

Track report

In 2.30.04 release of **Race Studio Analysis** there is a new **Track Report** window.

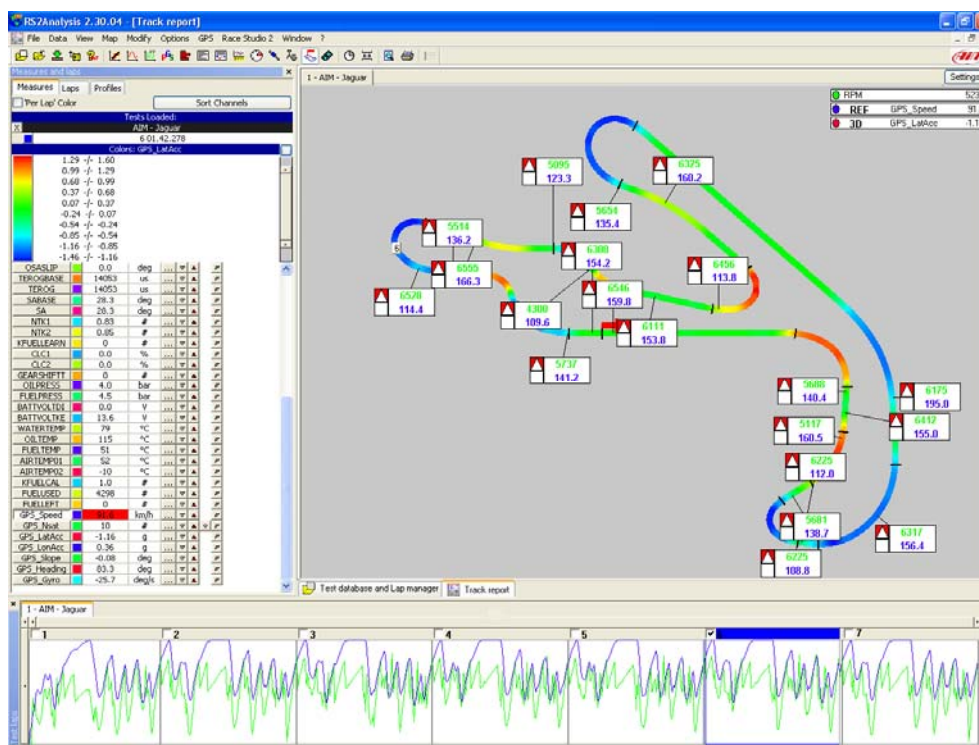
It allows an immediate graphic visualization of the following values:

- MIN and MAX values of selected measures for each track split;
- Status changes, switch from a value to a different one for some particular measures (i.e. Gear number)

Some additional concepts have been introduced in order to make analysis even easier:

3D measure: a measure shown through colour changes depending on the values of the measure itself; this for each track split.

Reference channel: a measure whose value is shown in the points in which the min and max values of the main measure is shown.



How to run Track Report

When available, Track report can be run pushing this icon.

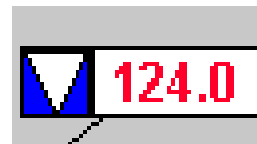


In case the MAP of the circuit is not available, that Icon is disabled and the Track report cannot be run.

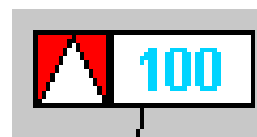
1. The values in flags

It is possible to show the maximum and minimum value in every sector of a track for the desired channels. These values are shown inside dedicated flags:

This flag reports the **Min Value** of that channel in that split (arrow is downward)

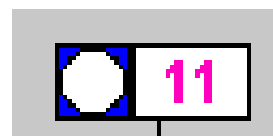


This flag reports the **Max Value** of that channel in that split (arrow is upward)



Channels that have a limited number of allowed values - discrete (i.e.: Gear channels) – can change their value more times, or never, in a split. This means it is possible to have zero flags, one or more than one flag.

This flag (identified by a polygon) reports the **State Change Value**.



