

# Race Area Analyzer – Solent

Mac or Windows

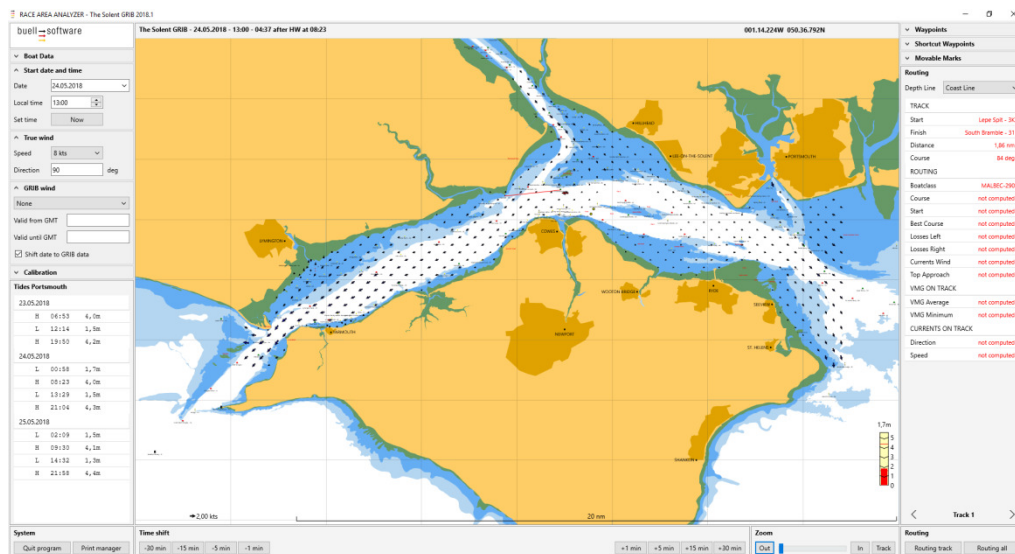
Getting Started

buell software gmbh  
Esmarchstraße 53  
24105 Kiel

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# 1 Screen Layout



At the centre there's a chart of the Solent with

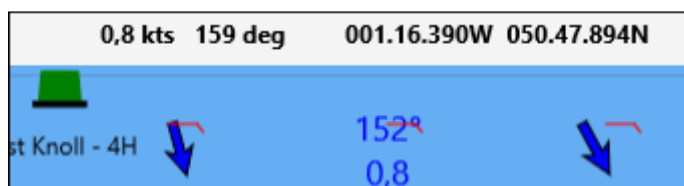
- Blue arrows indicating strength and direction of currents.
- Cyan arrows indicating eddy currents
- In higher zoom levels: strength and direction of currents also in figures.
- Red arrow indicating direction of wind.
- Small black arrow (bottom left) as scale for strength of currents.
- Bottom right: display to indicate current status of tidal gauge and whether tide is rising or falling.

Left and right are dialogues to enter settings like boat class, day and time, wind conditions or tracks.

The right panel also offers detailed figures for a routing analysis.

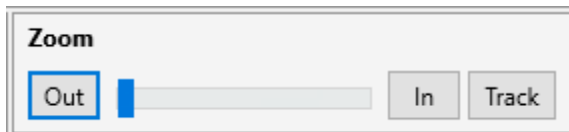
If you move the mouse over the chart you can see detailed information at the right of the top bar:

- The exact GPS position of the mouse.
- Speed and direction of the currents at this position.



## 2 Zoom Functions

To zoom in or out, please go to the bottom right:

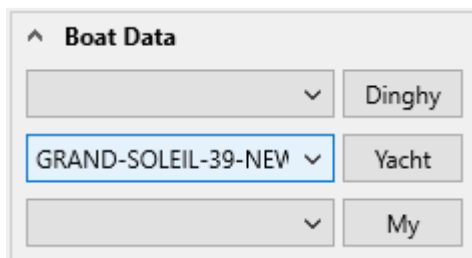


By clicking „track“ you will zoom straight in to your track.

## 3 Enter Boat Class

Open dialogue “Boat Data” at the top left to select your boat class.

In “My” you are able to enter and save data for one-offs.



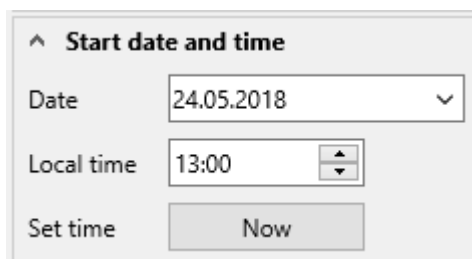
Find detailed advice how to create a new set of polars or amend existing polars in a separate manual.

