

Circuit mapping and line analysis - Application note

Creating a circuit overlay file

- Drive to the start of the inside of the circuit
- Place the aerial on the left hand side of the roof
- Power up the VBOX and let it acquire satellites for at least 5 minutes
- Clear the RAM
- Drive round the inside of the circuit
- Move the aerial from the left hand side of the roof to the right hand side slowly, being careful not to cover the aerial letting it see the sky at all times
- Drive at right angles across the track to the opposite side
- Drive round the outside of the circuit

If you are using the internal RAM:

- Download the file from the VBOX
- When it asks to save the file, select "File of type" and pick "Circuit file"

If you are using a compact flash card:

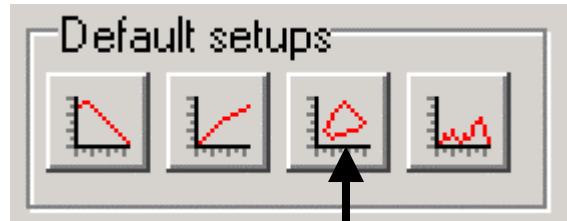
- Load from the compact flash card using "File" ->"Load file"
- Save using "File" ->"Save file", select "File of type" and pick "Circuit file"

To use the VBOX now to compare vehicle's performance around the circuit :

- Fit the VBOX to the target vehicle
- Clear the RAM or insert compact flash card
- The car can now be driven
- Once the car has returned, download from the VBOX and save the file. If using compact flash, remove the card from the VBOX and insert it into your compact flash card reader.

To check the data, go to "Graph".

- Move the cursor by briefly clicking with the left mouse button, hover the mouse cursor over the graph cursor, and then the mouse cursor becomes a drag icon, you can then drag the cursor left and right.
- Pressing up and down arrow zooms in and out of the graph, and using the left mouse button click and drag a zoom box to zoom in.
- 'F' goes to full screen.
- Move the cursor to where you want the start/finish line.
- Press the spacebar to mark this point
- If you want you can now save this start/finish line with "File" -> "Save Start/finish line and splits"
- To separate out the runs, go to "Select run", and click the Default "Circuit laps setup" button :

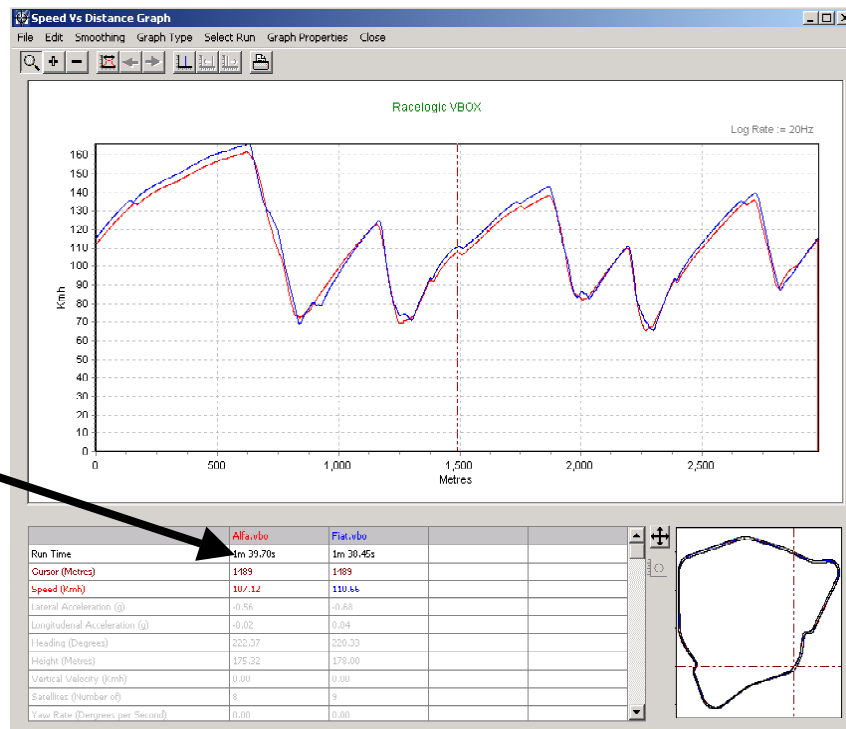


Circuit laps setup

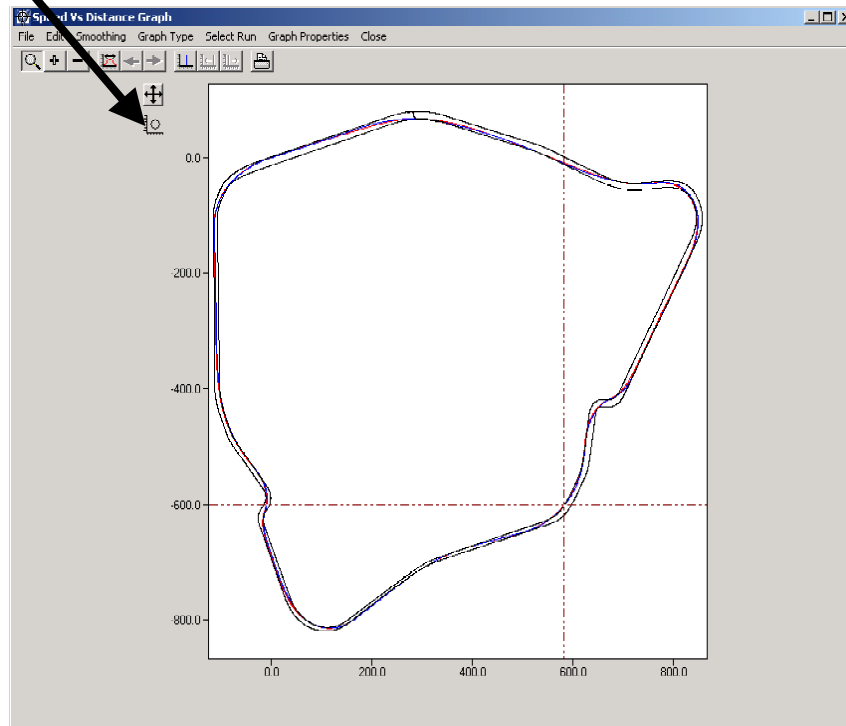
- You should now see each complete lap
- Click on the the lap you want to examine and then click on “Load main”
- Click on a lap you want to compare and click on “Load comp 1”
- Close the “Select run” screen, and the two laps should be visible on the graph.

To show the circuit overlay on top, go to “File” ->”Load circuit” and load the previously stored outline file.

Individual laptimes



To show this in detail, go to “Graph type” (right click the mouse anywhere on the graph) and tick “Full screen circuit map”. To turn the scale on, click the scale icon on the top left of the map.



Comparing laps from a different file:

Use “Select run” and then “Browse” to load a new file into the Background memory, and then select a lap to load into one of the compare channels.