It is also possible to display the value of another channel (named **Reference Channel**) inside our flags.

The flag reports the **Reference Value** (orange)



- How to show the values

There are two available ways of setting the flags on the track:

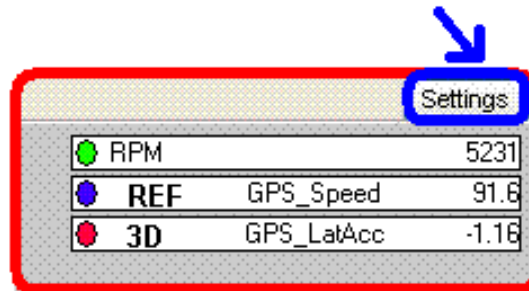
- a) **Settings window**
- b) **Measure list**

1.1 – Flags setting through “Settings” window

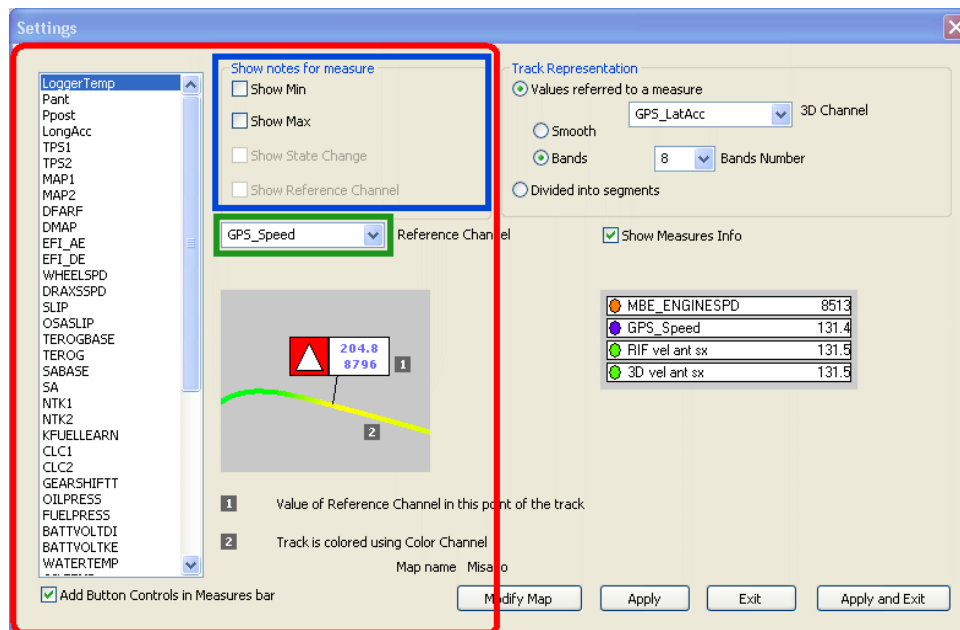
Through **Settings** window is possible to set the **Channel Reference**. This allow the user to add it to the flag in a second moment using the related button (explained in the previous page).

The window can be opened in two ways:

- 1) Clicking “Settings” button - top right of the Track Window (Figure below);
- 2) Right clicking on the track area



The following panel appears:



It allows to choose which kind and how many flag to show for a given channel (**Max, Min, Change State**) and whether to include in it the value of the **Reference Channel** or not.

To enable a channel click on it then choose what to visualize through “**Show notes for measure**” box (highlighted in blue in the figure above).

Show Min (to display the min value).

Show Max (to display the max value).

Show State Change (enabled only for discrete channels, i.e. gear number).

c) **Show Reference Channel** (to display **Channel Reference** in addition to the chosen one).

To set a **Reference Channel** choose it from the drop down menu (highlighted in green in the figure above).

To save the changes click on “Apply” or “Apply and Exit”.

1.2 – Measure list

A simple and fast way for selecting the desired information is available, and can be inhibited selecting the “Add button controls in measures bar” feature. The following list panels appears on the left side of your display.

