

Toolbox - Split Reports

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| Date: | afordham at 09/10/2012 10:36 |

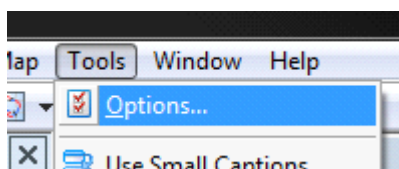
Overview

The Split Report in Toolbox is able to show split times, fastest split times and fastest rolling lap from an outing. Configuring the splits or sectors requires either real split beacons placed around the track or split beacons inserting to the Map.

Create Map

Define Common Channels


The first task is to create a map. If the user wants to use a different lateral acceleration channel or speed channel then Toolbox will need to be told which channels to use. This is performed with the



With the options dialogue box select the common name (internal channel) and the real name (your sensor name) to be used. Creating a traditional map uses 'Lateral Acceleration' and 'Speed'.

This is an example of the Common channel to be used for 'Lateral Acceleration'

Common Channels _____

 Some channels are used within Pi Toolbox for a common purpose. Use this section to select which real channels can be referred to using a common name.

For the common name

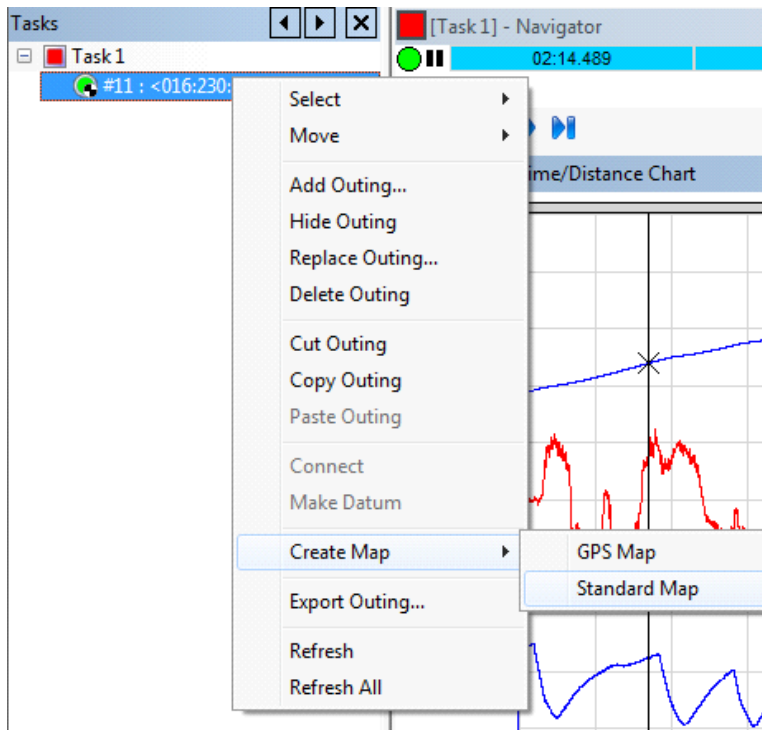
Use the real channel

Once the common name is defined it should be possible for Toolbox to create a map.