## 4 Enter day and time


Next dialogue at the left hand side is to enter date and (local) time.

By clicking “Now” you can directly switch to the current time.

(Ideal to quickly run a new analysis if there’s a delay of start.)



You can also move backwards and forwards in time by using the buttons at the bottom:



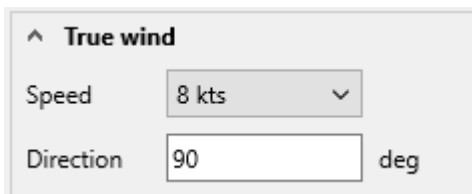
A control panel titled "Time shift" containing eight buttons for time navigation: -30 min, -15 min, -5 min, -1 min, +1 min, +5 min, +15 min, and +30 min.

## 5 Wind Data

There are two options to enter wind data:

### 5.1 "True Wind"

Just enter speed and direction of the forecast or measured wind.



A form titled "True wind" with a dropdown menu for "Speed" set to "8 kts" and a text input for "Direction" set to "90" with "deg" as a unit label.

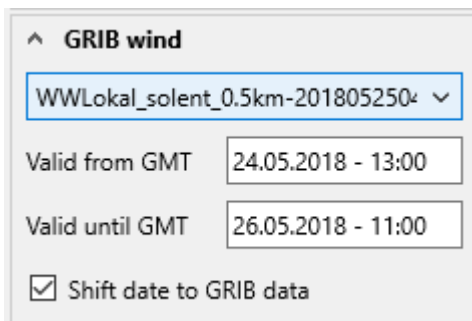
### 5.2 GRIB Wind

You can purchase high resolution wind forecast as GRIB data from various providers.

Please follow separate manual how to load GRIB data into Race Area Analyzer:

<https://www.buell-software.com/wp-content/downloads/Manual.GRIBWind.pdf>

You can select and apply the loaded GRIB files here:



A form titled "GRIB wind" with a dropdown menu for file selection showing "WWLokal\_solent\_0.5km-201805250\*", a "Valid from GMT" field with "24.05.2018 - 13:00", a "Valid until GMT" field with "26.05.2018 - 11:00", and a checked checkbox for "Shift date to GRIB data".

Select "None" if you don't want to work with the GRIB wind data.

(The GRIB Wind option is only available in the "GRIB" software.)

## 6 Tides and Calibration

You can check the tide tables we refer to at the bottom left.

As these data are only the forecast, made one year in advance, times and tidal range may vary.

You can adjust this in the dialogue "Calibration":

^ **Calibration**

Time Highwater  ▾

Currents Speed  ▾

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**Tides Portsmouth**

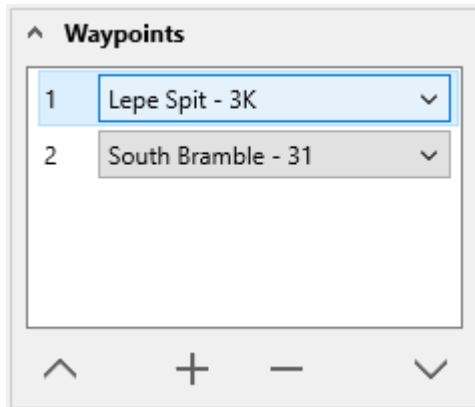
23.05.2018

H	06:53	4,0m
L	12:14	1,5m
H	19:50	4,2m

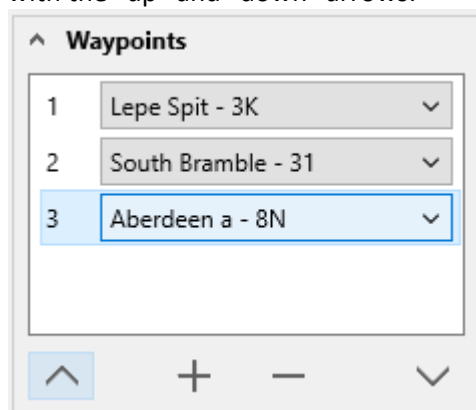
## 7 Set Your Race Course

### 7.1 ... by Name of Waypoints

Open the dialogue “Waypoints” at the top right.

