

## Setting up virtual gates – Application note

You can define start/finish lines, four separate splits, and also a separate finish line. These can be defined in real time using the “Real time plot” screen, or in post processing using the graphing software.

The keys are the same in both :

Spacebar	- start/finish line
“1”	- first split
“2”	- second split
“3”	- third split
“4”	- fourth split
“0”	- finish line

The “start/finish” line, and the “finish” line can both be used in the “Select run” screen to mark the start and finish of a run.

An example application for this is an aquaplane test. In this test the behaviour of the car is monitored between two fixed points on the track. These two points can be entered into the software by using the “Real time plot” routine. The vehicle is driven past the first point with a laptop connected to the software in the “Real time plot” screen, and the spacebar pressed, then as the car passes the second point, the key “0” (zero) is pressed. (Note that the car has to be moving to correctly locate the virtual gates.)

These points can then be saved for future reference, by quitting out of the “Real time plot” and using the “Start finish” menu item, “Save start/finish line and splits”.

Now numerous runs can be made with the VBOX in logging mode, and then the information can be post-processed using “Select run” and selecting “Start” -> “from start/finish” and “End” -> “at start/finish”. This will then sort through the file and only show the runs that pass between the start and finish lines. (Note that the default minimum time is 1.5s, so if the run is shorter than this, you may need to change this to 0.5s.)