28.9		4.59													
2019/05/15	09:04:54	BROADCAST TEPS :[13][43][C7][FF][C1][FF][FF][FF]	67						99.5	-1	96.5	-1									
2019/05/15	09:04:54	BROADCAST Torque:[12][44][1B][3C][00][D0][E6][00]	68	27	60	28.9		4.59													
2019/05/15	09:04:54	BROADCAST Torque:[12][45][1C][3C][00][D8][7B][01]	69	28	60	29.3		4.66													
2019/05/15	09:04:55	BROADCAST Torque:[12][45][1C][3C][00][D8][7B][01]	69	28	60	29.3		4.66													
2019/05/15	09:04:55	BROADCAST Power:[10][45][80][3C][49][00][1D][00]	69		60	29	128														
2019/05/15	09:04:55	BROADCAST Torque:[12][45][1C][3C][00][D8][7B][01]	69	28	60	29.3		4.66													
2019/05/15	09:04:55	BROADCAST Torque:[12][46][1D][3C][00][E0][0A][02]	70	29	60	28.1		4.47													
2019/05/15	09:04:56	BROADCAST TEPS :[13][45][C8][FF][C2][FF][FF][FF]	69						100	-1	97	-1									
2019/05/15	09:04:56	BROADCAST Torque:[12][46][1D][3C][00][E0][0A][02]	70	29	60	28.1		4.47													
2019/05/15	09:04:56	BROADCAST Product:[51][FF][07][02][30][0B][00][00]															2	7	2864			

So in this 2.5 seconds of data, we received 7 torque, 2 torque effectiveness pedal smoothness, 1 power and 1 product messages.

The balance value is the only confusing one. You actually have to subtract 128 from it to end out with the percent contribution of the right crank. In this case 128 means 0% right, 100% left (I was loading the left crank in diagnostic mode).

Remember the key to VINC is the visualisation.   Because all messages are received in VINC, the depiction of your effort, torque or pedal stroke is virtually immediate which means that you can subconsciously adjust to achieve your goals.