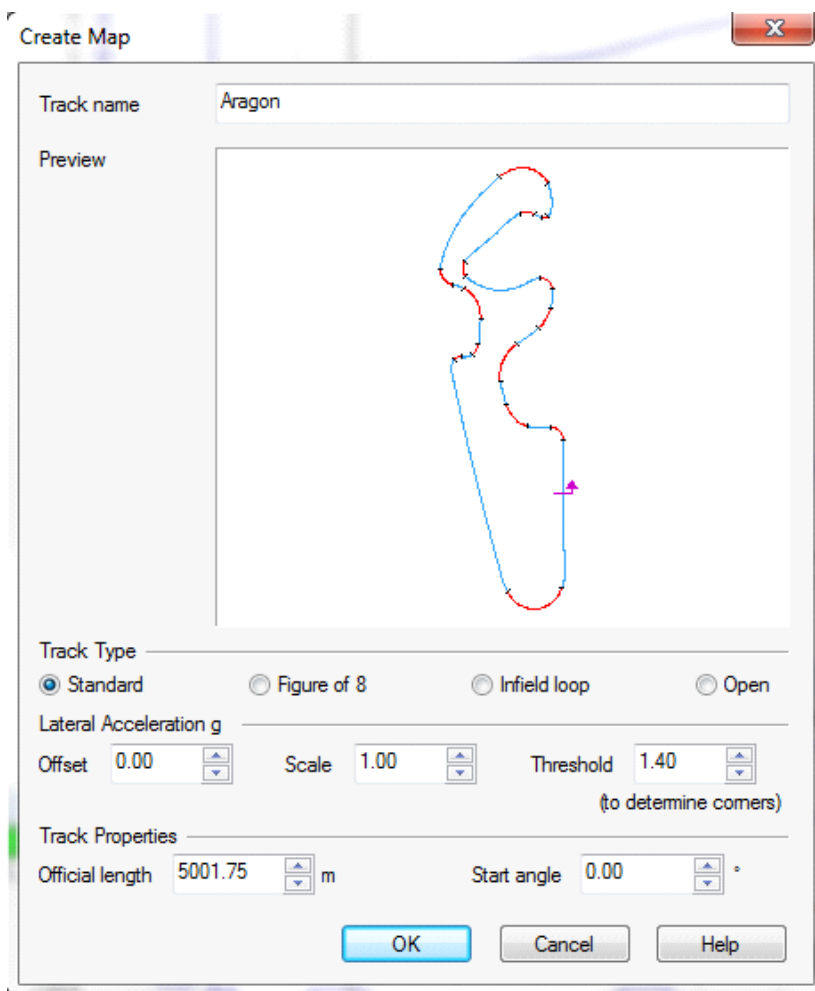
Create Map

Select a single lap from a dataset, typically a consistent and fast lap without wheel lockups, any off track events or throttle lifts etc

Right click on the outing and select Create Map - Standard Map



The Create Map dialogue should then show the map;



Adjust the Offset and Scale to suit the layout that best represents the shape of the track. One tip here is to use the 'Open' selection to get the Offset and Scale numbers to make the track almost start and finish at the same point. Then click the Standard selection to get the ideal starting shape.

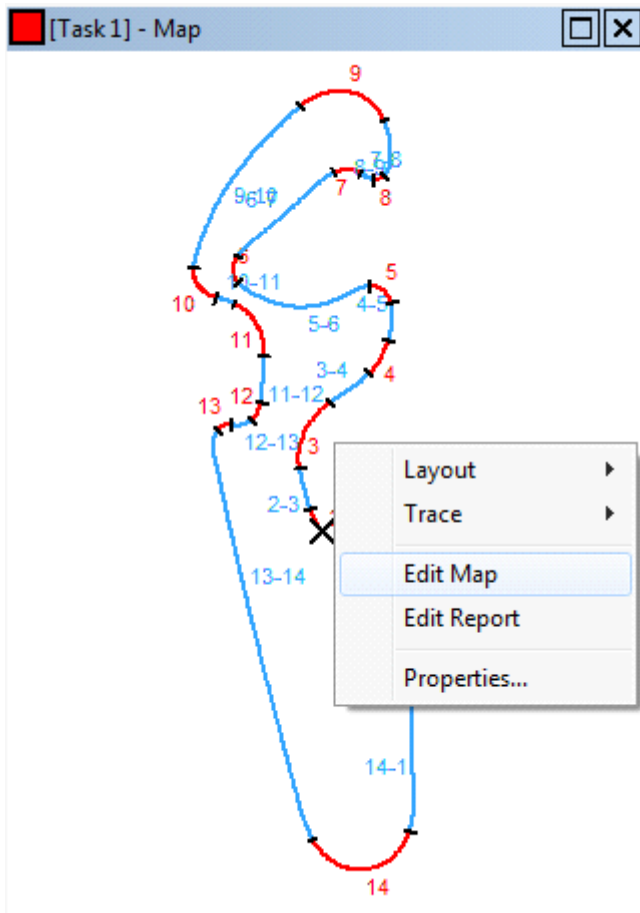
Adjust the other parameters to affect the shape.

Edit Map

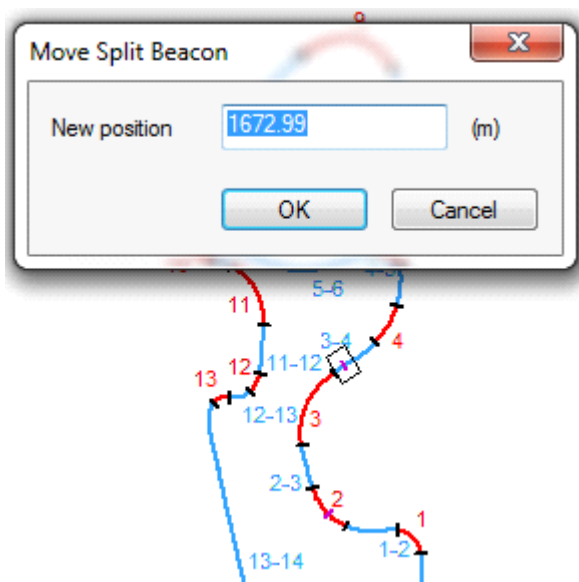
Insert Split Beacon

The action of inserting beacons is now required so the Split Report has something to calculate sectors from. One tip here is to use a time distance plot next to the map to find the exact distance for the split beacon - typically avoiding braking zone and transient steering conditions will make the report more consistent.