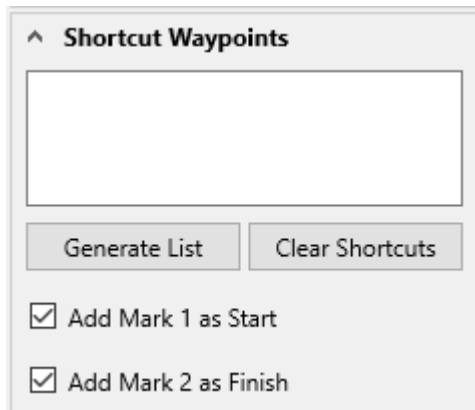


- Click onto the listed waypoints to change them.
- Tick the + to add a new waypoint
- Tick the – to delete the marked waypoint.  
(Minimum of two waypoints required)
- You can swap the order of waypoints by marking one of them and moving it with the “up” and “down” arrows:

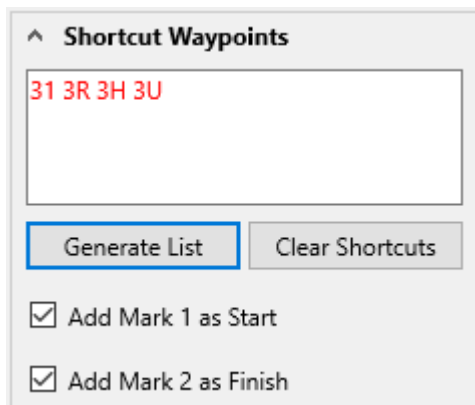


## 7.2 ... by Shortcuts

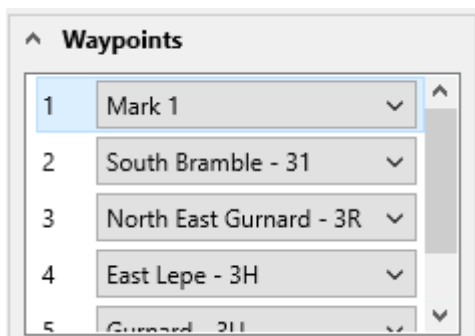
A very fast way to enter your course is by just creating a list of shortcuts.



- Open the dialogue “Shortcut Waypoints” at the top right.
- Type the shortcuts without any blanks or hyphens.
- Select whether you want to add the moveable marks to define start or finish.
- Click “Generate List” to apply the course.
- With “Clear Shortcuts” you can reset to generate a new course.



- If you open the dialogue “Waypoints” you can see the course you set with the names of the racing marks.





## 8 Moveable Marks

Race Area Analyzer comes with two moveable marks to define waypoints not listed or start or finish points.

To move the mark to the desired position:

- Double-Tap onto the mark.
- A red circle will appear to indicate that you can now move the mark.



- Tick and move the mark with the left mouse button.
- Once the mark is at the right position double-tap again to fix the new position. The red circle disappears.
- You can check the exact position of the mark in the dialogue “Moveable Mark” at the top right.

^ Movable Marks	
Mark 1 Latitude	<input type="text" value="050.46.510N"/>
Mark 1 Longitude	<input type="text" value="001.16.236W"/>
Mark 2 Latitude	<input type="text" value="050.47.062N"/>
Mark 2 Longitude	<input type="text" value="001.16.375W"/>

## 9 Depth Lines

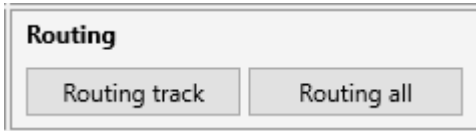
If you sail a boat with a high draft you can adjust the depth lines / in water lines at the right in “Routing”:

Routing	
Depth Line	Coast Line ▾
TRACK	Coast Line
Start	0.0 m + Tide level
Finish	2.0 m + Tide level
Distance	3.5 m + Tide level
	5.0 m + Tide level