Measure list panel, left of the software window, allows to set **Max** and **Min** value as well as **State Changes** for the chosen measure using the related buttons (circle and triangle shaped) on the right columns (red rectangle in the figure below).

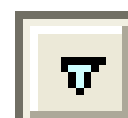
Measures: AIM - Jaguar					
LoggerTemp	33	°C	...	...	...
Pant	-0	bar	...	...	...
Ppost	0	bar	...	...	...
LongAcc	-0.21	g	...	...	...
TPS1	100	%	...	...	...
TPS2	0	%	...	...	...
MAP1	1.714	bar	...	...	...
MAP2	1.715	bar	...	...	...
DFARF	0	#	...	...	...
DMAF	0	#	...	...	...
EFI_AE	0	us	...	...	...
EFI_DE	0	us	...	...	...
WHEELSPD	131.5	km/h	...	...	...
DRAXSSPD	0.0	km/h	...	...	...
SLIP	0.0	%	...	...	...
OSASLIP	0.0	deg	...	...	...
TEROGBASE	16341	us	...	...	...
TEROG	16341	us	...	...	...
SABASE	27.7	deg	...	...	...
SA	27.7	deg	...	...	...
NTK1	0.86	#	...	...	...
NTK2	0.87	#	...	...	...
KFUELLEARN	0	#	...	...	...
CLC1	0.0	%	...	...	...
CLC2	0.0	%	...	...	...
GEARSHIFTT	0	#	...	...	...
OILPRESS	3.9	bar	...	...	...
FUELPRESS	4.7	bar	...	...	...

In the first column are shown all the available channels.

Click in correspondence of the same symbol displayed in flags to enable and disable the chosen channel.

Here below all available function buttons are shown:

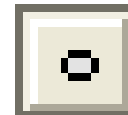
This button allows to visualize on the track the **Min** measure of the chosen channel.



This button allows to visualize on the track the **Max** measure of the chosen channel.



This button allows to visualize on the track the **State Change** (only for discrete channels).



This button allows to visualize on the track the **Channel Reference** in addition to the chosen channel

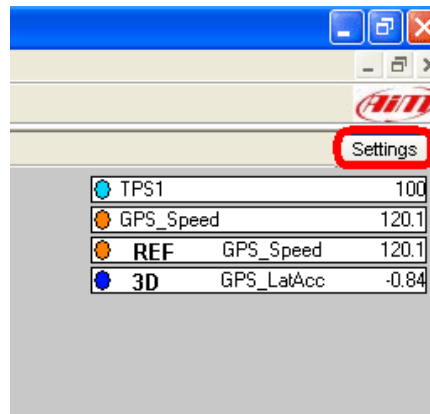


Attention: setting of Channel Reference is allowed only through “Settings” window