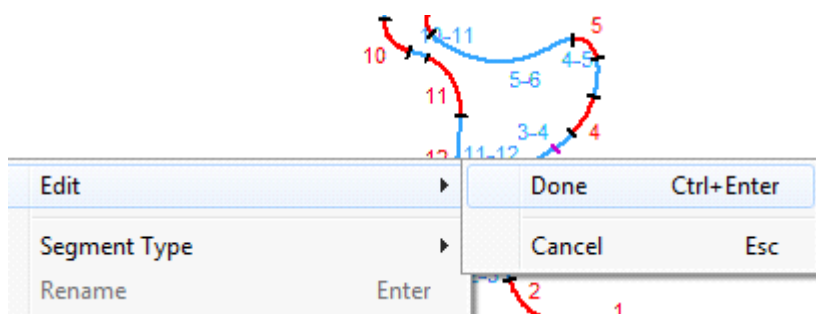
Open a Map window, right click and select Edit Map.



Move the cursor to the desired segment and right click insert split beacon. It is possible to use the exact distance with the 'change position' option. Insert as many beacons as required.



Once all the beacons are in position exit edit mode by Edit - Done.



Once the map with beacons is created it can be saved, copied and loaded to other users.

Generating a Split Report

The Split report can be run with any channel - although 'Elapsed Lap Time' is the most relevant - select the channel to use for the report by adding the channel to the display (just like a time plot).

Red is a system colour for slowest in sector, blue is fastest in sector - change this in properties.

Here we see a Sector report for an outing containing a 3 flying lap stint and a 5 split beacons;

[Task 1] - Split Report

Outing:

<016:230:482>

Comment: Set 114

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Channel:

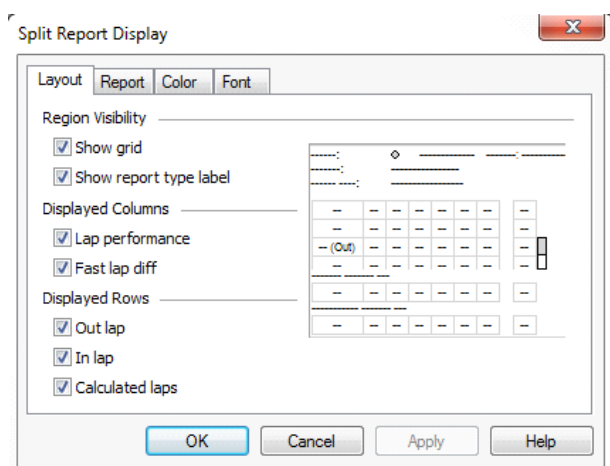
Elapsed Lap Time (s)

Report Type:

Soft Split Report (Auto)

| Lap number | Lap time (min:sec) | Sector 1 | Sector 2 | Sector 3 | Sector 4 | Sector 5 | Fast lap diff (min:sec) |
|-------------------------|--------------------|----------|----------|----------|----------|----------|-------------------------|
| | | diff | diff | diff | diff | diff | |
| 482 (Out Lap) | 02:14.489 | 34.30 | 21.68 | 21.46 | 38.56 | 18.45 | 00:21.976 |
| 483 | 01:52.626 | 18.61 | 22.17 | 21.28 | 31.79 | 18.73 | 00:00.113 |
| 484 | 01:52.513 | 18.39 | 21.79 | 21.40 | 31.89 | 19.00 | 00:00.000 |
| 485 | 02:13.650 | 18.51 | 21.71 | 21.68 | 33.48 | 38.23 | 00:21.138 |
| 486 (In Lap) | 00:11.302 | - | - | - | - | - | -01:41.211 |
| Fastest Rolling Lap | | | | | | | |
| 483 | 01:52.035 | | | 21.28 | 31.79 | 18.73 | -00:00.478 |
| 484 | | 18.39 | 21.79 | | | | |
| Theoretical Fastest Lap | | | | | | | |
| | 01:51.636 | 18.39 | 21.68 | 21.28 | 31.79 | 18.45 | -00:00.877 |

Different views of this report are achieved using the right click menu. Layout changes and Color changes are possible. Export as text and Excel is also possible within this context menu.



Multitple Outings

A Split report is only able to display one outing at a time, therefore (like the other reports in Toolbox) it is possible to connect the report to different datasets / outings.

There is an icon change that shows which outing the report is 'connected' to - this is changed by a right click on the outing and select 'connect'.

