

LiDAR profiler software mode – quick guide.

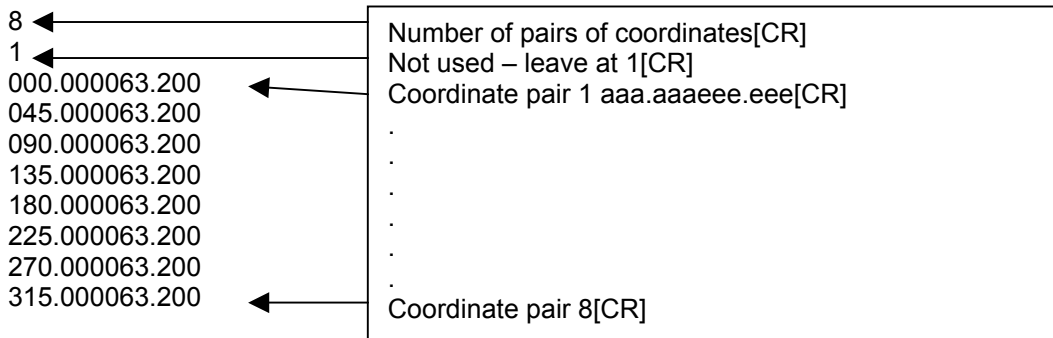
- Edit the relevant scan that will be used:

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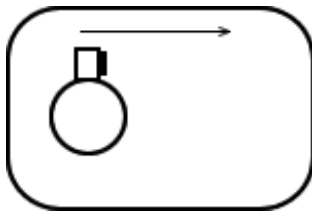
Basic VAD for short range (up to 1km) N,S,E,W wind profiling.

Advanced VAD for N,S,E,W, or NW,NE,SW,SE profiling up to 3km LOS

Custom scan file for any scan type, using a text editor such as notepad. Save the custom scan file into any directory, and with any name, ready to choose during software start up.

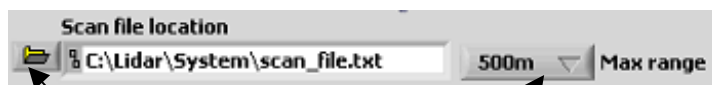


- Make sure that the bearing that the system is oriented to is known:



[The bearing here would be entered as 90 degrees, looking in plan view with North being the top of the page].

- Double click the profiler icon.
- Press the start icon -
- After some initial system checks are made, choose the measurement mode – basic or advanced VAD, or custom scan (use the file browser button to browse to the correctly formatted scan file), and select the measurement range from the pull down menu.



File browse button.



Pull down menu.

- Enter a new bearing if needed and check the pitch and roll data, and ensure that the system is levelled up. Also enter a Campaign ID as an identifier for the measurements. Leave the hourly wiping on, but the hourly scanner home can be turned off unless many hundreds of azimuth rotations are going to be made. In VAD mode, the system will not do a complete rotation at all, so this option can be left off.
- After the Accept button is pressed (for bearing entry), the system will start up, perform a background measurement, then start to collect and log data.

LiDAR – Stream Line software mode.

- Edit the required scan types and settings by double clicking the scan schedule icon. If scan files are being used, they must be created in a text editor (like notepad) in the following format, then browsed to in the schedule software:

000.000063.200 Scan files for the SL software consist of pairs of az
045.000063.200 and el co-ordinates. 3.3 az then 3.3 el with no spaces
090.000063.200 as shown. Save this file so that it can be browsed to
135.000063.200 when the scan schedule software is run.
180.000063.200
225.000063.200 **This format must be used.**
270.000063.200
315.000063.200

- When the desired scan types and timings have been set up, press finish on the scan schedule software, and close it. Pressing Finish will save the files – closing it prior to pressing the finish button will result in the modifications not being saved.
- Run the Stream Line software, and press the run button  to start it.
- The system will take about 30 seconds to perform various checks – after which all LEDs should be green.
- Check the pitch and roll data, and level up if needed. Make any changes to the Bearing and measurement configuration, campaign ID, window wiping etc. can also be changed.
- Press the 'Accept settings' button.
- A background file might be taken before or shortly after start up if certain measurement settings have changed since the last run.
- Data collecting will start.
- The scan schedule can be changed during running by using the 'Edit scan schedule' button on the 'Additional displays' tab. Make any necessary changes, and press the 'Finish' button. The scan schedule editing software will close. Load this new schedule into the control software by pressing the 'Reload schedule' button.
- Use the 'C/C' button next to any scan type to continuously loop the selected scan file. De-select all 'C/C' buttons to allow scan schedule editing.
- Alter any data display graph scales by double clicking the appropriate number on the axis, entering a new one, then pressing return. Auto scale an axis by right clicking over the axis, then choose Autoscale X, Y or Z. Disable the Autoscale feature before entering new axis numbers manually.
- To stop the software, press the 'STOP and shutdown' button on the 'Real time data' tab.
- The LiDAR will park its scanner, and the software will stop. It can be re-started by pressing the run arrow .