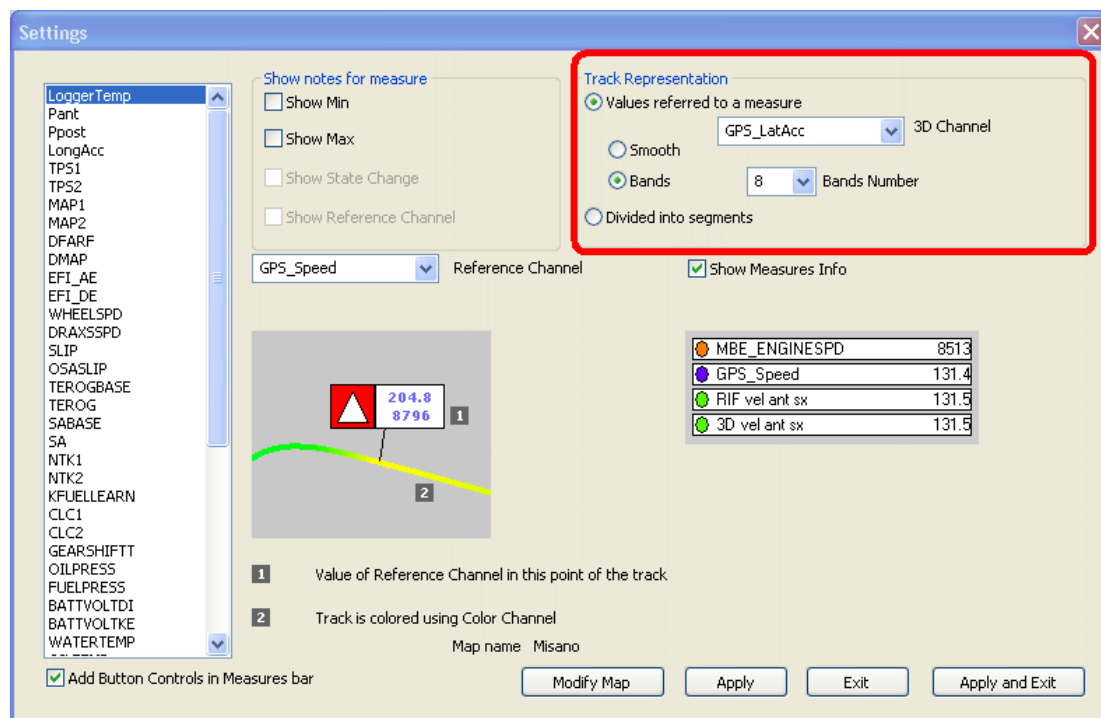
2 – Track representation

To set **Track Representation** open **Settings window**. This can be performed in two ways:

- 1) click on “Settings” button top right of the **Track Window** (see Figure below);
- 2) right click button on the track area.



This window appears:



There are two possible visualization ways:

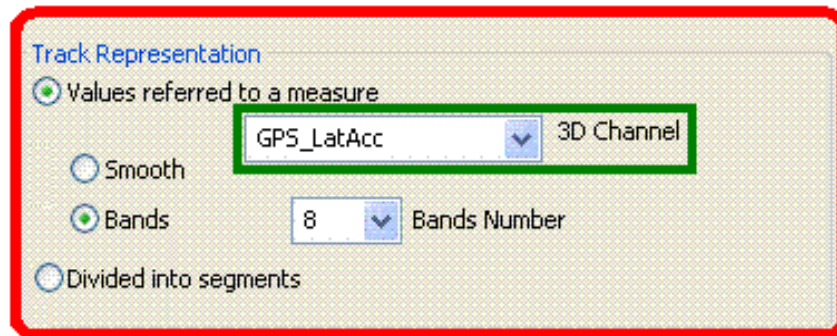
- 1) **Values referred to a measure**
- 2) (Value) **Divided into segments**

2.1 – Value referred to a measure

In this case the colours of the track depend on **3D Channel value**.