# 10 Routing Analysis

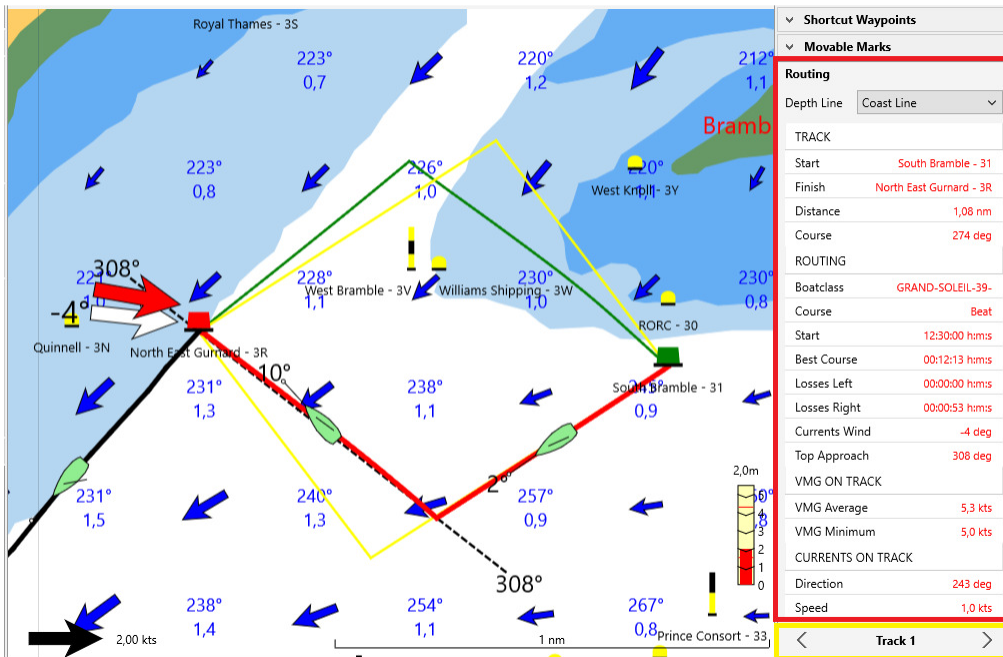
To create a routing analysis click at the bottom right:

- “Routing track” for a single track or
- “Routing all” for all tracks successively.



You will receive an analysis with

- Multiple information on the chart
- Detailed figures at the right (see box marked in red)
- Option to switch between legs (see box marked in yellow).

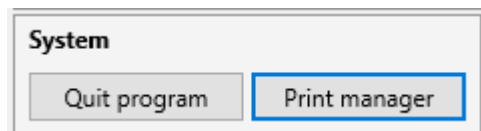


Please find detailed information about this routing analysis in our manual “Routing&Tactics”

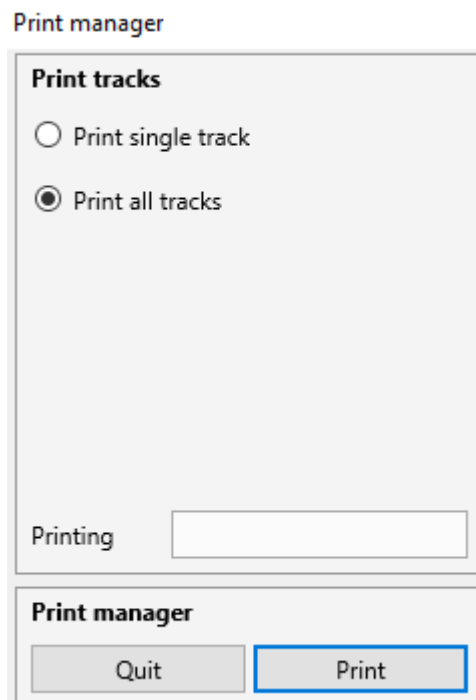
## 11 Print Manager

You can print out your of analyses to take them on board. In many races paper is allowed on board unlike electronic devices.

- Run your routing analysis.
- Click “Print manager” at the bottom left.



- Select “single track” or “all tracks” and click “Print”.



- You will receive sheets of paper with all significant data plus your best course plotted on the chart.

Sample of a printout (page 1 – first leg):

## RACE AREA ANALYZER - The Solent GRIB 2018.1

buell → software  
→

(C) 2018 buell software gmbh

<b>Class</b>	<b>FARR-30</b>		
<b>Start Time</b>	<b>22.05.2018</b>	<b>12:00</b>	<b>Time 06:24 after HW at 05:36</b>
<b>True Wind</b>	<b>10 kts</b>	<b>275 deg</b>	

<b>Track</b>		<b>Tides Portsmouth (Local time)</b>
Start	South Bramble - 31	
Finish	North East Gurnard - 3R	
Distance	1,08 nm	
Course	274 deg	
Average VMG	3,8 kts	
Minimum VMG	3,1 kts	
Currents direction	63 deg	
Currents speed	1,5 kts	

<b>Routing</b>	<b>Beat</b>
Best course	00:17:36 h:m:s
Losses layline left	00:06:22 h:m:s
Losses layline right	00:00:00 h:m:s
Currents wind shift	+5 deg
Topmark approach	245 deg

<b>Stream field calibration</b>	
High tide time shift	+20 min
Currents speed	+15 %