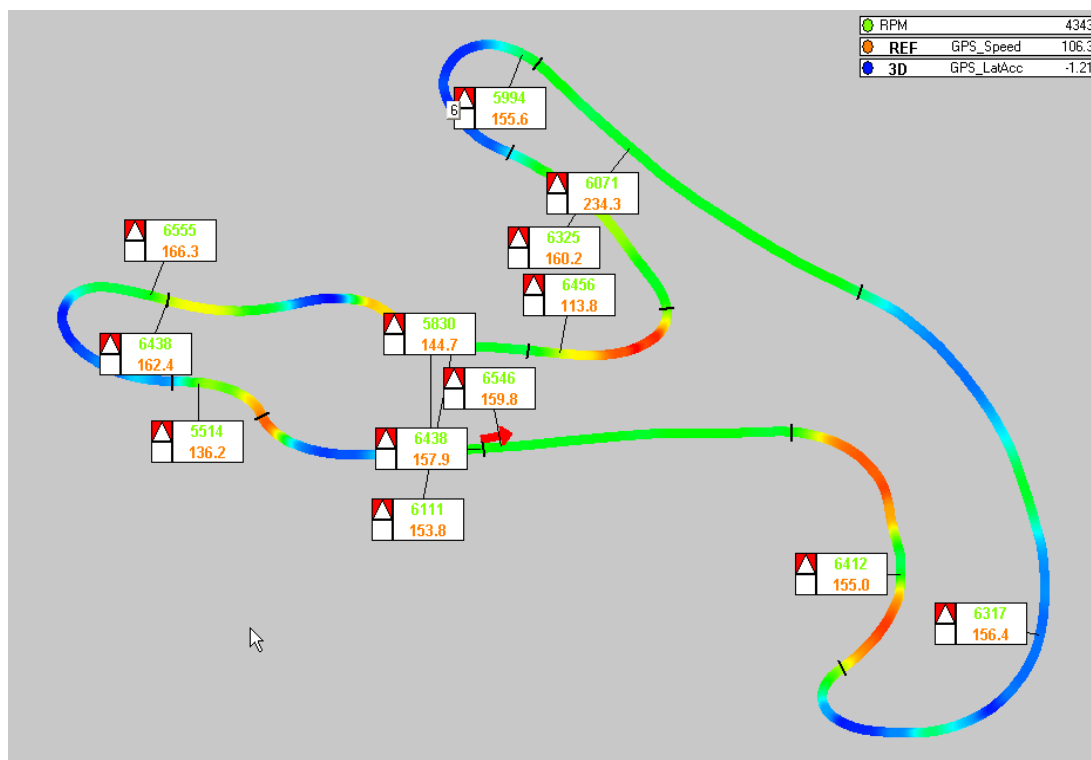
3D Channel allows to visualize Max and Min value for the chosen channel

To set **3D Channel** choose the preferred channel from the drop down menu (figure below).

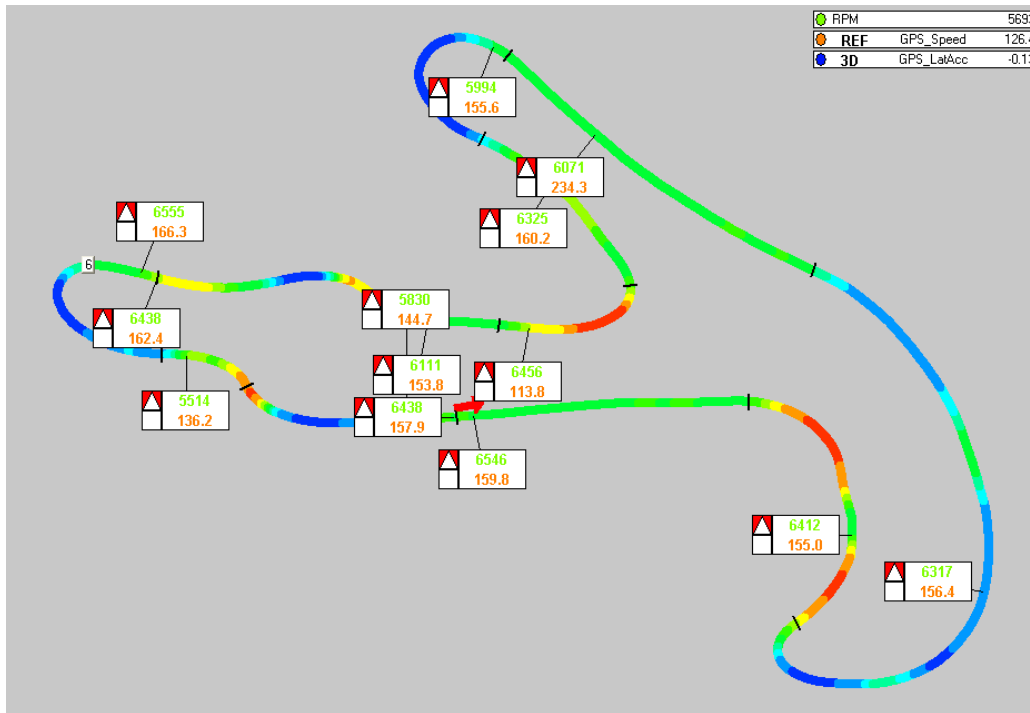


Value referred to a measure can be shown in two ways.

Smooth: shows GPS value graph in the set range - from high scale to low scale value - with a continuous colour gradient (figure below).

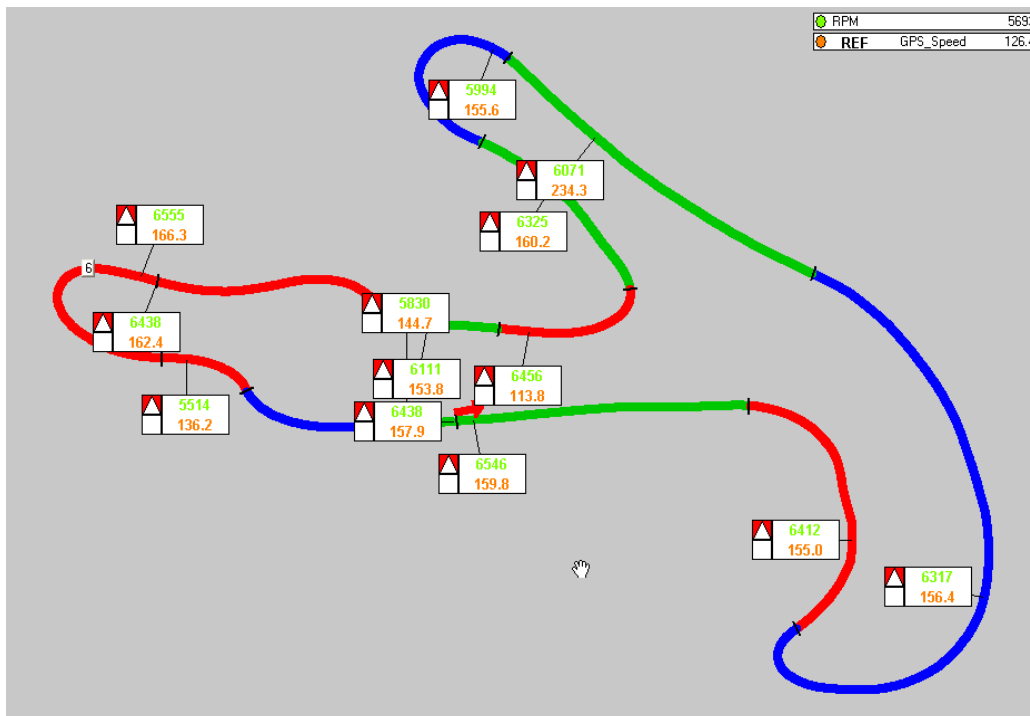


Bands: GPS data are shown using bands with no colour gradients. It is possible to set from 2 up to 10 bands through the drop down menu.



2.2 – Divided into segments

The colour depends on the track layout in that split: straights, left corner or right corner. Default setting is: straights in green, left corners in red, and right corners in blue.



3 – Channel Info

In the right corner of **Track Report** window is **Channel Info** panel.
There is:

- a row for all channels having at least a flag (red arrow in the figure below);
- a row for **Reference Channel** (identified by “REF”, blue arrow in the figure below)
- a row for every lap of **3D Channel** (identified by “3D”, green arrow in the figure below) if the track is coloured using “Values referred to a measure” setting.

The digit shows the current value of the channel depending on the cursor position. Moving the cursor the digit changes running.

	 TPS1	100
	 REF GPS_Speed	120.1
	 3D GPS_LatAcc	-0.84

4 – Auto-scale

In the left toolbar of **Track Report** window is **Autoscale** panel.

It allows the user to choose the range of **3D Channel** using a slider (blue arrow in the figure below).

The default position of the slider is **Autoscale** (it means that the values range is between the min and the max in that session); it is possible to define a custom range moving the slider (red arrow in the Figure below).

